

Organs and their travels: An analysis of organ donation and transplantation

Introduction: Problem, Approach and Literature

In this thesis, the organ—a human kidney or liver or a genetically engineered pig kidney is the object of critical investigation in relation to the biomedical technology of organ donation and transplantation. This thesis attempts to trace the travels of organs, human or genetically engineered, across diverse discursive spaces: human and non-human life-forms, geopolitical landscapes, structural, institutional and organizational terrains, moral milieu and domains of human consciousness, subjectivity, experience and interpretation.

The social life approach to organs adopted in this thesis helps denaturalize organs, and locate them within larger philosophical, historical, sociological and anthropological discourses. The inspiration to pursue such analysis derives from Appadurai's (1986) "social life of things" in general and Lock's (2002) "social life of human organs" with special reference to the biomedical technology of organ donation and transplantation. Such analysis is sensitive not only to the complexity and convolutions of the "imbroglio" (Latour, 1993)—by which is meant a muddled pile of technologies, discourses and practices associated with organ donation and transplantation but the crossover of domains they engender. To make sense of these complexities, convolutions and crossovers, this thesis deploys two primary analytical categories: Foucault's (1978) notion of biopolitics and Rose's (2007) re-reading and recontextualization of the concept, within the general framework of "social life of things" (Appadurai, 1986) to depict how bodies in general and organs in particular are no mere natural-organic monoliths but are encumbered by and implicated in power and biopolitical machinations, and embedded in the cultural processes—moral-experiential worlds of people. In short, this thesis works at the intersections and interstices of "assemblages" (Ong &

Collier, 2004) or “lumpy” (Haraway, 1988) discourses of biology and technology; organic life, power and sociality in relation to organ donation and transplantation.

The study of organ donation and transplantation as a sociological and anthropological problematic has come a long way from American medical sociological preoccupation with life and death (see Fox, 1981; Parsons et al., 1972), cross-cultural ethnographic and comparative anthropological analysis of brain-death and transplantation practices, and their material and semiotic effect on self, personhood and body (see Crowley-Matoka, 2016; Fox & Swazey, 1974, 1992; Hogle, 1995, 1996; Joralemon, 1995; Lock, 1995, 1996, 1998, 2002; Sharp, 1995, 2000, 2001, 2006), to biopolitical and global political economic explanations of corporeal violence, exploitation and injustice involved in the transnational organ trade (see Cohen 1999, 2005; Das, 2000; Scheper-Hughes; 2000, 2001, 2005a, 2005b, 2006). These studies have focused on specific aspects of the technology and its practice, generating in-depth monographs and rich ethnographies of institutions, practices and subjectivities. This thesis draws substantially from this large body of work but also goes on to argue that these studies are limited insofar as they fail to address the multilayered complexities of organ donation and transplantation as a contemporary biomedical technology and practice or at least offer a snippet of it. Such studies fail to explain the situational nuances of the interconnections that obtain between the universal and the particular, the global and the national or local, the institutional and the experiential, the structural and the agential, in the production of objective and subjective trajectories of travels (or travails) of organs, both literally and metaphorically, as tread natural-cultural, biological-social domains.

Approaching the “imbroglio” therefore transpires in this thesis through a multi-situational analysis of discourses and practices of organ donation and transplantation in recent times. The thesis looks at the institutions, organizational initiatives and subjective experiences associated with organ donation and transplantation as conceptual-empirical

situations of analyses. In this approach, the situation is the conceptual-empirical entry-point and discursive site for analysis in the investigative process. Such an approach does not succumb to the idea of an overpowering structure or the romanticization of will. Rather remains acutely aware of the fact that it is in and through the investigation of situations that conversation of the structural or the institutional (overpowering or empowering) and the agential or the experiential (reiterating or resisting) can be traced. Clarke's (2005) cartographic analysis helps locating the situations at hand: structural-institutional discourses of biomedical law and bio-technoscience in relation to organ donation and transplantation, meso-organizational domain of donation advocacy and subjective moral worlds of people exposed to experiences characteristic of organ failure and organ donation.

This thesis deploys biopolitics as an analytical trope to critically engage the macro-institutional discourses of biomedical law and bio-technoscience, the meso-organizational domain of donation advocacy, and the ethnographic contexts of the self and the others in relation to organ failure, organ donation and transplantation. Power as such invests and implicates the complex of situations under study—the institutions, the organizational initiatives and subjective experiences but the transcendental modes in which power functions is traced in and through macro-institutions of biomedical law and bio-technoscience, and meso-level organizations of donation advocacy, old and new, and the immanent articulations of power is traced in the subjective-experiential and moral worlds of people exposed to organ failure and seeking remedy. The shaping of subjectivities through power is addressed in relation to the organizational realm of donor initiatives and how subjects negotiate disease and power—surrender, reiterate, reinterpret or resist transcendental institutional arrangements and organizational articulations of power is addressed in relation to the experiential and moral worlds of the subjects.

Chapterization, Sources and Methods:

The first two research chapters look at the macro-institutional realms of biomedical law and bio-technoscience integral to the biomedical technology of organ donation and transplantation. The first research chapter engages THOA 1994 with reference to India, its subsequent amendment in 2011 and revised rules published in 2014¹. This chapter engages in an exegesis of the original law and its subsequent amendments as biopolitical texts. It engages national and international online or digital newspaper reports of cases of illegal organ removal or organ theft in India in contravention of THOA 1994. It also looks at professional journals of the practitioners of organ transplantation in India. Articles published in the *Indian Journal of Transplantation*—the official publication of ISOT² have been used in this chapter to track the ways in which medical professionals respond to the law with reference to success and failure in boosting organ donation in India. This is because, the latter's involvement in organ theft and sale is widely reported by media, attributing transnational organ trade features of white collar crime.

The second research chapter looks at biotechnoscience more specifically—which is an inherently dynamic discourse. The domain of biotechnoscience in relation to organ donation and transplantation is multi-layered, characterized by constant intellectual accretion through research and experimentation. Rather than looking at the technology of transplantation *per se*, this chapter focuses on a parallel domain of biotechnoscientific research connected to organ donation and transplantation, through cases of two U.S. based bioengineering companies, namely, Revivicor³ and eGenesis⁴, involved in gene-editing and genetic-engineering⁵ to

¹Transplantation of Human Organs Act, 1994—the law which regulates the practice of organ donation and transplantation in India. The law was amended in 2011 and revised rules were published in 2014. The original 1994 Act, the amended Act of 2011 and Rules of 2014 constitute biomedico-legal texts for analysis in the thesis.

² Indian Society of Organ Transplantation.

³ See <https://www.revivicor.com/>

⁴ See <https://egenesisbio.com/>

⁵ Also known as genetic or genome editing, it is a cluster of technologies and techniques that can alter or change an organism's DNA.

produce cloned or transgenic organs⁶ for xenotransplantation⁷. Apart from a textual analysis of website contents of Revivicor and eGenesis, this chapter engages in a symptomatic reading of their press releases as discursive texts to analyze their achievement claims. It resorts to biotechnoscience journals like *Science* to track the ways in which gene scientists and genetic engineers showcase their achievements in addressing organ failure through fine gene-editing tools and transgenic organs. This chapter further looks at a parallel domain—the emerging pharmaceutical market of immunosuppressive drugs⁸ through market projections of three big market research firms.

The third and fourth research chapters look at organ donation initiatives, old and new, as the organizational or meso-level of analysis, in between larger biomedico-juridico-institutional realms of law and its contravention and biotechnoscience on the one hand, and the immediate interpersonal and human experiences relating to organ failure, donation and transplantation on the other. The third research chapter focuses on new organ donation initiatives, and reads the website contents and online awareness generation materials of three chosen cases as texts, namely, Mohan Foundation⁹ and its Anudaan program, conducted in collaboration with Milaap¹⁰, a popular crowdfunding organization¹¹, ORGAN¹² India¹³ and Shatayu¹⁴. Ethnographic instances are deployed to substantiate observations. The fourth research chapter centers on symptomatic analysis of the awareness generation material of an old organ donation initiative—Ganadarpan—a left-leaning rationalist, social reform movement that came to existence in West Bengal in late 1970s and pioneered organ donation initiatives

⁶ Organs derived from a transgenic animal.

⁷ Transplantation of animal cells, tissues or organs in humans or vice-versa.

⁸ Drugs or medicines that lower the immune resistance of the recipient body against a transplanted foreign organ.

⁹ See <https://www.mohanfoundation.org/>

¹⁰ See <https://crowdfunding.milaap.org/>

¹¹ An organization raising money in small amounts from a large number of individuals or public for a venture or project.

¹² Organ Receiving and Giving Awareness Network.

¹³ See <https://www.organindia.org/>

¹⁴ See <https://www.shatayu.org/>

in India. This chapter looks at various publications of Ganadarpan such as their monthly journals, occasional booklets and pamphlets, both in English and Bengali, collected from Ganadarpan archive at D. L. Khan Road in Kolkata¹⁵. Insights from situated experiences and ethnographic narratives gained during participant observation in the activities of Ganadarpan have also been deployed in this chapter to substantiate the observations or generate dissonance between organizational claims and purported ground reality.

The fifth and sixth research chapters reflect on subjectivity and self of the researcher and the others having immediate exposure to experiences that uniquely characterize situations of organ failure, need for a donor organ and subsequent transplantation, if at all possible. The engagement with the question of subjectivity completes the triadic schema of analysis having traversed larger institutional domains of biomedical law and bio-technoscience and meso-aggregate or organizational level of new and old organ donation initiatives in the preceding chapters. The fifth research chapter traces the social life of organs with special reference to categories like encumbrance and debt. Towards this end, this chapter emphasizes the human place of the researcher within the ethnographic text and contextualizes the problem by recourse to unfortunate personal experiences and serendipitous encounters which informed the perception of the field. Exposure to situations not only generates self-knowledge but knowledge about others—those suffering from CKD¹⁶, requiring long-term dialysis and support from family, kinsmen and friends. Exegesis of the self of the researcher in encounter with organ failure unfolds parallel to the exegesis of the life-experiences or narratives of the others in this chapter and culminates in the following chapter. The fifth research chapter has the researcher engaging the field of situated discourses primarily as a participant through unstructured conversations and personal observations on essential ingredients of the

¹⁵ I visited the Ganadarpan office at this address in south Kolkata several times in 2015-2016 and late 2019.

¹⁶ Chronic Kidney Disease—a long term condition where the kidneys fail to filter bodily wastes and excess fluids leading to fluid retention within the body.

narratives in the chapter, namely, dis-ease, anxieties, silences, discomforts, serendipitous knowledge.

The sixth and final research chapter looks at experiences of people directly exposed to organ failure and ways in which they negotiate imminent death and the psychic and interpersonal struggle involved in finding a donor organ for a relative or a loved one. This chapter is mainly based on ethnographic insights culled out from narrative encounters with people in front of the then newly established Renal¹⁷ Transplantation Unit at the S.S.K.M¹⁸ hospital in Kolkata. The information is not culled out from ethnographic interviews *per se* but constituted of open-ended and respondent-led conversations with people in and around the physical site of Nephrology¹⁹ building of S.S.K.M. hospital, about their experiences of organ failure of their near relatives and how they coped with it. This chapter has the researcher engaging in observation, coupled with documentation and critical use of spontaneous observations and situated narratives of people, unfortunately thrown in a challenging situation to questions, during conversations and queries.²⁰

Organs and their Travels through Macro-institutional Discourses

The first chapter “Organ Theft, Dispensable Bodies and the Biopolitical: The Macabre and the Limits of Law”, (dis)engages the THOA in India and its subsequent amendments, after the Foucauldian formulation relating to the mutual inter-implication of ideological moorings of the state apparatus and technologies of biomedicine (Foucault, 1973/2012, p. 45). This chapter posits, via THOA, the Indian state as the moral custodian of citizen bodies and the biomedico-legal machinery of the state as morally responsible to promote the deployment of

¹⁷ Relating to the kidneys.

¹⁸ Seth Sukhlal Karnani Memorial Hospital. Now renamed as Institute of Post Graduate Medical Education and Research, Kolkata. Still popularly called S.S.K.M.

¹⁹ A branch of medicine concerned with the treatment of kidney diseases.

²⁰ Although I began the fieldwork with an unstructured interview schedule, attempting to get a sense of the experiences of people at the throes of organ failure but gradually realized how difficult and ethically problematic it is even seek an interview appointment with such people, to carry out even an unstructured interview. Casual interaction leading to deeper conversations with key categories in mind appeared to be urgent mode of negotiation with the field reality.

the biomedical technology of organ donation and transplantation towards public good. Ground reality however demonstrates that this state-driven project is punctured by rampant illegality.

This chapter proposes critical engagement with THOA in India as a crucial step towards (dis)engaging the macabre domain beyond law. The THOA speaks unequivocally about the need to foster life in the context of organ failure by recourse to donation and transplantation. It is however cognizant of the fact that such biomedical technology generates a field of illegality. The state through the provisions of the THOA not only promotes organ transplantation to render life more productive, it simultaneously meticulously earmarks spaces of illegality—involving buying and selling of organs—which in essence is antithetical to the life-fostering gestures of biopolitical state, the biomedical system and related biomedico-legal statutes. In this process, life is ensnared in highly rationalized biomedico-legal strategies of biopolitical control. The juridico-institutional control of life in response to biomedical and bio-technoscientific advancements is rendered more pervasive, premised on finer definition, classification and categorization of what constitutes life and death, rational decision, consent and personhood in the context of organ donation and transplantation.

These definitions and determinations are not solely biomedical; they are biomedico-legal with profound moral underpinnings. This alludes to the futility of positing an opposition between the normative and juridico-institutional processes insofar as modern biopolitical dispensations are concerned (Golder & Fitzpatrick, 2009). Normative work is integral to juridico-institutional processes (Fassin, 2015). Parallel to all-pervasive biomedical and legal rationalization are forces of ethicalization and humanization which are significant moral forces to reckon with in face of: growing incidence of end-stage-organ-failure²¹ which constrains life and illegal organ removals in the absence of a legally available pool of donor

²¹ A condition when loss of function of a particular organ reaches advance stage or is irrevocably damaged.

organs, which too is life threatening, albeit for a select few. While promotion of organ transplantation technology and organ donation addresses the former, stringent curbs are fundamental to control illegal organ removals²² widely reported in national and international media.

This chapter juxtaposes macabre reports of organ theft or illegal organ removal against the ever-evolving body of organ transplantation law in India, not to arrive at some conclusive argument about the misuse of organ transplantation technology by those meant to deploy it towards moral ends but to examine the very nature of power that is intrinsic to biomedical technology, and the techniques of organ donation, retrieval, harvesting and transplantation in particular. This chapter (dis)engages the Foucauldian juxtaposition of law (characteristic of sovereign power of the ancient times) as antithetical to the biopolitical, i.e., modern power (Foucault, 1978), deploying the macabre as a critical category to theorize how legal enactments as biopolitical texts constantly negotiate the illegal, and in the process constantly (re)moralize citizen and clinical body. The domain beyond legal is significant not only because it incites moralization of citizen and clinical bodies owing to its macabre visage—the gross corporeal harm inflicted on select bodies but also confronts us with law-making as a dynamic biopolitical gesture—aiming to safeguard the body against death and violence, and the deductive dimension of biomedical technologies that seek to foster life of a privileged populace at the cost of others—whose bodies are conceived as dispensable, rendering law into a field of rational alertness.

To illuminate the space inhabited by dispensable bodies, which a positive biopolitical power categorically fails or lays bare to negative forces of bodily deduction, to invoke Agamben (1998), this chapter closely reads three cases of organ theft or illegal organ removal to come to terms with the selective reversal of life-fostering gesture of organ donation and

²² Organ removals outside the purview of law or THOA.

transplantation technologies and practices with regard to particular social collectivities or bodily subjectivities as a biopolitical process in that it involves inflicting corporeal harm on bodies that do not matter. In the first, the dispensable bodies are informal, contractual labourers from the Muslim minority community (see Gentleman, 2008; Overdorf, 2008; Press Trust of India, 2008; Russo, 2008). In the second are poor fishermen and women of tribal origin, living in the backward district and collapsing agrarian economy of North Dinajpur in West Bengal (see Bhaduri, 2016; Maitra 2012). In the third is the wife of a man who sells the latter's kidney at a hospital in Kolkata on "pretext" of an appendectomy²³ (see Doshi & Schmidt, 2018; *Latestly*, 2018; Pal, 2018).

Involvement of biomedical institutions, and formal procedures and professional expertise in the illegal removal of organs from vulnerable people comes across prominently in all the three cases. They indicate intricate involvement with active, organized transnational criminal networks of organ sale, involving actors and groups working in various capacities and performing various roles to make the removal legally seamless, purportedly based on donor consent. Such macabre cases haunt the unity or selfsameness of the legal. The macabre shows law its limits and incites negotiation with contravention of its morality. Modern biopolitical dispensations involve medical professionals and purveyors of law who valorize the life-fostering imperative of biomedical technologies. Yet the same dispensations are involved in deductive acts of transnational criminal networks in which dispensable bodies are victims of corporeal harm which unfold surreptitiously and evidentially in connivance with actors responsible for safeguarding the integrity of biomedical practice and sanctity of law. The macabre cases are thus a nagging source of discomfort for notional life-fostering dispensations, because its own personnel exceed the moral limits of their practice.

²³ Surgical removal of the appendix.

Macabre cases are significant not only because they demonstrate the limits of law or how deduction is intrinsic to biopolitical processes but also because they compel theorization of the material-semiotic systems of knowledge and cognition that construct the body as a hierarchically marked material effect, which in turn provides the locus for defining dispensability and empirically locating dispensable bodies. To explain further, macabre cases help posit the relation that obtain between body as a material effect and the biopolitical rationality that decides which empirical citizen bodies are to be protected by biomedical law and bio-technoscience, and which are to be laid bare or dispensed with. Feminist renderings (see Butler, 1993; Grosz, 1994; Kirby, 1997) help theorize bodily materiality as locus of biopolitics of dispensability. Such renderings help conceptualize bodily materiality as a shifting and unstable field of openness, constrained by patriarchy which conceives of woman's bodily materiality as an inferior version of the man—*a sharp difference within the same*—one that leads to the deprave location of woman's body within social hierarchy. Intrinsic to such inferiorization, are series of "violations" (see Butler, 1993), cognitive-intellectual and physical-material, which rules out all possibility of locating bodily materiality outside of discourse, power and ideology. "Violations" or violence is productive of the body in its naturalness and sociality, and incites thinking of bodily materiality as locus of biopolitics of dispensability. Violence marks the body in the most corporeal ways and generates a material-semiotic field out of it. The body is a material effect of series of material-semiotic violations which puts in place a differential scale of sameness—one that classifies, categorizes, hierarchizes, glorifies or degrades particular forms of bodily subjectivity *viz-a-viz* others.

Feminist renderings of bodily materiality help theorize biopolitics of dispensability by recourse to a general theory of body, which demonstrates how and explains why marginalized collectivities and bodily subjectivities—informal or contractual, working class men belonging

to minority religion, men and women of tribal background, deprived agrarian and non-agrarian informal workers like fishermen and fisherwomen, and women in general—are targeted for donor organs. Contemporary biomedical technologies of cure and healing such as organ donation and transplantation work within a frame of reference that presupposes, to deploy Butler (2004), a schism between the human and “less-than-human” or “abject” bodies—to the extent that the same biomedical technology or biomedico-legal paraphernalia that aims to safeguard the life of some, puts selective others at the brink of death or exposes them to the corporeal harm involved in organ theft or illegal organ removal, premised on theft, deception, manipulation and persuasion.

To account for this precarity, this chapter resorts to Agamben (1998) to demonstrate that contemporary biomedical technologies like organ donation and transplantation perform the sovereign function insofar as the exercise of power over bodies is concerned. This is because the sovereign function is intrinsic to modern biopolitical dispensations. This is no rejection of the Foucauldian dictum that modern biopolitical dispensations aim at normalization. Rather normalization and sovereign function of juridical-institutional structures, in this chapter, the instance of the biomedical technology of organ donation and transplantation, work in tandem to exercise control over life and bodies towards purported betterment, but such control has both productive and deductive dimensions.

Organized crime involving illegal removal of organs from bodily subjectivities with marginal socio-economic location generates moral concerns which the modern biopolitical dispensation has to answer to reaffirm the grounds of legitimacy of its control over life in the face of violation. Intrinsic to power—sovereign or biopolitical—is the dimension of violence. The “violation” or violence involved in the macabre cases demonstrates that power over life is exercised differentially (see Butler, 1993, 2004), premised on an intimacy between biopolitics and dispensability. This chapter does not merely demonstrate the involvement of

the purveyors of law in a biopolitics of dispensability. It foregrounds on a general plane how conceptions of dispensability are built into the biopolitical weave of life-fostering biomedical technologies which renders the biomedico-legal framework circumscribing them into a dynamic field of rational alertness—perpetually reconfiguring its moral premises in face of new challenges or threat, endogenous or exogenous.

The second chapter “Xenotransplantation, Chimeras and the Biopolitical: Troubling Animal Futures” revolves around genetic engineering in general, and xenograft engineering initiatives²⁴ and xenotransplantation in particular, which has put life in its microcosmic form under unprecedented “control” (Franklin, 2007) oriented towards pursuit of hope for a better life through rehabilitative animal futures. Two bioengineering companies, Revivicor and eGenesis, have been analyzed as cases (through their press releases) in this chapter, which aim to engineer transgenic alternatives to human organs as a corrective for end-stage-organ-failure and organ scarcity. Engagement with these cases throws light on the conviviality between biomedical research and technoscientific innovation on the one hand and financial investment and market involvement on the other. The press releases of the bioengineering companies point to the fact that biotechnoscientific initiatives are deeply entrepreneurial. Biotechnoscientific innovation requires financial investment and market involvement, without which such research is rather limited in scope and scale of activity. The promising commodities such research offers render it a field for speculative investment. This inspires collaboration among bioengineering and xenoengineering companies through procuring, buying and acquiring of licenses and patents. Such organizational posturing celebrates the unprecedented “control” genetic engineering and xenograft initiatives have come to exercise on the “intractability” of biology. This control manifests in Revivicor and eGenesis

²⁴ The genetic engineering of grafts or organs of animal or transgenic origin that is compatible to human bodies for the purpose of transplantation.

enunciations in and through “gal”²⁵ inactivation and “perv knock-out”²⁶ towards engineering “galsafe” pigs²⁷ or “perv free” piglets²⁸—the chimeras, and the introduction of protein CD64²⁹ in pig gene in order to “tolerize” human recipients to xenografts.

Biotechnoscience practitioners and financial investors are compatriots in such chimerical play seeking to achieve “revolutionary” goals, eulogizing each other through public show of admiration and calls for concerted action. Study of press releases and achievement-claims of Revivacor and eGenesis reveal acts of looking beyond a given biology rooted in DNAs³⁰, genes and cells. Their discourses thrive at the level of the chimerical as much as the material, for they constantly invoke fantastic visions and spectacular images to explain what they have achieved or what could be achieved human good in terms of new rehabilitative futures. Such enunciations are full of technoscientific inflections and market allusions, and perform the function of pushing cellular materiality to the chimerical—potentially embodying promises of a better but hybrid biological futures via animal route. This chapter locates the chimerical not only in the new animal visions of the future but also in the innovative material “cuts” of the CRISPR³¹ technique and the ideational conundrum surrounding the “pervs”—which featured in the *Science* magazine’s “Breakthrough of the Year, 2015”. The promise of CRISPR to ensure precise deletion of “pervs” from pig genome as the way towards safe xenotransplantation provokes a close look at genetic engineering of promising chimeras (Chimeras [Genetics & Mythology]) through innovative manipulation techniques of xenograft initiatives.

²⁵ Enzyme that catalyzes the transfer of galactose, which similar to glucose.

²⁶ Deletion of pig endogenous viruses from pig genome.

²⁷ Cloned pigs without gal or sugar endogenous to pig gene.

²⁸ Genetically engineered piglets which have the pig endogenous viruses removed or deleted through gene editing.

²⁹ A type of integral membrane glycoprotein.

³⁰ Deoxyribonucleic Acid.

³¹ Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)—a unique advanced technology to edit parts of the genome by removing, adding or altering DNA sequence.

But contributions to *Science* on CRISPR breakthrough also documents disagreement about its promises. Biotechnoscientific innovations are subject to scrutiny not only by the practitioners but beyond. Nonetheless a general climate of appreciation prevails in *Science*'s contributions to the analysis of CRISPR. Beyond appreciation and scrutiny in relation to CRISPR and genetic engineering of chimeras, what draws attention is how biotechnoscientific innovation thrives on confusion. "Pervs" in the xenograft engineering discourses symbolize the quintessential moment of confusion or conundrum biotechnoscience hopes to build upon. The CRISPR technique—an eGenesis innovation—has "pervs" at the center of its discourses—one of the main obstacles to pig-to-human xenotransplantation. The deletion of "pervs" through CRISPR is a crucial moment in the genetic engineering of de-porcined, humanized pigs—the chimeras—as source of human-compatible organs. Ontological speaking, if "pervs" are integral to porcine identity and antithetical to the human, then "deletion" of "pervs" in pig genome marks the quintessential chimerical moment—the chimeras being the "perv free" piglets.

Despite eulogies and "supportive" counter-claims relating to the prowess of CRISPR technique and its onslaught on the "pervs", a close study of *Science* enunciations reveal that biotechnoscience experts and virologists do not concur or agree on whether "pervs" at all pose hindrance to pig-to-human xenotransplantation. This raises two notable issues: firstly, even when there is no concrete evidence about "pervs" infecting humans, the pursuit of "perv" freedom is not seen as undesirable, rather eGenesis effort in that direction receives appreciation, and secondly, the eGenesis team of biotechnoscience experts opine that the "pervs" are not the only hindrance, there are other challenges for which extra "genetic tweaks" are required. Thus the chimera would reach completion (though tentative) only when "genetic tweaks" involving modification via additions in pig gene is achieved to humanize it. The "perv free" piglet therefore is not the final chimera; rather it is a single, discrete moment

in the genetic engineering of a series of chimerical moments, the final realization of which is perpetually delayed. eGenesis, the Harvard geneticists associated with the company and the CRISPR technique they devised, thrive on the uncertainty of biotechnoscientific knowledge, which propels hopeful innovations ahead. Biotechnoscientific initiatives do not only discover firm grounds of certainty but by flickeringly navigating the slippery ground of human knowledge carve out ways of remaining relevant by capitalizing on conundrum. The CRISPR and the promise of “perv” freedom are various dimensions of this conundrum. The way zinc nuclear fingers³² and TALENS³³ gave way to CRISPR as the most advanced method of gene editing. In similar manner, although “pervs” function as the locus of CRISPR revolution at a particular point in the laboratory history of biotechnoscience, they are *always already* to give way to newer confusions, generating newer grounds for innovative attempts to reach tentative certainty, to be ousted soon.

Immunesuppression³⁴ as a biopolitical modality works parallel to xenograft engineering initiatives. Immunesuppression as a biomedical intervention functions by way of suppression of the immune system of the body to ensure its survival in the face of organ failure and organ transplantation. In case of xenotransplantation, where there is lack of compatibility between the donor organ of transgenic or animal origin and the recipient human body, risk of immunological rejection³⁵ is far more immediate, requiring immunesuppression. Excessive immunesuppression however renders the recipient human body unguarded against infections and xenozyoonosis³⁶. Because of these limits of immunesuppression in xenotransplantation, xenograft engineering companies have come forward with the promise

³² Zinc Finger Nucleases (ZFNs)—engineered or artificial restriction enzymes that can target and modify specific DNA sequences within the genome.

³³ Transcription Activator-like Effector Nucleases (TALENs)—a precise and efficient gene editing in live cells.

³⁴ A common practice in organ transplantation, involving suppression of the immune system of recipient body to accommodate the transplanted foreign organ.

³⁵ Non-acceptance by the immune-system of the body.

³⁶ Infections transmitted from animals to humans by the transplantation of animal cells, tissues or organs in human bodies.

of producing genetically engineered pigs—the chimeras, which have the risky “perv” genes deleted and human compatible genes added through gene-editing. The pharmaceutical sector has also been trying to develop new immunosuppressives to ensure xenograft viability without rendering the recipient human body unguarded. Two trends are thus perceptible: one is the attempt to develop *alternatives to* immunosuppression through genetic engineering of chimeras, and the other is the development of new immunosuppressive drugs which promise to increase xenograft survival by significant number of days. While the first sustains xenograft engineering initiatives, the second supports a new immunosuppressive drug market, a sub-set within the larger system of biomedical governance what Sunder Rajan (2017) has called “pharmocracy”—partly dependent on the demands generated by organ transplantation.

Like genetic engineering, immunosuppression is one among the multiple modalities of biopolitical control, not only in that it controls vital bodily functions through biomedico-technoscientific regimen, its limitations also function as the scientific and moral rationale behind gene editing, genetic engineering of chimeras, and the new pharmaceutical research initiatives to develop immunosuppressives to ensure xenograft survival and financial investment in this particular sub-sector of the larger pharmaceutical market. Further, such hopeful venture which ensures survival of the patients afflicted with organ failure, brings accolades for biomedical and biotechnoscience experts, profits and market presence for xenoengineering companies, deprives animals, cloned or otherwise—the targets of transgenic trials, hapless products of xenoengineering feats, from any ethical treatment. The hope that surrounds xenografts or transgenic organs for human survival has pain, harm and violence in the animal register, overlooked in the humanistic-anthropocentric-technoscientific frame of reference.

Transgenic or cloned animals in xenograft engineering initiatives have attractive names, for they are lucrative commodities to be sold on the market. Persuasion via chimeras

become impactful only because they operate within a humanistic discourse of hope for better life at present and future for humans through animal route. The troubling question of the fate of cloned animals in transgenesis, from which xenografts are retrieved and harvested, is reluctantly set aside. Such hope is not only exclusive in that it envisions an animal future for humans in a register that has no place for animals, it is also illusory. Biotechnoscientific practices like xenograft engineering thrive at the level of illusory hopes and promises, which show humans the way toward enhanced and optimized conditions of living (Rose, 2007)—which are not lies *per se*. Illusion rather is a positive propelling force toward fantastic visions. What gets occluded in such spectacular narratives, where a biopolitical biotechnoscience-industry-market nexus overcomes human predicament via animal route, is the fate of the chimeras—the pigs engineered or cloned or used as means to serve human ends—the “abject” (Butler, 2004) others of the biopolitics of hope. Further occluded is how life in general, in its lower or higher form, gets entangled in the biopolitical nexus of xenograft initiatives producing chimeras safe for xenotransplantation on the one hand, and the emerging market of new immunosuppressive drugs which can augment xenograft survival on the other hand, constituting parallel, convivial biopolitical modalities of controlling and manipulating empirical bodies and body in abstract.

Organs and their Travels through Organizational Donation Discourses

The third chapter “New Donation Initiatives, Biomedical Power and Subjectivation: The Biopolitical beyond State and Biomedicine” looks at new organ donation initiatives, focusing on power and modes of subjectivation in relation to new donation initiatives. Organ donation initiatives, whether old or new, represent a field of power in the Foucauldian sense, beyond institutions of state and biomedicine but deeply implicated in the imperatives of modern biomedical power, in that they aim to shape subjectivities through knowledge about human body towards specific goals. This involves shaping of subjectivities through regimes of truth

about body, modern biomedicine and desirable biomedical subjectivities (Rose, 2007)– through the field of power these new initiatives put in place through donation advocacy.

This chapter looks at how new donation initiatives reconfigure human subjectivities and experiences in ways unimaginable in the past or in the prevailing modes of thought– which in turn leads to engagement with unique reconfiguration of older categories already in circulation in organ donation and transplantation discourses, and generation of new, hitherto unthought-of categories, which offer newer possibilities of thinking the pervasiveness of the biopolitical beyond institutions of state and biomedicine and how such reconfigurations and new categories engender new processes of subjectivation. This chapter contends that the effect of these reconfigurations and emerging categories is particularly manifest in the most intimate domains of human experience which throws light on the nuanced workings of the biopolitical, which are products of unprecedented experiential and structural circumstances. Towards this end, this chapter engages in a critical reading of the website contents of select new initiatives, namely, Mohan Foundation, ORGAN India and Shatayu.

This chapter demonstrates that new initiatives represent an entrepreneurial orientation to donation advocacy and transplantation practice, and its consolidation as an emerging area of expertise, which does not only represent the capitalization of organ failure and processes of cure and healing through transplantation but reconfiguration of providers of transplantation services, beneficiaries or recipients of organ donation and transplantation, organ donors and agents of donation advocacy, after a new entrepreneurial ethic which lends a professional and managerial dimension to how new initiatives function, imagine subjectivities and redefine affect or emotion or psychological state in relation to the experience of the disease and efforts at alleviation.

Anudaan initiative of Mohan Foundation aims to generate a financial corpus for making organ transplantation available to the diseased needy through collaboration with

Milaap. Content analysis of Anudaan initiative reveals that fundraisers are no unadulterated philanthropy. Rather their maneuvers are located in the bioeconomic moorings of contemporary biopolitics of hope which locates biology at the centre of discourses of capitalization and its entrepreneurial *avatar*, which in turn puts in place modes of subjectivation whereby recipients or beneficiaries of transplantation through crowdfunding are rendered entrepreneurial subjects involved in performative orchestration of affect—the tragedy of organ failure, performing affectual labour as productive ground for monetization and concomitantly become objects of surveillance for scrutiny of the credibility of affect—the authenticity of grief and tragedy related to organ failure. Production of subjects who adopt an entrepreneurial approach to affect or emotion is not only perceptible from the viewpoint of recipients or beneficiaries of crowdfunding, even contributors or funders get invested and involved speculatively in the generation of the fund rather than only in the alleviation of the disease related to the publicized cause, wherein grief and tragedy are rendered mere means to an end. Under such circumstance, the compassionate crowd is more psychologically invested in the production of an aggregate financial effect. This is no diminution of human compassion but rethinking of affect in the context of cure and healing where these experiential categories are entrepreneurially recasted.

Parallel to this, deploying the case of ORGAN India, the chapter demonstrates that there occurs a process of production of psychotherapeutic subjects, wherein the emphasis is on the mind—the management of interiority as way of coping with organ failure and transplantation. The psyche of the patient or recipient is posited as the site of intervention. Positing of organ failure as a problem of psyche which can be overcome through maneuvers of the self—the adoption of a therapeutic approach to psychological determinants and a positive attitude to life as an ethical imperative. Production of psychotherapeutic subjects and the call for management of interiority through agential off-shoots of a decentered pastoral

biomedical regime, wherein new donation initiatives transform organ failure and organ transplantation into a purely psychological experience bereft of biological and societal dimensions. Through such psychologization of trauma associated with organ failure, the foundational premises of modern biomedical regime are unsettled through the new managerial paradigm of contemporary biomedicine involving movement from hard facts of the body to soft dynamics of mind, reclaiming of agency through volition and knowledge, and a psychotherapeutic approach to one's troubled self and body, which also unsettles the expert-oriented discourses of modern biomedical sciences to include non-experts with exposure to organ failure and transplantation as facilitators or providers of experiential knowledge.

Beyond an emerging, apparently level-playing field, premised on transformations contemporary biomedicine promises, conventional social hierarchies and class contradictions between the recipient or donee and the donor remains, indicating pervasiveness of modernist class hierarchy among others even in face of universal "responsibilization" of biomedical subjectivities (see Rose, 2007). This is demonstrated in this chapter through an engagement with a Shatayu awareness generation material, where Rohit, the protagonist of the comic, emerges as the "true hero" against Ramu Kaka, Rohit's driver, who is the deceased donor in the narrative. From glorification of the donor as "super hero", there is an obscuration of the donor in the narrative. This can be attributed to two reasons: one is the inherently hierarchical nature of the organ donation and transplantation practices, where the donor gets obscured by the hopeful narratives of survival of the recipient, there being a hierarchical opposition between the donor and the recipient, and the second is the class character of the narrative specific to the comic book, where the driver, Ramu Kaka's posthumous contribution is superseded by the facilitating gesture of his master's son, Rohit. This second point elaborates the inherently hierarchical relationship between the donor and the recipient, especially in the

Indian context were most donors are from socio-economically vulnerable and such poor live donors continue live in darkness. Such obscuration is also noticeable in the introductory note to the comic book by the Chairman of Shatayu, where the “kindness” of the donor is acknowledged, yet disavowed at the same time through lack of identification. This is no mere legal compulsion, but manifests the inherent schism, despite eulogies in favour of the donor, which separates the recipient from the donor, setting aside the latter in a zone of individual and legal indistinction, into abstraction, beyond the empirical act of donation, which invites temporal valourization.

The opposition between indistinction and valourization with its inherent class dynamic is characteristic of the processes of subjectivation in and through off-shoots of pastoral biomedical power, characterized by dynamics of centralization and decentralization, where non-clinical or extra-biomedical, yet extended and connected institutions, practices and agents come to wield power over individuals through donation advocacy. Not as coercion or impositions from above but as facilitators in the production of “right” kind of subjectivities which are morally disposed to exercise power towards greater biomedical good (Rose, 2007). That there is no coercion or imposition from above need not imply that such discursive spaces are devoid of socially generated and reproduced schisms. Responsible subjects like Rohit are perpetually haunted by hierarchies that seep into the production of purportedly selfless, altruistic subjects.

The fourth chapter “Ganadarpan, Techno-Materialist Ethic and an Ambivalent Marxism: Body-Idioms of an Old Initiative” looks at body-idioms of an old organ donation initiative, Ganadarpan. Within the Ganadarpan discursive field, the figurative enunciations pertaining to the body are posited via modern biomedical discourse but go beyond the literality of the biomedical vocabulary which locates the body in three-dimensional material space (Das, 2010), to engender other modes of meaning-making about the body. This chapter

engages the excesses which escape the discursive closures of modern biomedicine thereby provoking excursus into overflowing figurations of body. Body-idioms emanating from the extra-biomedical discursive field of Ganadarpan help conceive bodily materiality not necessarily in opposition to the body of modern biomedicine but in constant dialogue.

The body-idiom of Ganadarpan derive from a techno-materialist ethic with profound biomedical underpinnings and left-leaning political orientation, yet the idiom is reconfigured in unthought-of ways which help trace in its enunciations biopolitical moorings of the kind of liberal governmentality (Foucault, 1991). Such mooring is traced in this chapter through a close exegesis of its discursive field—monthly journals, pamphlets and booklets, and seminar and workshop proceedings published in both English and Bengali.

For Ganadarpan, falling back upon a techno-materialist conception of human body as the basis of its claim to generate social awareness about posthumous body and organ donation is the foundational ethical and political move. Donation initiatives are intrinsically based on knowledge about the so-called truths of human body and how such truths are manifest in its material space (Das, 2010; Foucault, 1973/2012). The domain of intervention is however the posthumous body in opposition to the living body of biomedicine. Modern biomedicine has generated truths about what constitutes the living and the dead body—the other of modern biomedicine (see Das, 2010), because fostering life is intrinsic to its biopolitical project (Foucault, 1978). Drawing upon the knowledge provided by modern biomedicine about death and dead body, Ganadarpan generates awareness about cadaveric donation centering on the principle of brain-death³⁷ which bifurcates the clinical moment of death into brain and cardiac, and demonstrates how life thrives in the vital organs of body even after the brain has ceased functioning irrevocably. Biomedical knowledge of brain-death and biomedico-legal provision of its institutionalized declaration under specific clinical conditions as the basis of

³⁷ A condition in which the brain has stopped functioning irrevocably but the cardiac function continues, ensuring supply of blood to all vital organs.

body and organ donation for medical research and organ transplantation, is assimilated within Ganadarpan discursive field toward rational societal ends through extrapolation of biomedical knowledge about brain-death in the extra-biomedical domain—the public sphere, which is unwelcoming of the concept based on communitarian and religious conceptions of life, death and the aftermath or beyond.

The rationalist and reformist ethic of Ganadarpan derives from adherence to the modern biomedical concept of body, life and death, where ethics is premised on rendering the functional materiality of human body and constituent organs medically and socially useful in posthumous condition via technology of organ transplantation, and biomedico-legal declaration and public acceptance of brain death as basis of a successful organ transplantation programme. For the activists of Ganadarpan, both medical and non-medical, the ethics of the initiative is premised on social desirability of public knowledge and acceptance of transferable functionality of material human organs via biotechnoscience as much as it is about actual materialization of the public use of this transferable functionality and biotechnoscientific innovation, avoiding organ waste through communitarian hindrances or lapses in institutional mechanisms.

But the univocality of Ganadarpan discourse and the conception of body it presupposes, this chapter suggests, is destabilized by contradictory inflections, leading to a new ethico-political and ideological imagination, resulting in an ambivalent Marxism. These destabilizations are productive in that they generate possibilities emerging out of co-articulation of ideas, concepts, world-views and imaginations from oppositional discourses, leading to new modes of conceiving the body, subject and power. The biomedical conception of body represents the literal in this chapter, which emanates from standardized biomedical parameters, stable and obvious. The idiomatic, on the other hand, represents the domain of signification beyond mere literality of signs.

The critical function the invocation of the idiomatic serves is: firstly, the literal or the obvious in this context is the techno-materialist ethic of Ganadarpan but it is not the be-all and end-all of the narrative, for that involves taking for-granted the stability of the ethic emanating from modern biomedical conception of body. Secondly, taking cue from the former, invocation of the idiomatic facilitates grappling with the unthought-of turns and excesses in Ganadarpan's enunciations. The idiomatic leads to the realm beyond established modes of meaning-making to the co-articulation of oppositional ideologies and marginal strivings to reclaim the foundational Marxist ideology compromised in the process.

At least three instances of this can be cited: Firstly, despite remaining largely within the Marxian materialist and dialectical conception of social development, the Ganadarpan initiative is ensnared in the evolutionary binaries of pre-modern versus modern, community versus civil society, tradition versus technology, Orient versus Occident and so on, coming to think of the community as atavistic—one which poses hindrance to organ donation and transplantation—to be resurrected through the welfarist voluntarism of the rational liberal subject under the encouraging pastoral guidance of the state. Here is a conception that fuses Marxian materialism and dialectics within an overarching triadic matrix of the regressive community, the volitional liberal subject—the right-bearing citizen body, and the Foucauldian pastoral state (1982) as the three vertices. The second is a more specific instance of Marxist orientation of the initiative but one that resorts to the liberal subject as the way out of the mire of community. In spite of conceiving of the dead or posthumous body as public property, deploying a Marxian frame, and hence invoking the state's originary right to exercise proprietary control over the citizen body, Ganadarpan's discursive enunciations by and large posits the rational decision-making of the liberal subject as the vehicle for transforming the body as an individual property into a property of collective ownership. The encouraging involvement of the state through constitutional provisions is posited as necessary

precondition to attempts by responsible citizens to help reclaim the proprietary control of the state over citizen bodies. These two instances represent the unthought-of domain of co-articulation of oppositional ideologies. The third instance revolves around attempts to reclaim the foundational Marxian discourse by minimizing liberal tendencies, foregrounding how the concept of human organs as having “use-value” is not a prelude to the commodification of human organs or thinking of them as having “exchange-value” (see Marx, 1867/1995) and unproblematically thinking of liberal freedom as the vehicle for materialization of organ donation and transplantation overlooks the frailty of individual freedom in the face of atavistic powers of community for which socialism as socio-political dispensation is the only panacea.

The body-idiom of Ganadarpan predominantly resonates the biomedical concept of body which enacts co-articulation of two worldviews: liberalism and Marxism. The way Ganadarpan initiative recasts the subject and body in a liberal guise within a register of Marxism or retains Marxian concepts within the framework of liberal governmentality shows how Ganadarpan’s enunciations enact a Marxism that exceeds its premises to gain a new liberal dynamic, and turn ambivalent by locating the techno-materialist conception of human body within a conceptual matrix with regressive community, liberal subject and pastoral state as three vertices. Ganadarpan’s ambivalence is particularly locatable in the double-bind of trust and doubt relating to individual freedom, which renders the liberal subject a slippery ground for materialization of a successful organ donation and transplantation programme in face of the disabling forces of community in the absence of state-enforced mechanisms of presumed consent³⁸ or compulsory donation at death.

³⁸ A system of organ donation where all individuals are treated as organ or body donors at the point of death, unless they have opted-out through prior declaration.

Organs and their Travels through Discourses of Self and Other(s)

The fifth chapter “Encumbered Ontology: An Intimate Foray into the Sociality of Human Organs” depicts how human organs are embedded in the complex web of societal relationships. This is demonstrated in this chapter through an intimate foray into the experiences of organ failure and its familial management within government hospital setting, with reference to immediate and alien others of the researcher—the extended family and unknown people encountered at the Nephrology building of the S.S.K.M. hospital.

Human organs exhibit characteristics of encumbered property. This encumbrance derives from societal embeddedness of human organs, even though they may appear to have no independent sociality or semiotic existence apart from the material bodies in which they are empirically located. Human organs are not visible like the whole body. Material and empirical evidentiality depends on technologies of imaging. Yet there is a possibility of grappling the materiality of human organs, which is not visible to the naked eyes or palpable to untrained touch, by recourse to complex unrecognized relational and semiotic terrains human organs traverse. Recognizing the sociality of human organs is not a gesture of denying their biological basis. This rather involves recognizing that human organs are as much natural or biological as they are social, cultural and political, and therefore a sociological study of human organs ought to take into account the social ontology of organs—which is obscured by the biomedical and technomedical discourses in particular and the universalistic discourses of life science in general which reifies human body as essentially non-social.

This chapter talks at length about the intimate trajectory of the research in this thesis and how it propelled the researcher to consider recourse to personal experiences as a way of tracing the sociality of human organs. In this intimate trajectory, two moments counted as crucial in crystallizing the social ontology of the non-social—the organs. One moment is extremely intimate in that it relates to the immediate, interpersonal and familial experiences

associated with kidney failure of my elder uncle—my *boro jethu*³⁹ and my younger sister-in-laws' attribution of my uncle's poor finances in face of kidney failure to the unwanted burden of my elder cousin brother and his children. The other moment is not intimate *per se* but has implications for what is conceived as intimate in that it is related to unintended exposure to unanticipated information about an unfamiliar world—about a young man undergoing dialysis at the S.S.K.M. hospital and his relatives and care-givers, yet by way of a combination of various situational coordinates, I end up bearing witness to a sensitive fragment of telephonic conversation, that disturbs my taken-for-granted assumption about organ failure and how it impacts the ailing person and the support system around.

What draws my attention as an ethnographer of the social is how the ownership question figures in these two instances. This is not only associated with who owns or inherits property of the ill or ailing beyond death, it is also a question of how the failing or failed organ becomes the focal point for discourses and disputes pertaining to proprietorship. The second case is unfamiliar and inspires greater attention, whereas the first creates the intimate conceptual-empirical edifice for engagement with the second. It is not that I could gather enough substantial information from what *Saraswati's*⁴⁰ brother-in-law was communicating over phone—a fragment of conversation I overheard. But nonetheless, two points are derivable from the fragment which has implications for the conception of human organs as encumbered property.

Firstly, the right to legitimately act, to partake in decision-making and execute necessary responsibilities of taking care of the ill does have solid connection in some perceptions with the character traits of particular individuals—how they have (mis)managed the trajectory of their own life and how (mis)management has put them in the troubled conditions in which they find themselves. This is also true in case of my elder cousin brother.

³⁹ Father's elder brother.

⁴⁰ Name changed.

In short, one does not have adequate legitimate justification to partake in decision-making or getting involved in the life of an already endangered person, if he or she has endangered his or her own life. Because, Saraswati, despite having badly failed, from the point of view of her elder brother-in-law, to secure or settle her life according to societal aspirations, was trying to make a significant claim to decide and act, and execute the claim with diligence, she immediately entered into a conflictual relationship with her elder sister and brother-in-law who thought they have greater legitimate right to partake in care-function and decision-making relating to their ailing brother.

Secondly, the conflict is essentially between the elder sister and her husband, and the younger sister or sister-in-law, i.e., Saraswati—relating to whether the latter has any legitimate claim to the failing body of the ailing brother. To begin with, there are issues relating to the legitimate claim to property, of which *Kartick*⁴¹ has the socially ascribed immediate right to ownership, for his parents are too feeble and old but owing to his indisposed condition, Kartick is not able to assert the claim. Saraswati's elder brother-in-law smells foul in her proactive involvement in her ailing brother's life. He is convinced she knows that her brother will perish but will not donate her kidney to save him. By overdoing herself, Saraswati is trying to make a strong claim to control paternal property of which her brother is the undisputed heir but has the prerogative compromised. The claim to the right to control property, in the utterances of the elder brother-in-law, is cast in a language which frames such claim as legitimate only if the claimant, i.e., Saraswati, is willing to part away with a part of her body—in this case, her kidney. The inalienability of a woman's right to claim and control paternal property is called into question by asking her to prove how worthy she is of the right by donating her kidney to her ailing brother. An equivalence is assumed between Saraswati's right to claim paternal property and corporeal self-alienation by deciding to give away an

⁴¹ Name changed.

inalienable part of her body—a kidney—in donation to her ailing brother. Saraswati's elder brother-in-law does not think of women's right to paternal property as dispensable in general, for he is emphatic about his wife's right to paternal property. But such claim is communicated in a way which foregrounds her seniority and impeccable character viz-a-viz Saraswati, who is younger and has a purportedly disputed life-trajectory, which is the legitimate ground for disqualifying her claim to property.

Thus, in this chapter, kidneys of Kartick and Saraswati make a marked material-semiotic appearance or enact a discursive performance as encumbered property in the enunciations of the elder brother-in-law. The kidneys of Kartick have failed and is dialysis-dependent for survival whereas Saraswati's kidneys are healthy but are invoked by the elder brother-in-law, who sees in Saraswati a potential kidney donor for her brother but assumes that Saraswati is not generous enough a human person to donate a healthy kidney to her ailing brother. In these enunciations, kidneys of Kartick and Saraswati display properties of encumbrance in that although they are owned by discrete bodies, empirically located in three-dimensional spatial and material site of the body, to invoke Das (2010) of distinct citizens, and belonging to them both empirically, legitimately and ethically in non-negotiable terms, but is compromised by encumbrances. In Kartick's case, there is a claim to his ailing body and associated care-function towards his failing kidneys, by both of his sisters and elder brother-in-law, where the more legitimate claim of the elder sister is voiced through the elder brother-in-law, while the younger sister, unlike her elder sister on whose behalf her husband speaks, makes her presence felt silently by reaching the hospital on time to execute the disputed care-function. Kartik's failing kidneys get encumbered by conflicting claims to control and care by his immediate relatives, yet clearly distinct from his own right-bearing body. The encumbrance is palpable in Kartick's case because he is ill, wheel-chair bound, and dependent on others for care. In Saraswati's case, although her kidneys are not ailing, are

inserted into the discourse by her elder brother-in-law. Saraswati's kidneys are thus encumbered by external restrictions imposed on her kidneys by her elder brother-in-law who assumes that she will not donate a kidney to enable her brother survive and is only interested in paternal property.

Kartick's and Saraswati's kidneys therefore, ontologically speaking, exhibit features of encumbered property in that there are conflicting claims to and about them, and there are restrictions imposed, symbolic and semiotic, with material implications, by individual and collective or societal forces. Such exegesis of how human organs exhibit material-semiotic encumbrance or enact those encumbrances, is a prelude to deeper ruminations about sociality of organs with special focus on the question of morality and how it inscribes organs tangibly and intangibly.

The last chapter "Of Debt in Organ Donation: Ethnographic Ruminations on Moral Life of Human Organs" centers on ethnographic ruminations on moral life of human organs through the analytical trope of debt (*riin*) in organ donation. The ethnographic narratives in this chapter points to the wariness of individuals to incur debt that may have moral implications—the debt involved in receiving a donor organ, especially from a known person. Human society moralize all debts, even when they are monetary and based on legal contract. Debt binds the lender and borrower in an abstract moral relationship beyond the palpable legal contract or immediate modes of kinship or social relatedness. Such relationship has longitudinal implications, beyond life-trajectory of particular empirical individuals, and is best manifest in contexts where debt is incurred in non-contractarian, non-institutional modes, particularly in immediate interpersonal relationships.

All three ethnographic narratives in this chapter represent unique negotiations with the specter of moral obligation or burden the debt involved in receiving a donor organ brings in its wake. The dominant economic explanation is that people incur debt when they do not

have money to partake in a venture or mitigate a crisis. Debt under such circumstances involves a rational orientation on the part of an individual towards future gains or solving any crisis. But what does the study of economic behaviour have to say about attempts not to incur any further moral debt or rule out possibilities of being trapped in moral debt or attempts to neutralize moral debts with inter-generational obligations, even in the face of severe crisis which have life-and-death implications, by way of actions which suspend the trap of moral indebtedness?

All the narratives implicitly or explicitly recognize the moral value of human organs and enact abstention or make failed attempts not to incur a debt involved in the accepting or receiving of a donor organ—an act that has the spectral effect of rendering the recipient perpetually indebted to the donor. The moral value of human organ has the capacity to spectrally haunt the recipient—real or potential, and family members, relatives or care-givers, in response to which Rajesh Ganguli⁴² plans to offer monetary compensation to the proposed donor to minimize the humbling effects of receiving a donor organ or suspend moral indebtedness or wait for the state-provisioned organ his elder brother is entitled to as a wait-listed candidate, whereas Prabir Samanta⁴³ accepts his brother-in-laws' proposal to donate a kidney to his wife in trying circumstances—which renders him deplorable, and Hasibul⁴⁴ negotiates the situation by not considering promises of organ donation from the social collectivity, rather accepts money with hesitation—a debt he conceives as possibly less burdening and vitiating of the self of the recipient or immediate care-givers.

Human organs have an inherent moral value at the interpersonal-experiential level, which is spectrally accentuated when a donor organ is involved and generates greater tangible and intangible obligations in opposition to tangible monetary debts, which is why Rajesh Ganguli ideates monetary compensation and Hasibul hesitatingly accepts monetary help

⁴² Name changed. The first respondent in this chapter.

⁴³ Name changed. The second respondent in this chapter.

⁴⁴ Name changed. The third respondent in this chapter.

rather than a donor kidney as modes of negotiation. This demonstrates how individuals respond to crises, navigating rationally across registers of valuation—moral and monetary, until they prioritize monetary over moral debt, unless incurring a moral debt becomes inescapable, like Prabir Samanta, who conceives of his condition as deplorable when his wife receives her brother's kidney. Thus their actions embody a rational orientation to debt—one that is acutely aware of moral consequences of receiving a donor organ and decides through calculation in favour of monetary debt or monetary resolution of moral debt in organ donation, especially when the donor is a close relative or a known person. Yet this rational calculation and the decision that is arrived at has deep moral underpinnings, involving value-judgments on part of the actual or potential recipients or their family members or care-givers, which is why receiving a donor organ through bureaucratic allotment appears safer, as a form of entitlement of the ailing citizen, as it involves incurring no personal debt to an individual or collectivity, for the donor is diffused in the list of cadaveric or swap donors with no immediate, tangible moral obligation whatsoever.

This conception of a rational individual partaking in making decisions regarding what is less morally burdening than receiving a donor organ is not a reduction of moral considerations into pure calculation. Rather this points to the impossibility of a standardized market valuation of human organs, which would render receiving donor organs absolved of all moral consideration. The fact that rationality itself gets embroiled in moral valuation while weighing decision in favour of impersonal, state-provisioning or self-provisioning over moral obligation to an immediate or a known yet distant other—attempting to circumvent moral debt with longitudinal implications in case of live donation, which appears to be more spectral than donation from cadavers, demonstrates that marketization of human body cannot absolve moral consideration. Rather human body compels new bio-moralities or more specially, biomoral economies. The decision or judgment not to fall into the trap of perpetual moral

indebtedness that the receipt of donor organ brings in its wake shows how repulsive and psychologically debilitating a discourse of moral valuation is in such spheres of exchange. Negotiations of people exposed to characteristic experiences of organ failure and seeking remedy reveal that beyond the idea of donor organ as uncomplicated gift (*daan*) and the morally objectionable sale of organs as commodities (*panya*), there functions a biomoral economy of debt (*riin*) ethnographers of bodies ought to reckon with.

This chapter on moral life of human organs is an elaboration of the preceding chapter which contests biomedical conception of human body as natural-organic monolith or pure materiality to establish its sociality and semiotic significance, and nexus with power. The moral life of human organs substantiates the claim relating to the social ontology and travels of organs, of which the dynamics of morality and monetary exchange systems are important constituent elements (Graebar, 2001; Granovetter, 1985; Granovetter & Swedberg, 1992; Parry & Bloch, 1989).

Conclusion: Taming the “Imbroglio”

Attempts to analyze and offer an engaged critique of the “imbroglio” of organ donation and transplantation in this thesis, with special focus on the complex entanglement of power with philosophical and anthropological problematics of life and death, body and corporeality, has culminated in the following tentative conclusions.

A conceptually and ethnographically-derived definitional explication of what the body is, in its entanglement with power, materially and symbolically speaking, has been pivotal to attempts to disengage and analyze the “imbroglio”, organs and their travels. Body as a hierarchical material effect and locus of biopolitics of dispensability involves selective targeting of “abject” bodies (Butler, 2004) to be dispensed with to foster other valuable lives. The thesis demonstrates that minority informal labourers, impoverished tribal fishing communities in collapsing agrarian economies and women, in the case of this thesis, the one

whose kidney is removed by the husband on the “pretext” of an appendectomy, along with several other categories of women across social hierarchy, are easily available targets of corporeal deduction or organ sale or theft through deceit, persuasion, manipulation and organized machinations through a nexus of corporate hospitals, transplantation experts and organ trade racketeers. Like the body, the concept of life too, the thesis suggests, conceptually-empirically speaking, is a hierarchical construct. Biomedical law is not external to biopolitical processes of organ donation and transplantation, rather in itself is a biopolitical text, operationalizing and rationalizing life and body in its minutiae, promoting legalized donation and curbing organ sale, and constantly reconfiguring itself in relation to the macabre possibilities of organ sale or theft, organ donation and transplantation engenders as biopolitical process. Intrinsic to the life-fostering promise of biomedicine and biotechnoscience, and the biomedico-legal statutes circumscribing it, which is essentially a biopolitics of hope, there is a constant discursive production of dispensable bodies, of which minorities, informal workers, tribal people and women are the prototype—the providers of donor organs for the privileged or well or better off, a process which this thesis polemically calls biopolitics of dispensability.

The others of the biopolitics of hope of the biomedical technology of organ donation and transplantation are not always dispensable human bodies but animals, cloned or otherwise. Xenoengineering companies such as Revivicor and eGenesis promise cloned or transgenic pig kidneys as alternative to human organs—which are not only highly financially unviable for public use, the chimerical promises or futuristic visions or rhetoric of hope of a disease-free world or future through the nexus of biotechnoscience and venture capital, garbs and justifies corporeal harm and life-violation of animals, cloned or otherwise, used as means in xenoengineering trials. To elaborate this, the thesis refers to the notorious log records of the bioengineering company Nextran, divulged by an animal rights’ activist group, which

brought to the fore miseries of under-trial primates. While biomedical law (THOA in India) seeks to protect vulnerable human lives against violent or deductive forces at least cannot outright justify the corporeal harm inflicted on “abject” human bodies, in case of animals in xeno-trials, violence is justified for serving human ends. This amounts to the reduction of animal life in xenoexperiments into a mere matter of number-of-days-of-survival, which is astonishingly the indicator of success in such experiments.

Structural bioeconomic moorings of organ donation and transplantation technology as biopolitical process, reflected in organ theft or sale and xenograft engineering initiatives, is extended in the meso-organizational domain of new initiatives through attempts to shape venture capitalist subjectivities with the biomedical domain and beyond, who reconceptualize life, body, disease, grief, pain and tragedy as sites of initiative and investment. Coterminous with the expanding global enterprise of organ transplantation, new organ donation initiatives promote the life-fostering ideology of such innovations and render seeking transplantation an ethical imperative, that requires warding off psychological inertia and transforming ailment, disease, pain and grief into sites of financial speculation for generating a corpus for the remedial organ transplantation procedure through crowdfunding. The Anudaan initiative of Mohan Foundation in collaboration with the crowdfunding agency, Milaap, is the immediate instance.

Stiff competition from new initiatives in the donation advocacy domain, which adopt an entrepreneurial approach to health and disease on the one hand and psyche and subjectivity on the other, renders old organ donation initiatives like Ganadarpan, a limited sphere of influence with age-old class, labour and rationality rhetoric. Ganadarpan seems to be losing the ground in donation advocacy in India, despite being a pioneer since late 1970s, the field being increasingly captured through the impactful presence of so-called not-for-profit ventures of real estate players such as Shatayu of Ganesh Housing Corporation Limited

in Gujarat. Its Marxism loses its consistency in the wake of the increasingly liberal moorings of contemporary donation advocacy. The thesis observes that Ganadarpan begins to embrace liberal freedom (with discomfort) within its overwhelmingly Marxist matrix, resulting in an ambivalent Marxism. The ethical and political orientation of contemporary biomedical technologies, with the liberal subject at the centre of discourses, with its baggage rational will and conscience, begins to work as the conceptual-empirical vector within Ganadarpan discourses in the project of transforming the body from personal to collective property through donation beyond death or at the point of death. The pastoral imperatives of contemporary biopolitical dispensations, the biotechnoscientific hopes they nurture through a decentered series of organizational and associational agencies, begin to mutate the ethico-politics of Ganadarpan's organ donation movement from a discourse of state's proprietary control of cadavers to an ambivalent Marxism that posits liberal freedom, and not civil society conscience, as the vehicle of realization of state's proprietary control of cadavers towards larger good.

Further, this thesis suggests that bodies are encumbered by claims to proprietorship by emerging structural-institutional forces such as biomedicine and biotechnoscience, of which the practice of organ donation and transplantation is an instance. Embodied subjectivities are also encumbered by the bioeconomic and "ethopolitical" imperatives of contemporary biopolitical dispensations (Rose, 2007). Such encumbrances are also manifest in immediate interpersonal relationships, establishing the social ontology of bodies and organs, and their embeddedness in social relationships and social order. Bodies and embodied subjectivities are discursive sites of contestation over issues of responsibility and care in the context of illness and disease. Not only the structural-institutional forces, including organizational donation advocacy initiatives, aim to control bodies, immediate interpersonal realm of subjects are also

rife with contesting claims to the body of the weak, frail and ailing in the context of kidney failure and dialysis.

Intersubjective narratives and modes of negotiation of people suffering from end-stage-kidney-failure and their immediate care-givers point to the moral burden of the donor organ—the haunting specter of indebtedness to the organ donor. The ethnographic field brings to light, that beyond the purported exhaustiveness of celebration of the donor organ as an altruistic gift (*daan*) and the morally objectionable conversion of organs into commodities (*panya*), situated negotiations of people exposed to characteristic experiences of organ failure and seeking remedy reveal that at the brink of death, desperation and the fear of losing a loved one, people invoke a biomoral economy of debt (*riin*) in their rational attempts to circumvent the tangible and intangible moral burden of debt the donor organ brings in its wake, especially if it is donated by an acquaintance or a relative.

Beyond the organic life of bodies, organs and embodied subjectivities, determined by natural causality and biological teleology, there is a social life which is a wide spectrum of possibilities, subject to biopolitical control and machinations, traceable in the complicated movements of organs across multiple natural-cultural, biological-social, material-ideational-ideological realms or situations. The spectrum of possibilities is manifest in the ways in which the power of organ donation and transplantation technology and practices invest and inscribe the body as the material locus (which is otherwise a material-semiotic entity) and effect of a dyadic biopolitics of hope and dispensability, which establishes the worthiness of certain bodies and embodied subjectivities *viz-a-viz* the dispensable ones, the latter providing organs for survival of the former, centering on a crude (masquerading as technologically sophisticated) principle of extreme operationalization of life. The ethico-political maneuvers of new initiatives produce subjectivities which are entrepreneurial, which conceive of organ failure and transplantation technology as sites of speculative investment, rather than remedial

and humanitarian. However, beyond the bioeconomic and venture capitalist restructuring of life, body, subjectivity and the concept of human, through various biomedical and biotechnoscience agencies of contemporary biopolitical dispensations, people at the throes of biomedical crisis in general and organ failure in particular, neither see biomedicine or biotechnoscience and organ transplantation as the ultimate resort, nor completely refrain from participating in or contemplating illegality, which is an act of contravention of law. The invocation of the state as provider of organs as free goods or as entitlement or contemplation of self-provisioning of an organ out of love and care or purchasing one under unavoidable circumstances as modes of negotiation against the haunting specter of intergenerational debt to the known or related donor demonstrates how parallel to the structural-institutional bioeconomic and venture capitalist moorings of contemporary biomedicine and biotechnoscience, there exists plural subjective-experiential realms, of which the thesis documents a few, characterized by rational recourse to new bio-moralities, such as the moral bioeconomy of debt, one which posits the moral burden of *anga-riin* (donor organ debt) in opposition the purportedly uncomplicated *angadaan* (organ donation).

This tentatively or prematurely completes the social life and travels (or travails) of organs as they tread multiple intersecting, overlapping situations and depicts how deeply bodies and organs are implicated in microcosmic maneuvers of power and contestations of meaning and interpretation at the structural-institutional, organizational and subjective-experiential societal and sociological levels.

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Countersigned by

Supervisor:

Date:

Candidate:

Date: