SFB 1199
Processes of Spatialization under the Global Condition

Frank Meyer
Judith Miggelbrink
Tom Schwarzenberg

Formatting Practices and Ordering Relations: The Role of Multi-Scalar Regulation and Discourses in the Field of International Organ Transplantation

Working paper series des SFB 1199 an der Universität Leipzig
Nr. 17

Collaborative Research Center (SFB) 1199
Processes of Spatialization under the Global Condition
at the University of Leipzig

Funded by Deutsche Forschungsgemeinschaft

Deutsche
Forschungsgemeinschaft

Frank Meyer, Judith Miggelbrink, Tom Schwarzenberg
Formatting Practices and Ordering Relations: The Role of Multi-Scalar Regulation
and Discourses in the Field of International Organ Transplantation
(=Working paper series des SFB 1199 an der Universität Leipzig, Nr. 17)

04 / 2019

Vertrieb:
Leipziger Universitätsverlag GmbH, Oststrasse 41, 04317 Leipzig,
info@univerlag-leipzig.de

ISBN: 978-3-96023-225-4
ISSN: 2510-4845

Content

1 Introduction: Medical progress and ethical reluctance

In 2016, a consortium of 16 transplant clinicians – in a contribution to the American Journal of Transplantation – proposed the introduction of a coordinated global mechanism for kidney exchange.[1] Their contribution centred on experiences with a Filipino male patient who had exhausted his savings to finance dialysis in his home country. With international help, the patient later became part of an extended living transplantation chain. The chain worked as follows: The Filipino patient received a kidney in the USA by a living "bridge" donor – a man whose relative had formerly received a living donation organ. After this initial transplantation, the Filipino patient's spouse donated one of her kidneys to a US-patient. From that point on, the chain continued until – at the time of publication – eleven kidney patients had received a living donor organ. This chain was set up and supervised by the article's authors.

In cases of kidney paired donation[2], patients with immunologically incompatible relatives willing to donate may not receive their relative's organ but instead the organ of an immunologically compatible donor to whom they don't have any personal relation. Kidney paired donations are altruistic without any financial incentive for the donor. Instead, this kind of donation chain is purely based on matching immunological compatibility to decrease the patients' waiting time for an organ from a deceased donor and to increase success rates. The incompatible relative then donates one of his / her kidneys to another patient whose relative then, again, donates one of his / her kidneys. Encouraged by the success of this case, the researchers proposed to establish global kidney exchanges on a systematic basis.

Despite the positive outcome for the patients, the "National Competent Authorities[3] on organ donation and transplantation in the European Union" issued a statement in May 2018[4] that voiced strong concerns regarding the ethical dimension of this case. The reason for concern was that the Filipino patient's wife was actually immunologically compatible for a living donation to her ill husband, yet they were not able to afford the immunosuppression in the Philippines since it was not covered by the national health insurance. Hence, they were not able to pursue this procedure in their home country and the patient's health, having exhausted all savings to pay for the ongoing dialysis treatments, would soon suffer from deteriorating health. At the same time, according to Rees et al.[5], the Philippines require patients to substantiate sufficient funds if they consider travelling to a foreign country for a transplantation based on living donation – which is why the patient was not able to choose treatment abroad based on limited financial means. This critique on the ethical intricacies of donation chains was in line with statements from other transplantation organisations.

The financial solution, in this case was provided by the Alliance for Paired Kidney Donation – a US-based non-profit organisation with the journal article's lead author serving as the chair. This organisation sponsored the Filipinos' trip to the USA to take part in an organ donation chain.[6] While the outcome for the patient was highly positive, concerns focused on the fact that the patient's healthy wife gave one of her kidneys not because she genuinely wanted to be an altruistic donor. Instead, her donation would make the donation chain work of which her husband was a part of. This, in turn, was the basis for the Alliance to cover the payments for the transplantation (and the immunosuppression). Thus, the Alliance's offer can be considered a financial incentive for the woman to donate. The reason for entering a trans-national organ chain, from the patient's and donor's perspective, was simply to raise money for the intended treatment.

This economic rationale, however, is something that has been condemned by the medical community worldwide[7], mainly in the light of a growing commodification of the human body, illegal practices and a grow-

1 M.A. Rees et al., "Kidney Exchange to Overcome Financial Barriers to Kidney Transplantation", *American Journal of Transplantation* 17 (2016) 3, pp. 782-790.

2 B. Ellison, "A Systematic Review of Kidney Paired Donation: Applying Lessons from Historic and Contemporary Case Studies to Improve the US Model", *Wharton Research Scholars Journal*, (2014), paper 107.

3 Meaning those institutional bodies that were legally assigned the role of coordinating organ donation and transplantation in their respective country, e.g. the Stiftung Organspende in Germany.

4 European Union National Competent Authorities on Organ donation and transplantation, „Statement on a proposed concept of global kidney exchange", Ref. Ares (2018) 2713196, https://ec.europa.eu/health/sites/health/files/blood_tissues_organs/docs/nca_statement_gke_adopted_en.pdf (accessed 2019-03-29).

5 See Rees, *Kidney Exchange to Overcome Financial Barriers to Kidney Transplantation*.

6 However, the report does not mention why this organisation took up the role of sponsoring their trip.

7 Declaration of Istanbul, "The Declaration of Istanbul on Organ Trafficking and Transplant Tourism" (2008). www.declarationofistanbul.org (accessed 2019-03-12).

ing knowledge on black markets. Therefore, the study – proposing a regulated global system of paired donation – was considered controversial despite the medical success of the organ donation chain. The future perspective of such global exchange patterns allegedly transcending boundaries of wealth and infrastructural capacity is currently unclear – especially if indirect financial incentives are involved that might foster a further commodification of the human body and even trade on existing socio-economic disparities.

This case provides a recent example of how highly specialised medical practices in hospitals are informed, observed and shaped by governing practices. Within these practices, organisations play a crucial role.[8] In this example, international experts and political organisations opposed on the grounds of an international ethical consensus and, thereby, disciplined the medically successful initiative of clinicians and a non-profit organisation. By publishing their concerns, these actors thereby not only questioned a singular case but also aimed at shaping considerations for subsequent treatments in other cases as well, thereby limiting the possible options for clinicians to choose.

The regulation of health care and welfare – although it cannot be separated from a globalised context of bio-technological practices – is still predominantly defined by national sovereignty[9], trans-national cooperation in organ donation and transplantation medicine has become quite common in Europe and worldwide. These kinds of cooperation in health care matters often draw on existing experiences, knowledge and networks of intergovernmental or international expert cooperation.

The argument we want to pursue is that trans-national cooperation in highly specialized health care formats practices and disciplines subjects to adhere to commonly agreed-on standards e.g. in the fields of ethics, clinical practices and transparency. The resulting governmental regimes – as a set of socially accepted, routinized, reflexive and institutionalised spatial practices – refer to and reproduce certain spatial formats that seem to follow common principles.

This working paper seeks to demonstrate, *firstly,* how trans-national cooperation frameworks influence local medical practices and involved subjects. *Secondly,* we will conclude in how far and why the resulting governmental regimes use similar yet not identical approaches to regulate transplantation medicine by combining national and trans-national organisations and institutions. Here, we will conclude the emergence of an ordering principle that delimitates the horizon of legitimate practices. Related to this, we will *thirdly* highlight the powerful role of discursive practices that label certain approaches as (il)legitimate and stabilise this spatial order accordingly.

The working paper seeks to advance a conceptual and theoretical argument by bringing together theoretical considerations from works on spatial formats and spatial orders[10] with empirical insights on the regulation of transplantation medicine. Thus, the manuscript offers contextual findings that provide an empirically grounded take on the concepts of spatial format and spatial order.

The findings draw on a series of 134 interviews conducted between 2016 and 2018 with health officials, transplant professionals and patients in more than 30 European countries (see Table 1).

Country	No. of interviews	Country	No. of interviews
Austria	3	Montenegro	3
Belgium	1	The Netherlands	8
Bosnia and Herzegowina	8	Norway	7
Bulgaria	1	Portugal	1
Croatia	9	Romania	1
Denmark	3	Sweden	5
Germany	15	Switzerland	9
Estonia	5	Serbia	1
Finland	8	Slowenia	1
France	1	Spain	4

8 F. Meyer, „Scaled regulatory regimes under the global condition. An example from organ transplantation", in: U. Rao and S. Marung (eds.), *Practises and processes of space-making under the global condition*, Berlin: de Gruyter, 2019 (forthcoming).
9 See M. Ferrera, *The Boundaries of Welfare*, Oxford: Oxford Scholarship Online, 2005.
10 Especially as elaborated on in the SFB 1199.

Country	No. of interviews	Country	No. of interviews
Greece	1	Czech Republic	1
Iran	1	Turkey	1
Ireland	5	Hungary	1
Lithuania	1	United Kingdom	24
Macedonia	4		

Table 1: No. of interviews in the respective countries

These qualitative interviews aimed at uncovering the complexities in regulating and conducting organ donation and transplantation for the transplant professionals and health officials, whilst also taking into account the subjective experiences of patients and their relatives. Based on a description of the varying systems and organisations of organ donation and transplantation in Europe, the paper provides contextual insight into the experiences of transplant professionals, health officials and patient representatives. This approach aims at composing a comprehensive picture of the similarities and differences between national systems, respectively how involved actors engage in clinical as well as national and trans-national regulatory practices.

The conceptual framework of the SFB 1199 thereby offers a heuristic toolset to dissect the processual entanglement of multiple scales and thus better understand the constitutive socio-spatial configuration at hand. Spatial formats, as elaborated by the SFB 1199, are the outcome of "processes of spatialisation that are characterised by long-term recurrences, routinization and institutionalisation as well as by performativity and a reflection of their stabilisation".[11] The nation state for instance, can be regarded a spatial format that is both a product and a socio-spatial device of modernity. Spatial orders, in contrast, address concrete, historical modes of competition, cooperation and coexistence of spatial formats.[12] Neither the concept of spatial format nor the concept of spatial orders is meant to address a certain scale of social, political or economic organisation in the sense of ontological entities. Instead, both concepts offer an actor-centred approach to spatial modes of governing in a globalised world. Therefore, they draw on a broad range of multi- and transdisciplinary literature of the last decades that strives to investigate modes of (re-)spatialisation under the global condition[13]. Against this background, the working paper aims at reconstructing how in the specific field of organ transplantation certain spatial formats – here: the nation state – serve both as structuring frameworks for organ transplantation within the respective country and as means to negotiate legitimate ways of performing organ transplantation in a global context.

Chapter two provides insights into empirical findings regarding the emergence of international cooperation in organ donation and transplantation medicine, as well as their normative grounding in ethical universalisations. In this context, border-transcending mobility patterns will be reflected in terms of strategic attempts to circumnavigate and subvert existing regulatory regimes. In chapter three, we will re-interpret these findings from a spatio-regulative perspective, before highlighting the formatting effect on practices and the disciplining effect on subjects. Concluding the working paper, chapter four will lay out the key arguments for the presence of an ordering principle and its characteristics in relation to the concept of spatial orders.

In the following, we will highlight the key findings of our case study on organ transplantation conducted as part of the SFB 1199 and its sub-project B05 on "Cross-border assemblages of medical practices"[14]. In specific, we will concentrate on how – in the field of organ donation and transplantation medicine – the supranational scale has become increasingly important in negotiating legitimate clinical practices in hospitals.

11 M. Middell, „Raumformate – Bausteine in Prozessen der Neuverräumlichung", Working Paper of the SFB 1199 No. 14, p. 5.
12 Middell, *Raumformate*, p. 10.
13 For a broader discussion of conceptual approaches, see Middell, *Raumformate*. For a geographic approach see B. Jessop, N. Brenner, and M. Jones, "Theorizing sociospatial relations", *Environment and Planning D: Society and Space* 26 (2008) pp. 389-401. A transdisciplinary perspective is offered by a strand of literature revolving around the concept of assemblage, e.g. S. Collier and A. Ong, Aihwa (eds.), *Global Assemblages. Technology, Politics, and Ethics as Anthropological Problems*, Malden, Oxford, Carlton: Blackwell, 2005; S. Legg, "Of scales, networks and assemblages. The League of Nations apparatus and the scalar sovereignty of the Government of India", *Transaction of the Institute of British Geographers* 34 (2009), pp. 234-253; Miggelbrink, J., "Mapping the Toolbox: Assemblage Thinking as a Heuristic", in S. Marung and M. Middell (eds.) *Re-Spatializations under the Global Condition. Towards a Typology of Spatial Formats*. Berlin 2019.
14 J. Miggelbrink et al., "Cross-border Assemblages of Medical Practices", Working Paper Series of the SFB 1199, No. 2.

2 Scalar Regulation in Transplantation Medicine and Organ Donation

2.1 National Regulation Frameworks in Transplantation Medicine

The key argument pursued in this chapter is that, firstly, processes of globalization – in the shape of the global mobility of people, knowledge, and technologies – were the prerequisites for the emergence of successful practices of organ donation and transplantation. Trans-national regulatory efforts in this field are assumed to be inextricably entangled with the global condition.

For long, medical professionals have been highly mobile in the sense that medical education usually involves educational mobility: Visiting stays in different hospitals and countries – as guests of certain medical experts – as well as regular highly specialised conferences are key modes of knowledge transfer in medicine. Innovation and progress in the numerous medical fields go hand in hand with the mobilisation of expertise and technological capabilities. This is specifically necessary in transplantation medicine as a rather small field of highly specialised medical practices that, on the one hand, requires intense training and, on the other, is a dynamic field given the frequent advancements in surgery, immunology, bio-engineering and material sciences in the past decades.[15]

Yet it is also a relatively young field of medical profession: The global emergence of transplantation medicine in the 1950s and its intensification in the 1960s was a consequence of the first successful living-donor-transplantation of a kidney in 1954 and the immunological progress that allowed understanding the conditions of the potential rejection process in recipients.[16] This crucial development turned out to be the basis for a process of global proliferation of transplantation-related knowledge. For instance in 1967, Christiaan Barnard, cardiac surgeon at Kapstadt's Groote Schuur hospital, made history with the first successful heart transplant. Despite the surgical success involved, his team and his patient benefitted from research-related advancements made elsewhere that allowed the survival of the patient after transplantation. Early progress in transplantation medicine is very much based on networked knowledge: Thomas Starzl's (Denver) work on immunosuppression and liver transplantation reduced the risk of post-transplant rejection. Martinus Botha – a member of Barnard's team – was granted funding for a research trip to Amsterdam and Leiden in the Netherlands as well as Los Angeles beforehand to study techniques of characterizing human tissue. Other works on how to cool organs and attempts of transplanting organs between animals have provided further valuable knowledge.[17]

As this case exemplifies, successful organ transplantation – in the sense that the organ recipient survives the procedure and the transplanted organ takes up its function in this new host – has been made possible due to the cooperation and competition of medical experts from different fields and different countries. This led to local condensations of knowledge – as was the case in Kapstadt. These clusters succeeded in ground-breaking surgeries with the results serving as the fundament for more and more daring approaches worldwide.

This process, however, involved testing, evaluation and proliferation of several practices and technologies that are not localised themselves. In the 1960s, a number of inventions and innovations started to intermingle in a way that shaped organ transplantation as a global form, i.e. an abstract/ed social practice rendering action, behaviour, decision and emotion through practical and discursive mobilization of technologies and procedures. Such forms have, as Collier puts it, "a distinctive capacity for de-contextualization and re-contextualization, abstractability and movement, across diverse social and cultural situations"[18]. The form itself became stable enough to be implemented at more and more medical facilities all over the world.

15 See e.g. D. Hamilton, *A History of Organ Transplantation: Ancient Legends to Modern Practice*, Pittsburgh: University of Pittsburgh Press, 2012, p. 319.

16 C.F. Barker and J.F. Markmann, "Historical Overview of Transplantation", *Cold Spring Harbor Perspectives in Medicine* 3 (2013) 4, article a014977.

17 Der Spiegel, „Herrgott, es schlägt wieder", *Der Spiegel*, 10/1968, www.spiegel.de/spiegel/print/d-46135823.html (accessed 2019-03-12).

18 S.J. Collier, "Global assemblages", *Theory, Culture and Society* 23 (2006), pp. 399-401, at 400.

The emerging global form of organ transplantation comprises surgical techniques, new materials, (approved) protocols countering bodily reaction, techniques of managing body-to-body transfers of human biological materials, but also a systematic storage of knowledge, registries and cases as well as a shared professional language (e.g. nomenclature).

Standard surgical techniques were developed enabling surgeons to explant organs both of living and deceased donors and to implant them into bodies of patients suffering from late stage renal failure; basic problems of transferring a graft from one body to another – should it be warm or flushed and cooled? – had been understood step-by-step and primarily through the proliferation of experimental knowledge and the dissemination of case-based knowledge[19]. Certain solutions proved to lead to more successful outcomes than others did. This puts a limited but growing number of hospitals and surgery teams into the position to offer renal transplantation as a treatment.

The arriving of and tinkering with new materials such as plastic tubing used for telephone cables and Teflon gained a decisive role in the process as their creative use enabled a regular dialysis – namely the invention of an external conduit for blood flow[20] – and thus gave hope to a potential treatment of (end stage) renal failure. The invention of haemodialysis proved to be an important element in further developing kidney transplantation as it sparked debates on the naturalness and wishfulness of a life fully depending on machines. It also sparked debates on ethical issues concerning the selection of patients.

Though immunology in the 1960s was still a young discipline and biologists as well as physicians only had limited knowledge about the functioning of the immune systems, immunosuppression had been understood as key to the problem of graft damage and rejection. A number of protocols countering bodily reaction such as irradiation of bone marrow cells as well as combined protocols had been tested. Though more effective protocols of immunosuppression – especially the application of cyclosporine[21] – as well as typing methods (HLA protocols)[22] were still to arrive in the 1960s, the chemical immunosuppression had been identified as a promising field for researching. Again, advance was mainly based on (in vivo) experimental experiences. Though physicians (and biochemists) did not understand why, experiences of their patients showed that a deliberate stoppage of immunosuppression after a longer period of surviving grafts does not produce rejection; apparently, the immune system of the receiver is able to learn and to adjust to the received organ making immunosuppression dispensable. Again, new knowledge was built case-wise and in experimental ways.[23]

One of the main problems revolves around the organ being outside the body, i.e. the body-to-body transfer of human biological material. It has been reported that in the early days when kidney transplantation became manageable, the procedure itself was a nightmare for all people involved, as the organ had to be removed in the open ward immediately after having established the death of the patient.[24] The removed organ of the then so called cadaveric donor was brought to the operation theatre where it was implanted. Everything happened in terrible rush: Legal permission had to be obtained immediately from the family of the deceased and a potential recipient had to be on site which means that s/he had to be constantly available; an operation theatre had to be prepared and an operation team had to be available, likewise. Everything from the removal to the revascularization had to take place within two to three hours.[25] Indeed, extending the time-space range of organ transfer has been an important issue from the beginning and the way explanted organs are treated has changed remarkably. Whereas in the beginning a majority of surgeons recommended to keep it warm, later on, procedures of immediate flushing and cooling were established. Depending on the type of organ, this allows for a maximum range of 12 hours (or even more) for livers and kidneys to "survive" outside a human body without severe damage – a time span that also extends the time-space range of the searching area of potential recipients. It also allows thinking about establishing consent of the surviving dependants in a less-rushed way.

Organ donation and transplantation is still a field of innovation. In the 2000s, portable devices have been invented that keep organs "alive" during transport by simulating an almost physiological environment after explantation. The "heart-in-a-box" device keeps hearts warm and beating, the "breathing lung" keeps

19 E.g. radiation or marrow infusion from the donor; see Hamilton, *A History of Organ Transplantation*, p. 254-7.
20 See Hamilton, *A History of Organ Transplantation*, p. 297.
21 See Hamilton, *A History of Organ Transplantation*, pp. 3080-3.
22 See Hamilton, *A History of Organ Transplantation*, p. 324 and p. 328.
23 Ibid.
24 See Hamilton, *A History of Organ Transplantation*, p. 283.
25 Ibid.

explanted lungs breathing, and the liver perfusion device does the same for explanted livers. This, again, extended the time span to act for all actors involved.[26]

Besides the invention of standardised procedures and technologies, the global form relies on an emerging body of abstracted knowledge. In this respect, the early 1960s show a remarkable discontinuity as far as knowledge in the field of grafting started to become a unified (though disputed), peer-controlled body of knowledge that became available at multiple sites.

This does not mean that certain places (like the university-based hospitals) or persons (such as surgeons experimenting with certain protocols) become less outstanding – on the contrary: the production of knowledge is still driven by a limited number of people and teams at certain highly-valued locations and it is still embedded in certain operation theatres, working groups, and laboratories. However, knowledge in the field of grafting has become centralised, regulated and controlled through a community of experts and it starts to integrate more and more fields of knowledge, e.g. immuno-biology, material science and bio-engineering technology. Knowledge in the field of organ transplantation started to become a distinct and unified body of knowledge.

The storage of knowledge became an important issue: In the early 1960s, Joseph Murray at the Brigham Hospital at Boston set up a plan for a Human Kidney Transplant Registry collecting available data about all known kidney transplantations in order to enlarge knowledge about successful and failed cases.[27] Although, later on, it turned out that there were some limits to the registry as, for instance, it did not differentiate between non-surviving of the patient and non-surviving of the transplanted organ, it was the first attempt to centralise "experimental" knowledge on a larger scale. However obvious this idea appears to us today, a potentially worldwide collection and sharing of knowledge was quite innovative.

Again, in the 1960s, Peter Gorer at a conference in Liblice near Prague suggested a unified and shared nomenclature.[28] Though not all of his colleagues appreciated his attempt, he gained a number of supporters. Besides a depuration of terminology, the advisory group strove for terms having desirable classical roots (such as xenograft instead of heterograft) and for a more optimistic and encouraging terminology in order to overcome expressions like "terminal renal failure". However lengthy and controversial the process turned out to be, from the 1960s onwards a process of codification is perceivable within the community of professionals involved in transplantation.[29]

Finally, knowledge started to accumulate and consolidate in journals and conferences. Both work as a consolidating "machinery" in building a certain kind of highly specialised knowledge controlled by peer-review processes. By this, knowledge receives the status of *accepted* knowledge according to which medical professionals clustered. Moreover, inventions such as the shunt have been disseminated through these newly established centralised structures: Belding Scribner who invented the first plastic based external conduit for blood flow just brought a number of prepared kits ready to use for his colleagues to a conference in order to circulate his idea as fast as possible.[30]

Though many inventions were still to arrive – especially matching and typing procedures, a more effective immunosuppression etc. – at the end of the 1960s, organ transplantation had turned into a global form allowing more and more teams at more and more hospitals in more and more countries to apply it to a permanently increasing number of patients. From this moment onwards, organ grafting had become a standard treatment that produced its own logics: the necessity to decide about rules of donation, definitions of death, algorithms of allocation, and opportunities for profit. It produces its own sphere of ethical concerns, ethical regulations and grey zones, accordingly.

The global form, from a more conceptual point of view, is more than an effect of "sheer" entanglement of a number of practical and discursive elements. It emerges from the way, in which a perceived density of newly invented techniques, materials and knowledge (as well as a growing number of people involved) is processed. By setting up a registry, by establishing a first specialised journal, by negotiating a shared vocabulary and by creating a new semantic order – regardless of its rudimentary character in the beginning –, people both reacted to and further enabled abstraction and mobilisation of procedures, technologies and

26 See for example: wwwsciencealert.com/new-heart-in-a-box-device-revives-dead-hearts-for-transplant (accessed 2019-04-12).
27 See Hamilton, *A History of Organ Transplantation*, pp. 281-2.
28 See Hamilton, *A History of Organ Transplantation*, pp. 293-5.
29 For this paragraph see ibid.
30 See Hamilton, *A History of Organ Transplantation*, p. 297.

knowledge. The way the process of rapid growth of innovation *refers to itself* allows for its further extension. At a certain point, when a number of doctors and clinics get known for new live-saving measures, when knowledge starts to accumulate beyond an expert group (e.g. via regular conferences, journals, a codified scheme of education), a bio-technological practice consolidates that could be addressed as a (new) discipline. A discipline that could be further established at medical schools, supported by (state-run) programmes etc. Furthermore, as an effect of the accumulation of experimental knowledge, a scheme of evolution of standardised techniques for other grafts has been established. Re-assembling of elements within the field, thus, does not only install a certain kind of order (including hierarchical, temporal and – as we will see later on – ethical orders) but, moreover, allows for circulation and acceleration of inventions in the field. Through these "re-entries" or "feedback loops", as we would call these moments of reflexivity, the social form of organ transplant gained momentum in becoming a globalised / global form.

In the field of organ transplantation, the local and global production of knowledge is inseparable; it is based on highly condensed sites of innovation as well as on abstractions of knowledge from a specific site. The medical invention itself is embedded in a range of organizational and institutional contexts, i.e. multiple socio-technical practices that form the state on different scales, policies, discourses on the welfare-state and the market. Of particular interest are ethical debates and concerns that came up with the new treatments, generating ethical questions in the 1960s on how to respond to these new opportunities.[31] The history of organ transplantation, thus, can be told as a history of local condensations of knowledge production and strategies of global condensation and dissemination of knowledge.

In the course of these advancements, actors have transgressed ethical boundaries repeatedly: For instance, a public inquiry in 1999 for UK hospitals revealed that three children's hospitals had harvested organs from patients for decades at the orders of a surgeon at the Alder Hey Hospital Liverpool – who therefore manipulated records in order to hide the ethically questionable procedures. It also emerged that 1.500 miscarried foetuses were stored at the Alder Hey hospital without consent, for conducting research.[32] The scandal further involved outrage over the fact that criminal charges could not be pressed against the surgeon because the prosecutors were not able to trace for specific organs whether it was obtained with consent or not. One of the political results, in this case, was the introduction of the Human Tissue Act of 2004 for the UK, which not only revised the system of informed consent in cases of deceased organ and tissue donation, but also introduced new measures of control.

A scandal in Germany had a similar social and political impact[33], when investigations in 2012 revealed severe cases of data manipulation in liver donation for the years 2010 and 2011.[34] At least one surgeon was accused of criminal conduct for having manipulated patients' data to increase their chance for a donor organ. Yet, he was not prosecuted for that, as – at the time of the incidents and despite the fact that these deeds were widely considered severely unethical – this behaviour was not a criminal act.[35] Whilst organ donation numbers – in the subsequent years – plummeted in Germany, a stricter regulation was introduced legislatively.

2.2 Border-Transcending Subversive Practices

This indicates that legal and ethical regulations on the level of the nation state usually chase medical advancements[36]: Each of the former and current transgressions exploited grey areas and loopholes that had to be closed afterwards. The rapidly increasing medical capabilities were not met by equally adaptive regulatory measures. Instead, regulators lacked the experience with these kinds of procedures and the laws lacked

31 See Hamilton, *A History of Organ Transplantation*, p. 341.
32 See also M. Hunter, "Alder Hey report condemns doctors, management, and coroner", *BMJ* 322 (2001), p. 255.
33 See Haarhoff, H. (ed.), *Organversagen. Die Krise der Transplantationsmedizin in Deutschland*, Frankfurt am Main: transcript, 2014.
34 See Bundesärztekammer, "Bericht 2012 / 2013" (2013), wwwbundesaerztekammer.de/fileadmin/user_upload/downloads/2013-09-04_Bericht_PK_UK_2012-2013_1.pdf (accessed 2019-03-12).
35 See Bundesgerichtshof, "BGH 5 StR 20/16 - Urteil vom 28. Juni 2017 (LG Göttingen)", wwwhrr-strafrecht.de/hrr/5/16/5-20-16.php (accessed 2019-03-12).
36 This is also exemplified by the recent scandal involving cases of organ harvesting from Falun Gong practitioners in China, after which several governments introduced new laws on transplant tourism, See E. Gutmann, *The Slaughter: Mass Killings, Organ Harvesting and China's Secret Solution to its Dissident Problem*, Amherst: Prometheus Books, 2014.

the applicability with the new practices.[37] In fact, laws specifically focussing transplantation and organ donation have not been introduced until the 1970s and have only become common amongst many countries across the world in the 1990s, usually specifying certain legitimate circumstances and procedures in organ donation and outlawing others.

Remarkably, the answer to the scandals, to grey areas, and to illegal practices are located on the level of the nation state – mainly as it is still the primary site of regulation and prosecution. This, however, is only half of the answer. The decisive role of the nation state stems also from its hegemonic discursive position. The global form, from a national perspective, produces an ongoing necessity to react to it, especially to its moral and ethical implications. However, the tension between medical and technological capabilities and ethical considerations is further catalysed by global disparities of wealth. This is also connected to an epidemic of life-style related diseases (such as diabetes that may lead, on a long run, to kidney failure) in richer countries, for which usually not enough organ donors exist.[38]

Consequentially, global socio-economic and public health disparities act as drivers for cross-border mobility patterns such as transplant tourism.[39] With Free Trade Agreements and transnational political unions (the EU being the most tangible example), capital, goods and people are increasingly crossing state borders with less and less trade barriers. Therefore, the WHO has encouraged member states in its resolution 63.22[40] to "...strengthen national and multinational authorities and/or capacities to provide oversight, organisation and coordination of donation and transplantation activities". This call for further coordination of national efforts is considered an effort to protect "the poorest and vulnerable groups from transplant tourism and the sale of tissues and organs"[41]. As of now, regulatory efforts in transplantation medicine are regularly inspired by supranational declarations.[42]

In sum: In a world of less and less friction, a primarily reactive regulation of transplantation by national legislation allowed to take advantage of regulatory disparities and led to phenomena such as transplant tourism[43] that almost automatically exploits socio-economic disparities in general and, in specific, the global poor and marginalised as potential donors.[44] The commodification of the body, thus, could also be seen as the paradoxical product of nationally protected altruistic systems: If altruistic donation does not cover the domestic demand, it almost automatically produces a certain chance that an individual solution is sought in non-domestic spheres, which, in turn, encourages a commodification of the human body. A global purchase of organs can thus be considered a subversion of nation states laying claim to being the primary entity to legislate health matters and to perform regulation, control and punishment. These claims for regulation are undermined through border-transgressing practices, which are either illegal or exploit legal differences between the countries of origin and of the treatment.

The basis for these subversions – according to medical, political, and administrative actors in the field as well as to academic observers – is the growing gap between an (increasing) demand of transplantable organs and its supply.[45] This gap triggers transplant-oriented mobility[46] as well as the development of a

37 See Hamilton, *A History of Organ Transplantation*, p. XVII.

38 See e.g. S.L. White et al., "The global diffusion of organ transplantation: trends, drivers and policy implications", *Bulletin of the World Health Organization* 92 (2014) 11, pp. 826-835, at 831.

39 See Miggelbrink et al., *Cross-border Assemblages*, p. 18; also F. Ambagtsheer et al., "Cross-Border Quest. The Reality and Legality of Transplant Tourism", *Journal of Transplantation*, 2012, Article ID 391936; F. Ambagtsheer et al., "The battle for human organs. Organ trafficking and transplant tourism in a global context", *Global Crime* 14 (2013) 1, pp. 1-26; I.G. Cohen, "Transplant Tourism. The Ethics and Regulations of International Markets for Organs", *The Journal of Law, Medicine and Ethics*, 41 (2013) 1, pp. 269-285; Y. Shimazono, "The state of the international organ trade. A provisional picture based on integration of available information", *Bulletin of the World Health Organization* 85 (2007) 12, pp. 955-962.

40 WHO (World Health Organisation), "World Health Assembly Resolution 63.22, Human organ and tissue transplantation" (2010), http://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R22-en.pdf. (accessed 2019-03-12).

41 WHO (World Health Organisation), "World Health Assembly Resolution 57.18, Human organ and tissue transplantation" (2004), www.who.int/gb/ebwha/pdf_files/WHA57/A57_R18-en.pdf. (accessed 2019-03-12).

42 e.g. the Declaration of Istanbul in 2008, an international agreement to outlaw commercialized organ trade.

43 For a meta-review see F. Ambagtsheer et al., "On Patients Who Purchase Organ Transplants Abroad", *American Journal of Transplantation* 16 (2016) 10, pp. 2800-2815.

44 See e.g. N. Sheper-Hughes and L. Wacquant, *Commodifying Bodies*. London: SAGE, 2002.

45 D. Shafran et al., "Organ shortage: the greatest challenge facing transplant medicine", *World Journal of Surgery* 38 (2014) 7, pp. 1650-1657, at 1650.

46 European Commission, "Communication from the Commission: Action Plan on Organ Donation and Transplantation (2009–2015): Strengthened Cooperation Between Member States" (2008), http://ec.europa.eu/health/ph_threats/human_substance/oc_organs/docs/organs_action_en.pdf (accessed 2019-03-29); United Nations Office Drugs and Crime, "Trafficking in Persons for the Purpose of Organ Removal" (2015), wwwunodc.org/documents/human-trafficking/2015/UNODC_Assessment_Toolkit_TIP_for_ the_Purpose_of_Organ_Removal.pdf (accessed 2019-04-04).

black market with an increasing number of illegally explanted, purchased and implanted organs.[47] Scholars, journalists as well as policy reports have repeatedly pointed to incidents of organ trade, explantation of organs and tissue after the execution of death sentences, and trafficking of people for the purpose of organ harvesting.[48]

Critical studies on organ trade imply that bodily material has indeed become a resource that is 'scarce' and has 'its prize'.[49] Organs have become a commodity.[50] Through the gaze of their potential commodification and marketization, organs can be 'bought' and 'sold' and, thus, become (re-)shaped through buyer-purchaser-relations. Even within legal and altruistic donation-based systems of organ transplantation, a language of 'allocation' and 'scarcity' indicates the resource character of organs although commercialization and trading are banned and allocation is performed according to individual needs and based on non-market legal, moral and ethical regulations.[51]

This allows for two conclusions: Far beyond just serving as a deliberate metaphor, the language of scarcity / shortage, prize and harvesting, firstly, is productive as it performs the potential commodification of the human body. Secondly, it indicates that the nature of the purchase is not to be reduced to a mere economic transaction between a person in need of e.g. a kidney and a person that offers one, but has to be read as being part of a larger picture of globally uneven economic relations and dependencies. In a (global) market sphere for which an ever increasing number of illegal organ transplantation is assumed[52], organs *grosso modo* wander from the poor and the vulnerable to people from wealthier countries and classes, as a number of critical studies from academia and international organisations clearly depict.[53] This does not only raise ethical and moral concerns regarding the purchase of human body parts as such but also raises ethical and moral concerns regarding the exploitative nature of the purchase.

Commercial transplant programmes have been set up by countries such as India, Iraq, Iran, South Africa, the Philippines and China that have attracted patients from numerous Western countries as well as from countries such as Saudi Arabia, UAE and Malaysia.[54] Though purchasing of organs is often banned in their countries of origin due to ethical concerns, participating in commercial transplant models abroad seems to be a widely accepted way of individually coping with the problem of scarcity. Despite many countries having implemented acts against organ and tissue trafficking within their legal domestic sphere, criminalization and prosecution of purchasing regularly end at the state's border. As Unti shows[55] for the U.S., heart, kidney, lung and liver transplant surgeries are still among the 'common surgical treatments promoted by medical tourism agencies' advertised by US insurance companies as a cheaper and often faster alternative to domestic surgery. In how far these treatment schemes are related to black markets (especially in India), is still under discussion.[56]

---

47 See Cohen, *Transplant Tourism;* for the United States see J. Gill et al., "Transplant Tourism in the United States: A Single Center Experience", *Clinical Journal of the American Society of Nephrology* 3 (2008) 6, pp. 1820–1828; for Australia see S.E. Kennedy et al., "Outcome of Overseas Commercial Kidney Transplantation: An Australian Perspective", *The Medical Journal of Australia* 182 (2005) 5, pp. 224–227.

48 O. Greenberg, "The Global Organ Trade: A Case in Point", *Cambridge Quarterly of Healthcare Ethics* 22 (2013) 3, pp. 238–245.

49 To name a few: N. Scheper-Hughes, "Organs Trafficking: The Real, The Unreal and the Uncanny", *Annals of Transplantation* 11 (2006), pp. 16-30; T. Bakdash and N. Scheper-Hughes, "Is It Ethical for Patients with Renal Disease to Purchase Kidneys from the World's Poor?", *PLoS Med* 3 (2006) 10, article e349. https://doi.org/10.1371/journal.pmed.0030349; D. Kilgour and D. Matas, "Bloody Harvest: Revised Report into Allegations of Organ Harvesting of Falun Gong Practitioners in China" (2007), organharvestinvestigation.net (accessed 2019-04-04); J. Sándor et al., "Organ Trafficking, Organ Trade. Recommendations for a more Nuanced Legal Policy", in: F. Ambagtsheer and W. Weimar (eds.), *The EULOD Project Living Organ Donation in Europe Results and Recommendations*, Lengerich: Papst Publishers, 2013, pp. 147–174.

50 N. Scheper-Hughes, "The Last Commodity: Post–Human Ethics and the Global. Traffic in 'Fresh' Organs", in: A. Ong and S.J. Collier (eds.), *Global Assemblages. Technology, Politics, and Ethics as Anthropological Problems*, Hoboken: Blackwell, 2005, pp. 145–168.

51 Scheper-Hughes, *The last commodity*.

52 See Shafran et al., *Organ Shortage*.

53 Greenberg, *The Global Organ Trade*, p. 238ff., see also Bakdash and Scheper-Hughes, *Is it Ethical for Patients with Renal Disease to Purchase Kidneys from the World's Poor*; R.K.L. Panjabi, "The Sum of a Human's Part: Global Organ Trafficking in the Twenty–First Century", *Pace Environmental Law Review* 28 (2010) 1, pp. 1-144.

54 A.J. Ghods and S. Savaj, "Iranian model of paid and regulated living-unrelated kidney donation", *Clinical Journal of American Society of Nephrology* 1 (2006) 6, pp. 1136-1145, at 1137.

55 J.A. Unti, "Medical and surgical tourism. The new world of health care globalization and what it means for the practicing surgeon", *Bulletin* 94 (2009) 4, pp. 18-25, at 21.

56 J.V. McHale, "Organ Transplantation, the Criminal Law, and the Health Tourist. A Case for Extraterritorial Jurisdiction", *Cambridge Quarterly for Healthcare Ethics* 22 (2013) 1, pp. 64–76, at 65.

A specific strategy was reported from Israel where health insurances legally refund the costs of a non-domestic transplant surgery (about $ 40,000) to patients who – on their own initiative – buy a brokered organ from a living unrelated donor and go through an operation abroad. In Israel, the share of patients in need for kidney transplant who decide for a paid unrelated donation is considerably high.[57] Two reasons are discussed in the literature: First, the willingness to donate organs is comparably low causing an even greater imbalance between patients in need and donated organs compared to other countries. The second was briefly reported by Friedlaender[58] – an Israeli nephrologist at the Hadassah University Hospital: During the first Intifada, Arab patients with renal diseases from the West Bank who had received medical treatment including transplant and post-operative care at Jerusalem hospital were now covered by the Israeli military admission for hospital admission cutting them off the relation. Some of them – already relying on dialysis treatment and in urgent need for transplant – decided to undergo kidney transplant in India and Iraq. Though there was no pre-selection process and preparation of the receiving patients, the rate of success was remarkably good. It even outperformed the local Israeli transplant program. When Israeli Arabs realised how well this group of Arab patients was doing and compared it to their own situation – depending on dialysis treatment and confronted with unforeseeable waiting time for transplant surgery –, many of them decided to follow the example. Finally, also Jewish patients – realizing the decreasing number of their Arab fellow citizens in the dialysis unit – began considering a paid unrelated transplant abroad. However, as Iraq was not an option for Jewish patients, 'the surgical group of the Rabin Medical Center in Tel Aviv circumvented Israeli law by doing kidney transplants from unrelated living donors in several accessible countries including Estonia, Bulgaria, Turkey, Georgia, Russia, and Romania'.[59] Though this practice was officially stopped after domestic and international protests, a semi-official system of refunding for so-called transplant tourists was established.[60]

Inston et al.[61] report on Indo-Asian patients from West Midlands, UK, who went for kidney transplant to India and Pakistan. This group of patients is identified as being doubly discriminated: They show a 'higher incidence of hypertension and diabetes mellitus, both of which are often inadequately treated due to socioeconomic and cultural barriers'[62] and thus, are more likely to suffer from end-stage renal disease. Additionally, they show a lower level of tissue and blood matching in the process of allocating donated organs compared to their Caucasian fellow citizens – largely due to the low donation rate of Indo-Asian citizen in the UK.[63] Therefore, patients of Indo-Asian abode have a higher probability to remain for a longer time on the waiting list. Due to prolonged waiting times, they face a higher risk to finally get suspended from the waiting list when their health condition deteriorates considerably and, thus, endangers the success of a transplant surgery. Transplant travel to India and Pakistan – two countries known for the relative ease of (illegal) transplants – becomes the only 'necessary option' for these patients to survive.

Both the Israeli case and UK case indicate that resourcing organs outside the border of one's own state are based on the premise of commercialisation and intermediate agencies, i.e. on the tradability and traders of organs. Furthermore, in both cases, the availability also relies on geopolitical entanglements between the countries of the patients and the country of the traders (which is also the country where the surgery takes place). Tradability, however, does not only prerequisite a person able and willing to pay but also someone who is vulnerable enough to get forced into selling his / her organs or body parts.

As the last two examples show, going beyond (or feeling expelled from) the state-based institutionalised system often implies a crossing from a donor- / gift-oriented mode of acquiring to a purchase-related mode. To the extent organs have become a commodity and tradable good, organ sourcing is systematically related to states of emergency and plight. Organ harvesting has been reported, inter alia, by Matas and Kilgour[64] on behalf of the Coalition to Investigate the Persecution of the Falun Gong in China (CIPFG), on Bangladesh

57 See Kennedy et al., *Outcome of Overseas Commercial Kidney Transplantation*.
58 M.M. Friedlaender, "The right to sell or buy a kidney: are we failing our patients?", *The Lancet* 359 (2002), p. 971-973; also Greenberg, *The Global Organ Trade*.
59 See Friedlaender, *The right to sell or buy a kidney*.
60 Ibid.
61 N.G. Inston et al., "Living Paid Organ Transplantation Results in Unacceptably High Recipient Morbidity and Mortality", Transplantation Proceedings 37 (2005) 2, pp. 560-562.
62 Ibid., p. 560.
63 Ibid., p. 561.
64 Kilgour and Matas, *Bloody Harvest*.

and – mainly based on media sources – by Moniruzzaman[65] on Cambodia, Indonesia, Laos, Myanmar, the Philippines and Vietnam. Furthermore, the special rapporteur to the UN Assembly, Joy Ngozi Ezeilo, in her 2013-report on the trafficking of women and children, comes to the conclusion that there is 'growing evidence that Sudanese migrants making their way to Europe with the help of smugglers are allegedly being targeted for organ harvesting in Egypt'.[66] As these investigations show, organ trade does not just follow and reproduce existing patterns of marginalization but relates to a broad variety of situations that expose people to extreme vulnerability. Exemplary groups are hospitalised disabled people[67], internally displaced and impoverished populations as a result of environmental hazards[68], prosecuted minorities in authoritarian regimes[69], refugees as well as people suffering from a general situation of impoverishment and socio-economic vulnerability.[70]

In sum: The rise of transplantation medicine is to be regarded a synergetic process based in increasing international entanglement through the mobility of knowledge, information, technologies and experiences in this still new medical field. Whilst its ethically-informed regulation has lagged behind, systematically subverting practices e.g. in the shape of organ trade are symptoms of the same global flows that have formed the foundation for transplantation medicine. Yet, new governmental mechanisms had to emerge due to spatio-exploitative practices evading its reach.

2.3 Trans-National Regulatory Approaches between National Sovereignty and Intergovernmental Cooperation

As a 'global form', organ transplantation has developed 'a distinctive capacity for decontextualization and recontextualization, abstractability and movement, across diverse social and cultural situations'.[71] It has emerged as a social form rendering action, behaviour, decision and emotion through practical and discursive mobilization of technologies and procedures. Due to their transformative capacities, global forms are seen as 'key moments in the loss of coherence of ethical reason in modernity'[72] and, therefore, they are crucial for debates on changing ethical configurations and politics of governing.

In 1954, when the first kidney was transplanted successfully, the human body entered a new stage in its history when doctors, after already having made successful experiences with blood transfusions in the 19th century, learned to use solid organs for other human bodies being in need: It became a resource. Though always remaining an exceptional moment in the life of a patient, within only a couple of decades, the transplantation of many organ types as well as of a great number of other human material is said to be almost a routine.[73] The advent and rapidly emerging field of transplantation medicine, however, has stipulated new public and professional debates, inter alia, on the (just) distribution of medical resources as well as on the purposeful creation of human beings (or a cloned embryo) in order to save the life of another human being. The rise of transplantation medicine involved debates on the boundary between death and life and the right of autonomous control over one's own body and body parts. Moreover it raised ongoing debates on the legal status of body parts, on the freedom, the responsibility, and the obligation to donate as well as on the marketization and commodification of the body and its parts conjuring new dangers of social unevenness, exploitation, and violence, on the individual right to purchase and buy body parts.

---

65 M. Moniruzzaman, "Living Cadavers in Bangladesh", *Medical Anthropology Quarterly* 26 (2012) 1, pp. 69-91.
66 J. Ngozi Ezeilo, "Report of the Special Rapporteur on Trafficking in Persons, Especially Women and Children" (2013), https://digitallibrary.un.org/record/756096 (accessed 2019-03-29); also Panjabi, *The Sum of a Human's Part*.
67 N. Scheper-Hughes, "The Ends of the Body. Commodity Fetishism and Global Traffic in Organs", *SAIS Review* 22 (2002) 1, 61-80.
68 H. Montgomery, "Rumours of child trafficking after natural disasters: fact, fiction or fantasy?", *Journal of Children and Media* 5 (2011) 4, pp. 395-410.
69 Kilgour and Matas, *Bloody Harvest*.
70 S.A.A. Naqvi, "A socioeconomic survey of kidney vendors in Pakistan", *Transplant International* 20 (2007), pp. 934-939; also Panjabi, *The Sum of a Human's Parts*; G. Spasovski, M. Busic and F.Delmonico, "Improvement in kidney transplantation in the Balkans after the Istanbul Declaration. Where do we stand today?" *Clinical Kidney Journal* 9 (2016) 1, pp. 172-175 and N. Scheper-Hughes, "Parts unknown. Undercover ethnography of the organs-trafficking underworld" *Ethnography* 5 (2004) 1, pp. 29-73.
71 See for the approach of formation stories as a scientific methods D. Hirschman and I.A. Reed, "Formation stories and causality in sociology", *Sociological Theory* 32 (2014) 4, pp. 259-282, at 260.
72 Ibid.
73 See Collier, *Global assemblages*, p. 400.

Debates on the allocation of (scarce, expensive) medical resources to patients in need emerged before the first successful transplantation of a human organ. As Hamilton in his History on Organ Transplantation describes, problems of allocation arose when dialysis became a therapeutic option for end-stage renal disease. The answer to that problem wasn't a thorough regulatory scheme on, e.g., the national scale but first of all a local muddling through: "A 'first-come, first-served' principle for those meeting reasonable clinical criteria seemed to work in practice. Commentators remarked that this random acceptance 'mimicked fate', a concept probably more acceptable than the decision of anonymous committees."[74] On the one hand, ethical questions could not automatically be ascribed to a specific scale in the sense of a pre-structured automatism. However, on the other hand, certain scales had already achieved a hegemonic position. As the legitimate position to address ethical questions as legal questions, the national scale was perceived as the appropriate entity to (sooner or later) cope with these new urgencies. As the biotechnological invention of organ transplantation assembled as a global form, it became obvious that nation states could only provide preliminary answers to the challenges that came along with it. Inevitably, the global form flinches from purely state-based regulatory approaches.

Several trans-national regulatory responses have surfaced in the past decades in the shape of trans-national organisations articulating guidelines, trans-national governments introducing semi-binding rulings, or international expert groups that monitor health policy development or voice concerns regarding organ trade. In the face of reports about high numbers of medical travellers in search of donor organs[75], almost all of the world's countries have adopted regulatory acts condemning illicit organ trade and organ trafficking following demands of various trans-national organisations. As a precursor, the WHO has critically pointed at the relation between the trafficking of humans, transplantation tourism and organ trade.[76] Furthermore, the WHO updated their "Guiding Principles on Human Cell, Tissue and Organ Transplantation"[77], which revolves around ethical principles of organ donation and transplantation. Another semi-binding initiative, the "Declaration of Istanbul"[78], was created following the Istanbul Summit on Organ Trafficking and Transplant Tourism (organised by the Transplantation Society and the International Society of Nephrology) in 2008, condemning transplant tourism and trafficking.

In contrast to such soft measures based on an international consensus, several European institutions have introduced binding approaches. The European Union – in its Charter of Fundamental Rights of the European Union – has prohibited "making the human body and its parts as such a source of financial gain".[79] This paradigmatic document was inspired by the "European Convention on Human Rights of the Council of Europe"[80], which was essential to the Council's „Convention for the Protection of Human Rights and Dignity of the Human Being" with respect to the Application of Biology and Medicine.[81] From a legal perspective, the EU's Charter of Fundamental Rights has been legally binding for all member states following the Treaty of Lisbon of 2009.[82]

Subsequently to this step towards the development of a trans-national regulatory position, a number of European countries introduced new and modified transplant laws, accompanied by a shared European effort to introduce common guidelines for the EU member states.[83] This culminated in an EU Action Plan

74 Hamilton, *A History of Organ Transplantation*, p. 301.
75 See e.g. Shimazono, *The state of the international organ trade*.
76 See WHO, *Resolution 57.18*.
77 See WHO 2010, *Resolution 63.22*.
78 See the Declaration of Istanbul.
79 European Union, "Charter of Fundamental Rights of the European Union" (2000), Art. 3 (2), www.europarl.europa.eu/charter/pdf/text_en.pdf (accessed 2019-03-29).
80 Council of Europe, "European Convention on Human Rights" (1950), wwwcoe.int/en/web/conventions/full-list/-/conventions/treaty/005 (accessed 2019-03-29).
81 Council of Europe, "Convention for the Protection of Human Rights and Dignity of the Human Being with Regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine" (1997), https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168007cf98. (accessed 2019-03-29).
82 European Union, "Treaty on European Union and Treaty on the Functioning of the European Union", (2010), https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:C2010/083/01&from=DE (accessed 2019-03-29).
83 European Union, "Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 on setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells" (2004), https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:102:0048:0058:en:PDF (accessed 2019-03-29); European Union, "Directive 2006/86/EC of 24 October 2006 implementing Directive 2004/23/EC of the European Parliament and of the Council as regards traceability requirements, notification of serious adverse reactions and events and certain technical requirements for the coding, processing, preservation, storage and distribution of human tissues and cells" (2006), https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:294:0032:0050:EN:PDF (accessed 2019-03-29).

on Organ Donation and Transplantation[84] with the goal of intensifying the cooperation among EU member states in order to increase the number of organ donations. The European Union further attempted to harmonise formerly distinct transplantation regimes in Europe by introducing a directive on "standards of quality and safety of human organs intended for transplantation".[85] Under the impression of the various forms of organizing transplantation amongst the member states, a subsequent implementing directive aimed at elaborating the principles of information exchange in 2012 in order to build the foundation for an EU-wide organ exchange.[86] However, its outreach has remained limited due to maximum allowed time spans without perfusion for the explanted organs.[87] While the European Union as well as the Council of Europe have no legally grounded mandate in health matters on the national level, they both have taken up tasks to guarantee the compatibility of the national systems, e.g. with regard to medication or quality standards of medical procedures. Furthermore, the European Organ Exchange Organisation was founded to support the cross-border exchange in Europe. While this may be regarded as a trans-national organ allocation organisation, it, as of now, is a voluntary exchange system that shall support exchange, rather than substitute other organisations in this task.[88] As of 2017, several EU-projects have been initiated to support knowledge transfer and increase compatibility. At the moment, however, no trans-nationally binding responsibility for health policy can be foreseen. In a broader perspective, the foundation of the organ exchange organisation serves as an example of how the EU has learned to develop transnational, cooperative regulatory mechanisms without shifting competencies from a "lower" (national) to a "higher" (European) level.[89]

With regard to organ allocation, authorised institutions may serve as a trans-national intermediary for their member states or member hospitals such as the NHS Blood and Transplant (UK), Eurotransplant (8 European countries) or Scandiatransplant (6 European countries) whereas other open mechanisms are employed by other countries (e.g. the European Organ Exchange Organisation).[90] Despite the large number of cases of international cooperation, these initiatives have not been a substitute for national regulation but acted, in practice, as a re-legitimisation of national legislation. Such measures moderate the differences between the systems and impede their productive exploitation.

2.4 Discursive Attempts of Ethical Universalisations

The politico-regulatory obstacles for those transplantation related practices that are deemed illegitimate – specifically revolving around the provision of financial incentives to poor people in order to entice them to become a living kidney donor – are flanked by discursive attempts to universalise specific ethical positions.[91] In many countries, media coverage on organ donation and transplantation usually focused on stories of donor families, tragedies of recipients prior to their transplantation or mishaps and scandals. Such dramatic portrayals have been the reason why clinicians have been active to condone positive depictions.[92] Given this attention, a professionalisation of informational practices can be witnessed as many institutions have adopted guidelines for their communication[93] to avoid bad coverage and increase donation numbers. Such practices seek to streamline the communication about transplantation and provide a specific perspective on its necessity and standards to counter commonly present association with an illegal black market for

84 European Commission, *Communication from the Commission: Action Plan on Organ Donation and Transplantation (2009–2015)*.
85 European Union, "Directive 2010/45/EU of the European Parliament and of the Council of 7 July 2010 on Standards of Quality and Safety of Human Organs Intended for Transplantation", *Official Journal of the European Union* L 207 (2010), pp. 14-29.
86 European Commission, "Commission Implementing Directive 2012/25/EU of 9 October 2012 Laying Down Information Procedures for the Exchange, Between Member States, of Human Organs Intended for Transplantation", Official Journal of the European Union L 275 (2012), pp. 27-32.
87 See also S. Pondrom, "News and issues that affect organ and tissue transplantation", *American Journal of Transplantation* 9 (2009) 3, pp. 437-438.
88 See also J. Weiss et al., "International collaboration and organ exchange in Switzerland", *Journal of Thoracic Disease* 7 (2015) 3, pp. 543-548.
89 M. Scipioni, "De Novo Bodies and EU Integration: What is the Story behind EU Agencies' Expansion?", *Journal of Common Market Studies* 56 (2018) 4, pp. 768-784.
90 See Meyer, *Mapping organ exchange*.
91 See E. Laclau and C. Mouffe, *Hegemony and Socialist Strategy*, London: Verso, 1985.
92 See L. Ohler, "Organ transplantation and the media: the good, the bad, and the ugly", *Journal of Transplant Coordination* 7 (1997) 2, pp. 52-53.
93 See D. Avsec, *FOEDUS Joint Action – Communicating about organ donation and transplantation – A handbook on theoretical and practical aspects*, 2016.

organs.[94] These communicative strategies aim at discursively separating legal practices of transplantation and organ exchange from illegal practices of organ trade and exploitation to prevent people from rejecting to donate their organs in the believe that "something fishy" may go on. Other forms of communication may involve TV programmes such as in a Norwegian case of a TV documentary on people on waiting lists. Yet, organ donation and transplantation are also covered in dramatic adaption for cinema and television – as was the case in the series "Grey's Anatomy" and its second season finale episode[95] in which one of the lead characters intentionally manipulates her boyfriend's heart assist device to enforce a transplantation.[96] With more than 22 million viewer in its original airing, this episode prompted analyses on the ramification of such negative depictions – especially as viewers may lack the information on how the process of organ donation and transplantation takes place in reality.[97] Another example is "The heart of Jeney" – a documentary about an Arab father from the Westbank who had donated the organs of his son who was accidentally shot by an Israeli soldier. Jewish as well as Arab children subsequently received the explanted organs. The documentary offers a view on organ donation as a way "to build bridges" between alienated communities.[98]

Given that media depictions on organ donation and transplantation may significantly influence attitudes towards this medical field[99], recent tendencies to professionalise the respective communication strategies of agencies and organisations involved in practices of acquisition and allocation do not come as a surprise. On the other hand, clinicians and policymakers in this field frequently complained about bad press in case of scandals as donation numbers are volatile and may be affected by popular depictions or coverage of wrongdoings. Yet the professionalised communication strategies (promoting the benefit for suffering patients), dramatic depictions in television and cinema (usually exaggerating daily clinical practice) and the coverage of organ donation and transplantation by journalists (often in the case of controversies) usually happen with reference to assumed ethical standards. Sometimes, the needs of suffering patients are referenced, or the misery of those having to have donated their kidney for money and now suffering from social stigmata, health ramifications and a relatively low financial benefit.[100]

In the first case, communication seeks to increase donation performance in the national realm to support the national transplantation system. In the second case, communication condemns practices that leave the national realm through arbitrage-like practices that exploit global wealth disparities. However, both discursive framings delimitate legitimate and illegitimate practices.

In sum, the given key findings on the emergence and current state of trans-national cooperation in organ donation and transplantation reveal the extent to which nation states are in need of acknowledging and engaging in cross-border cooperation in at least two ways. First, medical success in this field is a product of intensifying global flows of knowledge and information, of advancing technologies and networking among medical practitioners. It is therefore an outcome *and* epitome of global circulation and interaction. Whilst the initial mobility of medical practitioners primarily strengthened local medical expertise in their respective countries of origin, the resulting medical knowledge very soon outpaced the respective regulatory regimes and their ethical and moral framings. This induced the nation states' need – being responsible for the population's health and access to health care – to adapt to the new medico-technological capabilities.

Second, global flows of knowledge not only involve expert knowledge about how to do something (e.g. how to transplant an organ and keep the recipient healthy by using immunosuppression to avoid organ rejection). It also involves the circulation of laymen' knowledge about the fact that something can be done somewhere (e.g. that a renal patient from one country may receive treatment through transplantation in a different country). Though often rudimentary and incomplete, this lay knowledge became a driving factor in itself when people realise that there might still be a therapeutic option (even if it is expensive, only offered

94 See Meyer, *Mapping organ exchange*; also B. Nashan et al., "Transplantation in Germany", *Transplantation* 101 (2017) 2, p. 213-218.
95 See Grey's Anatomy, Season 2, Episode 27 „Losing My Religion".
96 B.L. Quick, "Coverage of the organ donation process on Grey's Anatomy: The story of Denny Duquette", *Clinical transplantation* 23 (2009) 6, pp. 788-793.
97 See e.g. S.E. Morgan, "The intersection of conversation, cognitions, and campaigns: The social representation of organ donation", *Communication Theory* 19 (2009) 1, pp. 29-48.
98 Verweis auf Dokumentarfilm.
99 G.G. Kalra and D. Bhugra, "Representation of Organ Transplantation in Cinema and Television", International *Journal of Organ Transplantation Medicine* 2 (2011) 2, pp. 93-100.
100 On the issues for living donors from poor economic backgrounds, see N. Scheper-Hughes, "Parts unknown: Undercover ethnography of the organs-trafficking underworld", *Ethnography* 5 (2004) 1, pp. 29-73.

in a foreign country, or not transparent regarding financial flows or the conditions of the agreement with the donor, etc.). Given this knowledge and an increasing capability for global mobility under conditions of global wealth disparities, countries are not able to withdraw from trans-national organ transplantation practices and schemes. As a symptom of the global condition – understood as an irreversible "entanglement on a global scale"[101] –, nation states seem to be caught in it and their autonomy in health matters has been dissolved.[102]

Consequently, abolishing transplantation programmes or creating a system that would generate too few donor organs for the respective number of patients in need would have ramifications. It is highly possible that, in this case, patients would contemplate leaving the national realm to pursue their treatment elsewhere – even if that means transgressing ethical boundaries or exploiting financial disparities. International regulation and cooperation in organ donation and transplantation, thus, is a logical consequence as it seeks to establish common standards for clinical practices, although in a non-binding way, and pursues the nation states to conform to these standards and translate them into their own national legislative framework.[103] In addition, through educational cooperation, the differences in performances of the respective national transplantation systems is sought to be minimised to prevent transplant tourism as a symptom of global disparities of wealth.

Against this background, the following chapter aims at providing a conceptual deconstruction and systematisation of the socio-spatial dynamics that are constitutive to the regulation of transplant medicine. Therefore, the above-described findings will be interpreted by following the SFB's overall objective to dissect practices of spatialisation under the global condition with a focus on the (re-)configuration of spatial formats.

101 C. Bright and M. Geyer, "Benchmarks of Globalization: The Global Condition, 1850-2010.", in D. Northrop (ed.), *A Companion to World History*. Malden, Wiley Blackwell, 2012, p. 288.
102 M. Geyer and C. Bright, "World History in a Global Age", *The American Historical Review* 100 (1995) 4, p. 1041.
103 See Meyer, *Scaled regulatory regimes under the global condition*.

3 Processes of (Re-)Spatialisation and Spatial Formats in the Trans-national Regulation of Transplantation Medicine

3.1 Premises

Medical progress and ethical contestation tend to be two sides of the same coin. Both are conflictually inter-twined as different practices of organ donation are intensely debated in various parts of the world: Whereas some countries hesitate to introduce consent systems that presume a potential donor's approval (e.g. Germany), other countries struggle with introducing donation practices other than donation after brain death (e.g. donation after circulatory death). Furthermore, different religious groups have frequently problematised organ donation for spiritual reasons.[104] Therefore, regulating this medical field involves mediating multiple actors and perspectives, as well as nationally balancing medical capabilities and ethical norms.

These processes essentially revolve around the introduction of new possibilities and practices. However, this field constantly fails to tame these possibilities by subjugating and adapting them to a given order. Instead, organ donation and transplantation – in their capabilities to ease suffering of patients with terminal organ failure – constantly (risk to) transgress boundaries.

Three modes of transgression can be identified: First, knowledge had to transgress disciplinary and, second, national boundaries. Both transgressions created synergies and, thus, the basis for medical progress. Third, the related practices – e.g. the act of harvesting an organ from a dead patient and giving it to a living person – involved a transgression of ethical boundaries.

The history of transplantation shows that these transgressions – and the extent to which they are connected to global disparities of wealth and increased mobility of knowledge and people – shattered the exclusive responsibility nation states scramble for in order to regulate this field. Yet, it also highlighted the limited capability of national systems to enforce regulations against those who were able to exploit wealth and regulative differences for personal gain.

The institutional reaction to that involved a re-spatialisation of regulatory responsibilities in health matters – away from the hegemonic understanding of the nation state and towards a multi-scalar framework for different types and instances of regulation to govern the field of transplantation medicine. Organ donation, hence, is a key example for processes of re-spatialisation based on the success of a global form and its interdisciplinary learning cycles.[105] International law and the creation of transparent international governing institutions long preceded the Declaration of Istanbul and the WHO's resolution 63.22. However, they enabled such forms of expert and consensus-based organisations and thus served the stabilisation of the struggling of the spatial format "nation state" as (a signifier for) a set of self-naturalising practices, identities, norms and procedures.

Thus, the reach of the regulation of transplantation was extended to trans-national institutions to mitigate the effects of differences in wealth and legislation for a medical field, in which certain actors continuously try to elude the national grip. This happened in a time in which the prevalent spatial format of the "nation state" was "explicitly contested and considered not to be sufficient anymore"[106] and a search for new approaches to prevalent shortcomings continued. The fact that most countries of the world condemned financial incentives for organ trade and the huge efforts of education cooperation in building national transplantation programmes worldwide both hint at what Middell calls a "time period of questioning and a search for new spatial formats that promise to correct the lamented deficits".[107] This dynamic era of re-spatialisation in the medical field was accompanied by an institutional stabilisation and ascription of relevance[108], as international responses to the spatial challenges of the rise of transplantation medicine had been found.

104 On matters of religion in organ donation see e.g. M. Oliver, "Organ donation, transplantation and religion", *Nephrology Dialysis Transplantation* 26 (2010) 2, pp. 437-444.
105 Learning cycles should not imply that trans-national attempts have been successful in pushing back organ trafficking.
106 See Middell, *Raumformate*, p. 6.
107 Ibid.
108 Ibid.

The different allocative, legislative and regulative approaches refer to specific processes of spatialisation. The processes to negotiate the proper response to the contestation of national primacy in health matters revolve around contemplating which spatial formats may be employed as a response. In this context, we understand spatial formats – inspired by a disciplinary background in Geography and practice theory[109] – as signifiers for a historical account of the spatial implications of institutionalised and sedimented, yet dynamic, practice-subject condensations. From a historical perspective[110], spatial formats are

- ... institutionalised in the sense that a pattern of institutions and actors can be observed that orders practices that are seen to be associated with the specific format. For instance, the nation state is the spatial format that has – historically – possessed the role of governing health practices, making sure that governmental directions (e.g. laws) are to be obeyed in clinical practice and defining legal consequences for transgressions;

- ... sedimented in the sense that they have a "certain historical stability over longer periods of time";[111]

- ...dynamic in the sense that they may change and be substituted for different forms of spatial governing;

- ...practice-subject condensations in the sense that they usually involve certain legitimate practices and legitimate subject positions.[112]

As such, they are structures that shape social action, and imaginations, that guide social actions. At the same time, they are the product of these actions.

We translated this concept into a heuristic that distinguishes between "an empirically based reconstruction of assemblages" and "an elaboration of the role of spatiality (...) within these assemblages in order to identify spatial formats as concrete configurations of spatialisations".[113] According to this approach,

> *"Processes of spatialization – inspired, initiated, or exerted by particular actors (e.g., institutions) – may be adopted (or resisted) by other actors, providing exemplary practices for regulative (or subversive) opportunities. However, they may be used as blueprints for socio-spatial entanglement and regulation, together with a set of key concepts that in turn may serve as a further basis for more regionalized and distinct implementations."*[114]

Therefore, it is a central premise of our approach, that spatial formats and spatial orders are to be closely abstracted from the empirical material. They are – in the particular context of healthcare – a "heuristic of socio-spatial modes of governing".[115]

As a consequence of our praxeological and subject-oriented persepctive on spatialisation, the interpretative act of identifying the prevalence and characteristics of spatial formats involves two main premises: [Premise 1] The presence of spatial formats can be concluded if empirical evidence hints at recurring processes of formatting subjects' (spatialising) actions and orientations in a certain way.

Yet according to Middell[116], this is just one defining feature. He furthermore emphasises the relevance of spatial orders as a "structural frame of a spatial dimensions of social interaction". Accordingly, spatial orders consist of the relational totality of several spatial formats that are in a competitive, complementary and/or parallel relation to each other.[117] With regard to our research heuristics, the presence of a spatial order – describing a set of spatial formats – can be concluded if [Premise 2] empirical evidence on struc-

109 See e.g. J. Everts et al., "Practice Matters! Geographical inquiry and theories of practice", *Erdkunde* 65 (2011) 4, pp. 323-334.
110 Middell, *Raumformate*, p. 6.
111 Ibid.
112 See Laclau and Mouffe, *Hegemony and Socialist Strategy*.
113 Miggelbrink et al., *Cross-border Assemblages of Medical Practices*.
114 Ibid., pp. 29f.
115 Ibid., p. 30.
116 Middell, *Raumformate*, p. 10.
117 Ibid.

tural relationships between spatial formats – i.e. regarding temporarily stabilised relations of exteriority[118] between recurring processes of formatting actions and orientations – can be found.

In the following chapter, we will dissect our work on the trans-national regulation of organ donation and transplantation medicine with regard to the question to what extent we may conclude empirical evidence on the presence and efficacy of spatial formats and spatial orders, and what characteristics they have as structuring elements in the field of medical practices.

3.2 Formatting Practices and Disciplining Subjects

As a starting point for the following analysis, we assume a hypothetical legalised organ market[119] allowing voluntary donors to offer one of their kidney for money to those in need for an organ. Whereas a non-regulated version of this would probably end up in a capitalist supply-demand system, respectively a highest-bidder-practice thereby privileging rich over poor recipients, a strongly regulated system would most probably introduce medical and juridical checks and utilise equivalents to waiting lists and allocation practices. However due to lacking empirical evidence, it remains unclear whether an increasing demand for donor organs could be met by a commercialised system as altruistic deceased donation may be influenced negatively if people become accustomed to financial incentives for living donation.

The lack of empirical evidence on a legalised organ market stems from the fact that financial incentives to living donors of kidneys have been globally condemned. Currently, proposals for such a concept only, and rarely, exist in academic literature.[120] In contrast and despite a commonly lamented organ shortage, proposals for a commercialisation of organ donation are not to be found in the media or in the political realm. In the course of our interviews with involved politicians in 30 European countries, it was frequently acknowledged that there is a considerable fear to become associated with illegal organ trade because of a potential loss of voters. In fact, all but one country with an organ donation system in the world have established altruistic donation without financial incentives. Even the one example with a regulated system of financial compensation – Iran[121] – has in addition introduced a deceased donor programme due to financial problems in its governmentally supervised system.

Our core argument here revolves around this conformity: From a conceptual point of view, the existence of a widely accepted and seemingly habitualised set of boundaries hints at the efficacy of the prevalent network of political and legislative institutions and discourses to influence the prevalent discourse on transplantation medicine. A twofold dynamic of disciplining and formatting can be observed in this regard:

Firstly, we can conclude a disciplining effect on subjects involved, for instance, on doctors, politicians and patients. Informed by the works of Foucault[122] on technologies of power and governmentality, we thereby do not consider politics as the only mode of governmentality but include other influences that exert control over subjects.[123] Disciplining, in that regard, refers to a contemporary assertion of power that

> *"... traverses every kind of apparatus or institutions, linking them, prolonging them, and making them converge and function in a new way. This holds even when the particular parts of wheels are as obvious a part of the State as the police or prison."*[124]

This perspective rejects limited localisations of power and, instead, focuses on how a willingly-obedient subject emerges from the totality of social institutions, norms, interactions, responsibilities, etc. In the case of transplantation medicine, two superordinate paradigms of actions can be identified: First, the paradigm of determination, commitment or "enthusiasm" (as several of our respondents stressed). This paradigm of

118 M. DeLanda, *Assemblage-Theory*, Edinburgh: Edinburgh University Press, 2016, p. 10.
119 See e.g. M. Goodwin, *The global body market. Altruism's limits*, Cambridge: Cambridge University Press, 2013.
120 See e.g. A.L. Friedman, "Payment for living organ donation should be legalised", *BMJ* 333 (2006) 7571, pp. 746-748; G. Novelli et al., "Is legalizing the organ market possible?", *Transplantation Proceedings* 39 (2007) 6, pp. 1743-1745; Goodwin, *The global body market*.
121 See Ghods and Savaj, *Iranian Model of Paid and Regulated Living-Unrelated Kidney Donation*.
122 See M Foucault, *Security, Territory, Population. Lectures at the Collège de France 1977-78*, Houndmills: Palgrave-Macmillan, 2003/1977-78.
123 See G. Burchell et al, *The Foucault effect: Studies in Governmentality*, London: Harvester Wheatsheaf, 1991, p. 102.
124 G. Deleuze, *Foucault*, New York: Continuum Books, 1986, p. 23.

action is closely related to a certain understanding of work ethic in this field to maximise positive outcomes (e.g. surviving patients), even if that means for the respective medical professionals to exploit oneself to the point of exhaustion, work long hours and sometimes even without adequate financial compensation.

The second paradigm of action revolves around the actors' adherence to procedures that are universally considered humane. This goes as far as to restrict the paradigm of commitment by excluding measures of treatment that would exploit others e.g. by advocating for financial incentives for living donation. We observed both paradigms at work in clinicians, and at least the second paradigm as a topos in many patients who universally declined to ever having thought of travelling abroad for an organ. Whereas their statements do not necessarily need to be truthful, the high prevalence of statements denying the will to exploit others for personal treatment hints at the efficacy of discourse universalisations in this field – i.e. the continuously reproduced position that such deeds are illegitimate. Consequently, subjects are disciplined to know that relinquishing the option of exploitative practices is socio-politically expected.

The disciplining effect on subjects has a formatting effect on regulatory and medical practices. The multi-scalar regulatory framework and the discourse on transplantation limit legitimate actions and establish consequences for transgressions. Based on the paradigm of maximising the positive outcomes, existing examples of regulation thereby form the bases to which new approaches need to relate, leading to decreasing entropy in the realm of possibilities. As a precondition to realise this, compatibility of national transplantation and donation-systems grows, which allows for cooperation, coordination and collective learning cycles.

Formatting, in this regard, means that existing practices and the disciplining influences on subjects foster a behaviour that adheres to these very same patterns of practices, thus constituting an ethically and morally framed path dependency. For instance, if one rejects the possibility of financial incentives for organ donations, there is only a finite number of approaches left to harvest donor organs – especially when there is a universal consensus against organ harvesting without consent. Establishing a donor system in this context not only has to consider a limited realm of possibilities but also a range of published best practices. Consequentially, the ways to regulate organ donation revolve around some key variables – e.g. on "How to retrieve consent?", "What is considered consent?", "How to define protocols for the diagnosis of a patient's death?", and "What is accepted by the public?"

Both effects – formatting and disciplining – are the product of and the basis for a range of similar, yet not identical, approaches to integrate national and international legislation in order to regulate transplantation. These approaches – e.g. the frequently advertised Spanish Model for Organ Donation[125] – and their proliferation throughout the world are the product of knowledge dissemination and learning cycles involving global flows of people, local condensations of knowledge and an increasing relevance of supranational cooperation. At the same time, they serve as patterns for other systems, and they are dynamic in that they evolve in relation to changing societal developments.

Each contemporary national approach to the regulation of organ donation and transplantation usually consists of specific national responsibilities (e.g. defining laws, practices, funding schemes, punishment, committees etc.), influences from supranational cooperatives (e.g. in education, in organ exchange, in organ allocation, waiting list managements, etc.) and trans-national consensus-building institutions (e.g. WHO, Declaration of Istanbul or international expert networks). How these specific entities, their responsibilities and the relation between them are composed in the specific national cases is informed by, for instance, considerations of distance, cultural compatibility, state hierarchy, anticipated public opinions and already existing experiences by others as regulatory best practices. Following an assemblage-theoretical critique on micro-reductionism[126], these resulting arrangements of actors, institutions, rules, discourses and practices are thus not only an "emerging property" of context-specific socio-political interactions. Instead, the relations amongst them are "relations of exteriority" in the sense that through these relations, the properties of all entities are rooted in multiple logics, networks, and resources and, hence, cannot be traced back to some internal characteristics of the entity, a shared ontology, a single causal mechanism, or another kind of

125 R. Matesanz et al.,"Chapter 2. Transplant Programs Worldwide and the Spanish Miracle", in: G. Orlando et al. (eds.), *Kidney Transplantation, Bioengineering, and Regeneration: Kidney Transplantation in the Regenerative Medicine Era*, London: Academic Press, 2017, pp. 13-27.

126 See M. DeLanda, *Assemblage-Theory*, pp. 9-12.

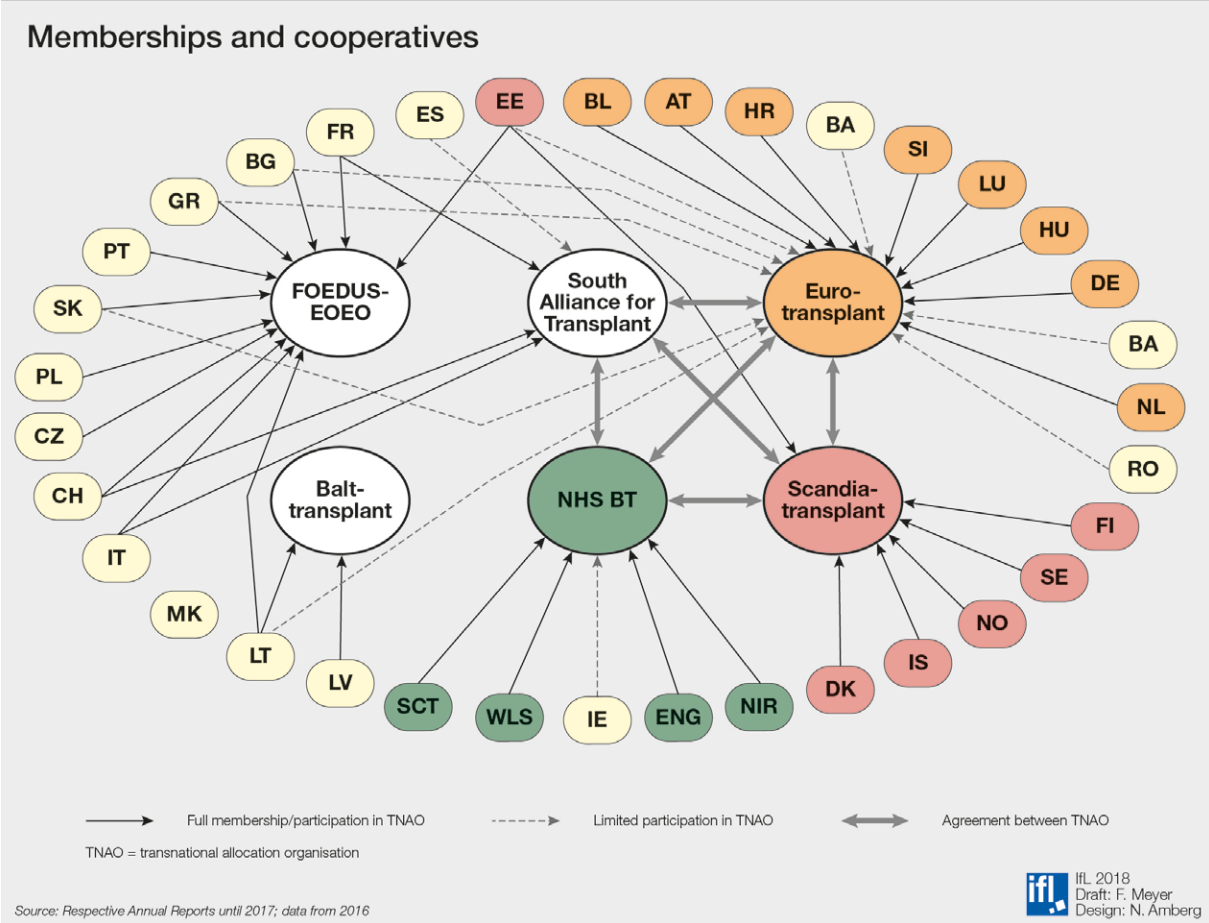


Fig. 1: Memberships and cooperatives for European Countries in transplantation medicine[127]

linearity.[128] Furthermore, the repetitive ways in which these (formatted) practices and (disciplined) subjects are brought into relation also hints towards a recurring logic of ordering in the field of organ transplantation.

These specific regulatory arrangements decide to obey or devalue borders for the circulation of knowledge, people, capital or goods. They attribute certain responsibilities to specific sub- or supra-state hierarchies and / or abolish or establish network relations between specific actors or institutions. For instance, taking part in a regulated organ exchange programme with other countries involves the definition of a legal basis, an exchange and balance-mechanism as well as the clear definition of cases in which the transgression of borders for patients and organs is possible, respectively acceptable within the hegemonic ethical discourse. Furthermore, mechanisms of control and punishment are defined. For this to take place, superior institutional responsibilities and the corresponding supervising institutions are to be defined and created. In addition to that, communication channels and financial flows for the trans-national compensation of clinical work are to be established for the system to function.

Empirically, a heterogeneity of national examples for such arrangements can be observed. For instance, almost all European countries obey the same international guidelines on transplantation and on human rights. Yet, they take slightly different shapes: (a) regarding the legislation (e. g. regarding the laws which govern ethical standards, clinical practices and juridical implications), (b) regarding the consent system (mostly either presumed or informed consent), (c) regarding their respective performance in donation numbers and (d) regarding their engagement to cooperate internationally.

127 Source: F. Meyer, "Mapping organ exchange: Transnational cooperation in transplantation and organ donation in Europe", *Europa Regional* 25 (2019b) 1, (forthcoming).

128 J. Law and A. Mol, "Veterinary Realities: What is Foot and Mouth Disease?", *Sociologia Ruralis* 51 (2011), pp. 1-16, at 2; Hirschman and Reed, *Formation stories and causality in sociology*.

These national approaches are condensational effects of the totality of a scaled regulatory framework in organ donation and transplantation medicine.[129] In all cases, these arrangements of national and international responsibilities did consider already existing formats of regulatory and scalar patterns in order to establish a temporarily stabilised framework. Whereas the era of the global emergence of transplantation success necessitated new approaches, current legislative actors adopted the resulting spatial formats, modified them, and embedded and dis-embedded them into / from a specific context.

Using the example of Europe, many countries engage in common organisations with regard to organ allocation – i.e. the act of matching a donor organ to a possible recipient according to tissue characteristics and considerations of distance see Fig. 1). Bigger organisations (e.g. the NHS Blood and Transplant, Eurotransplant or Scandiatransplant) provide advantages to their members in the sense that they increase the variance in their pool of donors and recipients to make a match between both more probable.[130] Yet not every country does utilise such opportunities. Some successful countries such as Spain, France or Switzerland only engage in voluntary exchange schemes while some countries do not cooperate trans-nationally in allocation matters at all.

While these examples only consider the engagement in allocation cooperatives, many other forms of trans-national cooperation are possible, e.g. in educational matters, in medical knowledge exchange, policy cooperation, consensus articulation between states or expert groups, etc. As a result, a multitude of contextualised scalar configurations of national and trans-national responsibilities can be observed that serves as a set of both opportunities as well as limitations to further activities. The choice of patterns, and their evaluation, is discursively framed through ethical values, privileging some configurations and, thus, limiting the range of the accepted. However, most actors do not attempt to establish a completely new approach of spatial regulation at all, and instead oscillate between different established formats to govern this field in reference to formats that are (implicitly or explicitly) considered legitimate and effective. They meander within the streambed of legitimate options that is discursively defined by what is regarded as accepted in term of ethics and law. The discourse shows a certain plasticity which, however, is limited.

The final chapter highlights what conceptual conclusions can be drawn from these empirical insights with regard to the presence and ramifications of an alleged spatial order.

129 See Meyer, *Scaled regulatory regimes under the global condition*.

130 See Meyer, *Mapping organ exchange*. As a strategy to maximize allocation, the 'Acceptable Mismatch Program' of Eurotransplant, for instance, actively targets the problem of accumulation of 'mismatching' patients on the waiting list—i.e. pre-sensitised persons who had formerly received a blood transfusion, a prior transplant or were pregnant and, thus, run a higher risk of receiving a crossmatch negative-graft or lose a transplanted organ. For these groups, an acceptable (higher) level of mismatch is tolerated and high priority is given in order to ensure that they would receive an organ within short time; see C. Morath et al., "Kidney transplant for high-risk sensitized patients. The 'Heidelberg Algorithm'", *Transplantation Proceedings* 4 (2011), pp. 801-804.

4 Conclusion: Ordering Transplantation Medicine and Organ Donation

Given the repetitive ways that are used to govern transplantation medicine, we interpret the limited set of options used as an indirect evidence of an ordering effect that creates a persistent, yet continuously negotiated, horizon of legitimacy with certain practices buried behind it. Such practices may be considered technically or economically not feasible, incompatible, unethical or politically inappropriate for the respective national context.

The ordering effect is the historical outcome of and context-specific pre-condition for a complex socio-spatial arrangement of phenomena in the field of transplant medicine, and presumably the larger context of healthcare provision as well (such as laws, practices, or institutions). In our example, we identified a number of contextualised configurations of the same spatial formats:

- Nation states that define (il)legality, yet increasingly struggle to impede spatio-evasive practices;
- International organisations that define / condemn (il)legitimacy, yet with limited legal effect; and
- International expert networks that negotiate and define best practices.

However, we argue that these components are stabilised by

- Discursive attempts of ethical universalisation.

These attempts, while hardly being coordinated, revolve around the notion that certain practices are ethically illegitimate and thus further delimit possible ways how to regulate transplantation medicine. Ethical universalisation is articulated and embedded in the practices of international expert organisations and groups, by media organisations and translated into national clinical and regulatory practices. Yet this implicit discursive blueprint in transplantation medicine remains continuously contested as, for instance in academia, alternative models for organ trade are discussed, despite rarely being received in politics. These discursive attempts utilise a constitutive other131 – the unlawful and immoral exploitation of wealth disparities – to define a set of legitimate approaches while having succeeded to universalise its notion as a global pattern.

As described, this ordering has a practice-formatting and subject-disciplining effect with spatial implications as the different forms to govern transplantation medicine converge on the same spatial formats and repetitive relations between them. Thus,[132] this set of spatial formats – as a spatial order – is to be considered a stabilising momentum, an ordering effect that serves as a prerequisite for socio-spatial practices, while simultaneously emerging from the dialectical relation of regulatory and subversive practices as their continuously reproduced and modifiable product.

How does this analysis speak to our introductory example? The global chain of paired transplantation that was set up in the case of the Filipino patient, firstly, demonstrates that organ transplantation indeed is a global form i.e. an abstract / ed social form rendering action, behaviour, decision and emotion through practical and discursive mobilization of technologies and procedures. The established global form was a precondition of the transplantation chain's medical success. The example, however, points, secondly, to a gap between a relatively consolidated globalised bio-technical practice and regulatory attempts structurally lagging behind. The mere possibility to set up and to organize chains of matching does not coincide with the existence of a regulatory logic that would fully cover the relations established between "giving" and "receiving" across borders. The site of fracture is defined by (unfinished) debates on the acceptance of commodification and the respective form of commodifying. Though nation states themselves are perceived and established as the primary agents of legal, moral and ethical order, the urgencies produced by the global

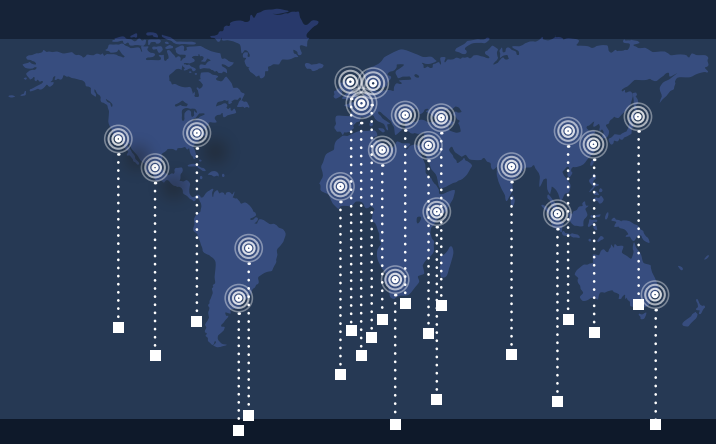
131 See Laclau and Mouffe, *Hegemony and Socialist Strategy*.
132 Middell, *Raumformate*.

form constantly exceeds the realm of the state and its circulatory logic. This leads to certain pressures to re-spatialise the primary territorial frame of regulation in a way that produces new forms – options, agents and strategies – of establishing cooperative routines and re-negotiate the boundaries of the acceptable.

The emerged global form of organ transplantation is a result of a spatial order in which specific actors formerly acquired experience with trans-national flows and with trans-national regulatory measures reaching into the national realm. However, the ways how to tackle subversive practices that exploit transplantation-related national differences in performance and regulation also have the potential to, in turn, inform other fields of regulation, e. g. in the field of cooperation to tackle trans-national health threats (e. g. in case of anti-microbial resistant). Thus, these effects may then contribute to a prevalent spatial order.

The existence of this order becomes visible in the various ways that local medical practices and involved subjects are influenced in their actions, yet also in their choices. The horizon of legitimacy in the field of transplantation medicine is thus considerably shaped by this (spatially) ordering principle and stabilised by discursive attempts to universalise ethical positions.

CENTRE FOR AREA STUDIES



Working paper series des SFB 1199 an der Universität Leipzig No. 17

ISBN: 978-3-96023-225-4
ISSN: 2510-4845

Universität Leipzig
SFB 1199

E-Mail: sfb1199@uni-leipzig.de

http://research.uni-leipzig.de/~sfb1199

Funded by Deutsche Forschungsgemeinschaft

DFG Deutsche Forschungsgemeinschaft

UNIVERSITÄT LEIPZIG
Centre for Area Studies

Leibniz-Institut für Länderkunde

GWZO Leibniz-Institut für Geschichte und Kultur des östlichen Europa