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# ORGAN TRANSPLANTATION CRISIS: SHOULD THE DEFICIT BE ELIMINATED THROUGH INTER VIVOS SALES?

## I. INTRODUCTION

**W**ITHIN THE LAST ten years a medical revolution has taken place in the area of transplant surgery. The main barrier to successful transplantation, namely, rejection of the new organ by the body's immune system, has recently been virtually overcome by a new immuno-suppressive drug.<sup>1</sup> Survival rates for transplant patients have risen dramatically as a result of new surgical techniques and related technology.<sup>2</sup> Unfortunately, these major strides in transplant surgery have created a corresponding problem in the supply of viable organs. Not a month goes by without the media reporting of the plight of someone in desperate need of a kidney or a liver. Of the 8,000 people last year determined to be candidates for kidney transplants, only 5,000 were able to obtain a suitable organ.<sup>3</sup> Despite the adoption of some form of the Uniform Anatomical Gift Act (U.A.G.A.) by fifty states<sup>4</sup> and the creation of 120 private procurement agencies through the country<sup>5</sup> the gap between supply and demand continues to grow.

In response to what has been characterized as the "last remaining obstacle to transplantation,"<sup>6</sup> Senator Warren Hatch introduced a bill on October 20, 1983<sup>7</sup> which would establish a task force to investigate and make recommendations to Congress about the problem. Hearings and debate on the bill are scheduled to resume with the next Congress. Its future is bleak with the administration opposing it and the budget-cutting axe being resharpener. Regardless of the bill's outcome, the problem of supplying anatomical organs will con-

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<sup>1</sup>Moody, *First International Congress on Cyclosporine*, 15 TRANSPLANT-PROCEEDINGS 2207 (1983). "Cyclosporine . . . offers the hope for a major breakthrough in modifying the immunological relationship between the recipients and their new organs." *Id.* Unlike prior drugs used to prevent rejection, cyclosporine is much more effective and has fewer side effects.

<sup>2</sup>Thompson, *Renaissance in Organ Transplants*, EDITORIAL RESEARCH REPORTS, 495 (1983 & Supp. 1983). Since cyclosporin was introduced four years ago, the number of kidney transplant recipients surviving for at least a year has risen from 50 percent to 80-90 percent. *Id.*

<sup>3</sup>*Id.* at 497-98.

<sup>4</sup>UNIFORM ANATOMICAL GIFT ACT, 8A U.L.A. §§ 15, 16 [hereinafter cited as U.A.G.A.].

<sup>5</sup>Thompson, *supra* note 2, at 497.

<sup>6</sup>N.Y. Times, June 19, 1983 (Magazine), at 20. Donald W. Denny, Coordinator, who runs the liver procurement program at the University of Pittsburgh, commenting on the organ shortage.

<sup>7</sup>S. 2048, 98th Cong., 2d Sess., 16 CONG. REC. 15,379 (1983) [hereinafter cited as ORGAN PROCUREMENT AND TRANSPLANTION ACT].

tinue to present a host of moral, political, and most importantly, legal issues which must be resolved if society is to realize the full benefit of transplant science. This article will attempt to address some of these questions, exploring possibilities and obstacles presented by each.

## II. TRANSPLANTATION: EVOLUTION AND PRESENT STATE OF THE ART

The concept of transplantation is nothing new. In fact, it is quite ancient. The legend of two saints, Cosmas and Damian, transplanting a leg from a dead man to one whose leg was destroyed by a tumor has been represented in many medieval paintings.<sup>8</sup> Early applications of the concept were made in the area of blood transfusion. In 1667, Dr. Jean Baptiste Denis accomplished the first human transfusion by introducing sheep's blood into a fifteen year-old boy.<sup>9</sup> The outcome of a later experiment, however, was not so encouraging; the patient died and Denis was charged with murder.<sup>10</sup> Although the charge was dismissed, the practice was outlawed in France and England.<sup>11</sup> It was not until 1901, when Karl Landsteiner discovered that there were different types of blood, that safe human blood transfusion could begin.<sup>12</sup> The development of blood grouping and anti-coagulants and the oncoming of World War I made blood transfusion a standard medical procedure.

Although the barriers of blood transfusion were overcome early in this century, the major barrier to organ transplantation — rejection of the transplanted organ by the host — would not begin to be breached until the 1940's.<sup>13</sup> Filling hospitals with burn victims in need of skin grafts, World War II was the impetus for greater efforts to conquer rejection. In the fall of 1942, Dr. Peter Medawar began serious study of rejections of skin grafts in animals. Surgeons knew that a graft taken from one part of the body of an individual and put on another part of the same individual (autografts) would not be rejected. The problem lay with grafts between two individuals (allografts), which were almost always rejected.<sup>14</sup> Medawar discovered the role of the body's immune system in the rejection of skin grafts. He found that foreign grafts (allografts) were attacked by the body's natural defenses, just as any germ or virus would be.<sup>15</sup> When the problem had been recognized, the next step was to determine ways around the natural immune system of the body. Analogous

<sup>8</sup>CALNE, *A GIFT OF LIFE: OBSERVATIONS ON ORGAN TRANSPLANTATION*, Fig. 1, (1970).

<sup>9</sup>Keynes, *Tercentenary of Blood Transfusion*, 4 *BRIT. MED. J.*, 410, 411 (1967).

<sup>10</sup>*Id.* at 411.

<sup>11</sup>*Id.* at 411.

<sup>12</sup>W. R. CLARK, *THE EXPERIMENTAL FOUNDATIONS OF MODERN IMMUNOLOGY* (1980). Landsteiner discovered that agglutination or clumping together of cells occurred when the wrong types of blood were mixed. He categorized blood into the four main groups we know today as A, B, AB and O. *Id.*

<sup>13</sup>Medawar, *The Behavior and Fate of Skin Autografts and Skin Homografts in Rabbits*, 78 *J. ANAT.* 176 (1944). Medawar won the Noble prize for Physiology and Medicine in 1960 for the discovery of "immunological tolerance," the term used to describe the embryo's lack of an immune system in its early stage of development.

<sup>14</sup>*Id.*

<sup>15</sup>See generally *id.* at 190-196.

to the creation of blood groups was the development of what are known as histo-compatibility factors.<sup>16</sup> In order to prevent rejection of an organ in a transplant recipient, the histo-compatibility factors of both the recipient and the organ donor must be as similar as possible. Using tests to determine an individual's histo-compatibility with a potential organ donor or recipient can result in a match, which will increase the probability that the donee's body will not reject the organ or skin graft.<sup>17</sup>

Another way in which medicine has overcome rejection is by using drugs which suppress the body's natural immune system.<sup>18</sup> The drawback of this solution is that the body's vulnerability to disease is increased and that the drugs have serious side effects.<sup>19</sup> However, the introduction of the new immuno-suppressive drug, cyclosporin,<sup>20</sup> has greatly reduced these remaining problems.

Along with these developments came better means of organ preservation after removal and better protection against infection. Since the first successful kidney transplant in 1954,<sup>21</sup> literally thousands of such operations have been performed in the United States, with a present post-operative success rate of eighty to ninety percent.<sup>22</sup> Hearts, lungs, kidneys, pancreases, livers, ovaries,

<sup>16</sup>CALNE, *supra* note 8, at 102. Antigens are "[s]ubstances which, when they gain entry to the body, are capable of provoking an immune response. Part of this response involves the manufacture of antibodies. Another part involves the action of the cells of the lymphoid system on the foreign material. Antigens may be free chemical substances or, more important in the case of blood transfusions and organ transplants, attached to cell membranes." Histocompatibility is . . . [a]ntigens attached to cells which enable one individual to recognize the cells of another individual as foreign. Red blood cells carry two important antigens, A and B. If the red cells of two individuals carry the same antigens then blood can be transfused from one to another without disaster. Similar antigens on other body cells that lead to rejection after transplantation are called "histocompatibility antigens." *Id.*

<sup>17</sup>*Id.* at 39.

<sup>18</sup>*Id.* at 27-36. See also, Elion, *Pharmacologic and Physical Agents, Immuno-suppressive Agents*, 9 TRANSPLANT PROCEEDINGS 975 (1977).

<sup>19</sup>*Id.* at 34, 36.

<sup>20</sup>Kolata, *Drug Transforms Transplant Medicine*, 221 SCIENCE 40, (1983). Other immuno-suppressive drugs such as Imuran and steroids produce toxic side effects such as diabetes and high blood pressure. *Id.*

<sup>21</sup>*New Era of Transplants*, NEWSWEEK, Aug. 29, 1983, at 39. In 1954, Dr. J. Hartwell Harrison, Dr. John P. Merrill and Dr. Joseph E. Murray performed the first successful kidney transplant at Peter Bent Brigham Hospital in Boston. *Id.* at 43.

<sup>22</sup>*Id.* at 40.

1. CORNEA TOTAL TRANSPLANTS: 128,000 SUCCESS RATE: 90% of patients have improved vision. COST: \$2,500-\$5,000	4. HEART-LUNG TOTAL TRANSPLANTS: 22 SUCCESS RATE: 13 patients are still living. COST: \$78,000-\$92,000	PANCREAS TOTAL TRANSPLANTS: 334 SUCCESS RATE: 25% of the grafts function. <i>Patient can survive on insulin if transplant fails.</i> COST: \$18,000-\$50,000 (Data are worldwide.)
2. BONE MARROW TOTAL TRANSPLANTS: 2,049 SUCCESS RATE: Terminal leukemia, 15% cured;	5. HEART TOTAL TRANSPLANTS: 500 SUCCESS RATE: 78% patient survival after one year, 58% after three years, 42% after five years.	8. KIDNEY TOTAL TRANSPLANTS: No total figures available; 23,076 transplants done in the last five years.

corneas and even brain grafts for the cure of Parkinson's disease are now performed with high survival rates.<sup>23</sup>

The review of transplant surgery just given, as well as the scientific aspects, thereof is cursory at best. Where necessary, this article will give additional technical information in order to better familiarize the reader with the medical realities of transplant surgery, particularly as it relates to the need for clear legal guidelines. No body of law can begin to address the problem involved in transplantation without an appreciation of these technical aspects.

### III. WHY DEMAND CONTINUES TO OUTSTRIP SUPPLY: THE INADEQUACY OF THE GIFT RELATIONSHIP

#### A. Cadaver Donation

It has been estimated that only one percent of all the people who die each year do so under conditions which would make them suitable candidates for organ donation.<sup>24</sup> Deaths due to massive head injuries caused by car accidents, brain tumors, and aneurysms are some examples. Once the heart stops beating in any of these approximately 20,000 individuals, the nourishment provided to their organs by the blood ceases and the cells rapidly die, resulting in complete destruction of the organ.<sup>25</sup> Organs can be preserved by removing them quickly after death and immersing them in a cold saline solution.<sup>26</sup> Thus, it is essential that doctors be able to retrieve an organ almost immediately after the donor's death in order for it to be kept viable for transplantation. This is no easy matter, for in addition to the removal surgery itself, the doctor must first remove any legal obstacles which stand in his way.

aplastic anemia,  
80% cured;  
acute leukemia in  
first remission,  
60% cured (children),  
40% cured (adults).  
COST: \$60,000-\$150,000

3. LUNG  
TOTAL TRANSPLANTS: 38  
SUCCESS RATE:  
Longest surviving patient  
lived 10 months.  
COST: \$50,000-\$150,000  
(Data are worldwide.)

COST: \$57,000-\$110,000

6. LIVER  
TOTAL TRANSPLANTS:  
540

SUCCESS RATE:  
Liver cancer, 26% patient  
survival after one year;  
noncancerous liver disease,  
39% patient survival  
after one year.

COST: \$54,000-\$238,000  
(Data for U.S. and Western  
Europe. University of  
Pittsburgh reports a 66%  
one-year survival rate after  
139 liver transplants.)

SUCCESS RATE:

51% graft survival after one  
year, 40% after three years,  
31% after five years.  
*Patient can survive on dialysis  
if transplant fails.*

COST: \$25,000-\$35,000

The number of transplants are  
U.S. totals unless otherwise  
noted. Sources: Battelle  
Human Affairs Research  
Centers; The Fred Hutchinson  
Cancer Research Center;  
University of Minnesota  
Medical School; Eye Bank  
Association of America.

*Reprinted from id.*

<sup>23</sup>Kucherov, *A Renaissance in Transplant Surgery*, U.S. NEWS & WORLD REPORT, Oct. 4, 1982, at 68.

<sup>24</sup>N.Y. Times, *supra* note 6, at 21.

<sup>25</sup>CALNE, *supra* note 8, at 47. Thus, "[a]t normal body temperature the critical periods before irreversible destruction occurs are three to five minutes for the brain, 15-20 minutes for the liver, 30-40 minutes for the heart and lung, 50-100 minutes for the kidney, and up to six hours for the skin and cornea." *Id.*

<sup>26</sup>*Id.*

## 1. Problems with the Uniform Anatomical Gift Act

In order to address some of the legal problems associated with organ transplantation, the Conference of Commissioners on Uniform State Laws drafted and approved the Uniform Anatomical Gift Act in 1968.<sup>27</sup> To date all fifty states and the District of Columbia have adopted the U.A.G.A. in whole or in part.<sup>28</sup> The Act provides that anyone over a specified age (usually age eighteen) and of sound mind may donate any portion or all of his body to certain institutions or individuals for scientific advancement, research, therapy, education or transplantation.<sup>29</sup> The Act also gives other persons the right of consent to donate a decedent's organs,<sup>30</sup> in addition to providing procedures for making, amending, and revoking anatomical gifts.<sup>31</sup> Most important, however, is the Act's shield from legal liability for all persons acting in "good faith" in accordance with the terms of its provisions.<sup>32</sup>

Criticisms of the Act abound, some claiming that it is complicated and inefficient,<sup>33</sup> others asserting that it does not adequately protect the comatose donor because it gives too much discretion to the physician in determining death.<sup>34</sup> Perhaps the largest problem with the Act is the subject with which it is concerned. No one likes to think about death, let alone make preparations for it. This fact is underscored when one looks at the number of people who die intestate every year.<sup>35</sup> Whether the result of apathy, fear, or conscious avoidance, these figures bespeak of the problem. We cannot expect people to take charge of the disposition of their body when they do not even adequately dispose of their wealth. In addition, the number of people who are suitable candidates for donation is relatively small.<sup>36</sup> There is no reason to think that this group is more likely to voluntarily comply with the act than the rest of the population.

<sup>27</sup>Handbook of the National Conference of Commissioners on Uniform State Laws and Proceedings of the Annual Conference Meeting in its seventy-seventh year (1968) 185-193.

<sup>28</sup>U.A.G.A. at §§ 15-16.

<sup>29</sup>*Id.* at §§ 2-3 (1983).

<sup>30</sup>*Id.* at § 2(b). In order of priority, the following persons may donate the organs of a decedent: (1) the decedent's spouse; (2) his adult son or daughter; (3) either of his parents; (4) his adult brother or sister; (5) his guardian at time of death; or (6) any other person authorized or under obligation to dispose of the body. *Id.*

<sup>31</sup>*Id.* at § 6. The body may be given by will or separate document signed by two witnesses. *See also id.* at § 4. Revocation or amendment can be accomplished by (1) delivery of a signed statement to that effect to the specified donee, (2) oral statement made in presence of two witnesses, (3) addressing a statement to the physician attending to donor at death, (4) by means of a signed document found in his possession. *Id.*

<sup>32</sup>*Id.* at § 7(c).

<sup>33</sup>Dukeminier, *Supplying Organs for Transplantation*, 68 MICH. L. REV. 813, 825-828 (1970).

<sup>34</sup>Arnet, *The Criteria For Determining Death in Vital Organ Transplants - A Medico-Legal Dilemma*, 38 MO. L. REV. 220, 233-34 (1973).

<sup>35</sup>Studies have shown that from 47% to 72% of decedents who had their estates administered died without a will. Beckstrom, *Sociobiology and Intestate Wealth Transfers*, 76 N.W.U.L. REV. 216, 230 & n.47 (citing M. SUSSMAN, J. CATES & D. SMITH, *THE FAMILY AND INHERITANCE* (1970)).

<sup>36</sup>Thompson, *supra* note 2, at 498 (Supp. 1983).

Religious beliefs also inhibit the effect of the Act, some groups holding the body inviolable, and considering the removal of any organs a sacrilege.<sup>37</sup> The psychological or sociological inhibitions of certain groups regarding donation also explain non-compliance with the Act. For example, studies on donor characteristics reveal that those favorable to donation tend to be better educated middle and upper middle class citizens.<sup>38</sup> In theory, non-compliance should not be a significant problem since the Act provides that others may consent to the donation of the decedent's organs.<sup>39</sup> Post-mortem consent, however, may be even more difficult to obtain than simple compliance. The primary barrier to such consent is the refusal of the decedent's relatives and next of kin to accept the inevitability of his death. The family physician, who has the best opportunity to raise the donation question, often does not. Considering the already heavy burden of grief on the family, he cannot be blamed. Even if the attending physician has the wherewithal to make the suggestion, the surviving relative may be understandably indecisive or too emotionally overcome to respond. Furthermore, studies have shown that unless the decedent was married, the decision to donate is a collective one, requiring a consensus of all close relatives.<sup>40</sup>

The bill introduced in the Senate in 1983<sup>41</sup> represents an attempt to overcome the problems of family consent by making the public more aware of the need for organs and enlisting the help of clergy, friends and family physicians in influencing the donation decision. Efforts such as these are not likely to significantly affect the decision, however, since a major factor in choosing to donate seems to be altruism.<sup>42</sup> The promotion of altruism, although a highly admirable undertaking, is unlikely in a society which imposes no duty on the individual to come to the aid of others.<sup>43</sup>

## 2. The Problem of Defining Death

The medical exigencies of organ transplantation, specifically the retrieval of the organ as quickly as possible after cessation of circulation, make one particular class of donors particularly suitable as candidates. These are the comatose or brain dead donors. Unfortunately, because they fall in the twilight zone between life and death, these donors pose the greatest legal problems. With the aid of extraordinary life support systems someone who would otherwise

<sup>37</sup>SIMMONS, *GIFT OF LIFE: THE SOCIAL AND PSYCHOLOGICAL IMPACT OF ORGAN TRANSPLANTATION*, at 350 n.\* (1977). The Orthodox branch of the Jewish faith does not condone organ transplantation, although the Conservative and Reform branches are positive toward such a gift. *Id.*

<sup>38</sup>Cleveland, *Personality Characteristics, Body Image and Social Attitudes of Organ Transplant Donors versus Non-Donors*, 37 *PSYCH. MED.* 313 (1975).

<sup>39</sup>U.A.G.A. at § 2.

<sup>40</sup>Simmons, *supra* note 37, at 344-47.

<sup>41</sup>Organ Procurement and Transplantation Act, *supra* note 7, at 15,380.

<sup>42</sup>SIMMONS, *supra* note 37, at 351.

<sup>43</sup>W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* § 56 (4th ed. 1971) [hereinafter cited as PROSSER]. "[T]he law has persistently refused to recognize the moral obligation of common decency and common humanity, to come to the aid of another human being who is in danger. . . ."

die quickly can now be kept alive for a considerable period of time.<sup>44</sup> Even the body of a guillotine victim can be kept alive by employing artificial means. These advances in artificial life support have prompted both the medical and the legal communities to redefine death.<sup>45</sup> The traditional cardio-respiratory diagnosis of death has been largely replaced by "brain death" criteria.<sup>46</sup> Brain death criteria are most often employed to justify switching off artificial life-sustaining equipment, although in some transplant centers organs are removed from the brain-dead donor while the heart is still beating.<sup>47</sup> This practice is probably the richest source of criticism for brain death opponents. There have also been reported cases of revival of persons previously defined as brain-dead.<sup>48</sup>

The U.A.G.A. does not provide doctors with a definition of death, leaving the decision to the discretion of the attending physician.<sup>49</sup> In a 1972 Virginia wrongful death action, a donor's family asserted that transplant surgeons who had removed the donor's heart had been responsible for his death.<sup>50</sup> Plaintiff argued that his brother had maintained vital signs including normal pulse, blood pressure and respiration until the time the organ was removed. Defendant argued that the donor had suffered irreversible brain damage before the organ was removed and was therefore clinically dead. The issue put before the jury was the time of death, and the judge included several criteria in his instruction, emphasizing that none were controlling.<sup>51</sup> Although the jury returned a verdict

<sup>44</sup>Arnet, *supra* note 34 at 220-21.

<sup>45</sup>See, e.g., MD. CODE ANN. tit. 4, § 5-202 (1982).

§ 5-202. Cessation of circulatory and respiratory or brain functions.

(a) *Determination of death.* — An individual is dead if, based on ordinary standards of medical practice, the individual has sustained either:

(1) Irreversible cessation of circulatory and respiratory functions; or

(2) Irreversible cessation of all functions of the entire brain, including the brain stem.

(b) *Removal of organ.* — (1) This subsection does not apply to the removal of a vital organ while the individual is alive, if the individual gives informed consent to the removal.

(2) A pronouncement of death under this section shall be made before any vital organ is removed for transplantation.

*Id.*

<sup>46</sup>CALNE, *supra* note 8, at 84-85. The criteria are usually as follows:

1. Deep unrousable coma with fixed, dilated eye pupils, and absent cranial nerve reflexes.
2. No spontaneous respiration, the brain damage failing to provide the nervous control of respiration so that ventilation of the lungs must be maintained artificially by a machine.
3. Absence of electrical brain activity on the recording of an electroencephalograph (EEG).
4. Cessation of circulation through the retina of the eye. This is a part of the brain that can be observed directly through the eye pupils with an ophthalmoscope.
5. Absent brain circulation determined by x-rays of the brain arteries after injection of radio-opaque material to them. *Id.*

<sup>47</sup>CALNE, *supra* note 8, at 85.

<sup>48</sup>*Are Some Patients Being Done In?*, NEWSWEEK, Dec. 29, 1980, at 54.

<sup>49</sup>U.A.G.A., *supra* note 4, at § 7(b).

<sup>50</sup>Tucker v. Lower, Civ. No. 2831 (Court of Law & Equity, Richmond, Va. (1972)).

<sup>51</sup>Comment, *Involuntary Passive Euthanasia of Brain Stemmed Damaged Patients: The Need for Legislation — An Analysis and a Proposal*, 14 SAN DIEGO L. REV. 1277, 1287 (1977) (citing Tucker, No. 2831). The instruction in Tucker was as follows: "In determining the time of death . . . under the facts and circumstances of this case, you may consider the following elements, none of which should necessarily be considered controlling, although you may feel under the evidence that one or more of these conditions are controlling: the time of the total stoppage of the circulation of blood; the time of total cessation of the other vital



in favor of the defendant, the significance of the case is questionable because of the various grounds on which their determination could have been based. In 1983 brain death criteria were upheld in two cases in which the defendant physicians were charged with murder.<sup>52</sup> This holding could possibly indicate a favorable judicial attitude toward transplant surgeons.

In the best selling novel and smash movie "Coma," unscrupulous doctors purposefully induce their patients into a comatose state and then claim that they are brain dead in order to cash in on their body organs. The fear of such organ rackets has caused many to ask for greater protection of the cadaveric donor.<sup>53</sup> Many states have adopted brain death statutes. Some of the statutes are ambiguous, however, because they leave the decision entirely to the physician, while at the same time setting out explicit criteria for what constitutes brain death.<sup>54</sup> Add to this the fact that the medical community itself is in disagreement about what constitutes death,<sup>55</sup> and one can grasp the complexity of the problem. There have been many suggestions which could help establish laws protecting both the physician and the comatose donor. The first is to avoid any conflict of interest in the death determination by prohibiting those concerned with the transplant from making the decision or prescribing any therapy to the patient. Second, independent hospital committees could be set up to make the determination, with the family doctor being left with the ultimate decision. If the U.A.G.A. is to be of any real help in the supply of organs, the public must be satisfied that their lives take priority over the recipient's need for an organ. If this is not done, people may react as one woman did after viewing a television program questioning brain death criteria, by saying "I immediately tore up my organ donor card."<sup>56</sup>

### 3. Alternative to U.A.G.A.: Non-Consensual Organ Removal

Today the only way a cadaver donation can be made in the majority of states is by the decedent's will or by the consent of his family.<sup>57</sup> The previous discussion has pointed out the severe problems associated with this method of obtaining cadaver organs. In order to increase the supplies, some commentators have suggested giving the state authority to remove organs without the consent of the family.<sup>58</sup> Several European countries,<sup>59</sup> as well as several states

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functions consequent thereto, such as respiration and pulsation; the time of complete and irreversible loss of all function of the brain; and, whether or not the aforesaid functions were spontaneous or were being maintained artificially or mechanically." *Id.*

<sup>52</sup>*Barber v. Superior Court of Los Angeles County*, 147 Cal. App. 3d 1006, 195 Cal. Rptr. 484 (1983).

<sup>53</sup>Comment, *supra* note 51, at 1293.

<sup>54</sup>KAN. STAT. ANN. § 77-202 (1977).

<sup>55</sup>Arnet, *supra* note 34, at 225.

<sup>56</sup>*See supra* note 48, at 54.

<sup>57</sup>U.A.G.A. *supra* note 4, at §§ 2, 4.

<sup>58</sup>Dukeminier & Sanders, *Organ Transplantation: A Proposal for Routine Salvaging of Cadaver Organs*, 279 N. ENG. J. OF MED. 413, 418 (1968).

<sup>59</sup>For example Denmark, France, Sweden, Italy, and Israel. *Id.* at 418-19. *See also*, Calne, *supra* note 8, at 89.

in this country,<sup>60</sup> have passed laws allowing removal of organs without the prior consent of the original donor or his family, provided there is not enough time to notify the family and no known objection was made by the decedent during his life. California's Diligent Search Act makes organs available for transplantation after a thorough twenty-four hour investigation into the donor's background is completed.<sup>61</sup> A challenge may arise as to these involuntary consent statutes in the form of public opinion, but a challenge on legal grounds would probably fail because there exists no absolute property right in the body.<sup>62</sup> As Blackstone put it: "But though the heir has a property right in the monuments and escutcheons of his ancestors, yet he has none in their bodies or ashes; nor can he bring any civil action against such as indecently at least, if not impiously, violate and disturb their remains, when dead and buried."<sup>63</sup>

Jurisdiction over dead bodies was the exclusive province of the ecclesiastical courts in early England because the church maintained most cemeteries.<sup>64</sup> In the United States, the rights of a decedent's body were those of choice of burial site and the right of undisturbed repose of the grave's remains, but the body has never been considered as property in the commercial sense.<sup>65</sup> This may be a case of both legal and cultural lag. The current transplant technology has made the body, once commercially valueless, now a highly marketable

<sup>60</sup>V.A. CODE ANN. § 32.1-283 (1981); CAL. HEALTH & SAFETY CODE ANN. § 7151.6 (1980); MD. PUB. HEALTH CODE ANN. § 5-407 (1982).

<sup>61</sup>CAL. HEALTH & SAFETY CODE ANN. § 7151.6.

§ 7151.5. Determination of nonavailability of persons authorized or under obligation to dispose of body.

When all of the persons enumerated in subdivisions (a) to (e), inclusively of Section 7151.5 are determined after diligent search to be not available, then, subject to Section 7151.7, any specified parts of the decedent's body may be given to any of the donees for any of the purposes stated in Section 7153.5. Such determination of nonavailability shall be made only by a hospital which is accredited by the Joint Commission on Accreditation of Hospitals. The hospital shall certify such nonavailability and shall authorize and specify the removal and donation of such parts. Such search shall include a check of local police missing persons records, examination of personal effects, and the questioning of any persons visiting the decedent, before his or her death, in a hospital, accompanying the decedent's body, or reporting the death in order to obtain information which might lead to the location of any persons who might be authorized to consent to such donation. The search may be initiated in anticipation of death but the determination of nonavailability may not be made until such search has been underway for at least 24 hours *except in the case of corneal material to be used for the purpose of human transplantation*. Any such determination of nonavailability shall be made only after examination of all evidence leads to the conclusion that no relatives are available. Any such determination shall be subject to a review by such office as is designated by the board of supervisors of the county in which the death occurs.

A cemetery authority, a licensed funeral director, a physician, or any authorized assistant of a cemetery authority, licensed funeral director, or physician is not liable for performing an autopsy and donating specified body parts pursuant to such authorization unless such person or authority has actual notice that such representation of nonavailability is untrue at the time of the autopsy.

*Id.*

<sup>62</sup>Annot., 7 A.L.R. 3d 748, 749 (1966).

<sup>63</sup>2 W. BLACKSTONE, COMMENTARIES \*429.

<sup>64</sup>Dukeminier & Sanders, *supra* note 58, at 414.

<sup>65</sup>See Matter of Estate of Moyer, 577 P.2d 108, 110 (Utah 1978).

commodity.<sup>66</sup> As the cadaver acquires the characteristics of what we define as property, its involuntary seizure by the state may raise due process problems. The emerging trend in the majority of courts is the recognition of a "quasi-property right" in the body. This right has been held to allow one to dispose of his body in whatever way he chooses,<sup>67</sup> provided such a bequest is not offensive to the public interest.<sup>68</sup> As in the case of wills, dispositions of property which command its needless destruction or extravagant waste have been held void.<sup>69</sup> These limits on testamentary power, however, cannot justify the compulsory removal of organs which the decedent or his family wish to donate or sell to someone they have chosen. This would not be wasteful. Even though this emerging property right in the body can only be exercised within the strictures of public policy, it should not be subject to confiscation by the state.

In addition to the conflict between compulsory organ removal and one's qualified right in his own body, there may be religious objections which could result in a first amendment challenge. Some religious groups view the body as a sacred vessel of the soul; such a law would surely interfere with their religious interests in preserving its integrity after death. The drawbacks to cadaver donation are numerous, with many still unforeseen. This makes cadaver donation

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#### VALUE OF THE HUMAN BODY

*To the Editor:* Most people have heard that the human body is worth only a few dollars on the basis of its elemental composition and the market prices of the elements. Anyone who has ever ordered biologic chemicals, however, knows the actual cost of the chemical compounds found in human blood and tissue that have not been reduced to nearly worthless ash. Table 1 provides a list of the retail

Table 1. Amount and Value of Selected Constituents of a 70-kg Human Body.

COMPOUND	AMOUNT IN BODY	VALUE
Cholesterol	140 g	\$525.00
Fibrinogen	10.2 g	\$739.50
Hemoglobin	510 g	\$2,550.00
Albumin	135 g*	\$4,819.50
Prothrombin	10,200 U	\$30,600.00
IgG	34 g	\$30,600.00
Myoglobin	40 g	\$100,000.00

\*Amount in serum only.

prices of a few compounds found in the body of a 70-kg human being, based on average blood and tissue levels and average blood volume.<sup>1</sup> Current market values were obtained from a recent bio-chemical catalogue.<sup>2</sup>

Considering the retail cost of these few substances, we carry around with us, the market value of the entire human body must be astronomical.

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1. Davidsohn I, Henry JB, eds. *Todd-Stanford clinical diagnosis by laboratory methods*. 15th ed. Philadelphia: WB Saunders, 1974.

2. February 1983 catalogue, Sigma Biochemicals, Inc. St. Louis: Sigma Biochemicals, 1983.

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<sup>67</sup>See Dukeminier & Sanders, *supra* note 58, at 414.

<sup>68</sup>RESTATEMENT (SECOND) OF TRUSTS, § 124 (1959).

<sup>69</sup>See *Eyerman v. Mercantile Trust Co.*, 524 S.W.2d 210, 217 (Mo Ct. App. 1975).

an unlikely panacea for the problem of inadequate organ supply.

## B. Donation From the Living

The live organ donor poses fewer medical and logistical problems for the transplant surgeon than does the cadaver donor. The problems of organ destruction, preservation, and rejection are greatly reduced. Success rates for transplant surgery involving live donors are much higher.<sup>70</sup> Like cadaver donors, however, live donors also pose many legal obstacles which make them equally inadequate as a source.

### 1. The Problem of Informed Consent

If the purpose of medical science is to make people well, is the non-therapeutic removal of an organ a violation of that purpose?<sup>71</sup> In the case of the usual operation, any attendant risk to the patient is compensated by the potential benefit. In contrast, removing an organ for transplant purposes results only in a benefit for the donee, any benefit accruing to the donor being purely vicarious. In such a situation, what is best for the donor may be subordinated to the need of the donee. Informed consent, which is now a prerequisite to ordinary surgery, is even more necessary in this nontraditional doctor-patient relationship. Some of the major problems in obtaining true consent from a donor are family pressure, including the "black sheep" syndrome, lack of legal competency as in the case of minors and retarded persons, and inadequate instruction by the transplant surgeon as to the risks involved. It is with this coercively susceptible group that the examination of the consent problem now begins.

In a recent study of 130 living donors, twenty-nine percent were characterized by themselves and their families as "problem children."<sup>72</sup> These "black sheep" donors had been chosen from among several equally suitable relatives.<sup>73</sup> In the case of *Strunk v. Strunk*<sup>74</sup> a Kentucky court ruled that a lower court of equity had been justified in authorizing a severely retarded twenty-seven year-old man to donate one of his kidneys to his twenty-eight year-old normal brother.<sup>75</sup> At one time penal volunteers were used as donors at one transplant center, but the practice was discontinued because of the fear of possible abuse,

<sup>70</sup>13th Annual Report of the Human Renal Transplant Registry, 9 TRANSPLANTATION PROCEEDINGS 9, 16 (1977). Prepared by the Advisory Committee to the Renal Transplant Registry. The one year, functional survival rate for kidney grafts from cadaver donors was 45.1%, while that for live donors was 70.7%.

<sup>71</sup>GARRISON, AN INTRODUCTION TO THE HISTORY OF MEDICINE 96 (1926). "I shall apply the way of treatment which according to my abilities and opinion will serve for the good of my patient and I shall abstain from anything being harmful or disadvantageous" — The Hippocratic Oath. *Id.*

<sup>72</sup>SIMMONS, *supra* note 37, at 195.

<sup>73</sup>*Id.* at 162.

<sup>74</sup>445 S.W.2d 145 (Ct. App. Ky. 1969). The court based its decision on the questionable rationale that not granting the authorization would result in psychological trauma for the retarded. This was pursuant to the court's equity power in making decisions for the benefit of the legal incompetent, commonly referred to as the "substituted judgement doctrine." *Id.* at 146-48.

<sup>75</sup>*See id.* at 149.

including the granting of pardons and early parole in exchange for donating an organ.<sup>76</sup> Society's tendency to impose burdens on its deviants precludes those deemed socially less worthy from giving voluntary and knowledgeable consent. When considering what the law's position on the sale of organs from living donors should be, it should be remembered that the present system of supply is also somewhat inequitable. Would it be any less equitable to allow economics to determine who should supply this needed commodity? The answer to this question becomes clearer when we examine donors who are thought to be more capable of giving informed consent.

## 2. The Cases

What tests should be given before someone is permitted to donate a non-vital organ? What should be the proper motivation for such a sacrifice? These are some of the questions that transplant centers have been asking themselves in determining whether true consent exists. Most transplant centers employ thorough psychological screening to weed out the ambivalent, the hero types, and those donors who feel they are being blackmailed by their families.<sup>77</sup> The screening process results in a considerable reduction of the pool of potential donors. Such sophisticated methods of determining donor consent have not been required by courts deciding the issue. Thus, in *Fleming v. Michigan Mutual Liability Co.*<sup>78</sup> where defendant surgeon was charged with negligence in not obtaining the donor's consent for a skin transplant operation (having removed skin from her inner thighs contrary to her request) the court held that he was not liable, there being sufficient evidence for the jury to resolve the issue. This occurred even though the evidence was in sharp dispute, and with the donor contending that the consent issue was not properly presented to the jury.<sup>79</sup>

A contrary decision was reached in *Bonner v. Moran*,<sup>80</sup> a battery action involving a minor donor. The court in that case held that the consent was required of both the child and the parent before the operation could proceed. The defendant argued unsuccessfully that the mother's acquiescence in the operation and her failure to voice an objection amounted to her implied consent.<sup>81</sup> This case probably does not discount the precedential value of the liberal position taken in *Fleming*, the involvement of a minor being a distinguishing factor. *Bonner* also reveals an important difference in the burden of proof requirements of battery and negligence actions. In a battery action the only issue is informed consent, since the plaintiff need only show an "unconsented-to touching";

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<sup>76</sup>Murray, *Organ Transplantation: The Practical Possibilities*, LAW AND ETHICS OF TRANSPLANTATION 54, 75 (1968).

<sup>77</sup>The University of Minnesota, for example, uses extensive interviewing and psychological testing in its donor screening process. See SIMMONS, *supra* note 37, at 150.

<sup>78</sup>363 F.2d 186 (5th Cir. 1966).

<sup>79</sup>*Id.* at 188.

<sup>80</sup>126 F.2d 121 (D.C. Cir. 1941).

<sup>81</sup>*Id.* at 123.

while in negligence actions the plaintiff must first prove a duty to inform on behalf of the physician.<sup>82</sup> In addition, the plaintiff must prove that he would not have consented to the operation had he been properly informed. Thus, in states which have adopted the negligence theory of informed consent,<sup>83</sup> the physician is favored over the donor.

Despite the apparently favorable attitude toward physicians in donor malpractice cases, the ingenuity of plaintiff's counsel will continue to threaten physicians with liability, perhaps deterring them from performing removal operations. For example, in *Sirianni v. Anna*<sup>84</sup> the plaintiff, a mother who had donated her kidney to her adult son after surgeons had negligently removed his, invoked the "rescue doctrine," claiming that the original negligence to her son was the proximate cause of her renal sacrifice. The court rejected plaintiff's contention, distinguishing the spontaneity required by the "rescue doctrine" from the premeditated act of donating one's organ.<sup>85</sup> Considering the sense of obligation that most family members feel for one another, a willingness to help that is automatic and almost instinctual, it is a wonder that this court reached such a one-sided conclusion. Another court may recognize the compulsiveness of the maternal (fraternal, paternal) instinct and reach an opposite conclusion. The precedential value of *Sirianni* is therefore somewhat questionable.

The primary obstacle to using live donors and thereby increasing the supply of organs, is obtaining voluntary and knowledgeable consent. Such consent is questionable when it comes from a minor, an incompetent, the incarcerated or a black-sheep of the family. Even consent coming from people without such disabilities may be the result of some undetectable pressure and therefore invalid. If the live donor is to become a viable source, physicians must have statutory protection from civil liability for battery, assault, or negligence for failure to communicate the risk attendant in the operation. Even if such legislative action is taken the question of consent will continue to impair the feasibility of solving the organ shortage through live donors. Alternative sources must be seriously examined.

#### IV. SATISFYING THE NEED: CONTRACTUAL RELATIONSHIP AS AN ALTERNATIVE TO DONATION

##### A. Sale of Organs: Deceased Persons

One possible alternative to the U.A.G.A. would be for an individual to enter into a contract for the sale of his organs while alive, with performance of the contract being postponed until death. At least one author has proposed

<sup>82</sup>LeBlang, *Informed Consent — Duty and Causation: A Survey of Current Developments*, 18 FORUM 280, 280-81 (1983).

<sup>83</sup>*Id.* at 281.

<sup>84</sup>55 Misc. 2d 553, 285 N.Y.S. 2d 709 (1967).

<sup>85</sup>*Id.* at 556, 285 N.Y.S. at 712.

several possible forms of the transaction, including:

(1) A present contract for the right to the body (or to specific parts) upon death of the seller, with remuneration to be paid upon death to named beneficiaries (or to the seller's estate). The remuneration is not determined until the body is actually available for use and its value ascertained.

(2) A present contract for the right to the body (or to specific parts) upon the death of the seller, with a definite remuneration guaranteed at death to a named beneficiary (or to the seller's estate) . . . .

(3) A present contract for the rights to the body (or to specific parts) upon the death of the seller, with payment to be made at time of contracting . . . actuarial tables could be used to estimate the value of the parts. . . . Future value could be discounted to present worth . . . .

(5) A sale by the next of kin of the decedent's body parts after the decedent's death.<sup>86</sup>

The author concludes that proposed transactions 1, 2, and 3 have the greatest hope of resolving the dearth of organs.<sup>87</sup> Although a financial incentive may entice someone into a post-mortem organ transfer contract, the lack of immediate payment may give rise to the same problem from which the U.A.G.A. suffers — apathy. Even with a present payment<sup>88</sup> the actuarial reduction of the organ's value may discourage younger donors, whose organs are likely to be much healthier, hence more suitable for transplantation. The contract deals with the same subject matter as a will, namely death and dying. Again, this is a subject that most of us prefer to avoid discussing or at least to postpone until it is too late. Thus, the same factors preventing full compliance with the U.A.G.A. may also plague sales of organs scheduled to take place at death.

The most serious problem with the sale of cadaveric organs is the exigencies of transplant science itself.<sup>89</sup> The relatively small number of individuals dying under conditions propitious to transplantation and the need to retrieve the organs shortly after death pose severe limitations upon the use of cadavers as sources. Authorities must be able to identify at death those individuals who are under organ sale obligations, and to notify the particular obligor hospital or individual that the organs are available. The logistical problems posed by such a transaction are monstrous. Will organ sellers be required to keep the organ buyers on notice as to their whereabouts, or will the contract specifically restrict the seller's freedom of movement confining him to a designated geographic area? If the performance of the contract is blocked by a logistical problem, will the seller's estate be liable in damages, or will the defenses of impossibility and frustration be available?

<sup>86</sup>Note, *The Sale of Human Body Parts*, 72 MICH. L. REV. 1182, 1126 (1974).

<sup>87</sup>*Id.* at 1226. The author bases his conclusion on a survey of mortality tables for the year 1963.

<sup>88</sup>*Id.* at 1218-19. See especially proposal (3). *Id.* at 1219.

<sup>89</sup>CALNE *supra* note 8, at 47.

Other problems have also been pointed out, such as the quality or merchantability of the organs.<sup>90</sup> A products liability suit may lie against a seller whose organ is defective.<sup>91</sup> This raises additional questions of implied duties under the organ contract. For example, does the contract imply that the seller will maintain the organ in a merchantable condition by abstaining from alcohol, drugs, and other harmful substances? Will the contract terms expressly set out a prescribed lifestyle for the seller, deviation from which could give rise to an action in partial breach? The astute buyer would have to insist upon periodic physical examinations of the seller (such as regularly scheduled biopsies) with a corresponding price adjustment clause in the contract. On the other hand, the adroit seller would most likely insist upon a limited warranty, parting with his organ "as is" and making no long term guarantees. Even if seller and buyer could come to terms the logistical problems, combined with ever-expanding life expectancies, militate against this form of contract as a solution to the organ deficit. One remaining alternative merits examination, however.

### B. Sale of Organs: Living Persons

In a recent issue of a local Akron, Ohio paper, a thirty-nine year-old Navy retiree had put in a classified ad offering for sale his "used" body parts.<sup>92</sup> Not long ago Newsweek magazine published a story of a suffering dialysis patient who offered \$3,000 for a kidney.<sup>93</sup> The potential for a market in organs is very real, and equally real are the legal ramifications of this new mercantilism. Non-vital organs, such as one eye, a kidney, a piece of the insulin-producing pancreas, or the bone marrow, can be removed from the live donor with a very small potential for immediate or long-term health risk.<sup>94</sup> The initial reaction of both the medical and legal communities to organ sales has been quite negative.<sup>95</sup> Just what direction the law may take on this issue requires an examination of the existing legal impediments.

#### 1. The Legal Obstacles

The U.A.G.A. left open the possibility of organ sales by not specifically prohibiting them because its drafters "believed it improper to place an absolute bar to commercial relationships and concluded that this would best be handled

<sup>90</sup>Note, *supra* note 86, at 1225.

<sup>91</sup>See, *id.* at 1253.

<sup>92</sup>Akron Beacon Journal, Dec. 11, 1983, § D. at 2. The classified reads: "USED body parts available. Will barter, from 1944 model white male, disease free, 20/20 blue eyes, left or right kidney or other non-essential parts. Guaranteed to be in good or excellent condition at time of removal. Receiver assumes medical and legal expenses. Serious inquiry only. Harry 784-2007." *Id.*

<sup>93</sup>*I Can't Take It Anymore*, NEWSWEEK, July, 1971, at 51.

<sup>94</sup>Woodruff, *Transplantation: The Clinical Problem*, LAW AND ETHICS OF TRANSPLANTATION 6, 19-20 (1968). "[T]otal risk [to donor of nephrectomy] is 0.12 per cent, divided into an immediate risk of 0.05 per cent as a post-operative accidental risk, and 0.07 per cent as the risk of any kind of accident occurring later to affect the remaining kidney." *Id.*

<sup>95</sup>"It shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration if the transfer affects interstate commerce."

"Any person who violates subsection (a) shall be fined not more than \$50,000 or imprisoned not more than five years, or both." ORGAN PROCUREMENT AND TRANSPLANTATION ACT, *supra* note 7.



at the local level by the medical community.”<sup>96</sup> Because of the absence of statutory guidelines, it is necessary to look to the common law and the dictates of ethics and morals in order to determine the potential legality of the commercial alternative.

Society has never condoned self-mutilation. Like many of our laws, the prohibition of self-mutilation is grounded in religious and moral beliefs dating back as far as the Middle Ages.<sup>97</sup> The belief is based upon the principle of totality, which in essence states that no part of the body should be sacrificed unless it is done in order to preserve the integrity of the body as a whole.<sup>98</sup> Thus a man with a gangrenous leg may have it amputated in order to save his life. In contrast to this is the organ donor or seller, whose loss of a part does not benefit the whole of himself, but that of another person.<sup>99</sup> The principle of totality upon which the prohibition of self-mutilation is based can be interpreted in a broader light. “Totality” can be alternatively viewed as the outcome of the entire transplant procedure. The removal of an organ from the seller, although detrimental to him, is beneficial to the recipient. The overall outcome results in at least no net change, or if anything a surplus, if the recipient was in danger of dying. Although there is some risk and discomfort involved in the bargain, society has gained; it has not one, but two productive citizens.<sup>100</sup>

This article has previously discussed the potential civil liability of surgeons removing organs from living donors, and the issue of informed consent.<sup>101</sup> Moving out of the gift relation and into the contractual will more than likely remove any inhibitions that a prosecutor may have had about bringing *criminal* charges against the transplant surgeon. A surgeon removing an organ for the purpose of sale may be subjecting himself to a charge of mayhem.<sup>102</sup>

Mayhem is defined as “intentionally and maliciously maiming or disfiguring a person . . . a wilfull act committed with an evil intent *without grounds for believing it to be lawful, and without legal justification*. . .”<sup>103</sup> (emphasis added). Consent does not excuse an act of mayhem, but surgery is viewed as a legal justification.<sup>104</sup> At common law the gist of the crime was the depriving of another man’s fighting ability or his ability to defend himself.<sup>105</sup> Applying both the

<sup>96</sup>Sadler & Sadler, *Transplantation and the Law: The Need for Organized Sensitivity*, 57 GEO. L. J. 5, 30 (1968).

<sup>97</sup>NIZSALOVSKY, A LEGAL APPROACH TO ORGAN TRANSPLANTATION 45 (1974).

<sup>98</sup>*Id.* at 46.

<sup>99</sup>*Id.* at 45-46.

<sup>100</sup>The majority of transplant patients can lead normal working lives after the operation. CALNE, *supra* note 8, at 75.

<sup>101</sup>See *supra* notes 49-56 and accompanying text.

<sup>102</sup>See generally 53 AM. JUR. 2D *Mayhem and Related Offenses* § 1 (1970).

<sup>103</sup>*Id.* at 488.

<sup>104</sup>*Id.* at 494, § 12.

<sup>105</sup>3 W. BLACKSTONE, Commentaries 558.

modern and classic definitions of mayhem to the pre-transplant removal procedure, it is possible to conclude that the participating surgeon may be convicted of mayhem. He is intentionally disfiguring the live source and, depending upon what organ he removes, may be depriving him of his ability to defend himself. On the other hand, whether he is doing so with an "evil intent" or without legal justification is a matter of some debate.

We usually place great trust in doctors, recognizing their role as healers and allowing them great discretion in their work. A case may be envisaged, however, in which a doctor performs such an operation only in order to enhance his reputation or economic well being. In this case, the defenses of justification and *de minimis* would not be available.

In some communities the present state of the art in transplantation has not made its impression and is still viewed as essentially experimental. The public's misconception of the removal procedure as something out of *Frankenstein* may pressure judges into making the mayhem question a rhetorical one. Better education of the public and the judiciary as to the nature of modern organ transplants is a necessity if the science is to proceed. Statutory protection in the form of immunity from criminal liability may be necessary if the transplant surgeon is not to be deterred.

At the present time, a surgical operation is viewed as a form of legalized battery, justified in law by consent or implied consent in emergency situations.<sup>106</sup> This concept of surgery as legal battery must change before the full benefits of transplantation can be realized. By looking at transplantation as a wholly curative procedure, the ethical uncertainty and moral abhorrence toward persons selling their non-vital organs will be mitigated. The social norms which now hold this kind of thinking as heresy must be prodded by legal initiatives. This is clearly an area in which the law should take the lead.

## 2. Constitutional Aspects

In the case of *Schloendorff v. New York Hospital*,<sup>107</sup> Justice Cardozo held: "Every human being of adult years and sound mind has a right to determine what shall be done with his own body."<sup>108</sup> This "right to bodily integrity" can be traced through a line of cases leading up to the Supreme Court's decision in *Roe v. Wade*.<sup>109</sup> *Roe* recognized a constitutional right to privacy as giving a woman the right to obtain an abortion without undue interference by the state. The right has recently been invoked by those asserting the right to die or the right to refuse extraordinary care. In the case of *In re Quinlan*<sup>110</sup> the

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<sup>106</sup>PROSSER, *supra* note 43, at 104.

<sup>107</sup>211 N.Y. 125, 105 N.E. 92 (1914).

<sup>108</sup>*Id.* at 129, 105 N.E. at 93.

<sup>109</sup>410 U.S. 113 (1973). See also *Griswold v. Connecticut*, 381 U.S. 479 (1965). See generally, *Roe*, 410 U.S. at 143.

<sup>110</sup>70 N.J. 10, 355 A.2d 647 (1976).

New Jersey Supreme Court stated that “presumably this right to privacy is broad enough to encompass a patient’s decision to decline medical treatment.”<sup>111</sup> How does this right affect the organ sale issue?

Certainly one’s right to control one’s own body is not unlimited, for even in *Roe* a woman’s right to an abortion was qualified by the state’s compelling interests in her health and in the fetus’ viability. Just as the state’s interest becomes more compelling as the pregnancy progresses, should an individual’s right to part with an organ be more or less qualified depending upon the number or kind of organs he tries to sell? Or is the state’s interest in preventing self-mutilation of its citizens more compelling than the individual’s right to be master of his person? Perhaps a compromise between the state and the individual similar to that in *Roe* can be reached. Some version of the graduating formula found in that case could be employed in the organ sale area.<sup>112</sup> Procedures could be set up weighing the net or overall benefit of each separate transaction. The potential detriment to the seller measured against the need of the recipient, the long-term prognosis, and the chance of success could all be taken into account. As the liability side of the medical-ethical balance sheet becomes greater, so will the state’s interest in disallowing the transaction. The private sector could play a major role in the matching of sellers and buyers, being limited only by compliance with the criteria mentioned above. There is, of course, the possibility of abuse, but that is true with all business ventures, and probably could be eliminated through effective regulation.

A limit could be placed upon the type or number of organs an individual could sell. By making organ sales legal the state would prevent a black market from developing and organized crime from profiting, as sometimes happens in these situations. If this analysis sounds somewhat callous, the reader should keep in mind that the present system of organ procurement also produces some very harsh results. This is clearly brought out in the story of Jamie Fisk. Pressed by the need for a liver for his eleven month old daughter, Jamie’s father launched a highly skillfull publicity campaign. Through his access to plentiful resources and a few political connections, Mr. Fisk was able to obtain a healthy organ.<sup>113</sup> Unfortunately, many other young children in Jamie’s situation failed to obtain a needed organ although they had been waiting much longer. Such disparities

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<sup>111</sup>*Id.* at 40, 355 A.2d at 663.

<sup>112</sup>The *Roe* Court held that:

(a) For the stage [of pregnancy] prior to approximately the end of the first trimester, the abortion decision and its effecutation must be left to the medical judgment of the pregnant woman’s attending physician.

(b) For the stage subsequent to approximately the end of the first trimester, the State, in promoting its interest in the health of the mother, may, if it chooses, regulate the abortion procedure in ways that are reasonably related to maternal health.

(c) For the stage subsequent to viability, the State in promoting its interest in the potentiality of human life may, if it chooses, regulate, and even proscribe, abortion except where it is necessary, in appropriate medical judgment, for the preservation of the life or health of the mother.

*Id.* at 164-65.

<sup>113</sup>Wallis, *Which Life Should Be Saved?* TIME, Nov. 22, 1982, at 100.

raise touchy legal and political questions. Should those who are more skilled at marketing their need or who have better power connections have priority over those who do not? Or should we require everyone to wait their turn? By laying a legal foundation for the sale of organs, the inequities which now exist could be obviated. If the costs of the organs were covered by insurance, there would be no need to worry about economics determining the recipient. The possibility of basing recipient selection upon ability to pay is more of a concern with the contemporary methods of procurement, as is revealed by the Fisk story. Today the government<sup>114</sup> and some insurance companies<sup>115</sup> refuse to reimburse the transplant patient for the price of the organ, paying only for the operation. Such a position can only have a disabling effect on the price of organs. By establishing a base line coverage for the cost of each organ, these institutions can help hold costs down.

### 3. Other Public Policy Questions

The argument that the right to privacy is broad enough to encompass an individual's right to sell his non-vital organs is merely an extension of the principle of self-determination. Many people engage in acts and employments which present great potential for injury or even death. In the case of hazardous occupations such as coal mining and working with radioactive materials, society's need for the product and the individual's need for the monetary rewards are deemed to outweigh the detrimental affects. The benefit derived from occupations such as race car driving and hang gliding is intangible, but nevertheless important. It is only through taking what has been termed "acceptable levels of risk" that civilization progresses and the individual attains fulfillment. The current need for organs is no different from a need for other scarce resources; the risk posed to the individual is comparatively low, while the benefits are high.<sup>116</sup>

Focusing upon the medical establishment through the risks-benefits lens, one can see that such mutual concession is employed all the time, specifically in the area of human experimentation. Pharmaceutical companies pay people to test new drugs and vaccines before marketing them to the general population.<sup>117</sup> Tests on laboratory animals are useful only to a limited extent in determining how a given drug will affect human beings because of the obvious physical differences. In order to acquire knowledge that will benefit the population at large, certain risks must be taken. The compromise made for human experimentation is somewhat analogous to that necessary for permitting organ sales. It also raises some of the same ethical considerations, such as protection of the subject, weighing of the potential risks and benefits, and obtaining valid

<sup>114</sup>See Social Security Amendments of 1972, Pub. L. No. 92-603, 86 Stat. 1329 (1972).

<sup>115</sup>Thompson, *supra* note 2, at 501 n.8. "Blue Cross and Blue Shield Associations, the national umbrella organizations for autonomous state affiliates, consider liver and heart transplants experimental." *Id.*

<sup>116</sup>Woodruff, *supra* note 94, at 19-20.

<sup>117</sup>Freund, *Is the Law Ready for Human Experiment?*, 2 TRIAL 46 (1966).

consent. These problems, however, can be resolved through well-drafted legislation.<sup>118</sup> By ensuring that the organ seller is adequately protected and that the risks posed are cancelled or outweighed by the potential benefit to the donee, the prospect of organ commerce becomes much more palatable.

Another comparison which can be made to a proposed organ market is the blood and plasma market. From 1965 to 1967, ninety-three percent of the blood supplied in the United States came from compensated donors.<sup>119</sup> Since we allow people to sell their blood, should we also allow them to sell their non-vital organs? Unlike the removal of an organ, the loss of blood is only temporary, resulting in no permanent damage. On the other hand, as the organ removal procedure becomes more common, it is bound to become safer thus lending greater validity to the comparison between blood sales and organ sales. At present there exists no law prohibiting the sale of blood, even though studies have indicated that the blood business takes advantage of the socially less fortunate.<sup>120</sup> There are probably many instances in which individuals have sold dangerously large amounts of their blood because of financial need, yet the market still rules. Indeed, there may be a danger that this same type of economic duress will influence one's decision to part with an organ; again, however, this merely reflects life's realities.

## V. CONCLUSION

The present system of organ supply, namely donation, has serious drawbacks which make it an impractical solution to the current organ shortage. The contractual alternative looks tempting at first glance, but it too poses tough legal barriers. If the donation source of supply cannot be improved so as to meet present demand the insatiable need for organs will result in an unregulated commerce. Before this occurs, the legal community must take the initiative by setting guidelines and limits as to what any individual may do with his body. By taking the first step, the law can forestall the development of a black market in organs, with all the unsavory practices that may entail, while at the same time benefiting the science of transplantation.

RICHARD MICHAEL BOYCE

<sup>118</sup>*See, e.g.*, The National Research Service Award Act of 1974 Pub. L. No. 93-348, 88 Stat. 342 (1974).

<sup>119</sup>The following table was taken from TITMUS, *THE GIFT RELATIONSHIP, FROM HUMAN BLOOD TO SOCIAL POLICY* 96 (1970).

Type	Percent
A. The Paid Donor	47
B. The Professional Donor	
C. The Paid-Induced Voluntary Donor	3
D. The Responsibility Fee Donor	39
E. The Family Credit Donor	
F. The Captive Voluntary Donor	4
G. The Fringe Benefit Voluntary Donor	0
H. The Voluntary Community Donor	7

<sup>120</sup>*Id.* at 102. A 1965 study of the social characteristics of donors found that 39% had an annual income below \$3,000, 36% being unemployed. *Id.*