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Labile Bodies

A Hospital Ethnography of Medical Professionals' Struggles in Deceased Organ Donation

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Abstract

This article presents an ethnographic study of the donor body in deceased organ donation. Drawing on the science and technology studies' incitement to study bodies being enacted and acted upon in situated practices, I explore the body being done and becoming undone in the practices of organ procurement at a Catalan hospital. The hospital has uniquely high rates of organ donation and transplantation, and deceased organ donation has become routinised and integrated into everyday hospital activities. I attend ethnographically to the medical professionals' accounts of and interactions with bodies and organs in their work dealing with both donors after brain death diagnosis and *uncontrolled* donors after circulatory death diagnosis. During fieldwork, I followed the struggles of the transplant coordination team grappling with unruly bodies under different maintenance technologies. The body being done in these hospital practices is an active and unstable materiality that must be contended with: a labile body, or a fragile assemblage of interdependent functions, requiring multiple interventions provided by a host of dedicated hospital practitioners. The article shows that staying close to the medical professionals' situated accounts is a valuable route to gaining novel understandings of the donor body.

Keywords

Body, Death, Hospital ethnography, Medical professionals, Organ donation and transplantation.

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Introduction

This article emerged from a moment of perplexity I experienced during fieldwork. The account I present is an elaborate response to a 'disconcerting encounter' (Verran 2001, 26), or an 'ethnographic moment' (Strathern 1999, 1), in which a swift turn of events unravelled quicker than I could grasp it. The moment occurred in the early days of fieldwork at a Catalan hospital, when I had only just started following the team of transplant coordinators in their daily activities to procure organs for transplants. I was given a desk in the communal coordinators' office, a surface quickly covered with papers, accompanied by the exhortation, 'If you want to know what we do, you need to read this, and this, and this too.' I dutifully read, and my hosts attended to my manifold questions and fed my eager demands for detail about their practice and role in deceased organ donation. I was doing fieldwork, and that, it appeared, was going well. The 'disconcerting encounter' started when the office phone rang and the five coordinators who were present left suddenly. Without the need for words, they scrambled briskly in different directions, striding intently whilst tapping their phones. I remained still, bewilderedly observing; I didn't follow them. The last one to leave answered my untimely 'what is going on?':

> Coordinator: We might be losing the donor, so it is time to run!
>
> Sara: Yes, but what is *actually* happening?
>
> Coordinator: His blood pressure is dropping dangerously, and he might stop anytime, did you think that a dead donor can be switched on to a ventilator and forget about him because the machine is doing all the work? No way! Death is very complex to deal with and the body very unstable, I must run!

The ethnographic episode showed me that the donor body, which both enables and complicates the transplant coordinators' task to procure viable organs for successful transplantation, could be a fruitful focus for analysis of the complexities of hospital organ donation. Following the science and technology studies' (STS) incitement to study bodies being enacted in situated practices (e.g., Despret 2004; Latour 2004; Mol 2002; Mol and Berg 1998; Mol and Law 2004), my ethnographic research focused on mapping and distilling the medical professionals' interactions with and understandings of the body in deceased organ donation for transplantation. To do so, I followed the transplant coordination team involved in the precarious enterprise of procuring organs for transplants whilst grappling with unstable, and rather indomitable, bodies. The Catalan context is of particular interest in the field of organ donation and transplant studies. Spain presents the world's highest deceased donation rates and stands as an international referent to boost organ donation and lower mortality rates on transplant waiting lists (Delmonico et al. 2011; Bea 2020, 2021). The hospital where I carried out this

research has high rates of organ donation and transplantation and an in-house specialised team of donation procurement professionals. The deceased organ donation programme is highly institutionalised and integrated into hospital workflows.

Ethnographic research revealed the transplant coordinators' trials and tribulations in maintaining donor bodies. It is vital to keep bodies' circulation continuous, otherwise organs become under-perfused and unsuitable for transplantation. The episodes I observed attest to the manifold difficulties of dealing with unstable bodies and show the differential requirements of distinct kinds of donation: donation after brain death diagnosis (DBD), by patients in intensive care units (ICUs) connected to a ventilator who have been declared dead following neurological criteria; and donation after circulatory death diagnosis (DCD), by patients declared dead by cardio-respiratory criteria.[1] There are many ways to lose a donor, and the coordinators' task is relentlessly complicated by labile bodies responding to, with and against their efforts to procure organs for transplants. Ischemia, or the end of blood flow, precipitates a devastating release of various noxious substances that intensify and accelerate the organism's instability. In the hospital the body becomes a fragile assemblage of interdependent functions requiring multiple interventions—involving different maintenance technologies, drugs, blood and even blankets—provided by a host of dedicated hospital practitioners. Bodies under different maintenance configurations are variously taken hold of and animated by unbridled corporeal death processes, indeterminately yet inexorably unfolding. Coordinators must grapple with organs and organisms in perpetual motion and bodies that disassemble in sometimes unpredictable ways, at least until the functioning organs deemed viable are surgically removed and prepared to travel to their transplant destinations.

Building on longstanding and rich anthropological studies of organ donation and transplantation, this article proposes staying close to the medical practitioners' accounts of and interactions with bodies in their daily work as an empirically grounded approach to studying the donor body in hospital practice. It presents a situated understanding of the donor body as embedded within the practicalities of organ donation. Ethnographic material from the hospital shows that when focusing on the transplant coordinators' struggle to procure organs, the version of the body that comes into view is that of an active and unstable materiality that must be contended with. The donor body participates in, interferes with, and responds to

1 There are two types of DCD donors according to the Maastricht classification criteria: *controlled* DCD is usually by patients in intensive care that, after planned withdrawal of life support, suffer an expected cardiac arrest; *uncontrolled* DCD refers to patients that have suffered a cardiac arrest out of hospital and are diagnosed dead by circulatory criteria at the hospital. At the time of fieldwork in the Barcelona hospital during 2013–14, most of the DCD donors were of the uncontrolled type. The controlled DCD programme was in an initial phase following a recent change of legislation in Spain that allowed for planned withdrawal of life-sustaining treatments.

the interventions of medical professionals who are utterly embroiled in the fraught enterprise of not ‘losing the donor’. It is a labile body, that intervenes in and ultimately defines and complicates the practice of organ procurement for transplantation.

The body in organ donation and transplantation

The body figures as a central analytic category in scholarly work on organ donation and transplantation. This is particularly the case within medical anthropology’s critique of the objectification of the human body in biomedicine. Anthropological accounts of bodies in organ donation are often framed by and revolve around the brain death ethical quandary: on the disputed legitimacy of the neurological diagnosis and the troubling nature of donor bodies connected to ventilators. In this section, I revisit the ethnographic works of influential authors in this field—Fox and Swazey, Hogle, Lock, and Sharp—who conjointly, albeit multi-vocally, address the complexities of organ donation and transplantation and reveal the predicament of patients who become no longer persons, their bodies objectified, and parts commodified.

Originally, it was Fox and Swazey (1974), in their pioneering studies of organ donation and transplantation in the US, who defined the heart-beating brain-dead donor connected to a ventilator as a ‘live cadaver’, suspended in a twilight zone between life and death. The authors questioned the validity of brain death diagnosis and took issue with its associated medical view of the body as, as Fox put it, ‘an ensemble of interchangeable spare parts’ (1996, 265; see also Fox and Swazey 1992). The thorniness of such a ‘spare parts body’ was in the utterly disruptive affront it posed to the integrity and identity of the individuated body as per dominant Western notions of personhood and individuality (Fox and Swazey 1974, 1992; Fox 1996). Their critique was against the technocratic and instrumentalised medical ethos that intensified the commodification of the human body—the donor body was reduced from a person to a mere thing or useful precadaver (1992). In the same vein, Hogle pronounced the living cadaver as a hybrid figure that blurs the boundaries ‘between life and death, human and technology, natural and artificial’ (1995, 206). The practices of organ procurement in the US, Hogle (1999) advanced, aim to reduce the ambiguities of brain death and inevitably steer the objectification (and hence dehumanisation) of donors turned into docile bodies or incubators of organs: ‘it is necessary to deconstruct the subject (the person) and reconstruct an object (the production unit)’ (Hogle 1995, 206). The reductionist transition from subject to object remained problematic, since donors still retain ‘a residual essence of their humanity’: ‘the organic material in the rest of the body retains its ability to function; to “live”, body parts can die at different rates’ (Idem, 210).

The quandary of the donor body and the ambivalences of brain death prominently featured in and defined Lock's influential work on organ donation and transplantation. Her rich ethnographic studies contrasted the silent institutionalisation of brain death diagnosis in the US with the controversy that enveloped it in Japan where the medico-legal notion remained heavily contested. The figure of the living cadaver was central in Lock's work, to her 'a-dead-person-in-a-living-body', breathing with technological assistance but forever unconscious (2004, 136). Her point was that death is a social construct and cannot be pinned down and objectively diagnosed like a medical event located in time (Lock 2002a). Rather, death is a slippery and gradual process—encapsulated in the *twice dead* notion that separates the brain death diagnosis from the subsequent cardiac death of the rest of the body—and this is what ultimately confers the living cadaver's conflicting nature. Lock tells us about bodies that outlive persons, inevitably disconcerting to medical practitioners, troubled by observable signs of life in maintained donors, and leading to emotional distress and conflict for their relatives (Ibid.). Ultimately, the living cadaver figure epitomises Lock's stance that 'brain death'—defined as death reinvented for transplantation purposes—does not equate to an irreversible death diagnosis but rather to the troubling category of 'good as dead' (Lock 2002a, 2003).

The valence of the living cadaver figure is also reiterated by Sharp in her US-based anthropological work. Sharp's detailed ethnography draws attention to the dissonance between brain-dead donors as passive objects—dehumanised and reduced to medicalised cyborgs—and the occurrence of 'disconcerting reactions not considered to be characteristic of dead bodies . . . spinal reflexes . . . blood pressure and respiratory changes' (Sharp 2006, 88). Altogether, the abovementioned ethnographic works exposed the burgeoning organ transplant industry that effectively turned dying patients into 'repositories of reusable parts' in an increasingly technocratic and utilitarian US medical landscape (Sharp 2006, 81).

The scholarly literature discussed above unveils the discrepancy between discourses that construed donated organs as either *objectified* in the medical rhetoric—as mere biological organs, replaceable parts, depersonalised objects or alienable commodities—or *subjectified* in the voices of donor families and recipients. Their accounts attested to the social life of donated organs as they acquired anthropomorphic qualities and became rooted in the gift-of-life narrative (Fox and Swazey 1992; Hogle 1996, 1999; Lock 2002a, 2002b; Sharp 2000, 2006; Scheper-Hughes 2001). Much was at stake, the authors attested, because even though in the medical settings under scrutiny organs were considered inert objects to be transformed into therapeutic tools—mechanised as universal parts (Hogle 1996; Sharp 2000; Lock 2002b)—they were, nevertheless, experienced by

relatives and recipients as ‘fragments of beloved individuals who live on and grant new lives to others’ (Sharp 2006, 24).

This anthropological work made a compelling ethico-political plea to foreground those excluded from medicalised accounts of organ donation: the dead and the dying, along with their families, whose suffering goes unacknowledged. In this article however, I return to a focus on practices of biomedical objectification. Rather than denounce the biomedical practices that demote persons to things, and fragment the body into parts, I pay heed to the experiences and accounts of the medical practitioners who must work with the donor body to achieve a successful transplant. The difference is a matter of attitude. In lieu of critical medical anthropology’s denunciation of the objectification of the body in biomedicine, I follow recent approaches in medical anthropology, influenced by STS, that propose an empirical exploration of how bodies are enacted within specific hospital practices (Despret 2004; Latour 2004; Mol 2002; Mol and Berg 1998; Mol and Law 2004). The aim is to unpack the so-called medical view of the body, to take stock of the prevailing narratives of the body in organ donation and transplantation studies, and to advance an alternative account of the body attuned to the hospital setting.

In alignment with more recent social studies that break away from medical anthropology’s commodification critique (e.g., Hoeyer 2007) and explore the medical practices of organ donation in the public healthcare setting (Hoeyer et al. 2015; Hoeyer and Jensen 2012; Jensen 2017, 2023; Paul et al. 2014), this study also engages seriously with the healthcare practitioners involved in organ procurement. As contemporary work shows, this is a clinical field that encompasses longstanding complexities of DBD and emerging issues associated with controlled DCD (Cooper 2018; Machin et al. 2022). Here, I take a novel empirical approach of studying two types of donor bodies in hospital practice (both DCD and DBD), and focusing on the accounts and interactions of medical practitioners in a Catalan setting, which complements scholarship that attends to and theorises the body in organ donation and transplantation (Hacking 2007; Kierans 2015; Lock and Nguyen 2018; Hoeyer 2013; Hordern 2020; McCormack 2021; Sharp 2007; Shildrick 2021). The empirical findings discussed below offer a novel account of the donor body as a labile organism, an unruly and unpredictable entity that intervenes and defines the hospital practice of organ donation. The active and unstable version of the body that is grounded in the transplant coordinators’ practices does not conform to previous narratives of the donor body, and particularly to those that denounce the biomedical objectification of the body as a passive and inert materiality.

The ethnographic study in a Catalan hospital

The research study examined the hospital practices of organ procurement for transplantation and interrogated ethnographically how medical professionals interact with and understand bodies and organs in their hospital daily practice. Fieldwork took place during 2013 and 2014 in a large university hospital in Barcelona, Catalonia. The location was chosen as part of a broader research project I was conducting to map hospital practices in a site with a large volume of organ donation and transplantation (Bea 2020, 2021). I was given ethical approval by my academic institution and the hospital in question to carry out ethnographic research for a year. According to ethical restrictions, the study did not include any data from patients or their families. Data collection was focused exclusively on shadowing the core medical professionals, the transplant coordinators, three doctors and six specialised nurses, that oversee the process of organ procurement. During fieldwork I was equipped with a few white coats and keys to the transplant coordination office in the hospital. Mapping the procurement activities was a variegated task: many took place in different wards or units, which required swift traversal of the hospital building.

The coordinators' work started after death was diagnosed, following either neurological or circulatory criteria, and encompassed the identification and evaluation of potential organ donors, discussing consent with their families, overseeing donor body maintenance, and arranging the logistics for organ removal surgeries.[2] The task of tracking coordinators, donor bodies and organs in action was not always amenable to direct observation. Often the action was taking place elsewhere in the hospital, out of my reach, or inside the donors' bodies, away from my gaze. It became crucial to complement ethnographic observations with the descriptive accounts of the core research participants. The collaboration of the transplant coordinators was thus essential. I invested in and reflexively scrutinised the interactional relationship between myself and my participants, moving beyond 'co-location' and embracing 'co-presence' (Beaulieu 2010, 2). I conducted in-depth ethnographic interviews with the nine members of the team; the informed consent forms clarified to prospective participants that their accounts were key to understanding the specific practices of organ donation for transplantation at the hospital site. The first round of interviews took place halfway through fieldwork and the second toward the end of my stay in the hospital. Participants' names were anonymised with the use of pseudonyms. The extended interviews were conducted in Catalan and Spanish, and as noted, were part of a larger project and

2 My role was that of a visiting researcher conducting a social science study on organ donation practices. As such, I had unrestricted access to hospital sites like wards, ICUs and emergency units where coordinators were dealing with donor bodies. However, since at the time I was pregnant, access to organ removal surgeries was restricted according to hospital policy.

included many other themes and topics besides that of the donor *qua* body.[3] The qualitative data analysis software NVivo was used to code both sources of data—field notes and interview transcriptions—with a view to mapping coordinators' enactments and descriptions of bodies and organs in hospital practice.

During fieldwork and in interviews it transpired that the donor body was enacted primarily through the coordinators' everyday struggles against *losing the donor*; that is, their professional trials and tribulations in maintaining donor bodies to preserve the organs' viability for transplants. The challenges were diverse and hinged upon the types of donors and different maintenance technologies involved. Hereafter, I present firstly the case of DBD connected to ventilators; secondly, of *uncontrolled* DCD with the use of an extracorporeal membrane oxygenation (ECMO) machine; and thirdly, of organ removal surgery from both types of donors prior to transfer of the procured organs to their allocated transplant destinations. The mapping of medical practices is limited to the stages of donor management and organ retrieval, as they comprise the transplant coordinators' struggles with unruly bodies in their quest to procure organs for transplantation. The empirical perimeter of this study is thus narrow, but it offers footholds to attempt the grounding exercise to map hospital professionals' actions and accounts of bodies and organs in the given deceased organ donation practices and national context.

Labile bodies

Patients who receive a brain death diagnosis in the ICU are intubated and connected to a ventilator to maintain their respiratory and cardiovascular functions. Nurses check that the monitored parameters are within a normal range, but it is the transplant coordinators who are ultimately responsible for dealing with any contingencies that might arise. During fieldwork I followed the coordinators on their daily rounds of the multiple ICUs in the hospital. Their task is to identify any potential organ donors and once a potential case is detected, their utmost attention is directed at, as they put it, avoiding 'losing the donor'. A body might remain stable on a ventilator for up to twelve hours but the more time that passes after brain death, the more complications the body can present and the more interventions will be required. The threat of losing the donor looms large and inflects the coordinators' actions with a sense of urgency punctuated by a resigned demeanour:

> Once we reach brain death situation what happens is that there is a breakout of several substances because really the organism, even if it's artificially maintained with drugs and everything, experiences certain changes like release of some hormones that lead to a situation of high instability and

3 Interviews were transcribed in their original language; only the excerpts which appear in this article have been translated into English. All translations are the author's own.

> response lability, these alterations make the previously living organism extremely labile, it doesn't respond to medication or anything you do to it and this is when the heart might stop and everything stops and the whole donor is lost (interview with Carmen).

'Lability', a medical term that means susceptible to change or easily altered, is the coordinators' word of choice to describe the donor body's instability. The labile organism is compounded by an upsurge in various stress hormones, combined with the vasoactive medication administered before and after death diagnosis, and the many other oxidative substances released after brain death determination. The indeterminate unfolding of such corporeal death processes is a matter of great concern to coordinators: dealing with unstable bodies is an unpredictable and complex task. Carmen describes it as 'the wild mechanism that biology has in death'; similarly, another coordinator refers to the labile organism figure, and talks about chaos:

> The brain death situation is a situation of lack of control, in the sense that the brain has stopped working and there is no control of brain functions, so then the rest of the organism keeps working with the support of the ventilator and medication that we apply, but other functions like temperature control or antidiuretic hormone are disabled, so as time goes by it is more difficult to keep all the systems of the organism under control, there is a lability (interview with Oscar).

The interventions are no different than those applied to living patients on a ventilator in intensive care, but the aim is to preserve the organs for transplantation. This requires ensuring a constant blood flow around the whole organism.

Doing fieldwork at the hospital, I learned that there are many ways to lose a donor. My initial perplexity gave way to an inquisitiveness, through frantic episodes involving unruly bodies and harried coordinators. One such instance followed a call from a nurse alerting coordinators of a dangerously irregular heartbeat. Coordinators' rapid intervention was to no avail: the medication administered was ineffective, undelivered to target areas due to the brain-dead body's diminished capacity to absorb and circulate drugs. The body 'did an arrhythmia', as coordinators put it, which entailed a drastic drop in arterial blood pressure. Inevitably, the constant supply of oxygenated blood was compromised, the organs became under-circulated, or ischemic, and the donor was 'lost'.

After death diagnosis the kidneys continue to function, but their performance is severely diminished and complicates the maintenance of donors. This is what happened on another occasion, when coordinators received an alarming call from an ICU nurse: 'problems with haemodynamic maintenance, losing the donor, come

quick.' The command prompted the team of coordinators to scramble in different directions, many simultaneously on their phones making the various necessary arrangements. A blood transfusion was needed to stabilise circulation across the organism, the ICU had run out of the specific blood type needed, and by the time coordinators had found some (which involved crossing many labyrinthine hospital corridors and climbing several emergency staircases in athletic fashion), it was too late: the organs had become ischemic and thus unviable for transplantation.

In yet another case of DBD, the donor was lost for want of a mundane but vital gesture. After brain death diagnosis, the body loses its capacity to regulate temperature, but it retains the ability to adjust to room temperature. After an X-ray to evaluate the donor's organs, the bed blankets were not tucked back under properly. The unit was particularly cold that day and the body cooled down. Several bodily functions became unstable, and the body was no longer amenable to medical interventions. An imminent cardiac arrhythmia imposed itself against coordinators' efforts, the blood pressure fell and hence the organs became too ischemic to be procured.

The same ischemic end was preceded by a different turn of events in another brain death donation process. The labile body that coordinators attempted unsuccessfully to stabilise was running a fever. They unravelled the riddle with a quick look at the body and a piercing question to a nurse: a catheter for diuresis had come out accidentally and had not been duly cleaned prior to reinsertion. The body responded to the local infection by, coordinators said, 'doing a fever'. The complications with bodily temperature, as already seen, unleashed unmanageable bodily chaos, precipitating cardiac arrest and disrupted blood circulation around the organs.

The many cases of lost donors I observed attest to the vital importance of ensuring the continuity of blood flow around the body as a whole and the organs as interdependent parts. At the hospital, both organs and organisms are active, labile and unstable amid the coordinators' travails to keep the donor body persistently circulated. In essence, the body enacted through the efforts of the coordinators is a fragile assemblage of interdependent functions that they struggle to maintain as a more or less stable whole: a circulated organism.

Disassembling bodies

The viability of DCD donor bodies, similarly to DBD, is maintained by technical means. The organ preservation manoeuvres that coordinators orchestrate following the death diagnosis are directed at restarting the circulation of blood through the abdominal organs only—kidneys, liver, and pancreas. Hearts and lungs were not considered from this type of donors during fieldwork. To do that,

the body is connected to an ECMO machine that starts blood recirculation and maintains a constant body temperature. Unlike in brain death donation where the body as a whole is enacted *qua* circulated organism, the body after *uncontrolled* circulatory death is comprised of both circulated (hence functioning) and ischemic (hence decomposing) regions. This is what gives these donor bodies their characteristic appearance:

> It doesn't take long for death to start showing in the rest of the body, rigor mortis sets in very rapidly, their faces quickly turn blue and so do the extremities that quickly become dead-cold and rigid, and in general the whole donor gives an impression of a corpse, as opposed to brain-dead donors that retain their warmth and normal colour appearance (interview with Miquel).

These bodies are not as unstable as bodies on ventilators, but they nevertheless impose many constraints on and threats to the coordinators' task of organ procurement. It is precisely the coexistence of circulated with ischemic areas in the body that exacerbates the lability of the organism. The corporeal death processes that animate bodies after brain death become more present and begin to run wild. The reason is that there are fewer obstacles on their way, ischemia is kept at bay only locally, and the rest of the non-circulated body follows its course and is rapidly taken over by decomposing processes. Time is of the essence: organ removal needs to take place within four hours of death diagnosis, otherwise the organs inside a gradually disassembling body, succumbing to inexorable corporeal death processes, become unviable for transplants. A devastating hormonal release also takes place and is exacerbated by the warmth induced by the ECMO machine. Additionally, there are other noxious substances that intervene and further complicate and accelerate the body's instability:

> All has stopped, there is no circulation in the rest of the body, so then all that starts to release substances that are harmful, this is why we need to refrigerate a tissue donor as soon as possible, to arrest all these substances released because after one dies, one is dead, it sounds absurd but if I am dead what happens? That the whole organism starts to decompose, circulation has stopped, the cells say: 'I have no oxygen, I have no circulation, I have to die', and they start to release after-death substances, product of the cell's rupturing process, so pro-inflammatory cytokines enter the bloodstream, which is no longer circulating, but these substances do circulate just because they are coming out from all the cells in the organism (interview with Pedro).

Ischemia-triggered cytokinesis is one of the many corporeal death processes that rapidly proliferate in the disassembling body; oxygenated blood circulating in the abdominal area is the only obstacle to their relentless influence. The ECMO machine, called 'the pump' by coordinators, simulates the function of a beating

heart. It also stimulates the lungs' function, providing constant oxygenation. Most of the time the pump works well, but not without the coordinators' intervention. Several parameters need to be monitored and adjusted to ensure organs are continuously perfused. Sometimes a critically low value might be corrected with a blood transfusion or some serum. Other times the blood flow might appear compromised. There could be a physical barrier concomitant with the cardiac injury, or perhaps a blood clot hindering venous return from the organ to the machine. Coordinators are only left with speculations: these donor bodies are opaque compared to bodies on ventilators, which are made intelligible through many more parameters. A high dose of heparin, an anti-clotting agent, might do the job, and with blood flow resumed the body's lability can be, at most, temporarily suppressed. There is no means to measure or make visible the deleterious advance of corporeal death processes in the progressively ischemic body. The stakes are high though. A halt in the blood flow could invite an unprecedented release of another set of decay-related substances:

> There is another thing because in the abdomen, in the intestines we do have bacteria, which is normal just as we do in the skin or inside the mouth, but because my defence mechanism is dying I am less able to defend myself against them, there are no lymphocytes anymore, neither circulating blood for them to travel to the intestines and defend me against the bacterial translocation that is taking place after death, so bacteria start to grow there and produce gases and gradually colonise everything (interview with Pedro).

Ischemia sparks the bacterial translocation and the release of hormones and cytokines that are left to circulate widely and emanate wildly in the under-circulated body. The end of blood flow also disables the immune system; a body without defences offers no resistance to, as Pedro puts it, being 'colonised' by the unrelenting corporeal death processes that gradually take over. The labile body's fragile assemblage of interdependent functions becomes rapidly disassembled. The dedicated attention of a host of hospital professionals, perfusion technologies, and many medical interventions are required to keep the donor body *qua* circulated organism as a more or less stable whole. It certainly is an unsteady task, as I have illustrated, but it is what the coordinators grapple with up until the time that the organs are surgically removed.

Organs in circulation

Prior to organ removal surgery, the organs' functionality and absence of transmissible diseases must be established. The patient's past medical history and social history are reviewed, various monitoring technologies employed, and a myriad of clinical tests performed to determine the individual organs' viability for

transplant. In some cases, imaging technologies, such as thoracic X-ray, abdominal or brain CT scan, reveal an undiagnosed tumour; organs are then ruled out to avoid disease transmission to recipients. During the transfer to the operating theatre, the body is closely monitored and adjusted, as the movement between beds and change in temperature can accentuate its lability. It is then the job of the anaesthetist to ensure an evenly circulated organism without further ischemic damage.

Upon opening up the body, the transplant surgeons evaluate the appearance of organs *in vivo* and scrutinise the area meticulously. They check for any signs of disease, such as lymph nodes and tumours; the entirety of the intestine, up to seven metres, is palpated by hand. Sometimes, kidneys might appear under-perfused due to blocked vessels, or a liver might look too fatty, even if the clinical tests and medical history did not flag any problems. Transplant surgeons faced with ambiguous situations prefer to remove the organ and decide after a thorough *ex vivo* evaluation. Some of the organs can be placed inside a perfusion machine rather than being preserved in static cold storage. It is the coordinators' job to see to that.

The perfusion machine circulates the kidney, for instance, with a cooling solution that cleans it, nourishes it, and enables it to keep functioning outside the body. A live assessment of the organ's functionality might detect circulatory problems. For example, a high resistance level to the incoming liquid anticipates complications to transplantation surgery and the recipient's reaction to the implant. However, once identified *ex vivo*, the foreseeable localised thrombosis can be dealt with *in vivo*, that is, by administering the right medication to the transplant recipient. Additionally, some conditions can be corrected directly while the organ is inside the perfusion machine. Besides the renal machine in use during fieldwork, *ex vivo* perfusion machines are also used for the liver, the heart, and the lung. Each adapts to the organ's optimum preservation modality—cold liquid for kidneys, warm blood for livers. The coordinators operate the perfusion machine and assemble a viability report that is examined by the transplant surgeons. Ultimately, surgeons decide whether the organ in question is to be transplanted or discarded as pathological, considering the characteristics of the allocated recipient, as designated by the Catalan Transplant Organisation (*Organització Catalana de Trasplantament*).

Coordinators meet up with transplant surgeons periodically and, considering transplantation outcomes together, they discuss if any donation eligibility criteria need to be adapted accordingly. Acceptability criteria are different for those organs, like kidneys, that can be connected to a perfusion machine, enabling a thorough confirmation of functionality despite advanced age. The donor age limit for kidneys and livers is set at 89 years; hearts, up to 70; lungs, 55–60; and

pancreas, only 40–45, due to associated circulatory problems beyond that age. The varying age limits aim to ease the shortage of organs for transplantation. Generally, donation criteria follow a like-for-like logic, in response to the relatively recent inclusions of groups of patients previously ineligible for transplants. Organs from older donors are transplanted to older patients. Donor organs with a history of cancer, HIV or hepatitis B or C are procured to be transplanted to patients with these conditions. Transplants have only recently become a possibility for these patients because their diagnosis is now considered a chronic condition manageable with adequate treatment. The urgency of the recipient's medical condition also guides the level of acceptable risk of a transplant. For patients on long waiting lists with high mortality rates, such as for heart or liver transplants, higher risk organs are procured. Coordinators balance the risk of disease transfer against the risk of the patient dying while waiting for a transplant. And importantly, some conditions, such as thrombosis or infectious diseases, can be treated directly on the transplant recipient patient.

Some organs are transplanted in the same hospital, but others travel elsewhere:

> The organ cannot go alone, we need to label it and say if it is a right kidney or a left kidney, a heart or a liver, if I need to send donor's blood samples, lymph nodes, blood group copies, clinical history or whatever is needed, because it is important to think that when you send an organ the one that receives it doesn't have all the information, so it is my job to convey as much as I can (Interview with Pedro).

Coordinators put together the necessary files and samples while they make sure that organs outside perfusion machines are secured in double hermetic bags inside a portable fridge. They must ensure that the temperature is kept stable and that the ice surrounds all parts of the organ equally at all times. Sterility is a must, as coordinators explain, to avoid any contamination of the organ that could affect the transplant recipient. Through these hospital procurement practices, donated organs are enacted as active and unpredictable entities that both enable and complicate the coordinators' task to ensure successful transplantation. Once the organs have been removed, the medical professionals' focus and attention shifts: they are no longer keeping the donor body stable, their aim is to keep the organs functional and disease-free until they reach their allocated transplant destinations.

Organs and organisms in hospital practice

These stories from the hospital situate the donor body in the practice of organ procurement for transplantation. The analytical attention to bodies-in-action entails staying close to the medical professionals' own understandings and dealings with active bodies in their daily practices. For, in these accounts, donor bodies are

indeed active and, much to the coordinators' regret, rather indomitable. The ethnographic vignettes foreground irresolutely labile bodies, responding to, with and against the interventions of medical professionals who are utterly embroiled in the fraught enterprise of not 'losing the donor'. It is by focusing on the coordinators' trials and tribulations that the at-once labile, unstable and donatable body is brought into high relief. The donor body is enacted as a precarious assemblage of functions that coordinators strive to maintain as a more or less stable whole. Organs and organisms are thoroughly interdependent: procuring transplantable organs is only possible if donor bodies are kept as circulated wholes. And this, as I have shown, can never be assured. Donor bodies depend on a lot of work, mostly performed by maintenance technologies (ventilators and ECMO machines) but also through various drugs, blood transfusions and even blankets diligently provided by a host of humans that attend to such labile organisms up until the viable organs are removed. The donor body is neither singular nor a coherent whole per se, as Mol (2002) instilled; rather, its wholeness is accomplished in practice.

A rich ethnographic engagement with the medical professionals' actions and accounts, and the ways in which those practices enact the donor body, brings forth an understanding of the donor body as an active participant in the hospital, a labile organism that needs to be dealt with and attended to in order to ensure organs are transplantable. Subscribing to an STS approach to study bodies in practice, as Mol and Law (2004) and Latour (2000, 2004) contend, promises a redress of the social sciences' proclivity to either study the body as subject—a thinking and feeling subject/mind—or as an object—a blank canvas to be defined from the outside. Both options are restrictive if one wishes to explore how bodies intervene in situated practices, as they both carry the risk of reifying the body as a passive object that is waiting to be defined by surrounding actors. Doing that, Mol (2002) suggests in conversation with Latour (2000), restricts the role of the social sciences to adding subjectivities—patients' or relatives' experiences and meanings—to biomedicine's unquestioned objectification of bodies: 'While in the centre the object of the many gazes and glances remains singular, intangible, untouched' (Mol 1999, 76). To counter this, I have sought to unpack the so-called medical view of the body and pay heed to the body in hospital practice by shifting the attention to *how* medical practitioners interact with and give an account of the body in organ donation. Their actions and descriptions thus act as an entry point to a situated and relational understanding of the donor body as an active and unstable materiality that must be contended with: a labile body that ultimately defines and complicates the hospital practice of organ procurement for transplantation.

The body *qua* organism in the coordinators' accounts becomes a stage on which corporeal death processes gain a foothold and aggravate the instability of the

donor. The labile bodies coordinators grapple with ultimately jeopardise their task of procuring organs for transplants. It is the differential unfolding of corporeal death processes, apprehended most vigorously in *uncontrolled* DCD, that ultimately disassembles (dis-integrates, de-composes) the body as a whole. The body loses its former singularity as it reaches entropy and becomes progressively colonised by decay-inducing hormones, cytokines, and bacteria. The human body enacted in this hospital is implacably flushed with noxious substances that emanate wildly and widely from within. The disassembling body, no longer able to mount an immunological defence to the attacks from within, also resonates with Haraway's contestation to essentialist notions of individuality and organic wholeness: 'Any objects or persons can be reasonably thought of in terms of disassembly and reassembly . . . What counts as a "unit", a one, is highly problematic, not a permanent given. Individuality is a strategic defence problem' (1991, 212).

The bodies that transplant coordinators grapple with destabilise the constitutive boundaries of individuality and challenge humanist conceptions of the body/self as organic wholeness. The individuated body, bounded by skin and defined by identity and personhood, as anthropological works with donor families and transplant patients have described, is not what is brought about in these biomedical practices. The enacted donor body is irresolutely active and unruly, a labile organism. Organs are also active entities: ethnographic vignettes show organs that function—kidneys that produce urine, livers that filter, hearts that pump blood and lungs that oxygenate—even after surgical removal, when they become indeed organs-without-bodies. Yet if organs are to be kept active, they cannot be fully disentangled from a body *qua* circulated organism—be it the donor body, the recipient body, or the perfusion machine as the body's simulacrum. Fundamentally, the organs in circulation are not enacted as spare parts per se. Instead, their materialisation within detailed evaluative practices as viable for specific transplant patients affords them the capacity to continue functioning inside *another* body. Organs for transplants must travel, but, as coordinators explain, they never do so alone. The donor's information and samples must always accompany them. The organ, though donated, nevertheless cannot be circumscribed by the donor *qua* subject, unlike in the reviewed literature (Fox and Swazey 1992; Hogle 1996, 1999; Lock 2002a, 2002b; Sharp 2000, 2006; Scheper-Hughes 2001) that defines organs as anthropomorphic gifts: passive matter embodying a donor's personhood and further reifying the body/self as organic wholeness.

The individuated body—singular, bounded, and internally coherent—is thoroughly disrupted in the hospital practices that circulate organs within *collective* bodies. For the body being done in and through these organ donation practices is collective twofold: in the sense of a collected fragile assemblage of functions, and also a collective body that accentuates the shared commonality amongst mortal human

bodies. The collective body that comes to matter in coordinators' accounts of organ circulation cannot be contained and apprehended by the individuating boundary of the person/self. In fact, the contrasting *other* that delimits the confines of the collective body is the threat of disease. Hence, the accounts from the hospital are populated by tropes of infection, contamination, and invasion as organs in circulation are scrutinised and treated against disease inside donor bodies, perfusion machines or transplant recipients independently.

This can also be gleaned from the like-for-like organ allocation strategy that circulates organs from HIV-positive donors to HIV-positive recipients, since for these patients the given disease is no *other* but already part of *self*. As Haraway suggests when talking about the immunological body, 'disease is a process of misrecognition or transgression of the boundaries of a strategic assemblage called self' (1991, 212). Or similarly, in Cohen's (2009) genealogical study that traces the emergence of the concept of immunity-as-defence and the shift in understandings of the modern body, no longer conflated with personhood. In this hospital ethnography of labile bodies, I converge with, and corroborate with empirical material, Haraway's (1991) call to account for the discursive and material configuration of bodies as active agents or generative nodes. And in accordance with STS literature on bodies in practice (Despret 2004, 2013; Latour 2004; Mol 1999, 2002; Mol and Berg 1998; Mol and Law 2002, 2004), I show that bodies, much like other active materialities, are embedded and relational. Bodies as singularities are not taken to pre-exist the practices that they are part of. As Haraway puts it, 'their boundaries materialize in social interaction' (1991, 208). The wholeness of the body is accomplished and brought into being in sociomaterial practice. A myriad of other entities needs to intervene for a body to hang together (Mol 2002). It follows that to gain a deeper and grounded understanding of the body in organ donation, it is necessary to zoom into the specific medical practices and to centre the hospital professionals' interactions with and accounts of bodies in practice.

The organ procurement practices I followed included both DBD and *uncontrolled* DCD. The impetus of this investigation is to map the donor body and interrogate how death as a process unfolds in different types of donors under different maintenance technologies. The story I tell about corporeal death processes that take hold of and spark labile bodies elucidates that death, just like life (Dupré 2012), is undoubtedly a process, as Lock (2002a) teaches us in her book *Twice Dead: Organ Transplants and the Reinvention of Death*. The semantics of human life and death are thoroughly inscribed within modernist notions of personhood and individuality, and cannot be easily disentangled from the enduring legacy of the rationalist doctrine of the Enlightenment: the central human subject endowed with agency, and the body relegated as passive matter. I have tried to evade this

linguistic trap with an account that talks about ‘disassembling’ bodies, not ‘dying’, and ‘functioning’ organs, not ‘living’. This is a narrative gesture that, by virtue of the medical professionals’ actions and accounts, examines the active body in hospital practice outside the authoritative scripts of the body in organ donation and transplantation (Lock and Nguyen 2018).

Conclusion

In this article I have shown how situating bodies in practice, by focusing on the medical professionals’ own framings of and interactions with donor bodies, is a useful methodological strategy to garner novel and empirically grounded enactments of the body in deceased organ donation. Doing so in a hospital in Barcelona with a longstanding and consolidated integrated organ donation programme, and in a Spanish context defined by high rates of organ donation and transplantation, reveals the material complexities of procuring organs for transplants and the role of the medical professionals involved. The approach allows me to contribute to a growing corpus of social studies of organ donation that engage seriously with the healthcare professionals involved and document emerging issues in deceased organ donation, encompassing both DBD and DCD (Cooper 2018; Hoeyer et al. 2015; Hoeyer and Jensen 2012; Jensen 2017, 2023; Machin et al. 2022; Paul et al. 2014).

Crucially, this ethnographic study shows that the transplant coordinators’ struggle to procure organs must contend with an unstable, unbounded, and active donor body, a labile body that defines and complicates deceased organ donation for transplantation. The active donor body is foregrounded as a body enacted in the practices that circulate organs from the dead to the living, from one body to many. The emerging notion of ‘labile organism’ that percolates the medical professionals’ accounts of the body thoroughly displaces the confines of the individuated body/self, exceeding humanist notions of personhood and individuality. Ethnographic material from a Catalan hospital illustrates that a humanist ideal of the singular and bounded body *qua* subject is not the only version of the human body in the domain of biomedicine. The absence, or attenuated partial presence, of the subjectified body is neither a bioethical shortcoming, nor a dehumanising characteristic of the medical endeavours in question. The question of the body is a matter to be explored in practice, staying close to medical professionals’ actions and accounts, and mapping the many ways in which bodies are being enacted and acted upon. Doing that, as I have argued, is a valuable route to gain a situated and fine-grained understanding of the body in contemporary organ donation and transplantation practices.

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The article was conceived and written in its entirety by the author.

Ethics statement

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