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Not quite dead: why Egyptian doctors refuse the diagnosis of death by neurological criteria

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Abstract Drawing on two years of ethnographic fieldwork in Egypt focused on organ transplantation, this paper examines the ways in which the "scientific" criteria of determining death in terms of brain function are contested by Egyptian doctors. Whereas in North American medical practice, the death of the "person" is associated with the cessation of brain function, in Egypt, any sign of biological life is evidence of the persistence, even if fleeting, of the soul. I argue that this difference does not exemplify an irresolvable culture clash but points to an unsettling aspect of cadaveric organ procurement that has emerged wherever organ transplantation is practiced. Further, I argue that a misdiagnosis of the problem, as one about "religious extremism" or a "civilizational clash," has obfuscated unresolved concerns about fairness, access, and justice within Egyptian medical spheres. This misdiagnosis has led to the suspension of a cadaveric procurement program for over 30 years, despite Egypt's pioneering efforts in kidney transplantation.

Keywords Brain death · Organ transplantation · Cadaveric procurement · Egypt · Islam · Religious ethics

Egypt was a pioneer in the Arab region in kidney transplantation, with the first successful human kidney transplant carried out in 1976 in the Nile Delta provincial city of Mansoura. Despite this initial success and its celebration in the national media, there were contentious debates among Egyptian legislators and physicians about whether and how to create a national program for organ procurement that impeded legal regulation for over three decades. Organ transplants thus proliferated

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in public and private hospitals in Egypt's major cities (Cairo and Alexandria) without a legal framework. By the mid-1980s, it had become abundantly clear to Egyptians via media outlets and newspapers that the vast majority of transplant operations transpired through the local sale of live-donor kidneys. Various investigative reports revealed the abundance of Egyptian "donors" willing to sell their kidneys, sufficiently desperate renal-failure patients ready to buy them, and doctors eager to play a role in (and profit from) this new medical practice. Physicians pushing for the initiation of a national cadaveric transplant program argued that those who opposed the procurement from "cadavers" were partly to blame for the proliferation of a black market in live-donor organs.

This article comes out of a larger project on the organ transplant debate in Egypt about which I conducted ethnographic research for two years in the cities of Cairo, Tanta, and Mansoura, in private and public hospitals, dialysis wards, and state institutions. In addition to participant-observation of daily medical practice, medical conferences, religious lessons, and patients' discussions in waiting rooms, I formally interviewed more than one hundred patients (those in need of kidneys or cornea grafts), sixteen religious scholars, and more than fifty physicians (including nephrologists, internists, intensive care specialists, and ophthalmologists) to gain wider insight into the medical and social context in which the organ transplant debate was taking place [1].[1] Egyptian society is comprised of nearly 90 % Sunni Muslims and 10 % religious Christian minorities, most of whom are Coptic Christian. Focusing on national debates about how to establish the correct "Egyptian" and "Muslim" view, my research traced the processes by which authoritative positions were put forth and evaluated by those with the most at stake—patients and clinicians. As such, my research offers insight into the lived experiences of patients and medical practitioners, which belies a cohesive or homogeneous field of "Islamic bioethics" [1].

In this piece, I will demonstrate that the larger rhetorical frame of a "clash of civilizations" between the West and the Muslim world, and the related perception of opposition between science and religion, led to a large-scale misdiagnosis of the obstacles standing in the way of implementing a national transplant program in Egypt. Media debates were generated in the Arab world that glossed anti-transplant sentiment along the lines of "Western ethics" versus "Islamic law." But the actual question that troubled medical practitioners and legislators in Egypt was whether a cadaveric procurement program could be established that would ensure protection for vulnerable people, equitable distribution of organs, fair access to treatment, and equal valuation of each and every patient's life. This question is particularly explosive in the contemporary Egyptian context in which medical practice is stratified along sharp class and geographical divisions and political and economic injustices are rampant.

Through my interviews with religious scholars and physicians in Egypt around the issue of procuring organs from heart-beating brain-dead patients, I demonstrate that

[1] The gathering of this research was done with the New York University Human Research Subjects ethics committee which evaluates proposals with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments. All subjects interviewed and observed gave their informed consent prior to inclusion in the study. I use the real names of published, public figures (e.g., Dr. Safwat Lotfy and Mufti Gad al-Haqq) but pseudonyms elsewhere to protect their confidentiality.

politically motivated rhetoric about "Western influence" versus "Muslim ethics" obfuscated unsettling concerns about justice in medical practice. More specifically, the practice of procuring vital human organs from brain-dead patients generates unease about curtailing one patient's life in order to extend another's. This unease has been documented by bioethicists, medical practitioners, and anthropologists in a number of cross-cultural settings, and remains a discomfiting aspect of organ transplantation wherever it is practiced. This article makes the case that as long as the problem of cadaveric procurement in Egypt remains misdiagnosed—as one specific to "Islam," a "culture clash," or "religious extremism"—more general, legitimate worries about the vulnerabilities of marginalized patients will remain unaddressed, further impeding the establishment of a properly running national program.

Patient mistrust and problems with justice

As my research around transplantation in Egypt demonstrated, poor patients have good reason to mistrust public health services. Particularly since the late 1970s, as greater resources, including the best medical talent, were poured into private hospitals, Egypt's state expenditure on health remained at a low 2 % of national GDP while out of pocket expenses, including among the poor, steadily increased [2, 3]. Although the poor presumably have universal access to health care, mistreatment is rampant in public hospitals, where poor patients can be examined and unreliably treated for nominal fees and disproportionately serve as the teaching subjects for medical students, interns, and residents. Further, poor patients are at greater risk for contracting illnesses that would necessitate organ and tissue replacement, many presenting with infectious diseases resulting from erratic access to potable water, crowded conditions, exposure to toxins via unsafe labor practices, and iatrogenic illness and injury in public hospitals [1]. Many editorials in Egypt's state-owned newspapers (*Al-Ahram* and *Al-Akhbar*) and, to a greater extent, in opposition newspapers, particularly since the 1990s, have asserted a link between pollution and kidney disease, which has increased at an alarming rate throughout Egypt in the past few decades. Investigative reporters on popular television, such as the satellite news program *Wahed Men al-Nas*, tend to follow stories linking laboratory results of unclean water in particular urban quarters, slums, and villages with high rates of kidney and liver disease. Such news programs provide compelling evidence to their viewers of the affliction of entire villages with kidney disease and agricultural lands poisoned by toxic waste, chemical fertilizers, and bungled sewage draining. These news reports both reflected and intensified widespread dissatisfaction with President Husni Mubarak's former regime by revealing how Egypt's citizens had been left exposed to toxins and vulnerable to substandard medical practices. Throughout my research, patients were particularly suspicious of eye and kidney specialists because of allegations of "eye theft" from the morgue and reports of the vibrant market in human kidneys. Through ethnographic research among hospital staff and Cairo prosecutors, I was able to confirm that the procurement of eye globes from the poor in public hospital morgues without patient or family consent was indeed commonplace from the mid-1980s to mid-1990s, after which the eye banks were

forced to shut down because of numerous complaints. Because public hospitals were unable to ensure proper treatment and respect for the dead, particularly among poor families, poor patients generally actively avoided the fate of dying in hospital, and family members were especially vigilant about how their dying or dead family members' bodies were to be treated. The environment of deep mistrust toward medical facilities set the stage for a legislative debate about transplantation in Egypt that lasted more than three decades and which has, to this day, failed to resolve basic questions about justice and fair medical access for the poor.

Patients whose brains stop functioning

Brain-dead patients—defined as those whose neurological activity has come to an irreversible end—are "betwixt and between." They are warm to the touch, yet unable to breathe spontaneously [4]. They appear to hover eerily between life and death, dependent on an assembly of machines, which also, in the case of the heart monitor, attest to their continuous heartbeat. Despite transplant surgeons' felt urgency to establish a cadaveric organ procurement program in Egypt, the more that clinicians studied and experienced the strange status of brain-dead patients, the more divided they became over what precisely to do with them. Meanwhile, government officials had long attempted to establish a transplant program in Egypt, to mark Egypt's "technological advancement" and to keep Egypt's elite patients' medical expenses from being spent abroad.

The state media asserted that "religious stringency" had become the chief obstacle to Egypt's national organ transplant program, and encouraged proponents of organ transplantation to convince muftīs and other Islamic scholars of the legitimacy of cadaveric procurement.[2] Yet to the chagrin of transplant proponents in Egypt, one of the major forces pushing against the medical community's efforts toward transplant legislation was not its religious authorities but, rather, another small group of doctors. Dr. Safwat Lotfy, a senior anesthesiologist and intensive care specialist from Cairo University Faculty of Medicine, had initiated a campaign to convince doctors and religious scholars about the "dangers" of accepting "brain-death" as a medical fact. In a personal interview, Lotfy explained to me how he became animated around this issue: he had been appalled upon learning about the

[2] A parallel effort was made in other Muslim Arab countries to "educate" muftis about the medical and scientific realities of brain death. One such effort was initiated by a physician who worked in an organ transplantation center in Kuwait. This physician, Dr. Al-Mousawi, sent a questionnaire to fifty senior religious scholars in Kuwait, Saudi Arabia, Iran, Egypt, Lebanon, and Oman to gauge their views on the permissibility of organ donation during life and after death, the removal of life support from brain-dead patients, and the buying and selling of organs. Twenty-nine (91 %) of the thirty-two who replied initially rejected the concept of brain death. Al-Mousawi then met personally with nine scholars to explain brain death to them (although he unfortunately does not elaborate on what this explanation entailed). Seven out of nine changed their views after this medical explanation. Al-Mousawi concluded on an optimistic note: his little experiment was evidence that proponents of transplant legislation could overcome the "religious obstacle" by merely "educating" religious scholars on the "true" medical meaning and clinical definition of brain death [5].

practice from European and North American medical journals.[3] But his real shock struck closer to home when he read that in 1992, Egyptian surgeons had performed transplant operations using organs from executed prisoners. It was clear to Lotfy that if organs were harvested in such situations, they were being done before what he considered to be "total death." Lotfy eventually formed a group that he called the Egyptian National Medical Ethics Committee (*al-Jama'iyya al-Misriyya li-l Akhlaqiyyat al-Tibiyya*) with the intention of lobbying against organ transplantation, a practice that Lotfy considered to be inhumane and unethical.[4]

Dr. Lotfy and his group generated a large number of reading materials on the issue, much of them from British medical journals, where debates over brain-death criteria are particularly pronounced within anesthesia, Lotfy's profession. He circulated pamphlets and flyers among his medical colleagues, the press, politicians, and Islamic scholars. In these pamphlets, Lotfy begins with seemingly religious premises, such as God's creation and ownership of human bodies. Lotfy then turns to medical knowledge about the insurmountable clinical problems associated with organ transplantation. For example, he points to the lack of any clear established way to prevent recipients from rejecting organs as foreign tissue without pharmaceutically "knocking out" the immune system. Lotfy describes this practice as doctors "giving the patients a form of 'artificial AIDS.'" He also argues that from a public health perspective, the cost of such expensive, technologically advanced interventions could be better channeled into preventative health measures, like cleaning up the water and land that had predisposed Egyptians to renal and liver failure in the first place.

In the pamphlets that Lotfy circulates and in the interview that I conducted with him, he makes four general points: (1) brain-death is an invention to facilitate organ procurement, not an objective biological process, and there are inconsistencies within medical practice about who and at what point neurological function has ceased; (2) in order to procure organs, physicians (in the West) have been hastening death in an act akin to murder; (3) there is always a small, lingering chance that a patient could regain brain function; (4) death should be sanctified, and dead bodies laid to rest without the procurement of organs.

Lotfy scoffed at the idea that official muftis should hold a monopoly on religious pronouncements, reflecting a more broadly held view among contemporary Egyptian professionals. Lotfy situated himself as a practitioner of "Islamic ethics," arguing that Muslims of conscience must stand against unethical practices begun in the secular, godless West. At the same time, Lotfy was little interested in the reasoning and evidence that muftīs and other scholars of Islamic jurisprudence have drawn upon to come to their conclusions. Indeed, Lotfy's own direct appeals to doctors, newspapers, and the Parliament bypassed the authority of the muftīs. In this

[3] The following information comes from two interviews with Safwat Lotfy in 2002 (conducted with anthropologist Debra Budiani), his pamphlets and reading material, and press coverage of him and his group.

[4] Their phrase "*al-akhlaqiyyat al-tibiyya*" is a literal translation of "medical ethics," a phrase that was not generally used or recognized by patients or journalists in debates in the media. In the Muslim Egyptian context, "ethics" is generally conceived of in terms of the correct thing to do from the perspective of Islamic jurisprudence (*fiqh*).

sense, he represents what political scientist Carrie Wickham has termed the "counter-elite" [6]. This shift became apparent in the mid-1980s, when the "Islamic trend" *(al-tiyar al-islami)* took control over professional associations such as the Medical Syndicate, transforming them from "elite institutions with relatively small, privileged memberships into mass institutions marked by sharp generational and class cleavages" [5]. Regarding the permissive official state fatwas on organ transplantation as untrustworthy and therefore irrelevant, Lotfy was personally against organ transplantation in *all* of its forms. Although there are some religious scholars in Egypt who also oppose any form of transplantation, this position is not held by the state institution for fatwa-giving in Egypt (*Dar al Ifta'*) and is considered extreme by most of the Egyptian physicians that I interviewed.[5]

A clash of deaths?

Unfortunately, Dr. Lotfy and other Muslim intellectuals who shared his views (e.g., the legal scholar Tariq al-Bishri [7]) did not link their own criticisms and questions about brain-death with similar criticisms coming from Western theorists. Lotfy's principal argument is that the concept of brain-death is merely an "invention" to facilitate organ transplantation and that the patients would not otherwise be labeled as dead. The historical circumstance to which he alludes—that death was redefined by an Ad Hoc medical committee at Harvard in 1968 in part to justify the procurement of organs—is, in fact, not contested among international bioethicists and historians. This historical non-coincidence has raised deep-rooted ambivalence about brain death among bioethicists and practicing physicians in North America and Western Europe as well. Yet Lotfy sensationalizes the problem of procurement of organs along a presumed eternal struggle between the Western and Muslim worlds. Those in the secular godless West, Lotfy implies, do not care about the status of the soul. "We as Muslims," he intimates, have higher ethical standards. By failing to recognize that his criticisms in fact match the voices of many critics in Euro-America, Lotfy's language perpetuates a dichotomous conception of the world, divided along a cultural clash between Euro-America and Muslim countries.

In Germany, for example, there have been heated debates about organ procurement from brain-dead patients [8]. Memories of the abuses of medical authority under National Socialism rendered all too apparent the historical connection between biomedicine and state violence that is elsewhere easily denied [8, 9]. In the early 1990s, many books were published in Germany voicing fears and criticism of organ harvesting from brain-dead patients, one of which reproduces an old German folktale as its frontispiece:[6]

[5] Most notably, the religious scholar in Egypt who took a stance against all forms of organ transplantation was the famous television figure Shaykh Muhammad Mutwalli al-Sha'rawi (see [1], particularly chapter 4, for an extensive discussion).

[6] Hof and der Schmitten cited in [10, p. 1]. Linda Hogle explains German physicians' reluctance to take part in tissue procurement in terms of "national memory." They are haunted, she argues, by memories of state violence and its links to biomedical practice.

A wolf approaches a herd of sheep.
"Do you know me?" says the wolf.
"I know your type," says a sheep.
The wolf explains that he is not a danger but a friend to sheep because he eats only dead sheep that are left to rot in the field. "I don't eat live sheep. Couldn't I just stay by the herd in case one of you dies?" he asks.
The sheep forbids him, saying, "An animal that eats dead sheep learns quickly out of hunger to see sick sheep as dead ones and then healthy ones as sick ones."

This fear of a "slippery slope" echoes the worries of people in Egypt. And such feelings of antipathy toward many medical practices that raise questions about "playing God" are common in other Western European and North American societies as well, as many ethnographers and social analysts have uncovered [4, 8, 12–17]. Despite Euro-American media images of organ transplantation as the manifestation of the "gift of life," fears, anxieties, and criticisms about the utilitarianism of organ procurement remain. In the United States as recently as the 1990s, ethicists reignited the debate about death after physicians widened the criteria of "dead donors" to include patients whose brains might still be functioning but whose hearts have stopped beating.

Yet figures such as Dr. Safwat Lotfy have placed their criticism in terms of a Muslim defense against Euro-American moral imperialism. The more practical and political questions about fair and equitable distribution of organs, or those about the problems of the "slippery slope" remain unresolved by the more sensationalist and distracting rhetoric about a culture clash. In Lotfy's attempts to delimit what "the Muslim" stance is, or should be, he relies on the modernist and nationalist goals of singularization, upon which the codification of laws and bioethical principles depends. This contributes to an anemic notion of both "Islamic" views and what "the West" stands for. In the United States and Western Europe, moral doubts (e.g., about changing gender roles or in attitudes about death) are often, in public rhetoric, streamlined in opposition to "cultural" attitudes in "traditional" places, including Muslim societies [11, p. 37]. Similarly, when people in other societies voice antipathy toward medical procedures like organ procurement, they explain their own stance in terms of "culture," such that similar feelings of antipathy from within the US dominant culture are rendered imperceptible.[7]

Lotfy's position about the ambiguity of brain death as a category and its use to justify organ procurement does, indeed, touch on something troubling in contemporary medical practice. Most Egyptian physicians did not believe that organ transplantation *in all forms* should be illegal (as did Lotfy), even if many of them held ambivalent positions about its more controversial permutations. Indeed, Lotfy's lobbying efforts had a palpable impact in the media, the Parliament, and among his medical colleagues and religious scholars. How did his views align with other practicing physicians in Egypt, in the midst of all this controversy and debate?

[7] This is also common practice in the clinical encounters of minorities in the U.S., whose questioning of medical treatment or diagnosis, if not pathologized, is often understood in terms of "cultural difference."

Encounters with brain-dead patients

Dr. Ahmad, the chief resident in anesthesiology and intensive care at a public hospital in Tanta, was an example of someone perplexed by brain-dead patients. With furrowed brow, Dr. Ahmad told me about his training in the ICU with patients on life support. He described the different attending physicians as battling out their moral positions, often to the confusion of the residents and to the detriment of the patients. "You see it a lot of times," Dr. Ahmad told me.

> A patient is brain-dead, on life support, and all of a sudden his heart stops. And the attending physician says, "Fast! Start CPR!"
>
> And you are about to, and then another attending physician says, "*Haram 'alayk!* [Shame on you!] Can't you see that he wants to die? Be merciful and let him die!"
>
> And the other one says, "*Haram 'alayk!* Don't just leave him there to die!" And you are left not knowing what to do.

Placing his shaking head between his hands, Dr. Ahmad said, "Even now, I still don't know the right thing to do."

As medical students, they had no problem accepting what they were taught in lectures, namely, that brain death is the total death of the individual and that this is a "technical, scientific matter." But upon clinical experience in the intensive care unit, several medical residents with whom I spoke, like Dr. Ahmad, felt ill-equipped to confront and settle ambiguous cases of patients who teeter on the border of life and death.

Dr. Ahmad encountered brain-dead patients in the Tanta hospital only as *living patients* and never as potential sources for organs. Even short of the question of organ procurement, a great deal of uncertainty and clinical inconsistency already exists in treating brain-dead patients in Egypt. Doctors have no clear consensus on whether they should remove patients from life support, whether they should initiate CPR when patients' mechanically assisted hearts stop beating, and whether CPR is a show of heroic persistence or an exercise in medical futility. Is it ultimately callous or more merciful to allow them to die? The possibility of using these patients as sources for organs has only exacerbated these dilemmas.

Dr. Ahmad's specialty as an anesthesiologist did not place him squarely in the debate about the passage of a law permitting organ harvesting. When I asked him if he thought these patients could ethically be sources for organs, he was unable to answer. In contrast, many of the physicians who did have a working relationship with transplantation—nephrologists, urologists, liver surgeons, vascular surgeons, and ophthalmologists—did not have much clinical experience with patients categorized as brain-dead. I spoke with several Egyptian physicians who had witnessed for the first time the procurement of organs from brain-dead patients during their fellowships abroad in Europe or in North America. These physicians had mixed reactions to what they had seen. One nephrologist-urologist working in Tanta University Hospital explained to me, in outrage, the way that brain-dead patients were treated in an American hospital where he had trained during his

fellowship: "Their hearts are still beating; they are still breathing. They don't turn off the machine. And they split him open and take from him what they want. They crack open the rib cage and pull out the heart while it is beating! *I seek refuge in God!* What do they think this is? A lamb to be slaughtered?! We treat our animals better than that!"

Another physician, a heart surgeon who worked for many years in Germany, told me that he too had been greatly disturbed when he observed the surgical procurement of the heart while it was still beating. He looked at me intently and told me that he was willing to swear before God that the soul of the person was still present in the brain-dead body. While working in the German hospital, he explained to his senior attending physicians that his religion prohibited him from participating in such operations. He was both surprised and relieved to find that his German colleagues respected his request to abstain from organ procurement.

Dr. Mustafa, an ophthalmologist, described what he witnessed while working abroad in a French hospital: "After they took all the organs and the machine was turned off, then they would also take the corneas. The first things they would take were the lungs, kidney, and the heart, *all before they turned off the machine*." When I asked him what he thought about this, he replied, "I think this is *haram,* because they should be really dead. In our religion we can't allow this, because the soul is still there. He is still breathing, and his heart is still beating. We can't say, 'Let's take him off now.' This issue is different in Egypt from what it is in Europe and the United States. For us, he has to be *really* dead."

For Dr. Mustafa, a different ontological understanding of the soul and death characterizes practice in Euro-American countries. But this was not the only difference. He also noted that the higher standard of care and cleaner environment in those countries had enabled brain-dead patients to survive long enough for it to be thinkable that their organs should be taken and used elsewhere:

> In Europe, they can leave him like that for up to six months. There the patients won't get bedsores or anything, because the nursing is so good. The standard of care is so high that they have the ability to keep them for that long…. They are very clever abroad in the ICU, so people who are brain-dead or in vegetative states can survive for a long time…. Here there is a lot of [environmental] stress, and the patient gets infections and dies quickly. We have a very, very, very small number of cases where the patients can live for months and up to one year in a coma. Because of the bad care and high rate of infection, the patients die. Abroad they can get people to live much longer, so they can use their organs for transplant.

Dr. Mustafa thus contrasted the relative wealth, resources, and sterile environment of European hospitals with the harsher conditions and "environmental stress" in Egyptian biomedical clinics, noting that this discrepancy bears important ethical implications for understanding the issue of brain death.

Indeed, ethnographic research has shown that North American intensive care specialists do worry about their brain-dead patients potentially existing for a prolonged period "on machines," in limbo, between life and death [4]. Those involved with organ procurement in North America have stated that being

definitively killed through organ procurement would be better than remaining technologically trapped for an indefinite period of time [4]. The fear of lingering near death and "on machines" is much less common in Egypt, in part because most people still die outside the hospital and because death is not as technologically or clinically managed [18]. For Dr. Mustafa, a scarcity of resources spares Egyptians from developing what he considers to be unethical practices toward end-of-life patients, because they are less likely to survive long enough for their organs to be harvested before complete (cardiopulmonary) death.

Bodies and souls

Lotfy and his group spread doubt among their medical colleagues, raising concerns about the category "brain death" by demonstrating that signs of biological life continue in brain-dead patients. This evidence was not denied by North American and British proponents of brain death, and indeed most of Lotfy's evidence came from North American and British medical journals. The key difference was the interpretation of these biological signs: whether or not they mean that the *person* is "still there." Lotfy assumed that self-evident signs of biological life indicated the presence of the person's soul. He argued that intensive care specialists in North America where this "new death" was "invented" have disingenuously called living patients "dead" in order to facilitate transplantation. In his view, transplantation, a lucrative medical specialty, can profit from dying people who will otherwise be a drain on resources. He saw North American transplant professionals as utilitarian, godless people who have perpetuated a lie—a lie that the "people of Islam" must stand against.

But from the perspective of medical anthropology, medical practitioners in these countries are not being deceitful about the patients being "actually" dead, because in their terms patients *are* dead. Comparative ethnography in North America and Western Europe shows that medical practitioners have come to see brain-dead patients as dead, not by denying signs of biological life, but by reinterpreting them. In Margaret Lock's study of thirty-two North American intensive care specialists, all recognized that the brain dead are in a sense still biologically alive. But they argue that the person is located in the brain, and thus the person, soul, or spirit is no longer present in a brain-dead individual, despite the continuance of biological life. Following what Lock has described as the Cartesian mind/body distinction permeating Western biomedicine, they argue that in a sense "two deaths" occur: first of the person, then of the body [4, p. 248].

Dr. Lotfy, in contrast, negated the possibility of a person existing separately from the functions of his or her anatomical body. The soul, in his conception, is what animates biological life. Thus, any sign of biological life is a sign of the presence, even if lingering, of the soul. The vast majority of Egyptian physicians, patients, and Islamic scholars with whom I spoke shared this understanding of the connections between life, soul, and body [19]. And, indeed, these more ambiguous views about the status of the soul and death have also persisted among lay people in North America. As anthropologist Lesley Sharp reports from her study in the United

States, surviving family members of dead donors have defined death as the moment of departure of the soul from the body, which, as in Egypt, is thought to coincide with biological death. Thus, family members in the US also talk of their loved ones "dying" at the moment that their organs are procured by surgeons, and not when their brains have stopped functioning [17].

US and European transplant procurement professionals have long assumed that such a confusing "betwixt and between" state will discourage surviving kin from consenting to donation. Consequently, like Dr. Al-Mousawi and other transplantation advocates in the Arab world, they have worked hard to stress that brain-dead patients are in fact dead and only seem alive. As Sharp's work shows, however, family members of patients in the United States have not always believed this [17]. Perhaps more surprisingly, they also have not necessarily let the idea that their loved ones are "not quite dead" prevent them from consenting to donation. This is partly explained by a general disinclination toward intensive technological management of death and fears that people will be "trapped indefinitely" in states between life and death through high-technological intervention. In this view, organ donation can help bring closure to the patient's suffering or to the family's liminal state between anxiety and grief, or to both, by finalizing an inevitable process toward death.

The official state mufti at the time, Shaykh Gad al-Haqq and Lotfy both argued, for different reasons, that brain-death criteria, far from being universally applicable, are based on godless disrespect toward human dignity and human life. Yet in the United States, where this "universal" medical practice was instantiated, it appears that far from being prompted by a disenchanted secularism, transplantation has been driven by the impetus to *sacralize* the dead, albeit in a different form. As anthropologist Lesley Sharp writes, the US transplant world is driven by paradoxes and "ideological disjunction" [17]. Sharp explains, "Whereas transplant recipients are encouraged by hospital staff to depersonalize their new organs and to speak of them in terms that can sometimes even approximate car repair, procurement staff regularly tell donor kin that transplantation enables the donor's essence to persist in others who are thereby offered a second chance at life" [17, p. 14]. In the United States, a major motivation of donor families has been to "make meaning" out of "senseless loss" or to "make good" come out of a sudden tragedy [4, 13, 17]. Procurement professionals in the United States have encouraged donor kin to imagine their lost loved ones as living on in donors, their life essence persisting in the bodies of strangers [17, 20].[8] Thoughts of "transcendence," more so than ideas of the materialist utility of dead bodies, have formed the overriding impetus for organ donation in the United States [4, 17, 20]. The restoration of meaning is located in the idea that a "freed soul" will, through an act of altruistic sacrifice, offer good to the world after tragic loss.

These notions of transcendence, or "recycling life," are muted in US medical discourse on transplantation, which presents itself as a secular science devoid of

[8] Sharp elsewhere writes, however, that "donor kin frequently and vehemently reject themes reminiscent of rebirth or of a transmigrated soul, particularly after death is declared, organ removed, and they return home to grieve their losses" [20, p. 114]. Sharp also notes ironically that transplantation in the US has relied on the contradictory narrative that is offered to the transplant recipient: that the received organ will not alter his/her sense of self, that it is merely a part and nothing more.

religion rather than as a re-articulation of religion in a different form. Notions of transcendence were also virtually unintelligible to the wide range of Egyptian patients, doctors, and religious scholars with whom I spoke. When I attempted to explain to them this motivation among American family members, many looked at me incredulously, telling me that it sounded more like Hinduism and reincarnation.

This does not mean that no Egyptian Muslim would ever agree with the notion of organ procurement from brain-dead patients. Those who argued for cadaveric procurement did so from the logic that the patient *was* truly dead, not that the patient's soul might be freed or recycled in the process. They believed that both body and soul must be dead and that it was the ventilator that was *deceptively* showing signs of biological life, much like the views of lay people and those without an intimate connection to organ donation in North America and Europe [4, 17]. In Egypt, people do not speak in terms of "making meaning" out of senseless loss or living on, in spirit, in the life of another. They argue instead that the donor will accrue spiritual rewards during his or her time in the grave between death and the Day of Judgment. Thus, while many physicians and legislators have pushed for a national organ transplant program in Egypt on the model of Western countries, they have offered in some instances parallel and in other instances divergent arguments to legitimate organ procurement from the brain dead [4, 17].

Conclusions

In contrast to North America and other Muslim countries, physicians and legislators in Egypt have been less successful in "reinventing a new death" [4] using the media. The United States, Canada, Saudi Arabia, Iran, Jordan, Kuwait, and other countries have passed laws that recognize brain-dead patients as dead, thus enabling organ procurement from cadaveric sources. But in Egypt, a national transplant program remained suspended from the time of the first kidney transplant in 1976 to the perfunctory passing of a law in April 2010, which has yet to put cadaveric procurement into practice. Legislators, legal theorists, religious scholars, and physicians continue to disagree about whether the death of the brain can legitimately and ethically be equated with the death of the person.[9] To the frustration of many proponents of organ transplantation, this impediment to national legislation has exacerbated the problem of an organ shortage and the related problem of a black market in organs from living donors. The policy implications have been considerable, given that tens of thousands of patients are in desperate need of kidneys, let alone other organs. Yet, this circumstance on its own has not been able to resolve the confusion that doctors experience when faced with the clinical realities of brain death.

Narrating the issue of defining death in terms of a "civilizational clash" has obfuscated the great antipathy that already exists toward medical intervention in death and dead bodies more generally in Egypt. Whether or not family members

[9] Lock has shown that in contrast to North America, where brain-death has elicited little public controversy, in Japan, also a technologically sophisticated, literate economic superpower, "'the brain-death problem,' as it is known there, has been the most contentious ethical debate in the last thirty years" [4, p. 3].

know the intricate details of these debates, concerns linger about the medical treatment of the dead and dying [1, 21]. No matter what religious and medical experts decide, it is unlikely that a substantial number of family members in Egypt—given the worsening state of the health care system—would knowingly and willingly allow loved ones in a state of brain death to be cut open, with their hearts still beating, for the removal and allocation of their organs to strangers. Death in Egypt is still not as technologically managed or rendered as invisible as it has been in places where brain death has been accepted medically. And death in Egypt is already understood as saturated with religious meaning, such that new meaning need not be assigned to it in order to "make sense of senseless suffering," which is how surviving US family members are apt to explain their impetus to donate the organs of their loved ones [4, 15, 17, 20].

The case of the brain-death debate in Egypt also demonstrates the failure of the Egyptian state to deal productively with the plurality of voices that have emerged in assessing the status of brain-dead patients. One way to engage productively with this plurality would be to distill the various issues that have come to be attached to this debate—from social inequalities, to the logistics involved in transporting and coordinating organs, the financial costs of these operations, and the respect for the dead and the dying. These questions remained ignored, and unaddressed, with a media hubbub around the old trope of questioning science's advances against cultural or religious traditionalism. Such tropes obscure the proper diagnosis and framing of the question. That is to say, to ask whether a brain-dead patient is "really" dead is different from asking whether a medical system can legitimately weigh the benefits of treating organ failure patients against the costs of precipitating the cardiopulmonary death of patients who are brain-dead. Because the multiple concerns raised by organ procurement were read as "religious extremism"—rather than as legitimate and reasonable concerns about equity and justice—movement toward a functioning national transplant program in Egypt has been held in limbo for over three decades. This paper serves as an important lesson about how tropes such as "culture clash" or "science vs. religion" can obfuscate pressing problems about justice, equity, and access, particularly but not only in sharply stratified and politically repressive societies.

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