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The Medium of Exchange Paradigm: A Fresh Look at Compensated Live-Organ Donation

Dean Lhospital
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ABSTRACT
THE MEDIUM-OF-EXCHANGE PARADIGM:
A FRESH LOOK AT COMPENSATED LIVE-ORGAN DONATION

For over twenty years, human live-organ sales have been banned in the United States and most of the rest of the world. Observations and data arising from black market transactions and the few legal markets for organs suggest that permitting and regulating organ sales leads to more humane conditions than outlawing sales. Despite the data, opponents of organ sales still argue that selling human organs devalues human life. This article examines the panoply of organ markets – white, grey, and black – and identifies the source of this cognitive dissonance. Recognizing that there is a fundamental paradox in ethical objections, we identify the true sticking point - found in the principles of social norms and market norms.

Opponents of compensated organ donation harbor a feeling of repugnance that makes them not only wish to personally abstain from the procedure, but also to ensure that no one else may participate in a compensated live-organ transaction. In other words, they do not think the practice is wrong, so much as they feel it is wrong. This repugnance hypothesis explains the failure of market-based arguments to persuade lawmakers and other market-opponents to rethink the organ ban. Rational, logic-based arguments increase the repugnance and reinforce the opposition, rather than alleviating it, because they involve cognition, not emotion, and therefore fail to address market-opponents fundamental concerns. We see that we can circumvent this feeling of repugnance by taking advantage of the behavioral economic principles of social and market norms. By adding a non-currency medium-of-exchange between donor and recipient we can harvest the open-market benefits of increased organ supply while staying clear of the moral repugnance that frequently accompanies cash-for-organ exchanges.
The Medium-of-Exchange Paradigm
A Fresh Look at Compensated Live-Organ Donation

Dean Lhospital¹

Do you need a liver transplant? If you have $45,000 plus the cost of a flight to India, you can have that taken care of in a flash. How about a pancreas? One of those may be had for a paltry $27,000, although, at $16,500 apiece, kidneys are clearly the blue-light special of human organs. Compare those with mainland United States prices of $320,000, $210,000, and $45,000, respectively, for the same operations. This discount catalog of body parts is not a thrifty necromancer’s shopping list, but rather, a schedule of services for a New Delhi e-business, www.incredibleindiahealthcare.com. In an increasingly borderless global economy, bargain-shopping and outsourcing have expanded into all conceivable corners of the marketplace, including commerce in human organs. Consumers worldwide can compare prices and accommodations not only of upscale hotels and vacation packages, but also of complex medical procedures. Many foreign businesses offering such services appear to be largely legitimate: Incredible India Healthcare, for example, requires the implanted organ to have originated in one the patient’s family members. However, under the facade of respectability lies a darker reality. A 2,000 rupee bribe, a mere $50 USD, ensures paperwork intended to prevent purchased organs from being transplanted gets the stamp of approval, regardless of the true source of the organ.

In early 2008, Indian police in Chitwan, a district about 100 miles south of Kathmandu, arrested a doctor, Amit Kumar, who was running a large, very profitable, and very illegal organ transplant clinic.² Rather than requiring patients to bring their own organs, Dr. Kumar had been

offering indigent local Indians $1,000 to $2,000 for a kidney. The doctor, later dubbed “Doctor Horror” by the Indian media, transplanted the organs from the poor into wealthy Indians and even Westerners who sought to avoid the lengthy waiting periods for transplants common in the United States. The doctor’s business had, apparently, been quite successful: when police arrested him, they confiscated almost $2,000,000.3

A common ethical objection to creating legal, regulated markets for organs raised by academics and ethicists is that such a system risks taking advantage of the poor. However, one has to wonder, if the poor are already being preyed on and paid a pittance for their organs in illegal markets, would matters be any worse in a legal, regulated market? Conditions in India suggest that matters cannot get much worse. Dr. Kumar was growing increasingly wealthy while more and more residents of the rural slums he prowled began showing telltale half-moon scars. He rarely paid out the promised amount for kidneys, and operations took place in outdated, dangerous facilities, but the villagers continued to donate regardless, wooed by a meager upfront payment - motivated by gnawing hunger and pressure to provide for family members.

Compensated organ donors in Tehran, where compensated live donation is legal, meet prospective recipients amicably in spartan government offices, and with the help of a state employee, reach terms of exchange that include a government payment and a recipient reward. Surgeons provide subsidized anti-rejection medication, and complete procedures in clean, modern facilities.

Aside from the ignoring the benefits of higher prices and safer procedures in regulated markets, protectionist anti-market arguments also fail to mention the sad reality that we already rely on the uneducated and lower class members of our society to fill the most dangerous jobs. Of the ten riskiest jobs in America, nine are commonly thought of as “blue-collar” jobs.

Agriculture, fishing, forestry, and construction jobs consistently rank in the top five most dangerous jobs - as much as twenty-five times the average risk of injury or death on the job.\(^4\) We also rely on inhabitants of rural areas with less education and lower earning-power to fill the ranks of the U.S. Military. Demographic data released by the Pentagon in 2005 showed that the military is increasingly relying on economically depressed, rural areas for recruits.\(^5\) In such areas, the need for income often outweighs the risks of picking up a rifle and literally fighting for a paycheck. The *Washington Post* reported that: “All of the Army's top 20 counties for recruiting had lower-than-national median incomes, 12 had higher poverty rates, and 16 were non-metropolitan.”\(^6\) It seems that, for some reason, paying the poor to pick up guns and kill foreigners is not as offensive as paying them to save lives.

As we examine the panoply of organ markets - white, grey, and black - we will see more cognitive dissonance on the part of ethical objectors to live-organ markets. Despite evidence showing that permitting and regulating organ sales leads to more humane conditions than outlawing sales, the primary argument against organ sales remains the assertion that selling organs devalues human life. Recognizing this inconsistency, and digging to the roots of anti-market rhetoric, we identify the true sticking point - found in the principles of social norms and market norms. Opponents of compensated organ donation do not seem to think the practice is wrong, they *feel* it is wrong. They harbor a feeling of repugnance that makes them not only wish to personally abstain from the procedure, but also to ensure that no one else should be able to participate in a compensated live organ transaction.

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\(^6\) Id.
This repugnance hypothesis explains the failure of market-based arguments to persuade lawmakers and other market-opponents to rethink the organ ban.\footnote{See Alvin Roth. Repugnance as a Constraint on Markets. *Journal of Economic Perspectives*. 21:3, 37-58 (2007).} Rational arguments fall to the wayside, or actually further incense market-opponents, when they harbor a latent ethical objection. We will see that moving beyond market-based arguments and looking to the behavioral economic principles of social and market norms, can circumvent this feeling of repugnance. By adding a non-currency medium-of-exchange between donor and recipient we can harvest the open-market benefits of increased organ supply while staying clear of the moral repugnance that frequently accompanies cash-for-organ exchanges.

First, we will see the extent of the organ shortage and examine the nexus of the ethical objections to compensated live-organ donation. Then, we will consider how the organ ban in India has created a robust black market that has picked apart the indigent rural population and crippled entire towns. For a grey market example, we look within our own borders, at the expanding practice of paired organ exchange in the United States. Finally, for a white market example, we travel to Iran, one of only two nations with legal, state-regulated organ sales.\footnote{The other being the Philippines; see www.PIA.gov.ph.} With more than twenty years of data accumulating since organ bans became popular, a new solution - based on a new paradigm - may be formulated.

*The (Almost) Worldwide Ban vs. The Universal Shortage*

In early 2003, the World Health Organization (WHO) addressed the growing problem of organ shortages, particularly live-organ donations, which produce better results, less complications, and higher life expectancies than both cadaveric donations and hemodialysis.\footnote{Mohamed H. Sayegh and Charles B. Carpenter. Transplantation 50 Years Later - Progress, Challenges, and Promises. *The New England Journal of Medicine*. 351:26 (2004).}
Demand for organs exceeds the supply of transplantable organs in almost every country in the world. The extent of the shortfall varies from country to country, but, overall, low- and medium-income nations face larger shortfalls than high-income countries, despite the fact that they are the world’s primary supplier of live organ donations. China has claimed to have a surplus of transplantable organs in the past, but they are widely rumored to have a thriving market for organs despite national bans, as well as ethically-questionable policies for increasing the supply of both live and cadaveric “donations.” China’s Foreign Ministry officials have even admitted that supply of transplantable organs skyrockets during the times the prison system carries out its annual executions. It is all but certain, then, that the WHO Secretariat’s conclusion that there is a “persistent and widening gap between patients’ need for organs and the number available for transplantation,” is universal. Regardless, almost every nation in the world has elected to prohibit the sale of human organs; most laws are patterned after the United States’ National Organ Transplantation Act (NOTA).

The United States’ ban on the sale of human organs dates back to 1984, when repugnance of one lawmaker’s plan to harvest organs from the indigent led to a countermovement to ban organ sales altogether, and eventually, the passage of the NOTA, 43 USCA 274e. The

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11 *Id.*


13 The law provides:

(a) Prohibition
   It shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce.

(b) Penalties
   Any person who violates subsection (a) of this section shall be fined not more than $50,000 or imprisoned not more than five years, or both.
NOTA has seen several amendments since 1984, but it has maintained its strong stance against legalizing organ sales. The most significant change occurred in 2004, when President George W. Bush signed the Organ Donation and Recovery Improvement Act, which authorizes the federal government to reimburse live-organ donors for costs they incurred in donating their organ.¹⁴ Shortly thereafter, some states began mulling over proposals to encourage organ donation. Wisconsin, for example, enacted a law that gives living donors a tax deduction of up to $10,000 for medical costs, travel, and lost salary.¹⁵

Although the debate rages about the merits and drawbacks of the United States’ ban on organ sales, the NOTA has uncontestedly succeeded in at least one arena: improving data collection about supply and demand for organs. The NOTA established the United Network for Organ Sharing (UNOS) and the Organ Procurement and Transplant Network (OPTN) as collectors and collators of data about donors, recipients, and transplants. OPTN reports that at the beginning of 2008, the waiting list for organs contained almost 98,000 patients, at least 65,000 of which are currently qualified and eligible to receive an organ transplant.¹⁶¹⁷ However,

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(c) Definitions

For purposes of subsection (a) of this section:

1. The term “human organ” means the human (including fetal) kidney, liver, heart, lung, pancreas, bone marrow, cornea, eye, bone, and skin or any subpart thereof and any other human organ (or any subpart thereof, including that derived from a fetus) specified by the Secretary of Health and Human Services by regulation.

2. The term “valuable consideration” does not include the reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage of a human organ or the expenses of travel, housing, and lost wages incurred by the donor of a human organ in connection with the donation of the organ.

during all of 2007, only 14,395 organs were donated - cadaveric and live donations combined.\textsuperscript{18}

Even if some miracle cure for all illnesses necessitating organ transplants appeared tomorrow, meaning that no new patients would be added to the waiting list, it would take nearly six years for the supply of organs to satisfy the demand from those currently on the waiting list.

Unfortunately, rather than declining precipitously, the demand for organs has been increasing exponentially over the past ten years; there is a persistent, widening gap between demand for organs and supply of donor organs.\textsuperscript{19} As noted previously, although data are sparse from poor nations, it is safe to assume that their situation is much more dire.

<table>
<thead>
<tr>
<th>Waiting List at the beginning of 2008</th>
<th>All organs</th>
<th>Kidney</th>
<th>Liver</th>
<th>Pancreas</th>
<th>Kidney/Pancreas</th>
<th>Heart</th>
<th>Lung</th>
<th>Heart/Lung</th>
<th>Intestine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>97904</td>
<td>74907</td>
<td>16392</td>
<td>1621</td>
<td>2254</td>
<td>2661</td>
<td>2128</td>
<td>104</td>
<td>221</td>
</tr>
</tbody>
</table>

Source: OPTN.

\textsuperscript{17} Rob Stein, A Third of Patients on Transplant List are not Eligible. Washington Post. March 22, 2008; A1.

<table>
<thead>
<tr>
<th>All Donor Types</th>
<th>14395</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deceased Donor</td>
<td>8089</td>
</tr>
<tr>
<td>Living Donor</td>
<td>6306</td>
</tr>
</tbody>
</table>

Source: OPTN

Despite the rapidly increasing problem posed by organ shortages, market-based solutions for increasing live-organ donation continue to face harsh, immediate criticism. In 1985, shortly after Congress passed the NOTA, medical ethicist Benjamin Friedman summed up the ethical objections to legalizing organ markets:

That which cannot be bought and sold is by definition priceless. By removing human life and health from the marketplace, we affirm this principle which underlies much contemporary thinking about ethics: the intrinsic, ineliminable, ineluctable value of human life and health.\(^{20}\)

Most contemporary organ-market objectors still incorporate Dr. Friedman’s ideas into their anti-market rhetoric, despite its apparent weaknesses. For example, they repeat Friedman’s mistake of equivocating on the meaning of the word “priceless.” He begins with the market definition of pricelessness: something that cannot be priced in a market. However, he goes on to presume that the market-pricelessness of organs bestows another sort of pricelessness on them: the pricelessness that corresponds with social norms, meaning valuable beyond valuation, such as the pricelessness of exceedingly famous works of art. Organs are not this latter brand of priceless - social norm priceless - but rather, are market-priceless. In other words, they are priceless not because we can not price them, but because lawmakers feel that we should not price them. Thus, their market pricelessness does not necessarily mean they are as valuable as Friedman supposes. It just means that they are not currently allowed to be sold. We have already seen in the black market that organs can be priced, and that most people will consider selling their organ at some price.

Second, Friedman posits that “[b]y removing human life and health from the marketplace, we affirm...the...value of human life and health.” This assertion that we have removed - or ever will remove - human healthcare from the marketplace is peculiar, considering the United States healthcare industry currently has a value of over two trillion dollars, and the number increases each year.\(^{21}\) That works out to over $7,000 annually on healthcare for every single person in the United States. The United States clearly has a robust market in human healthcare. Rather, contrary to Friedman’s position that healthcare markets devalue human life and health, spending a substantial sum on healthcare reaffirms the importance of human life and shows its lofty position on our hierarchy of values. The United States Office of Health and Human Services (HHS), clearly an entity highly valuing human life and health, has recognized the importance encouraging healthcare markets to flourish. In 2008, it listed “Promoting Market-Based Health Care” as one of its ten anchors of effective healthcare in the United States.\(^{22}\) HHS asserts that market-based health care, “[f]osters a true marketplace for health care... [e]ncourages competition, improves efficiency, and reduces the ranks of the uninsured by promoting access to private insurance.”

**The Black Market: Indigent Organs and Wealthy Recipients**

In the autumn of 1999, a peculiar item appeared on the ascendent online auction site eBay. Strange items on eBay are not unusual, shrunken heads, souls, and captured ghosts in mason jars are just a few examples of the strange fare offered up for sale.\(^{23}\) This item, however, was bizarre even by eBay standards: a “fully functional” human kidney. “Choose either kidney,”


the Sunrise, Florida seller stated, “[b]uyer pays all transplant and medical costs. Of course only one for sale, as I need the other one to live. Serious bids only.”24 Bidding started at $25,000. Soon, anonymous bidders met and exceeded the reserve price, and before long the price reached over $5.75 million dollars. At that point, citing the company’s policy to avoid facilitating illegal transactions, eBay cancelled the auction and removed the item from the site. By all indications, however, if the auction had remained active, two people would have completed a transaction that violated the NOTA of 1984. One would have been a kidney poorer and almost six million dollars richer. The other would have had a smaller bank account, but larger prospects at life.

Meanwhile, while eBay was featuring multi-million dollar kidneys and the U.S. Government was paying tens of thousands of dollars for medical expenses, Dr. Kumar, in Chitwan India, was paying indigent villagers between $800 and $2,000 for a kidney.25 Those receiving the higher payment were the ones lucky or clever enough to track down Dr. Kumar after the operation and recover the post-operative portion of the promised money. Even though $2,000 is almost one year of wages for the average Indian, the disparity is still remarkable.26 India, like the United States, has a complete prohibition on organ sales. Despite the fact the going rate for a black market kidney in the United States is as much as 6,250 times greater the going price for kidneys in India, and that the penalties for violating each law are similar, far more more Indians will risk the penalty than will Americans.27

In some cases, entire villages in India and nearby Tibet and Nepal have effectively been turned into kidney banks. Recently, the Hindustan Times reported that in one village in rural

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25 See Supra, note 1.
27 U.S. Law, the National Organ Transplant Act of 1984, prescribes a fine of up to $50,000 and/or imprisonment up to five years. Indian Law, the Transplantation of Human Organs Act of 1994, modeled after the NOTA, provides a punishment of up to five years imprisonment and/or a fine of 10,000 rupees, which is approximately $250 US.
Nepal, at least one member of every household has sold a kidney in the last three years.\(^{28}\) The kidney broker? Dr. Amit Kumar. Kumar is not the only kidney-broker, however, and rural Nepalese are not the only villagers targeted for their organs. Elsewhere, in a slum on the outskirts of Chennai, India nicknamed Kidneyvakkam, or “Kidneyville,” because of the large number of residents that have parted with kidneys for cash, survivors of one of the region’s tsunamis cluster together in makeshift homes.\(^{29}\) Most of these individuals were convinced to part with their organ by a single broker, known as K. Karppiah.\(^{30}\) Dozens of scarred residents of the various slums ringing the city cite him as the broker who promised them money for their kidney. Karppiah, like Kumar, has done quite well for himself, charging between $35,000 and $85,000 for a kidney transplant, after paying indigent villagers no more than $2,000 for an organ. The occupants of another virtually identical refugee camp, Tsunami Nagar in the Tamil Nadu province, have been likewise pillaged, likely by a single broker, controlling the region’s illegal commerce.\(^{31}\)

The only positive aspect of the current situation in India, Nepal, and Tibet is that it has provided a wealth of information about how black markets for kidneys operate. Most importantly, two conclusions can be drawn: 1) a small number of brokers are controlling the market for illegal organs; and 2) certain regions and populations seem to be uncommonly susceptible to illegal organ harvesting. Both conclusions make sense. First, organ brokering requires a specialized skill-set, special knowledge, and secretive business contacts. We would not expect that many people would be drawn to illegal organ brokering, and even fewer people would actually have the wherewithal to successfully get people to sell their internal organs and

get doctors to perform illegal transplant operations. Secondly, selling one’s organ is usually a last-ditch effort to pay debts or put food on the table, and primarily affects those near or under the poverty line. Accordingly, economically-depressed regions provide fertile ground for organ brokers to recruit “donors.” Unfortunately, the debt-ridden people who comprise the majority of organ sellers in illegal markets, rarely improve their positions after selling their organ. In fact, three-quarters remain in debt even after receiving payment, and almost a third have reduced family income after the operation.\textsuperscript{32} Not surprisingly considering the poor quality of medical care, 90\% also report that their health significantly deteriorated after the operation, sometimes leaving them less able or unable to earn a living.\textsuperscript{33}

Nominally, India purports to condemn organ sales; the legislature has outlawed the practice and devoted some resources to enforce the ban.\textsuperscript{34} However, the presence of a robust, flourishing market for organs in India brings the government’s sincerity into question. As mentioned previously, relatively small bribes go a long way in impoverished rural India. Since brokers can easily clear $25,000 per transaction, they have plenty of money to bribe various medical, law enforcement, and government personnel. Occasionally, honest policemen catch up with brokers and make important arrests, but telltale scars appearing on hundreds of poor Indians suggest that more brokers are scouring the land, taking up where the captured broker left off.

\textit{The Grey Market: Paired Organ Exchange in the United States}

In the United States, where the ban on compensated live-organ donation originated, black markets undoubtedly exist. Any time demand far exceeds supply, surreptitious payments will


\textsuperscript{33} \textit{Id.}

change hands in underground markets. In that respect, we can expect the United States to be typical of many other nations, although illegal sellers in the United States likely make more for their organs than indigent Indians. However, a rapidly expanding grey market alternative may dent the black market - the practice of paired organ exchange. A simplified paired exchange involves two individuals, A and B. Both need an organ, but their spouse and family are not compatible matches - they have no living-related transplant options. However, one of A’s family members matches B, and one of B’s family members matches A. Thus, A’s family donates a kidney to B and B’s family donates a kidney to A. Formerly, without living-related matches, both individuals would be out of luck, and have to wait on a donor list until an outside donor materializes. All too often, a donor does not emerge quickly enough - an average of twelve people die each day waiting for a kidney transplant. With paired exchange, patients are generally able to find a living-unrelated donor quicker than if they had waited on the list. Doctors and donor networks have begun orchestrating complicated, multi-party procedures, involving complex matching between as many as a half-dozen patients.

One of the most complicated paired exchange procedures, a five-way kidney swap - took place at Johns Hopkins Comprehensive Transplant Center on November 20th, 2006. Twelve surgeons, eleven anesthesiologists, and eighteen nurses in six different operating rooms saved five lives at the same time. The Government has repeatedly considered whether such procedures fall under the general prohibition of the NOTA, finally taking the position that paired exchange is allowed under current law. On its face, the law appears to prohibit paired exchange. The term “paired exchange” itself suggests that the procedure involves more than mere charity, but

35 Alliance for Paired Donation
actually some sort of transaction. It implies that neither party is giving anything away, but rather trading commodities, which the statute apparently seeks to prevent.

Further, section (c)(2), defining “valuable consideration” appears to prohibit paired exchange, since “consideration” has historically encompassed a relatively broad array of concepts, not limited to mere currency. Under the common law, “consideration” has been defined as “…some right, interest, profit, or benefit accruing to the one party or some forbearance, detriment, loss, or responsibility give, suffered, or undertaken by the other.” Under such a definition, paired exchange seems to be illegal since the recipient of the organ could certainly be viewed as receiving a “benefit” or “interest,” and the donor could be viewed as suffering a “loss” or “detriment.” However, the statute does not simply say “consideration,” it says “valuable consideration,” implying that the Congress intended to apply something more than the common law definition. In fact, the preface “valuable” must imply some sort of monetization, otherwise the definition would be redundant. If we simplify the common law definition of consideration as “something valuable,” the statutory phrase “valuable consideration” would become “valuable something valuable.” Accordingly, the phrase only makes sense if we assume that it implies the commercialization or monetization of a human organ.

The government, after much vacillation, finally concluded that paired exchange does not violate NOTA. A recent advisory decision rendered by the United States Department of Justice (DOJ), *Legality of Alternative Organ Donation Practices under 42 U.S.C. § 274e,* concludes that the law “does not apply to a Paired Exchange because [the procedure] does not involve the buying or selling of a kidney or otherwise commercialize the transfer of kidneys.” The DOJ also

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37 *Currie v. Misa*, LR 10 Exch. 153 (1875).
found that the title of the statute - *Prohibition of Organ Purchases* - suggested that the Congress intended to prohibit organ-for-money exchanges, rather than organ-for-organ exchanges.\textsuperscript{39} In other words, NOTA prohibits *commercialization* of organs, not *commoditization* of organs. Organs clearly have immense value to recipients. So long as that value is not translated into dollar figures, organ exchange methods do not run afoul of federal law.

Partly due to the ambiguous legal status of paired exchange, as of the beginning of 2008, U.S. surgeons performed a total of 251 paired exchange transplants.\textsuperscript{40} However, the relative paucity of the procedure is not solely a product of its legal status. Even though paired-exchange seems like a potentially effective method to increase kidney supply, it is fraught with logistical problems that limits its contribution. Matching donors and recipients requires doctors to plug factors such as histocompatibility, sensitization, and blood-type into a complex matrix. Computer programs scour paired-exchange transplant databases searching for compatible donor-recipient pairs.\textsuperscript{41} After that lengthy process, there is still the risk that a donor may back out before donating after his affiliated recipient receives an organ. To counter this risk, currently all paired-exchange operations are performed simultaneously, requiring complicated, time-consuming communication efforts between doctors and hospitals. These complications make it unlikely that paired-exchange will ever raise the kidney supply enough to dissolve the waiting list. Even optimistic projections predict that paired exchange would only eliminate around a thousand names from the ever-growing list.\textsuperscript{42} Still, its method of increasing supply while

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{39} *INS v. Nat’l Ctr. for Immigrants’ Rights* established that “the title of a statute...can aid in resolving an ambiguity in the legislation’s text.”
\item \textsuperscript{40} http://www.hopkinsmedicine.org/transplant/Programs/InKTP/kidneypaireddonation.html.
\item \textsuperscript{41} *Id.*
\end{itemize}
\end{footnotesize}
largely avoiding the ethical issues that plague organ markets suggests it is worth comparing with black and white market models, and potentially incorporating in a new, holistic model.

_The White Market: The Iranian Experiment with State-Regulated Organ Markets_

A filthy sign on a Tehran street reads “Association of Kidney Patients.” It is one of twenty-three such “Dialysis and Transplant Patient Association” clinics found across the nation, one of only two nations in the world with legal kidney sales. Iran created a compensated, living-unrelated renal transplant program in 1988. Since then, around 1400 Iranians each year have walked through the kidney clinic doors, navigated the maze of tests and bureaucracy, and left about $3000 richer and 120-160 grams lighter. The money is hardly automatic; many would-be donors are rejected for medical reasons, or because they fall outside the 23-34 year-old acceptable donor range, and they have to find other ways to make much-needed money. Even though Iran ranks in the top twenty-five countries with regard to per capita GDP, some estimates put poverty in Iran as high as 40 percent. Many of the potential sellers lining up at the clinic doors each morning are those hoping to escape poverty. Over eighty percent of sellers are from a poor socioeconomic class. The promise of around $1200 from the Iranian government, and an additional gift - negotiable, but currently about $2000 - from the recipient of the organ is enough to convince them to part with their organ.

The government of Iran decided to legalize and regulate kidney sales in 1988, after chronic shortages in the country - of both organs and doctors qualified to transplant them - began

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45 See Supra, note 41.
to exact an increasing burden on the government and its constituents.\textsuperscript{46} Previously, Iran had experimented with a system that reimbursed Iranians who went abroad - along with living-related donors - for renal transplants. That system proved too expensive to maintain, and did not succeed in adequately increasing the supply of kidneys. Once the government began allowing kidney sales, the supply of kidneys skyrocketed; kidneys from living-unrelated donors now constitute about 80\% of the supply of kidneys in Iran.\textsuperscript{47} Would-be donors and recipients undergo a barrage of psychological and clinical evaluations; those who qualify are referred to transplant teams and government officials who arrange payment terms with both parties. Interestingly, and in stark contrast with illegal markets in India and other countries, males make up the vast majority of living-unrelated donors - over 90\%.

The government also subsidizes immunosuppressive drugs, surgery, and recovery costs.

A 2007 documentary, \textit{Iranian Kidney Bargain Sale}, captured the controlled chaos that constitutes the state-regulated kidney market. The film tracks several sellers and buyers as they meander through the process of pricing and selling their own flesh. One young woman, Sohaila, reveals she must sell her kidney to pay off a loan and avoid imprisonment. She works fourteen hours per day to support her two younger sisters, but still cannot pay the bills. She sought loans but was encouraged to consider prostituting herself instead to earn money. She would rather sell a kidney.

Another potential donor, twenty-three year-old Mehrdad has come to the clinic to resolve an escalating set of problems. A few months earlier, without his knowledge, his wife visited the clinic and underwent tests to see if she would make an appropriate donor. The couple had been in debt since Mehrdad lost his job the previous year. During the battery of tests, Mehrdad’s wife

\textsuperscript{46} Id.
\textsuperscript{47} Id.
failed one critical test - the Beta test - and was disqualified from donating. Not only did this mean that the couple had another £160 to pay off - the price of the testing - but it meant that she was pregnant, another unexpected expense. Now, Mehrdad visited the clinic hoping to make enough money to pay off his debts and fund an abortion for his wife - a significant added cost since abortions in Iran are illegal and drugs and doctors to perform the procedure must be procured at some expense from the black market. For these two, as well as most others in front of the dirty counter in the dingy office, this is their last resort. One man’s face falls when he learns that both he and his wife are beyond the maximum age, thirty-four, for selling a kidney. As the man pleads with the state employee, she asks, “Why do you want to do this? Is there no other solution?” “No,” he responds, “we wouldn’t be here otherwise.” Even those who pass the battery of tests and qualify to sell their kidney are not entirely satisfied. One man, irate, shouts “The price is ridiculous! I’m not selling lamb stew!”

The transplants seem to work well for the recipients. Mehrdad’s recipient, Shiva, recovered and returned to work at a photo shop. Said, who received Sohaila’s kidney, also returned to health and became a student. The sellers, however, did not fare as well. Mehrdad paid his debts and bought a taxi with his earnings. However, his car was destroyed in an accident, and he was unemployed and back in debt at the end of the documentary. Sohaila was able to pay her creditors and avoid imprisonment, but she lost her job and moved into the poorest slum in Tehran with her sisters. Many have criticized the legal market in Iran for this reason, arguing that many donors sell kidneys to solve money problems, and improve their situation in the short-term, but are rarely able to improve their long-term socioeconomic status. Transplant doctors Ghods and Savaj from Tehran’s Iran University of Medical Sciences have found this
argument to be unpersuasive, arguing that social incentives may supplement financial incentives to increase donor satisfaction:

[P]roviding adequate financial incentives to kidney donors and awarding some social benefits to them will eliminate almost all long-term dissatisfaction...The only social benefit awarded to Iranian kidney donors is health insurance. Providing more legal and social benefits to paid kidney donors, in addition to financial incentives, will satisfy them better in the long term.\textsuperscript{48}

Although Iran’s system still faces criticism regarding the price of kidneys in its legal market and the lack of extra-financial incentives, the system has proven to be extraordinarily successful at increasing the supply of kidneys:

[T]he number of renal transplants performed substantially increased such that in 1999, the renal transplant waiting list was completely eliminated. By the end of 2005, a total of 19,609 renal transplants were performed (3,421 from living related, 15,356 from living-unrelated and 823 from deceased donors)...Currently, Iran has no renal transplant waiting lists, and [more than] 50% of patients with [End Stage Renal Disease] in the country are living with a functioning graft.\textsuperscript{49}

In other words, where altruism failed, financial compensation has succeeded. The vibrant legal market has completely unraveled any illegal commercial transplantation of organs existing in Iran before 1988. Compensated donors and recipients no longer face broker price markups or endure transplant operations at the hands of marginally qualified surgeons in substandard facilities. Further, recipients of organs from living-unrelated donors enjoy better medical outcomes than deceased-donor transplant recipients, and the same outcome as living-related transplants.\textsuperscript{50} Individuals with End Stage Renal Disease (ESRD) without family, or lacking transplant-viable family members, have access to

\textsuperscript{48} See Supra, note 41.
\textsuperscript{49} Id.
\textsuperscript{50} See Supra, note 7.
organs, thus reinforcing that their lives have the same value as those with more extensive families. It seems that despite lingering issues such as what price to assign to kidneys, and how to protect compensated donors after the procedure, Iranians still value human life the same as before the market’s creation, and the same as other countries. The poor have not been picked clean of organs, commoditized, or taken advantage of - which have all clearly proven to be problems in nations prohibiting organ sales, because of the lack of regulation of black markets.

Still, despite data from Iran suggesting that a legal organ market can increase supply while preserving human dignity, nations around the world facing increasing organ shortages have chosen to maintain prohibitions on compensated live-organ donation. Latent protectionist ideas linger, despite evidence that the poor are worse off under prohibition, not to mention the fact that a hundreds of ESRD sufferers around the world die each day waiting for a kidney while billions of people walk around with a spare kidney. At this point, the ethical arguments start to unravel, since artificially decreasing the supply of life-saving organs may hardly be said to reinforce the value of human life.

_Social Norms, Market Norms, and a Proposal for Accord_

These observations about the various markets for human kidneys raise questions about the basis for banning compensated live organ donation. If promoting a market for healthcare is commonly considered to reinforce the value of human life and health, why would a certain sector of healthcare - organ transplantation - be an exception to this rule? If both black and white markets primarily draw organ supply from those who are down on their luck, but white markets
provide higher compensation as well as better facilities and aftercare, why do market-opponents still argue that legalizing organ sales would harm the poor? The answer may be found not in medicine or even ethics, but rather, social science. Imagine a hypothetical. It’s Christmas Day. You pack your family into the minivan and head over to your in-laws’ house for Christmas dinner. As soon as you open the door, delicious smells waft before your nostril - honey ham, sweet potatoes, and pies - you know it’s going to be a fantastic meal. The dinner doesn’t let you down. After the meal, you sit, fat and happy with your arm around your wife and a pleasant warmth in your belly. “Mother,” you say aloud, “what a pleasant meal. I haven’t eaten that well in a long while.” With that, you pull out your wallet, rifle through your bills, and pull out two-hundred dollars. “That should about cover it,” you say, “fifty bucks for each of us.” Your mother-in-law gasps, cousins and uncles snicker with disbelief, and your wife’s jaw drops. You have just committed a relational faux pas, you have mixed social norms and market norms, thereby insulting your poor mother-in-law. Although you have compensated her with a quantity of money you feel adequately rewards her labor, you have cheapened the meal. She would have been far happier with a thank-you, a hug, and a promise to return next year.

Dan Ariely posed a similar hypothetical in *Predictably Irrational*,51 in order to demonstrate the stark divide between social and market norms. Social norms are those sensibilities we absorb through social interaction, parental guidance, and personal experience: the voice in our head that keeps us from constantly offending others in society. We open doors for strangers, take in the mail for our neighbor, and expect that one day, the favor may be returned, but we don’t require instantaneous payback. Market norms are all about money: price, salary, interest, investments. We have learned that people will pay more for items they value more. Scarcity also generally raises price. We are all familiar with navigating the different

worlds of social and market norms; we generally know which transactions belong in which world and act accordingly. For example, one would not leave money on his wife’s nightstand after a romantic tryst, just as one would not expect a prostitute to provide one “on the house.” Such commingling of social and market norms causes problems.

It turns out, social norms are easy to circumvent. Putting a miniscule distance between cash and a good or service takes us outside the market norm, and puts us back in the social norm. In reality, cash is still being exchanged for the good, but we don’t feel that is the case. When we stop and think, we can still find a barely disguised cash-for-good transaction, but the righteous indignation does not surface. The transaction feels less offensive, or even inoffensive. It dissolves our repugnance.

Ariely details an experiment he conducted to examine the nexus between market and social norms. He designed a computer program allowing experiment-subjects to drag a circle icon into a square icon; they were instructed to drag as many circles as possible into the square in a given time period. Some users were paid $5 for the exercise, some were paid $1, and some were asked to perform the task without remuneration. At the end of the exercise, the $5 and uncompensated groups performed about equally, while the $1 group lagged significantly behind. Ariely explains that the compensated groups were operating under market norms, in which higher price justifies greater effort. The uncompensated group was operating under social norms, performing the task as a favor to the experimenter. Then, Ariely modified the experiment, replacing the $5, $1, and $0 rewards with a box of chocolates worth $5, a candy bar worth $1, and nothing. This time, all three groups performed about equally on the task. Simply replacing the cash with a proxy - candy - moved the experiment subjects away from market norms into social norms.
The results of Ariely’s experiment should not be surprising; there are plenty of examples of cash-proxies in the real world that move us away from market norms and take our minds off the money we are spending. Consider casino chips: Would you be as willing to put down a twenty-dollar bet when you have to count out twenty one-dollar bills, or plunk down a single twenty-dollar chip? Similarly, Disneyland has Disney Dollars that visitors to the park may purchase with U.S. Currency. Instead of looking at a grim Ulysses S. Grant when visitors pull out their wallets at the souvenir shop, they see an overjoyed cartoon mouse. The cash-proxy effect may also be partly responsible for irresponsible spending on consumer credit cards. Swiping a plastic card makes the expenditure seem less “real” than a cash transaction.

With that in mind, consider now for an instant, a variation on the earlier hypothetical. Suppose instead of pulling out a wad of cash for your mother-in-law, you offer to reciprocate and invite her for a home-cooked meal at your house. This does not violate social norms; in all likelihood, she will gladly accept your offer. Suppose, however, you are not a good cook, but you still want to return the favor. Instead of offering cash or a home-cooked meal, you invite your mother-in-law to join you for a meal at your favorite restaurant. Does this violate social norms? Would you expect your mother-in-law to be angry or insulted? This latter variation likely would not offend her sensibilities as much as the cash-for-food example, yet is that not exactly what is happening? There is only the smallest distinction: you are not rewarding her hospitality with money, you are rewarding her with a meal, which just happens to cost money. You are, in essence, offering her a gift - one with a sublimated price, true, but a gift nonetheless; just as in Ariely’s candy experiment, this corresponds with social norms, and does not evoke the reaction that would result from a move into market norms.
The Medium of Exchange Paradigm

As should be obvious at this point, the hypotheticals in the preceding section correspond to the different markets for human organs. The first represents a straightforward, white or black market organ transaction, where cash is exchanged for organs. The second represents the grey market mode of transaction, paired exchange, where more-or-less fungible goods are exchanged. Finally, the third example corresponds to an entirely new archetype - the medium-of-exchange paradigm. By creating a medium-of-exchange for human organs, we could essentially allow them to be bought and sold without moving into market norms and risking that feeling that we are somehow devaluing human life. The medium-of-exchange could take the form of a kidney credit that would entitle the holder of the credit to obtain one human kidney from a living donor. There would be two ways to obtain a kidney credit: one could purchase a kidney credit for a set price, say $25,000, or one could donate a kidney and receive a kidney credit in return. A central agency would control the supply and distribution of kidneys and kidney credits. There is no markup between donor and recipient: the central kidney agency charges the same amount for kidney credits that it paid a donor for a kidney. This would combine the best parts of the paired-exchange method and the supply-benefits of an open-market, while staying away from market norms where ethical objections may arise. No money would ever be exchanged for a kidney - only for a kidney credit.

It may help to consider a potential scenario. Consider an individual who needs a kidney, but has no compatible family member or friend. He has three options. He may proceed through the traditional altruistic donor process and try to convince a compatible relative or friend to donate a kidney straight-up. Or, if he has no compatible relative or friend, he may convince one of his friends to donate a kidney to the central agency and supply him with the kidney credit he
receives as compensation for his donation. If he has no friends or relatives at all, or has them but
prefers not to impose on them, he may purchase a kidney credit for $25,000 and exchange it for a
kidney. None of these methods has a direct kidney-for-cash transaction. The recipient is, in
essence, offering “dinner on me,” in exchange for the “home-cooked dinner” that he received: a
kidney. Separating the cash from the organ, even by one level, would likely dissipate much of
the visceral reaction experienced by ethical objectors to organ sales. The kidney credit would be
the “box of chocolate” between cash and human flesh that rids us of the repugnance that
currently stands in the way of raising the supply of much-needed organs.

Under this system, individuals could even donate more kidneys than they actually have: a
$100,000 donation to the central kidney agency could furnish kidneys to four poor patients who
could not afford a kidney on their own. If a particularly altruistic individual wanted to donate a
kidney to a stranger, he could supply a kidney to the central agency, and his kidney would go to
an ESRD patient in need. In fact, his donation would be amplified: after donating his kidney, he
would receive a kidney credit, which he could then provide to someone else, thereby saving two
lives. Finally, the medium-of-exchange system also provides the right incentives to donors and
recipients. Consider another potential scenario. Your brother needs a kidney and you are a
compatible match, but you are scared to donate in case you develop a condition later that would
lead to the destruction of your other kidney. Under the kidney credit system, your worries would
be salved, because after donating your kidney to your brother, you could hold your kidney credit
in case of future need.

Moving Forward with a Medium-of-Exchange Program
Understanding that opposition to open organ-markets comes from repugnance, rather than a failure to see the potential for gains from trade, has provided a more pragmatic basis for discussing the situation. We have seen that illegal markets disproportionately harm the poor and uneducated, and primarily put profits in the pockets of brokers, rather than the individuals donating organs. Legal markets improve treatment for patient and donor, and generally remunerate donors better than black market transactions, but visceral distaste for direct commercialization of organs has led to near-universal bans on compensated live-organ donation. The newly-legitimized method of paired-exchange promises to dent the waiting list somewhat, but attendant logistical problems and its reliance on purely altruistic donation limit its potential. Creating a medium-of-exchange will largely solve the problem of repugnance obstructing the creation of a market for human organs, while providing the benefit of an increased, sustainable organ supply. Altruistic donation will still exist, and uncompensated donors will still provide organs to friends and family. Those without compatible friends and family will not have to wait on a list for years waiting for a kind stranger to offer them an organ - something that has happened precious few times since the first living donation in 1954. Paired exchanges will also still take place, with relatives or friends of patients donating kidneys, receiving kidney credits, and passing them along to the patient to exchange for an organ.

In order to address fears of exploitation of the poor and further incentivize donation, those who donate organs may be rewarded with social benefits such as life-insurance or health insurance. Hopefully, in time, economic development and medical and technological innovation will render this issue moot. All the hotly-disputed supply-side arguments and problems will disappear if the demand for transplant organs disappears because science discovers how to cure the multitude of problems that necessitate organ transplants. Until then, however, a system

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implementing a medium-of-exchange can increase organ supply while avoiding ethical problems by staying away from any direct currency-for-organ exchange. Kidney credits can mimic the relatively inoffensive grey market model of paired-exchange, with the additional benefit of increased incentives for organ donation and protections for donors. Particularly altruistic donors may simply destroy or maintain their kidney credits. Other donors may give their kidney credits to family members, friends, or strangers in need of an organ. Some others may choose to sell their kidney credit, and give someone else the benefit of increased life expectancy and a higher quality of life, while securing a healthy payment to improve their own lives, start savings accounts, or provide for their families. Regardless of their choice for disposing of their kidney credit, they ensure at least one life is saved, at a minimum cost to human dignity.