Facilitating Organ Transplants in Egypt: An Analysis of Doctors' Discourse

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A recognition of brain death and the procurement of organs from both brain-dead and non-beating heart cadavers – 'non-living'/deceased/cadaveric donors[1] – advocated by transplant professionals has met relatively little resistance throughout much of the West (Lock, 2002). In many Middle Eastern and Muslim societies these issues have provoked distinct discourses and responses. Although living donors constitute the vast majority of organ supplies where transplant programs exist in these regions, there is generally established legislation that also enables the procurement of organs from non-living donors. In Egypt, however, there is no federal policy on transplantation, and no national procurement and distribution system. Yet legal restrictions exist to prohibit the procurement of organs from non-living donors. This eliminates the possibility of donations of organs and tissues that are procured only from the non-living and renders living donors the only source for organs, mainly kidneys and partial livers, for transplant.[2] Patients in need of transplants and their doctors are thus left with narrower alternatives for managing 'scarcities'. Despite prohibitions against paid or 'gifted' donorship, the majority of living donors in Egypt are not related to the respective recipients

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(Barsoum and Bakr, 2000) but are solicited, recruited and promised compensation. One publication indicates that procurement of organs from non-related donors, or commercial living donation for transplants, is widely practiced, ranging from 75 percent in the early 1990s to closer to half by the turn of the century (Barsoum and Bakr, 2000). Doctors in this study, however, consistently indicated that commercial living donation constitutes at least 90 percent of organ donation for transplants.[3]

The literature on the trafficking of humans for organs has provided invaluable insight into this growing and exploitative enterprise and the grave consequences for its victims – both living and non-living (Abouna, 1993, 2003; Budiani, 2005, 2006; Budiani and Shibly, 2006; Cohen, 2002; Daar, 1989, 1991, 2001; Goyal et al., 2002; Rizvi et al., 2003; Scheper-Hughes, 2000, 2002a, 2002b; Shaheen et al., 2001; Zargooshi, 2001). It has illuminated the global extent of this trade by mapping organ trafficking and its flow from periphery to core, South to North, poor to rich (Suarez-Orozco, 2000), as well as highlighting 'race, class, and gender inequalities and injustices in the acquisition, harvesting and distribution of organs' (Scheper-Hughes, 2002a). The global organ trade has also made apparent the harsh reality of this global economic split – namely, that developed countries with brain-death donorship programs tend to have waiting lists of recipients while, due to abject poverty, some developing countries with a transplant system have lists of ready and willing living donors.

In its global scope and interrogation of key players, however, much of this literature has also relied upon certain oversimplifications. These include a depiction of recipients as wealthy and donors as poor, and an image of doctors involved in transplants as a global homogeneous profession of criminals, 'organ snatchers', organ 'mafia' and 'vultures' (Jiménez and Scheper-Hughes, 2002), collectively involved in the business of trade and brokering of organs for financial gain from the bodies of the subaltern, subjugated and powerless. While it goes undisputed that living unrelated donors are probably universally poor, studies have also documented cases of poor recipients, for example in Yemen (Kangas, 2002: 71–2) and Iran (Ghods et al., 2001).[4]

While cases abound in which a depiction of profit-seeking doctors involved in organ trafficking is legitimate, the literature on organ marketing and its construct of doctors has also tended to be less concerned with doctors' roles as advocates for suffering patients, seekers of ethical solutions, and agents of their specific cultural and social contexts. In the case of Egypt, one must ask: What could doctors advocate to their patients and to society more broadly regarding organ transplants? What do they actually think, do and say about it?

By presenting doctors' discourses as they were presented to me, I do not intend to further privilege doctors, give them more sympathy than patients/recipients

or to diminish the donor's burden and sacrifice – particularly that of the most vulnerable persons and their bodies – or make use of anthropological knowledge 'at the service of the power brokers themselves' (Scheper-Hughes, 1990: 190). Subaltern voices and concerns, and the participation of some doctors in the enterprise of marketing organs, led me to examine their discourse (Budiani, 2005).[5] Doctors' responses – their varied, contested and shared thoughts on this subject – demonstrate the complexity of the situation, beyond either just a donor or recipient perspective on the transplant equation. This study addresses the question: how do central actors, such as doctors, create, negotiate, resist, participate in and reproduce processes that commodify the body in the case of commercialized transplants?

By documenting and contextualizing the broader socio-cultural framework of transplants in the context of which unrelated donors and recipients meet one another; where labs (rather than transplant doctors) play the primary role as the direct broker between donors and recipients; and there is a reliance upon multiple levels of disregard about payments for organs – this article provides a locally specific ethnographic account, according to doctors in Egypt. While their narratives provoke thought on fascinating debates regarding capitalism, globalization, Islamicization and modernization, this article focuses on the 'nexus' of religion and biomedicine (cf. Inhorn, 2003), as well as political-economic issues and broad socio-cultural notions of life and death that their discourse presents. I have organized the sections of this article according to these themes, and the various aspects of the debate about transplants that emerge within them. Egyptian doctors' voices are multiple, nuanced, in negotiation with an ethical and religiously based morality as well as financial and other incentives in their medical practice. They illustrate the complexity of this issue and the difficult choices it presents amidst local sensibilities, particularly within the context of Egypt. Thus, in the global phenomenon of trafficking of human organs, we must ask how doctors are situated and examine their choices, and the choices of their patients, when Western biotechnology is imported into 'local moral worlds' (Kleinman, 1992).

Methodology

This article presents the results of an ongoing study on organ transplants in Egypt which began in 1999. I rely on approximately 50 in-depth interviews (many of which have been ongoing) and a questionnaire answered by 150 Egyptian doctors from a variety of institutions of employment, stages of medical training and areas of specialization – with special attention to those whose specializations directly involve declarations of death and organ transplants (i.e. critical care specialists, anesthesiologists, urologists, nephrologists, hepatologists,

cardio-thoracic surgeons, neurologists, neurosurgeons). The average age in this sample is 42 years old and 83 percent of the participants are male. As medical training is in English in Egypt, the questionnaire was in English and interviews were conducted in English and Egyptian Colloquial Arabic. While this research was primarily conducted out of two main hospitals – one of which is among the largest public hospitals in the Middle East, and the other one of the elite of private hospitals in Egypt – participants also included doctors from a variety of other clinical settings, including the hospital associated with the leading religious university in the Middle East, a military hospital and other specialized, private and public hospitals, all located in Cairo. Because a systematic distribution and collection of questionnaires was difficult to administer, as there were few means of meeting doctors collectively, I also employed a snowball technique,[6] in which questionnaires were distributed among and between doctors. Thus the results from the questionnaires represent a convenient, rather than a representative, sample. In addition to in-depth interviews, I observed doctors in their everyday practice with patients, as well as preparing for, managing and performing procedures such as vascular access surgeries, dialysis, and renal and liver transplant surgeries in various settings.

Situating the Discourse

In addition to the legal structure, these questions are situated within the Egyptian epidemiological context and the demand for those organs which are permitted to be transplanted via living donors, namely kidneys and liver. Largely because of infection due to inadequate sterilization techniques during medical therapies (particularly for anti-schistosomiasis injection treatments and blood transfusions), Egypt is reported to have the world's highest prevalence of Hepatitis C.[7] Accordingly, and in addition to other contributing factors, Egypt's rate of liver failure ranks amongst the world's highest. Similarly, hypertension, diabetes, renal cystic diseases, bilharzial strictures, glomerulonephritis schistosomiasis, and post-obstructive atrophy after surgical procedures, contribute to Egypt's exceptionally high rates of chronic and end-stage renal disease (ESRD) (ESN [Egyptian Society of Nephrology], 1996). As a result of these conditions, there is a significant and growing demand among Egyptians, rich and poor, who hope to receive a liver or kidney graft.

The affliction of these organ-failure conditions is situated within the framework of the Egyptian health care system. This system is pluralistic, with extensive public health programs, yet the private sector provides the majority – and an increasing proportion – of health services. Private care requires mostly out-of-pocket

household spending. This burden on households is greater than in any other country in the MENA (Middle East and North Africa) region, with the exception of Yemen (Gericke, 2004). Thus, there exists a huge disparity in financial access to care. There is some subsidization for transplants in public or semi-public hospitals, and some assistance for those government employees who receive national insurance benefits. Subsidization never includes the sums paid to a commercial living donor, however. Depending on the center and specialists involved in the surgery, the total cost for a kidney transplant ranges between 40,000 and 70,000 LE (Egyptian pounds, i.e. US $7272–12,727). Conversely, in private settings, a kidney transplant ranges between 80,000 and 90,000 LE (US $14,545–16,363). The price paid to a commercial living donor for a kidney ranges between 10,000 and 20,000 LE (US $1818–3636). The total cost for a liver transplant, still largely conducted in private settings, is approximately 300,000 LE (US $54,545).[8] The price paid to a commercial living donor for a partial liver is difficult to assess, but living liver donors have reported receiving around three or four times what is paid for a kidney donation (Budiani, 2006). Estimates of numbers of transplants conducted are difficult to obtain, but range between 500 and 1000 kidney transplants per year, and 90 liver transplants per year.[9]

In light of the absence of a national distribution system for organs, and apart from a minority of patients who utilize matching related donors, patients' ability to afford the surgery and the market prices for organs are the major organ distribution mechanisms. Thus recipients largely consist of middle- and upper-class patients, or occasional lower-class patients who go to great lengths (often by collecting funds from extended family members) to afford a transplant. Further data about recipients as well as donors is still scarce, but one study conducted in a private transplant center in Cairo indicates that the age of the average recipient is 49 years, and approximately 60 percent of recipients are male, whereas the average donor age is 33 years and donors are 95 percent male (Budiani, 2006). In this situation there are increasing numbers of desperate patients with few alternatives (either as a real or 'invented' scarcity), and both they and the doctors who advocate on their behalf often take extreme measures in utilizing donors in order to preserve and extend patients' lives.

Religion

'We Egyptians are a very religious people and, unlike other frameworks of ethics in the West, we maintain our religious guidance in our medical practice', a professor of anesthesiology explains. Religion is central to all aspects of life in Egypt and, particularly since the late 1980s, has gained increased importance

across social classes and in the private and public lives of many Egyptians (Inhorn, 2003). Islam is the official religion of Egypt and the majority of Egyptians are Sunni Muslim, with a significant minority of Christians – most of whom subscribe to Coptic Orthodox Christianity. In this study, 90 percent of the participating doctors said that their opinions are informed by Islam while 10 percent cited Christianity. As there is little notion of secularity in Egypt, religion is also a central aspect in doctors' everyday medical practice, including their discourse about organ transplants.

Religion was a central theme in almost every interview that I conducted, and included concepts about religious authority, correct religious practice and attitudes towards death, the treatment of the body and consent. The majority (72 percent) of doctors who participated in the study believed that organ transplants should occur in Egypt (11 percent said they should not and 7 percent said that it depends). Regardless of their responses or individual religious identity, 76 percent of all respondents said that religion matters most in shaping their various opinions about organ transplants.[10] Thus, as with other biomedical technologies, doctors' discourse about organ transplants is situated within a religiously based moral system, particularly compared to the Western world, where organized religion has exerted comparatively less influence over the practices of biomedicine (Inhorn, 2003). A Muslim Egyptian doctor defends a line of reasoning which combines science with that of religion:

> It seems that when we talk about religion, somehow there is an impression that . . . we who have faith are some sort of narrow-minded people who would somehow stand against reason or defy reason because of our beliefs. It is not like this. If you track down [religious] explanations on transplants, you find that they are very strong reasons.

One of the foremost concerns in doctors' discourse is whether or not the harvesting and transplanting of organs is religiously permitted or forbidden. Like other Egyptians, many doctors cite official statements of their respective religious authority – either Christian or Muslim – for religious guidance in their practice. Christian doctors often refer to the statements of Pope Shenouda III, head of the Coptic Orthodox Church, that the procurement of organs from living and non-living donors for transplant is religiously permitted as long as a sale is not involved. A central authority or hierarchically organized clergy does not exist in Islam as it does for Christianity, and the issue of organ transplants has been something of a contested issue in recent decades among Islamic clerics in Egypt. *Fatawa*, formal Islamic legal guidelines and opinions, are issued by Islamic scholars and based on the Qu'ran (the Islamic holy book), the *Hadith* (the collected sayings of the Prophet Muhammed) and the *Sunna* (his tradition). In issuing *fatawa*, the various schools of jurisprudence differ in the extent to

which they allow independent legal judgment, and in the premises upon which judgment is made.

Nonetheless, amidst debate among Islamic scholars internationally, *fatawa* have been generally favorable to the donation of organs for transplant from both living and non-living donors. As transplant surgeries became more widely practiced, especially in the 1980s, regional policy-makers aimed to standardize policies on transplant in Arab countries within a framework of Islamic thought. In response to the World Health Assembly resolution WHA 40.13, the 12th session of the Council of Arab Ministers of Health, meeting in Khartoum in March 1987, devised the Unified Arab Draft Law on Human Organ Transplants, which states that: 'Specialist physicians may perform surgical operations to transplant organs from a living or dead person to another person for the purpose of maintaining life, according to the conditions and procedures laid down in this law' (cited in Daar, 1991: 2505). That law also addresses the subject of organ sales and indicates that the sale, purchase or remunerated donation of organs is prohibited, and no specialist may perform a transplant operation if he knows the organ to have been acquired by such means.

In Egypt, the home of Al-Azhar mosque and university – which is one of the most influential institutions in the Muslim world in terms of Sunni Islamic thought – various Islamic leaders have presented divergent views. For example, the late Sheikh Mohamed Mutwali al-Sharawi, a popular leader frequently seen on television throughout the Muslim world, condemned the transplant of human organs as a misuse of our bodies, which belong to God, and an attempt to change God's will. However, the Grand Sheikh of Al-Azhar mosque and university, Sheikh Mohamed Sayed Tantawi, actively condones the procedure as a final resort and is known for publicly consenting to the donation of his own organs for transplant in the event of his death. Sheikh Tantawi issued a *fatwa* in 1988 which sanctioned organ transplants from (unsolicited) living donors and from non-living donors who provided prior consent for the purpose of saving another life or helping someone recover from illness. Tantawi's declaration supports the Egyptian government's request to Parliament – in response to the concern of doctors and patients troubled by the lack of available organs – to draft a law spelling out the circumstances under which organ transplants would be permitted.

Thus, despite some resistance, a consensus has been gaining momentum among Egyptian Islamic authorities towards permitting transplants – including from non-living donors. Regardless of the conditional approval of the highest religious authorities in Egypt, many draft laws regulating organ transplants have failed to be enacted in the People's Assembly.[11] Thus, in the absence of federal policies that address living donorship, religious authority and the national Medical/Doctors'

Syndicate (the authority that issues a license for each transplant in Egypt) provide the framework within which doctors, patients and donors maneuver to supply a solution for these patients.

In addition to their biomedical training, Egyptian doctors regard 'religious correctness' as central to their medical practice, and religious and biomedical categories are interdependent in their discourse. For those who said that Christianity shapes their opinion, all thought that transplants are religiously permitted if certain conditions are met, including consent and that donorship is non-commercial. While many Muslim doctors express their adherence to *fatawa* issued by religious authority, some are skeptical about the authenticity of this authority and instead rely on the guidelines of Islamic scholars who play less of a public or official role. As one Muslim doctor, known by his colleagues to be very religiously oriented in his personal life and practice, explains:

> Normally what is *halal* and *haram* gets determined by the Grand Mufti and others appointed by the state. I and many Egyptians don't favor following politically influenced religious leaders.

Thus, the contested viewpoints of Islamic authority are also reflected in doctors' own varied opinions and discourse; of those doctor participants in the questionnaire who said that Islam shapes their opinion about organ transplants, 41 percent said that they think that transplants are Islamically *halal* (permitted), 10 percent said they think they are Islamically *haram* (forbidden) and 41 percent said that it depends.

'Organ Transplants are Halal*' and its Conditions*

A urologist who performs approximately one renal transplant per week asserts:

> Some people think that there are religious barriers and I don't agree. The majority of religious leaders support it [transplantation] as evidenced by legislation by Islamic organizations in Saudi Arabia, Kuwait, Iran, and Jordan, etc. . . . Egyptian people are really shaped by religious debate. . . . Some organizations and the media must explain the usefulness of transplants, which can be good for getting people to accept it.

Besides holding their own convictions about the religious permissibility of organ transplants, doctors who think this way also emphasize the importance of convincing the Egyptian public – including their patients – that transplants are *halal*. Many doctors explain that they consult *fatawa* and personally meet with religious leaders who conclude that procuring organs from living donors for transplant is permitted, on the condition that it will help save the recipient's life, that it does not harm the living donor, that money is not transferred between the donor and recipient, and that appropriate prior consent is obtained from – and proper diagnosis of death is made for – non-living donors. Doctors respond to these criteria in a variety of ways.

While doctors rarely cite the scarcity of longitudinal studies on donors after donation, many doctors speak of the safety of donorship from a healthy donor and the extent to which they go to ensure this. In the case of kidneys, Egyptian urologists and nephrologists, like these specialists elsewhere, emphasize that healthy adults can live well with less than one functioning kidney and that donors are providing the gift of life through donation. Similarly, doctors who advocate liver transplants, both Egyptians and others, emphasize that a healthy person can live with 40 percent of their liver tissue and that no more than 60 percent of the liver is procured from the donor. Thus doctors who advocate that organ transplants are *halal* highlight the safety and low risk of donorship from healthy donors.

Because of the socio-economic class disparities that characterize the Egyptian population, doctors who find it difficult to dismiss the reality of financial 'gifting' to donors resolve the troublesome nature of their role in several ways. Some speak of their requirement that they must be personally convinced that donors are related to recipients, donating voluntarily and without financial benefit. Although this may be difficult to assess, these doctors explain that they pose a series of questions to try to determine this, and they hold to the principle of denying transplants to those recipients and donors who don't seem to meet such requirements.

Other doctors refer to what they say is an Islamic concept of not asking about matters when they suspect that they will feel bad about the answer. A professor of urology states: 'A *mufti* [religious cleric] told us that it is not our business to ask if a donor receives money.' These doctors also suggest that the related/unrelated dichotomy does not solve the problem of money being paid for an organ. As large financial discrepancies exist within families, doctors explained that they often witness poorer relatives donating an organ to wealthier ones, and that the donor's economic well-being noticeably improved after donation. In many such cases, doctors claim that inquiry into the terms of a licensed donation agreement between parties is difficult and not their responsibility. A surgeon elaborates:

> . . . we took the decision at our hospital to not investigate if donors and recipients are related. We must only get the license each time. . . . It just can't be our concern when even related donors may have an exchange of money for an organ. We just need the license. After all, we are doctors, not social workers.

Still other doctors, those who advocate transplants and have difficulty dismissing the often obvious and transparent financial payment to donors, tend to stress the *halal* character of non-living donorship in their commitment to abide by the procedures of declaring death as outlined by Islamic authorities. In Egypt, a former Grand Mufti of the Republic Sheikh Nasr Raid Wassel and the Grand Sheikh of Al-Azhar, Mohamed Hussein Tantawi, declared that the verification of

the death of the donor requires a team of doctors to declare that the brain stem is dead and/or the heart has stopped beating. This, and the donor's written consent or approval by a member of the immediate family, are the preconditions for organ procurement.

Egyptian doctors who are strong advocates of 'non-living' donorship, a minority among those included in this study, stress their confidence and conviction about the concept and diagnosis of brain death, and tend to be the most vocal in the media and in the People's Assembly (*Majlis al-Shaab*). They often blame resistance from society and religious authority for valuing the sanctity of the dead over the quality of life of the living. In their campaign to pass legislation on the procurement of organs from non-living donors, they stress that this source of organs would decrease the demand for living donors, especially from non-relatives, and would solve the problem of commercial organ donations.

Responses to the questionnaire in this study indicate that only 17 percent of the doctors who participated said they thought that organs should be procured from cadavers without beating hearts, and 24 percent said they should be procured from brain-dead donors. The majority, however – 74 percent for kidney and 57 percent in the case of the liver – said that donorship should be primarily from living donors. The preference for living-related over either type of non-living donorship suggests that many Egyptian doctors are ill at ease with the concept of procurement from non-living donors. A professor of urology explains:

> . . . *muftis* say that transplant is allowed. The bigger disagreement is amongst us doctors. Definitions of death are largely left to medical personnel, who disagree amongst ourselves about the concept, so nothing is resolved adequately.

Doctors' responses were similar when asked about the extent to which they would be involved in such procurement themselves – 25 percent said they would procure kidney(s) from brain-dead donors and 18 percent said they would do so for the liver. In discussing this further, some doctors who said they would procure from brain-dead donors who gave prior consent, detailed further conditions of their involvement. One of Egypt's most prominent cardio-thoracic surgeons, Dr Yahia Balba, explains that he would procure or endorse the procurement of non-vital organs or tissues (i.e. a kidney, corneas, etc.) from brain-dead donors, rather than organs or tissues that would end life as a direct result of the procurement (e.g. hearts, heart valves, etc.).[12] Another doctor similarly states: 'I would procure on the condition that it does not cause the end of life. In such cases, I would consider the donor as a consenting living donor who was otherwise just not healthy.'[13]

Thus, doctors who speak of organ transplants as *halal* provide multiple ways of explaining their opinion – from those who must be convinced that donors and recipients are related and in a seemingly fair agreement, to those who remove themselves from involvement in recipient–donor relations, to those who advocate the alternative of non-living donorship. Even doctors who agree in their advocacy of transplants based on religious convictions vary in their opinions and reasoning. Furthermore, each demonstrates the complex relationship between religion and biomedicine that shapes their thinking.

'*Organ Transplants are* Haram'

> No surgeon of transplant really feels comfortable with the idea of doing them. Since Islamic texts pre-date biomedicine's ability to perform transplants, there are no detailed instructions for us within Islam. When we and our professors speak to *mufti*s at Dar Al-Iftah (House of *Fatawas*), they say that it is *halal*, but it leaves so much up to the doctors that we are not certain about.

An assistant lecturer and doctor of urology who is skeptical of *fatawa* which declare organ transplants to be *halal*, asserts that uncertainties within biomedicine almost always prevent them being *halal*.[14] Almost all doctors concur with religious authority as to the *haram* nature of buying and selling organs for transplant (at least in discourse), but few (10 percent in this study) said they thought that transplants are forbidden entirely. Most of these doctors, like this urologist, are not convinced that they and other doctors can adequately rely on biomedicine to satisfy religious criteria for making transplants *halal* – whether it be to ensure that donors will not be harmed, put at risk or paid; or that the recipient will adequately benefit from the transplant; or that brain death can be determined with certainty.

Dr Safwat Lutfi, professor of anesthesiology at Cairo University and head of Egypt's Society on Medical Ethics, is the most vocal critic in the media and People's Assembly of this position. Dr Lutfi relies on religion as well as biomedicine to support his argument against transplants in all circumstances. He concurs with Islamic authorities that oppose transplants and refers to an Islamic principle, that 'preventing harm is better than bringing benefits'. Dr Lutfi argues:

> Many doctors and others deny that we do not know enough of how transplants affect living donors in the long term. I ask: does Allah give us two kidneys so that one should be like a spare tire? Taking one deprives a donor of half of their renal function. How can we say that we are sure that this will not harm the donor later in life? Those who endorse this do not follow donors long-term to know their outcomes well enough, so how can we play that role?

Amidst heated debates, doctors have engaged one another with questions of what they would do if confronted with the situation of needing an organ or tissue. Dr Lutfi's opponents often accuse him of rejecting transplants because he has had

the good fortune of not having had to deal with the issue for himself or a loved one, and say that he would soon change his mind if in need of an organ or tissue. In this study, 58 percent of doctors said that, if they were in need, they would rely on a living relative, 19 percent said they would seek an unrelated donor, 15 percent said they would travel abroad for a donor (living or non-living) and 18 percent said they would refuse to become a recipient. Clearly Dr Lutfi puts himself in this final category, as do others who argue that transplants are *haram*. When asked how he would handle making a therapeutic decision in the unfortunate case that he should need an organ, Dr Lutfi replies:

> I would never resort to receiving an organ, nor would many Egyptians, because it is what is said to us in the Holy Qu'ran – do no harm to another brother in humanity. This means that I will not take an organ from my family or buy for myself, from a poor person, and take from his life to harm himself and his family. I will seek other forms of treatment like renal dialysis.

Thus, these doctors speak of the various conditions that make transplants *haram*, including a concern for the harm that procurement may cause donors, the sanctity of life and of death, and a fear of Allah's condemnation of their participation.

In sum, religion is a central theme in doctors' discourse on transplants. Yet the reliance of religious criteria upon biomedical premises and most biomedical practitioners' desires to adhere to religious guidance (whether from government-appointed religious authorities or not) demonstrates the interdependence of religion and biomedicine in doctors' discourse. Indeed, while many doctors insist that transplants are *halal* and others insist equally vehemently that they are or may be *haram* – both employ religious and biomedical frameworks to justify their positions.

Biomedicine

Claims about the *halal* or *haram* character of transplants described in the preceding section stand in stark contrast to the arguments of those doctors who call for biomedicine to prescribe rulings on transplants. An anesthesiologist asserts:

> . . . if religious authorities don't agree that brain death constitutes death, then it is only because they are not informed medically and we doctors must educate them. Medicine has made many advances that religious clerics must advance with.

What biomedicine would 'teach' religious authorities, however, is not always clear when biomedical authorities, namely doctors, don't necessarily agree amongst themselves on an appropriate prescription. Like Islam, biomedicine itself is employed in discourse in order to defend various positions. A key divisive premise amongst doctors is the extent to which they hold in high regard – or are

skeptical about – the utility of biomedicine and its limitations, in this case, as it relates to transplants.

Veneration of Biomedicine

> We in Egypt are a center of science, culture, and Al-Azhar. We have long been an important leader in medicine in our region for our strength in medical training and specialized procedures. Yet we remain stagnated because a few voices claim that the transfer of organs or tissues from the dead to the living is *haram*. This denies many thousands of patients a remedy or cure by claiming to protect the dead.

A doctor of liver disease here reveals his veneration for biomedicine and his confidence in the benefits it awards patients via transplant, while discussing the subject at Cairo's oldest teaching hospital. He continues that, 'the United States and Europe conduct exceptional research and transplants that are well organized via national coordination agencies'. Not unlike medical professionals elsewhere, many Egyptian doctors cite achievements in medical science in the West and a desire to 'keep up' with them in order to provide medical procedures such as transplants to Egyptians, albeit within the religiously and socially specific framework of their own society. Many of them have trained and worked abroad, primarily in North America, Europe and throughout the Persian Gulf states, and voice frustration that Egypt is not fully maintaining its medical leadership in the region in such procedures due to prohibitions regarding donorship from the non-living. Dr Hamdy Al-Sayed, head of the Doctors' Syndicate argues that:

> It is very unfair that we have had no legislation regulating organ transplants so far. We are miles behind the world. At least 80 countries have legalized organ transplants [from brain-dead donors], including such conservative Islamic countries as Saudi Arabia. (Shahine, 1999)

Egyptian doctors in this camp, like their counterparts elsewhere, insist that transplantation is often the optimal treatment goal for most patients in need of an organ or tissue. An Egyptian urologist explains that 'a kidney transplant markedly improves the quality of life and has less long-run complications. It also has better results when done prior to long-term dialysis.'

As described in the previous section on doctors' religious perspectives on transplants, advocates for transplants differ in their ideas about appropriate donorship. Thus, amidst those who highlight the value that biomedicine contributes to patients in need of an organ or tissue, are the majority of doctors who are reluctant about non-living donorship and instead emphasize the medical advantages of living donorship. They are well versed in the better results for recipients of transplant via living donorship; its distinct benefits include reduced preservation times, better allograft function and improved long-term allograft survival. They

also cite the success of transplants from living donors from various leading Egyptian centers and argue that, as a result of the shortage of cadaver donor organs abroad, living donor transplants are undergoing a marked resurgence internationally in recent years (although they do mention that a major reason for this resurgence is the exploitation of poor donors).

Thus, advocates of transplants from living and non-living donors also take pride in Egypt's achievements in transplants, and its long history of being a leader in science and medicine within the region. They tend to emphasize the medical miracle of the procedure, with confidence in many aspects of biomedicine's capabilities – and the way that their successes have helped recruit patients throughout the region to receive transplants in Egypt.

Biomedicine's Limitations

Amidst enthusiasm for the pioneering achievements of biomedicine in transplants are also (biomedical professional) critics who voice heavy skepticism about transplants – both in terms of their implications for donors as well as their benefits to recipients. In so doing, these doctors emphasize the limitations of biomedicine – regarding its ability to determine brain death reliably as well as its supposed benefits for recipients and claims of minimal risk or harm to donors.

One Muslim internist cited medical uncertainties about brain-stem death within medical literature regarding the validity of instruments for diagnosing brain death. He also described this unreliability in terms of the variations of criteria for brain death amongst countries, making it possible to be brain dead in one country and not in another.

Dr Lutfi is also among those doctors who highlight the limitations of biomedical doctors' ability to determine death.

> How can we play the role of determining death? Allah creates people and gives life and the soul that provides vitality and the warmth of life – very important because not just chemical processes. Biomedicine thinks that it can point to an indicator when life is lost, such as brain-stem injury, even when almost all other expressions of life are intact [heartbeat, metabolic processes]. Even a pregnant woman with brain-stem injury can carry her fetus to full term and give birth to normal children by caesarean section. If someone can give life can we really say they are dead? These are matters to be left to Allah, not doctors or legislators.[15]

In a story published in a popular Egyptian newspaper, Dr Lutfi further elaborates:

> 'Those patients who fulfill the criteria of brain death show different signs of life.'. . . 'A clinically dead person', he added, 'can still retain normal reflexes against stimuli – for instance, an increase in heart rate and a rise in blood pressure. This is why clinically dead patients must receive full anesthesia before their organs are removed. . . . All these facts prove that a clinically dead patient is not dead but is only dying.' (in Shahine, 1999)

In their concern for recipients, these doctors argue that transplant does not cure an organ failure problem but rather just replaces one type of illness with another. One surgeon says, 'transplants are not really a form of healing because the graft does not cure but just presents new types of ailments'. Immunosuppressant drugs that recipients must continue for life make them more susceptible to other diseases and thus their health condition is still said to be frail. Skeptics thus indicate limitations of biomedicine, as well as the limitations of their role as biomedical actors and their desire to do God's will. As noted in the section on religion, doctors who are skeptical about the benefits of biomedicine are also less willing to claim that living donorship is 'risk free'. Hence, the biomedical professionals in this study have not themselves reached a consensus, by virtue of their training and profession, with regard to biomedicine's success with organ transplants.

Political Economy of Transplants

While Egyptian doctors foreground matters of religion and biomedicine in their discourse, they also address the extent to which transplants are intricately embedded within the political-economic framework and its specificity for the case of Egypt.

Consistent with global trends in health care, the Egyptian health care system is increasingly privatized and specialized – creating a vast public–private dichotomy in quality and types of services. Advanced care and procedures such as transplant surgeries are thus framed within a situation where the majority of Egyptians struggle to receive adequate primary care. Many end-stage renal-failure patients in this developing world context are also unable to receive adequate dialysis services due to insufficient numbers of dialysis centers and their geographical distribution.[16] As discussed, the acquisition of organs from non-relatives is a clear privilege of those who can afford them in Egypt, while those who cannot must rely on a willing and matching relative or other therapeutic routes. Concern over the political-economic dimensions of organ transplants within Egyptian doctors' discourse ranged from advocates of transplants emphasizing the cost-effectiveness of transplants and overlooking unrelated donorship, to those who were concerned about the implications for transplants of the markedly class-stratified Egyptian society.

Advocates of the Cost Benefits of Transplants

Doctors who advocate organ transplants in Egypt often emphasize their cost-effectiveness, particularly in relation to the costs of therapies such as dialysis in

the case of renal failure. They explain that, in the public health care setting, dialysis costs an average of 85 LE (US $15.5) per session and between 150 and 200 LE (US $27–36) or more per session in a private setting. Advocates elaborate that, in the case of public care, with an average of three dialysis sessions per week, over two years dialysis would cost approximately 25,500 LE (US $4590). They compare this to the cost of a renal transplant, not considering the cost of a purchased kidney and recipients' life-long drug requirements post-transplant. Essentially, these doctors suggest that the one large lump sum cost of transplants is cheaper than many years of dialysis, and emphasize the importance of such savings for a relatively poor country like Egypt.

Doctors of the Mansoura Urological Center say that 85 percent of the transplant services in this center are government funded. One Mansoura doctor explains that 'it is a very good example that in Egypt we have the ability – technically, ethically, administratively and financially, to be able to do this'. Thus, while such reasoning seeks to illustrate the ability of the government to afford these operations, and to show that they are cheaper than other therapeutic routes such as dialysis, the lack of adequate primary care provided to the majority of Egyptians is left out of the picture.

Many doctors who advocate transplants in Egypt also often diminish or dismiss the fact that organs are bought and sold in Egypt, at least to a significant extent, when discussing their political-economic considerations. As mentioned, some doctors suggest that the establishment of a cadaveric transplant program is the key solution to the problem of marketed organs (as well as for those who have no suitable or willing relatives). These doctors, and others, also advocate strictly limiting living donations to first- and second-degree relatives, in order to ensure that no money is exchanged. Until then, doctors who favor transplants because of their cost-effectiveness and other benefits often suggest that, since the incidence of end-stage renal failure is high and Egypt does not currently have the capacity to treat all of these patients, priority should go to those with related donors.

Critics of the Political-Economic Inequalities of Transplants

In contrast to those advocates for transplants who highlight the economic advantages and tend to dismiss concerns over the exploitation of the poor and vulnerable as a source of organs, are those few doctors in this study who foreground class concerns in their discourse on transplants, given the marked class-stratification of Egyptian society. These doctors argue that the combination of poverty and a high black market price for organs can present conditions in which the poor may be lured into donation for the prospects it presents of enhancing or uplifting their 'quality of life'.

A few doctors in this camp also address the systems of denial that operate to facilitate the marketing of organs. One surgeon explains:

> Non-related donors sign an agreement denying that they took money and that they are doing it out of the kindness of their hearts. They and the recipients do all this to satisfy the Doctors' Syndicate, which closes its eyes to the deal since everything happens under the table. Doctors, who are often aware of these often obvious circumstances, also keep their eyes closed to it all.

These doctors argue that this and other inequities between those who can afford and those who cannot afford the costs, opportunities and care needed for transplants, clearly make concerns about political-economic considerations and exploitation central.

Doctors who oppose transplants and highlight political-economic problems also problematize the cost–benefit analysis put forward by proponents. They say that the cost of transplants compared with other forms of treatment – such as dialysis – for renal-failure patients, is offset by the high costs of post-transplant drugs that patients must continue to take long term. They explain that immunosuppressant drugs cost about 15,000–17,000 LE (US $2727–3090) per year. The government pays for these drugs for a maximum of three years, but they are needed for life and thus are not affordable for many Egyptians.

In sum, while many doctors foreground matters of religion and biomedicine in their discourse, others argue that, above all else, transplants as they occur in Egypt and elsewhere are overly determined by the political economy. One doctor critical of this context explains:

> Doctors involved with transplants profit from a referral system which provides them with commission payments at every stage. So how can it be ethical? Not in Egypt, not anywhere, it always ends up in abuse. Religion is being manipulated by other structures. Sheikhs [Islamic religious leaders] have lost credibility because of their loyalties to the government. It's not religion or any other single social element, but in the end it's all about the market.

Socio-cultural Conceptualizations of Life and Death as Considerations for Transplants

As with other societies with transplant programs, Egyptians' conceptualizations of death and life and the sanctity of the dead and of the living, are central to discussions of organ transplants in Egypt. While the prevailing literature on the marketing of human organs has tended to universalize the portrait of doctors by virtue of their shared biomedical training and privileged social status, it has often overlooked the extent to which doctors are also social actors, and their discourse and conceptualizations of death and life are strongly shaped by culture and local morals and sensibilities. In addition to the religious, biomedical and

political-economic considerations in Egyptian doctors' discourse about organ transplants, socio-cultural constructs about the living and the dead are also prominent and employed distinctly by the various perspectives on the debate.

Sanctity of the Dead /of Death

While sitting in a lobby outside the surgical theaters in one of Cairo's newest and most elite hospitals, staffed by Egypt's most highly trained doctors and full of state-of-the-art equipment, a professor of cardio-thoracic surgery explains:

> We have an ancient legacy in Egypt of the pharaohs building better tombs for the dead than homes for the living – thus there is a deep sense of protecting and sanctifying the dead in our culture. This is our culture and how we are different from many other Islamic countries.

Doctors describe Egyptians' concepts about death as resting on strong convictions about the sanctity of the dead body and the value of preserving it as a whole. Some of this has an Islamic basis which informs Muslims on the rituals of prompt cleansing, wrapping and burial of the deceased body, and discourages invasive measures such as embalming. Yet there are other sets of ideas and practices with a cultural basis apart from the teachings of Islam, that also emphasize preserving the integrity of the dead body.[17] For example, the importation of a cadaver for dissection during medical training is said to have 'provoked much antagonism, not only from the Ulemas [*sic*] but also from the students themselves' (in Fahmy, 2000: 20; also see Sonbol, 1991).[18]

Egyptian doctors in this study also spoke of popular resistance to performing autopsies for pathological or other medical investigations. The resistance to autopsy in Egypt demonstrates the value put on maintaining the integrity of the deceased body. Furthermore, Egyptians take additional measures to keep the body whole: it is common for families to request a limb after amputation and to retain it until the time of death in order to bury it with the person's body.

In addition to valuing the preservation of the wholeness of the body, doctors also identify the importance of emotion that Egyptians express about the loss of loved ones – either to brain-stem injury or non-beating heart death. An anesthesiologist explains: 'Egyptians do not think about medical science but of emotion. When we try to explain the concept of brain death, they ask: are they dead or not?' Although these expressions and uncertainties about what constitutes death are not uncommon elsewhere, they stand in stark contrast to Western and European societies with high rates of indicated consent for donation. Egyptian doctors mocked clichéd narratives of registered donors in the West who say, 'If I am dead or in a vegetative state, what good am I?'

While many doctors and their patients in the West are concerned with campaigns to increase consent for donorship from brain-dead and cadaveric

donors, as mentioned, most Egyptian doctors themselves express reluctance about procuring organs and tissues from non-living donors. As discussed, only about 25 percent of the doctors included in this study said they agreed with procuring a kidney and/or liver from the brain-dead, and only 25 and 18 percent (for kidney and liver respectively) said they would themselves be involved with procurement or a transplant from this source, and only 18 percent from non-beating heart cadavers. Thus doctors don't necessarily distinguish Egyptian popular conceptualizations from their own. A vascular surgeon explains:

> It is really difficult to explain brain death to families when the heart is beating and the body of their loved one is breathing – even the educated and high-class families. Even me as a doctor, I cannot accept it for my loved ones – it's just too emotional. It's why we don't have a good propagation of it here.

Another doctor continues:

> How can we determine if brain-stem injury means that there is no life when even doctors disagree? And how can we view their bodies as a source for organs for another and begin to cut into them for this purpose?

Thus, doctors' reluctance to dissect dying bodies for organs contrasts with the vulture image that has become common in some popular media on transplants, and in the literature on the marketing and trafficking of human organs. As mentioned, of those doctors who would involve themselves in the procurement of organs from brain-dead donors, several explained in interviews that they would do so only for non-vital or non-life-ending organs. Thus, in addition to emphasizing modern medicine's aim to sustain life, one doctor also criticizes its lack of commitment in doing so, and its disregard for the sanctity of the dead. He states, 'ancient Egyptians preserved organs and bodies. And now medical technology fails to value this.'

Sanctity of the Living/of Life

In the discourse that responds to notions of the sanctity of the dead with arguments for the sanctity of the living, there are those who emphasize the sanctity of life for the recipient and those who do the same for the donor.

Recipients

Doctors who advocate for their organ-failure patients are intimately familiar with their suffering as particular organs decline in function, and their narratives often document the stages and hardships of their patients. A young nephrologist describes his sympathy for a renal-failure patient:

> When we tell a patient they have renal failure – it is a catastrophe. An end-stage renal-failure patient is desperate and always very ill. Their options are hemodialysis or kidney transplant.

> Dialysis can keep them alive, but then they are tethered to a machine that filters their blood for three-hour sessions, three days a week. On dialysis, their diets must be restricted, and they feel sick many times as a result of toxins building up in their body. This all goes away with a transplant which gives them back their lives.

Some doctors, particularly specialists, who express sympathy for recipients may also express apathy or even hostility towards donors. When asked about the donor this same nephrologist continues, '[w]e follow the recipient – donors are poor, ignorant and non-compliant to follow-up studies. We suggest that they return for follow-up but they do not wish to participate. Many donors are drug users. Sometimes I hate the donor.' Because extremely few doctors who advocate transplants from living donors in Egypt can cite longitudinal studies on donors, my inquiries about this were often met with replies promoting procurement from brain-dead donors to avoid further abuse of non-related and other living donors as described above. One doctor of this opinion explains:

> Fewer renal grafts in the US are from living donors and liver donations from living persons are rare as the majority are from brain-dead donors. Here in Egypt, we put the living at further risk than we do the dead by being denied cadaveric donorship.

Thus, doctors who premise their narratives on valuing the sanctity of life over that of death and the dead, tend do so primarily by sympathizing with recipients (as their clients), by demonstrating apathy towards donors – whether living or not – and by the confidence they show about brain-death declarations.

Donors

Although the majority of doctors in this study prefer living donorship to non-living donorship, there are still a few who defend the concerns of living donors. Some of these suggest non-living donorship as a solution, while others reject transplants entirely. As discussed in preceding sections, critics of transplants – particularly from living donors – rely on various religious, biomedical and political-economic considerations in their argument. One such leading critic explains his position with broad socio-cultural notions of the value of life:

> Transplants from living donors should never be performed because of the sanctity of life and the body. This includes not even from a mother to her child. As doctors, our job is to preserve life – not harm it, use it as a resource for therapy or a commodity.

Several doctors who express a concern for living, and even non-living donors, and who share a broad criticism of transplants in Egypt suggest that, above all else, *mafish nizam fi Masr* (there is not a system in Egypt) for sufficiently administering the costs and ethical considerations of transplants. They elaborate that there is an absence of responsible coordination between and within various

sectors of the health care system, and an inadequate budget to cover the costs of such a program.

Conclusion

Egypt's reliance upon living donors for organs for transplant, stemming from a resistance to non-living donorship, has produced a complex situation that the Egyptian state and society are grappling to address. As central actors in transplants, doctors are likewise engaged in a complex discourse in which they must negotiate roles of patient advocacy within the national framework of options. Rather than representing a univocal consensus, they instead embody more nuanced cultural influences and tensions of the broader society, while also incorporating their unique perspectives from their backgrounds in medicine. Accordingly, Egyptian doctors' central considerations in their discourse include religion, biomedicine, political-economy, and socio-cultural notions of life and death in shaping their approach to facilitate transplants in Egypt.

The sobering reality of the commercialization of organs is one of the consequences of the context of transplants in Egypt, in which a large underclass is heavily relied upon to supply organs for those who can afford to purchase them. These practices persist, despite stipulations by religious authorities and the Doctors' Syndicate that prohibit this exploitation, in the absence of federal policies. Some doctors in Egypt are directly involved in elements of commercialized transplants and many profit from the transplant enterprise; most are involved through an awareness of the likelihood of financial gifting to the donor. They generally do not play the role of the broker, nor does their involvement tend to entail criminal acts as locally understood, since each transplant is performed under a license. Passivity, denial, lack of awareness, dismissal of inquiry into processes of exploitation, however, do not avert culpability. Transplants that occur in the absence of a national organs procurement and distribution system, in the context of a lack of state accountability, and of a reasonably equitable and fair health care system, even if practiced by the most responsible of doctors, 'can only represent an abomination, another form of violence' (Scheper-Hughes, n.d.).

Doctors' discourse provides a lens by which we critics of the commodification of the body for organs can frame our inquiry as to how actors such as doctors negotiate, make sense of, participate in, evade and resist these processes of commercialized transplants. Such an exploration enables us to further spin out the ways in which local sensibilities and moral worlds engage with global medical technologies via social actors, such as doctors, rather than rely on universalizing and reductionist depictions of these actors. The establishment of a national law

on transplants and a national system for organ and tissue distribution would address many of the ethical concerns in the present situation. Yet, in the absence of a system of institutionalized standards and accountability, we can also call upon doctors to further insist on the ethical imperative of the design and oversight of such a system in their facilitation of transplants in Egypt.

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Notes

1. This range of terms reveals social complexities around concepts of death. The term 'non-living' indicates a reticence of some societies about the distinction between non-heart beating and brain death. Alternatively, the terms 'cadaveric' and 'deceased' are commonly used in much of the West to include both non-heart beating and brain death. The US Institute of Medicine's recently published report on organ donation (2006), suggests the term 'deceased donation' as a more respectful term for families of deceased donors.

2. Organs and tissues that can be procured from brain-dead donors include the heart, heart valve, liver, kidney(s), pancreas, lungs and various other tissues; those that can be procured from non-beating heart cadavers include corneas and bone, and other various tissues. Doctors explained to me that there are rare occasions in Egypt when grafts from non-living donors are imported (e.g. heart valves), usually when a European surgical consultant is involved and brings them for a patient in Egypt.

3. In the case of Iran, however, the government pays living donors for a kidney, and approximately 76.7 percent (Ghods et al., 2001) to 94 percent (Zargooshi, 2001) of renal transplants are from non-related/commercial living donors.

4. Ghods et al. (2001) suggest that 50 percent of recipients in Iran are poor.

5. This article is a result of a broader study on health concerns of Sudanese and Somali asylum seekers in Cairo, Egypt, and their unanimously shared fears of organ theft while displaced in Cairo (Budiani, 2005).

6. This technique was largely carried out by participating professors of medicine among their colleagues, students and friends who worked in various settings. Distributors explained the nature of the study and ensured the anonymity of participants.

7. CDC (Centers for Disease Control, www.cdc.gov) reports that between 17 percent and 26 percent of the population in Egypt is infected with the Hepatitis C Virus (HCV). The prevalence is estimated to be significantly higher among medical professionals.

8. The high cost of liver transplants in Egypt has led increasing numbers of Egyptian patients to go to China for the operation in recent years, which may reduce the cost by approximately US $10,000 or more.

9. In a personal interview, Dr Hamdy Al-Sayed, the Director of the Medical Syndicate, stated that he estimates that approximately a third of kidney transplants in Egypt are conducted without a license, thus complicating the possibility of measuring the annual number of transplants and of assessing the safety and efficacy of these operations.

10. Other response choices to this question included 'biomedical considerations', 'ethical concerns for donor', 'ethical concerns for recipient' and 'other'. Instructions in this question requested participants to rank their choices in order of importance if they indicated more than one choice.

11. Legislators seem to share concerns with religious authorities about the unethical procurement of organs from non-living donors, such as improper consent, exploitation of the poor by the marketing of organs, as well as misdiagnosis of brain death and the difficulties of regulating transplants accordingly. In addition to several well-publicized scandals in the Egyptian press of doctors taking organs or tissues (particularly corneas) from non-living donors without proper consent procedures, there has also been a trend for wealthy patients from the Persian Gulf to come to Egypt for transplants from Egyptian living kidney donors arranged on a commercial basis.

12. Personal interview, Dar Al-Fuad Hospital, Cairo, March 2003.

13. This 'double effect' concept of a willingness to procure non-vital organs but a refusal to procure vital organs is not entirely foreign in the West and has in fact been institutionalized in various ways in American and European bioethics.

14. Hierarchies of doctors' institutional rankings are noteworthy in shaping their discourse. This doctor further explained that he assists his professors in performing renal transplants in his university-affiliated hospital, but that he will refuse to participate in transplants once he is further established in his career.

15. Personal interview, Dar Al-Fuad Hospital, Cairo, March 2003.

16. Chugh et al. (1999) argue that the economic conditions of dialysis in the developing world presents a situation in which most ESRD patients do not receive dialysis and, if they do, machines are often inadequately sanitized and patients' nutritional management is insufficient, resulting in frequent infections and thus worsening the overall condition of the patients. The authors further indicate that unrelated living donors are the primary resource of organs, that only about 3–10 percent of patients within the developing world manage to obtain renal transplants, and that 80 percent of these recipients are unable to afford the long-term immuno-suppression drug cyclosporine A after 6–12 months, resulting in acute rejection by about 10–15 percent and significantly shorter graft survival.

17. Bilgin (1999) generalizes the sanctity of the dead to the entire region, explaining that Middle Eastern and Asian countries have regarded and respected the dead as sacred beings for centuries. He cites a survey performed in a Turkish community which revealed that 43.8 percent of family refusals of donation were based on fear of disfigurement of the body, whereas 26.2 percent were religion-based (Bilgin et al., 1991).

18. In his account of the founding fathers and production of medical knowledge in Egypt, Fahmy quotes the words of Naguib Bey Mafhouz, the Sub-Dean of the Faculty of Medicine, describing the first anatomy lesson in Egypt in his book nearly a century after the event.

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