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«ONTOLOGICAL CHOREOGRAPHY» AS AN ETHNOGRAPHIC TOOL

Understanding the Making of Families by Reproductive Technologies in Switzerland

Text: *Nolwenn Bühler, Willemijn de Jong, Yv E. Nay, Kathrin Zehnder*

Abstract

In this article the term «ontological choreography», coined by Charis Thompson, is used as a heuristic analytical device to grasp the different realities of reproductive technologies. The question is addressed as to whether this ethnographic tool is fruitful for understanding the making of families by heterosexual people and LGBTQ. Three case studies from a research project on fertility and family in the context of assisted reproduction in Switzerland reveal the fascinating complexities of temporal aspects of the ontological choreographies, but also some of their weaknesses as a tool. We propose to expand it by taking relationality and historical time into account.

Keywords: *Ontological choreography; Reproductive technologies; Family*

In this article we address the question whether we can fruitfully understand the making of families of heterosexual people and LGBTQ¹ under the conditions of transnationally informed reproductive technologies in Swiss contexts by using the notion of «ontological choreography» created by Charis Thompson (2005). We consider this term as a heuristic analytical device that offers, similarly to other studies influenced by the ontological turn since the second half of the 1980s, a theoretically reflexive «open-ended and creative technology of ethnographic description» (Pederson 2012: 5).

Referring to the work of David Schneider (1968) and Marilyn Strathern (1995) we basically conceive of the family as a configuration for the rearing of children, whose cultural core is the procreative act of the parents-to-be. When

assisted reproduction technologies such as *in vitro* fertilization (IVF) and intracytoplasmic sperm injection (ICSI), are practised, the procreative act does not take place in the family anymore, but includes rather a «field of procreators» (Strathern 1995: 352). In Switzerland, according to figures from the Federal Office of Statistics, almost 2 % of babies are born using assisted reproduction, and more than 6000 women were treated in infertility clinics, during the last few years.² Thus, many parents-to-be today are trying to create their families with the help of a field of procreators, as well as specific material technological devices and specific legal means. How does that change the concept of the family? By «thinking through the family» in the Swiss context of reproductive technologies with the tool of ontological choreography, we transform the deliberately loose concept

¹ Lesbian, gay, bisexual, transgender, and queer people.

² <http://www.bfs.admin.ch/bfs/portal/de/index/themen/14/02/03/key/02.html>, accessed January 26 2015.

of the family and create a more complex one by highlighting the different practicalities and materialities required to enact families. Thompson has applied a similar methodology by ontologically thinking through parents, Strathern by thinking through the person (Strathern 1988), and others by «thinking through things» (Henare et al.: 2007) in order to grasp different realities.

To evaluate the usefulness of the notion of ontological choreography, we investigate how different family and gender realities, or stages in the process of making parents and making a child, emerge from the enactment of ontological choreographies in different reproductive contexts in Switzerland. Apart from the work of Marilyn Strathern and Charis Thompson, family and gender issues are understudied in the literature about ontology, as well as in the literature about reproduction and kinship in Switzerland (de Jong & Tkach 2009). We particularly focus on the temporal dimensions of these choreographies and ask how ontological innovation, in the sense of new ways of making families, is achieved in our case studies. Our argument is that the use of the ethnographic tool of ontological choreography allows us to grasp changes in gendered familial entities and relationships, by reproductive technologies, and vice versa. Moreover, we can understand these changes in the fields of kinship, and citizenship, in more subtle and deeper ways than by methodological instruments that favour, for example, the elicitation of a plurality of representations or polyphonic voices from different actors in the wake of the debates on writing culture (Clifford & Marcus 1986).

Charis Thompson, formerly Charis Cussins, uses ethnographic data to address questions that are often dealt with in a more abstract way in philosophy and social theory (Thompson 2005: 5). Theoretically, she draws on science and technology studies (STS), feminist studies, and anthropology. She particularly stresses her legacy to the branch of feminist science studies in the vein of Donna Haraway and to later developments in STS: «I am less interested in laboratory science and more interested in science as it moves between different sectors of life, including the intimate and the transnational. I am also more interested in bodies and emotions and less interested in biography than many in earlier generations. I am more interested in how science (re)produces differences and stratifications among people and less interested in how it

produces assent» (2005: 51). This statement also echoes her inspiration by the incisive anthropological work on assisted reproductive technologies and kinship carried out by Marilyn Strathern (1992) and Sarah Franklin (1997) and on stratified reproduction and (trans)national reproductive politics by Rayna Rapp and others (Ginsburg & Rapp 1995).

Based on these sources, Thompson develops an intriguing approach of her own, embarking from the assumption of a specific destabilization of social identities through the diagnosis of infertility and their restabilization during treatment. To grasp these processes she creates ontological choreography (Thompson 2005, 2013) as a main «ethnographic tool», as we call it, because it allows us to highlight the practical dimension of doing research, as well as the deep entanglement of research methods and analysis. In the meantime, scholars have applied this instrument in studies on reproduction (e.g. Nordqvist 2011), and in other scientific fields such as information technology (e.g. Metzger 2013). But its usefulness as a methodological tool regarding doing ethnography ontologically has not been scrutinized yet.

In the following section, we discuss the notion of ontological choreography with a glance at the work it does in Thompson's research. Subsequently, three case studies are presented that use this tool in the temporal dimensions of ontological choreography. The first one is on the embryo, the second one on reproductive aging, and the third one on queer reproduction.³ The reproductive technologies that are used in our case studies range from low-tech interventions without biomedical personal up to high-tech interventions with the assistance of clinicians in so-called fertility clinics. In the conclusion, we discuss some strengths and weaknesses of ontological choreography as an ethnographic tool, as Thompson uses it, and we particularly suggest an extended version of it.

Ontological Choreography as an Ethnographic Tool

Thompson circumscribes ontological choreography as «the dynamic coordination of the technical, scientific, kinship, gender, emotional, legal, political, and financial aspects of ART⁴ clinics» (2005: 8). She continues, «What might appear

³ The data were collected in the course of the interdisciplinary and ethnographically oriented research project *Fertility and Family in Switzerland. Local Processes of Reproduction and Kinship in Transnational Contexts of Biomedical Technologies* (2010-2014). The project was funded by the Swiss National Science Foundation and directed by Willemijn de Jong.

⁴ ART or ARTs is the abbreviation of assisted reproductive technologies such as *in vitro* fertilization (IVF) and intracytoplasmic sperm injection (ICSI).

to be an undifferentiated hybrid mess is actually a deftly balanced coming together of things that are generally considered parts of different ontological orders (part of nature, part of the self, part of society)» (*op. cit.*: 8). Further, she stresses that these elements have to be coordinated in «highly staged ways» to produce recognized parents and children.

When we speak of an ethnographic tool, it does not mean that this tool is exempt from theoretical preconditions. On the contrary, in Thompson's approach, the coordination of the choreography is articulated by both structural and performative theorems. For example, she conceptualizes that gender comes about by the intermingling social forces of structural constraints, by normative scripts and of agency by the participating persons and things. She concludes that structuralism and poststructuralism «have a lot to offer one another» (*op. cit.*: 119). This also ties in with a former definition of choreography as an ontological and at the same time political metaphor that is related to materiality, structural constraint, performativity, discipline, co-dependence of setting and performers, and movement (Cussins 1996: 604).

This choreography, she further explicates, is conspicuous in infertility clinics but it also generally takes place between other spheres of human activity. In our case studies, besides the everyday lives of the persons who intend to become parents, legal, political and economic conditions are important. Considered from an economic perspective, ontological choreographies are related to the «biomedical mode of reproduction» with which Thompson refers to the capitalist commodification of bodies and body parts, including reproduction, due to the increasing biomedicalization of societies (2005: 11).

Choreographing goes wrong, Thompson argues, when a treatment does not or cannot result in a pregnancy due to biomedical, economic or legal reasons, including issues of inequality (*op. cit.*: 9). When a reproductive treatment leads to pregnancy in those persons who formerly were excluded from it, the choreography results in «new kinds of reproduction and new ways of making parents», and thus in «ontological innovation» (*op. cit.*: 9). However, in our case studies, we are not interested in the big transformations that may evoke essentializing dichotomies of fixed new and old forms of families, for instance non-nuclear versus nuclear families. We rather search for the more ambivalent «seeds of

change despite conservative strategies that extend old concepts and understandings» (*op. cit.*: 146). Furthermore, we expand Thompson's scope regarding kinship and citizenship, in that we do not focus on the shift from «best interest of the child» to legally protected «reproductive privacy» of parents (*op. cit.*: 7), and the changed ways of how parents are made by reproductive technologies. Instead we are interested in how the «family» is made as the end result of a «successful» choreography.⁵

Ontologies as «theories about being or reality» (*op. cit.*: 45) are manifold and nested. In the chapter about objectification and agency Thompson gives helpful examples of the multiple ontological conditions of female patients during a treatment cycle: a person who juggles work and treatment; a patient in the waiting room; a patient whose ovaries and follicles are represented on the ultrasound screen; an anesthetized body undergoing surgery; and a patient with a specific medical problem such as blocked tubes (*op. cit.*: 182). We evidently are faced here with a range of differently choreographed ontologies that have to be coordinated to constitute the more comprehensive choreography of reproductive success, as Thompson understands it.

Finally, two different «things» are coordinated by a choreography: the «grafting» of parts and the «calibrating» of time. Firstly, Thompson considers the coordinating of the properties and processes of things as important regarding reproductive technologies. From this perspective, ontological choreography has to do with physical places and configurations in which technical instruments, body parts and political (legal) aspects interlock to enable pregnancy – and possibly parenthood, and life as a «family». Secondly, different temporalities have to be adjusted. This includes menstrual cycles; treatment cycles; working times; biological age; time of «first-person selfhood» related to past, present and future; patients' experiences of historical and political time; and prospective parents' sexual and reproductive history.

In the following case studies we look at the temporal aspects of choreographies of reproduction that, in diverse ways, can lead to configurations called «family». We especially highlight the calibrating of time regarding different actors and scales – aspects that are underrepresented in Thompson's work on making parents.

⁵ Thompson explicitly clarifies that her focus is not on making babies but on making parents, more precisely on «the biomedical interventions, the legal innovations, and the work that disambiguates the relevant kinship categories» (2005: 5). The title of her book *Making Parents* also refers to that research focus.

Family Making and Reproductive Technologies: Three Case Studies

Choreographing the embryo

In the narratives of women and couples who became parents by ICSI, the grafting of parts and the calibrating of time appear in interesting ways in their discussions about the embryo. An analysis of the enactment of the beginning of life is highly interesting: it blurs the boundary of object and subject; and it shows a spectrum of different realities of the embryo with regard to being human and being non-human. As Thompson explains, in the process of the grafting of things certain body parts and instruments are «mixed up to make a woman pregnant» (*op. cit.*: 9). When an embryo is produced in a reproductive process with the help of hormones, instruments and scientific knowledge, body parts and other things intertwine to make an embryo and end up in a pregnancy at the best.

Furthermore, technical and biomedical aspects of handling the embryo are closely interlocked with the legal order. The Swiss Reproductive Medicine Act (RMA), which came into force in 2001,⁶ regulates the beginning of life and determines what needs protection and what does not. According to this law, it is only allowed to develop as many embryos as are to be used in one IVF or ICSI cycle, and it is prohibited to preserve embryos.⁷ The storage of inseminated oocytes, before the fusion of the two pronuclei, is allowed, and is a common procedure in a treatment cycle. Therefore, if a couple succeeds in becoming parents with the first embryo-transfer during a so called «fresh cycle», there are often cryopreserved inseminated oocytes remaining which must be «used» or «done», in terms of physicians and couples, within the next five years. After this period the cells must be destroyed. So-called surplus embryos must be defeated or can be preserved for stem cell research,⁸ but cannot be donated to another childless couple.

Pre-implantation genetic diagnosis (PGD) of the embryo is not allowed to date, but the foetus in utero can be genetically tested in the Swiss context. If the test indicates a genetic irregularity, an abortion can legally be performed until week twelve of the pregnancy, and under certain circumstances even much longer. This means that the Swiss law protects the embryo in vitro more than the foetus in utero. One argument for this discrepancy is that the foetus in utero automatically experiences a higher protection through the pregnant woman. This shows how body parts, objects and subjects are interlinked in a complex way at the beginning of life. In the case of PGD, the embryo can only be with the help of a petri dish and a culture medium.

Another characteristic of the embryo produced by ARTs, as Thompson points out, is that it is «either sacred life or a waste by-product of production» (*op. cit.*: 13). In the biomedical mode of reproduction, however, even the discarding of the embryo is supposed to be conducted with care. The ontological choreography of the embryo in the investigated Swiss context is linked not only to legal and medical aspects but also to the enactment of the embryo by the parents-to-be.⁹ In the following analysis of research findings,¹⁰ the intersections with the legal and biomedical regulations will be investigated.

The persons involved make the embryo in different ways, resulting in different concepts and different embryonic ontologies. For instance, in the research, the interviewed persons frequently talk about «embryos». In the Swiss law «inseminated oocytes», that is to say entities before the fusion of the cell germs, are in focus. In biomedicine, «zygotes», meaning entities right after the fusion of the cell germs, are most important. Furthermore, for the potential parents, different stages of the embryogenesis are central. As will be shown, they have different concepts of the embryo at «the beginning of life», and thus create different material realities of the embryo. For instance, they

⁶ This law is officially called Federal Act on Medically Assisted Reproduction. In German it is called Bundesgesetz über die medizinische unterstützte Fortpflanzung, or abbreviated Fortpflanzungsmedizingesetz (FMedG), and in French Loi fédérale sur la procréation médicalement assistée (LPMA).

⁷ In the Swiss Reproductive Medicine Act (RMA), which came into force in 2001, the first cell after the fusion of the two pronuclei, approximately twenty-four hours after insemination, is called an «embryo». In medical practice, however, an «inseminated oocyte» is frequently called a «zygote», and the term «embryo» is used for the two-cell stage and for further cell development. For legal purposes only the legal definitions are relevant.

⁸ Article 10 of the Stem Cell Research Act permits cryopreservation for stem cell research. As soon as embryos become surplus in the course of an IVF procedure, the reproduction procedure ends.

⁹ Regarding the different «embryo tales» of medical and religious experts see de Jong 2009.

¹⁰ The data consist of interviews with four couples and six women, of whom seven have successfully undergone ICSI and became parents of a child, one was sixteen weeks pregnant by the time of the interview, and two whose treatment did not succeed.

differentiate between *before* and *after* the fusion of the cell germs, which they refer to as «two cells» and «new life» respectively.

One issue in public debates about the embryo concerns the moment when it becomes a human being (de Jong 2009). In the case study presented here, different people use different characteristics to decide when the embryo is «life» and «alive», or when it is still a «thing». In this way they differentiate its ontological status. A first aspect, the grafting of parts, is a local one and concerns the question of where the embryo is situated respectively. As long as the embryo is in the petri dish, it is not a human being: «It is technical, it is in the lab», one parent says. Hence, as long as the embryo is not in the womb «for us it is definitely not [human]». This also applies to the non-viable embryo. So, the petri dish plays an important role in the being of an embryo in relation to the parents. As long as the embryo is dependent on instruments, the culture medium and the lab, it cannot be an individual, it must be a «thing».

A second aspect concerns the chronological development of the embryo and the calibrating of time. Depending on the stage of the embryogenesis, the embryo is qualified as a human being, or is still a thing. In other words, the ontological status of the embryo varies depending on its temporality. The various stages are often combined with the visibility and knowledge of certain developmental stages: when fecundation has taken place, after the fusion of the two germ cells; or when the heart begins to beat and can be seen blinking on the ultra sound screen. For another couple the embryo starts to be alive when it has all the organs and when the extremities are visible on the sonograph. This is approximately in the eighth week of pregnancy, which their doctor calls the «jelly bear stage». Consequently, medically calibrated time is important to parents to differentiate the status of their embryos.

The third aspect to qualify the ontological status of the embryo is «feeling» and «seeing», as one parent says, to mark the moment when life begins. Two parents differentiate between the developing body and the spirit, or character, of a human being coming into that body. One of them is convinced that her twins decided in favour of their parents and sees the embryo as a process, as a coming and going of the spirit to the embryo, reflecting whether it wants to stay or not: «No, for me, it is on its way somewhere. It is inside the body, where it happens to become a human being». She

says that this view helps her to live with the weird idea of having «life frozen», a term with which she refers to her cryoconserved fertilized egg cells. It is a spiritual knowledge that enacts the beginning of life as the moment in which the spirit enters the embryo. Finally, for one mother the embryo is a «bunch of cells», referring in a way to medical knowledge. But when she shows the researcher a picture of the two implanted embryos, she says: «My son can decide one day, which of these two egg cells he was». Only retrospectively, the cell aggregate is a living existence and becomes her son.

The ontologies of the embryo thus vary strongly in the narratives of the parents. They are multiple and in all these examples, different sorts of knowledge, practices and materialities are coordinated to constitute different choreographies. Thus, parents create their embryo – and their incipient family – as a specific entity, consisting of parts of nature, parts of technology and a part of sociality. It is this articulation of different ontological orders that helps to recognize the oscillation between an unanimated product, a living body part and a potential child. All these different realities of the embryo together help us to understand the beginning of life. Simultaneously, the making of families comes into focus in these realities. The «seeds of change» in this choreographing of the embryo lie in the early connections made by the parents who conceive a child in vitro. Long before other parents even think about having an embryo, a potential child or a living being, by using a reproductive technology these parents are already enacting the beginning of life. In other words, they start to think about the embryo, its life and its possible future role as a family member at a very early stage.

Choreographing reproductive aging

The notion of a fixed pool of oocytes, declining in quantity and quality with aging, has been at the core of reproductive medicine for decades. While challenged at a scientific level (Johnson et al. 2004, Woods & Tilly 2012), this notion is still predominant in reproductive medicine where it forms an important part of the ontological choreography of making families. This case study aims at highlighting the age dimension in the partnership of a heterosexual couple ardently wishing to have a child. It will show how biological time matters in the ontological choreography of making families through ARTs and explores how the choreography is transformed when fertility time is technologically extended.

¹¹ Translation of the title by the author.

Age in relation to fertility and ARTs appears often as a limit. Iconic questions of both clinicians and public are for example: «Advanced maternal age – How old is too old?» asked by the US-based gynecologist Heffner (2004); or «Late pregnancy: is there an age limit?»¹¹ in the heading of a short article published in the women's magazine *Marie-Claire* commenting on the case of a sixty-six year old Swiss single woman who gave birth to twins in 2012 (Wascowiski 2012). In reproductive medicine practices, this «frontier» (Franklin 2013) takes the shape of age-related fertility decline, presented as a fact of life and as a distinctive biological feature differentiating women and men. But in medical practices, age is also multiple (Mol 2002), as will be shown.

Firstly, the age of the woman is enacted as a chronological and statistical variable in correlation with success and miscarriage rates. Secondly, it is localized in the oocytes through the identification of age-related qualitative and quantitative changes in the ovaries. The ovarian reserve or the age of oocytes is enacted through visualizing and counting oocytes on an ultra-sound screen and through the assessment of levels of hormones in the blood on specific days of the menstrual cycle. As shown elsewhere (Bühler 2014), in clinical practices chronological age is decoupled from biological age. However, the latter matters more, not only in a material sense but also in the sense that it has an effect on the kind of reproductive treatment to guarantee the best chances of making the choreography successful.¹² As expressed in the following quotation from the interview with a clinician, biological age escapes the IVF scope of action and thus constitutes an elusive target of reproductive medicine: «IVF is simply a treatment. All our treatments are treatments to potentiate chances, but they cannot replace the basic cells. It does not compensate for anything. There is no treatment to replenish ovaries when oocytes are not there anymore. This is the pure truth».

A conflict between a chronological and a biological, or ovarian, ontology of age can be observed in the following case of a couple, both thirty-eight years old at the time of our meetings, and in a partnership for seven years.¹³ Fearing that «time would be against» them and sharing the certainty of wishing to have a child, they decide quickly to create a family. After one year of unsuccessful attempts, the couple consult reproductive medicine specialists and the woman is diagnosed with premature ovarian failure. She reports an interaction with a clinician

during an ultrasound exam: «How old are you? And I answer, I am thirty-four. And he says: «But you have only one oocyte, what do you want to do with just one oocyte? At your age, you should have seven or eight oocytes.» And I say, but I don't care, it is like heaven to have one oocyte, I simply want one». While she is experiencing age in her body through the ultrasound device as a lack of «good eggs», her partner is experiencing the effects of age as a lack of desired children. Even though his sperm is of good quality according to the medical standards in force, he cannot have children. Her infertility problem is grafted onto him through their being a couple, united in their love and desire for a family symbolized by a child-to-be.

Before starting the treatment, the woman is aware that female fertility is biologically limited and is worried about the passing of time. However, while undergoing treatment she develops a keener awareness of biological time, and age becomes more real. I argue that that is notably because of the important work, in which she is intensively involved, and the very concrete and practical difficulties required to calibrate various temporalities such as the cyclical time of treatment; biological time; the time of social life; the time of work; biographical time; the time of saving money to pay the next treatment; the time of recovering and taking a break; and the time of scheduling medical appointments. IVF is sometimes seen as a way of going faster, of gaining and controlling time. However, most often the repetition of unsuccessful treatment cycles, in spite of the numerous efforts to calibrate time, is rather perceived as a lack of control over biological time – and this produces a sense of helplessness. Reproductive aging becomes in this way an obstacle to the «success» of the ontological choreography, in the sense of creating a child and a family. This obstacle tests the solidity of the couple, since age is only an obstacle for both of them as long as they are in a partnership. The woman is deeply aware that he could have children later in life with another partner. This tension is very much discussed, when it comes to the decision whether to marry, or not.

However, this case also illustrates how reproductive treatments with donated eggs, and autcryopreservation of eggs, open up the potential of intervening in age. After five years of unsuccessful repetitive treatments in several clinics, the couple decide to turn to IVF with donated eggs¹⁴. Through the grafting of donated younger oocytes, this procedure implies

¹² On the importance of «old eggs» in ARTs see Friese et al. 2006.

¹³ The analysis draws on forty-six interviews with thirty-five women or couples undergoing reproductive treatment; eighteen interviews with experts; observations, as well as scientific, medical, and media textual documents. The couple whose case is analyzed in this section was met three times.

¹⁴ Up to now the author does not know whether the procedure has succeeded or not.

another choreography that has the potential of leading to ontological innovation, or more preferable transformation, by extending fertility in spite of declining reproductive substance. The qualities of the donor, and in this case particularly her youth, are extended to her body parts, and when grafted to the receiving woman enable pregnancy. This option is seen as the painful confirmation that the woman's oocytes are «too old», but it is also the hope for the child the couple longed for during many years. Since egg donation is prohibited by Swiss law, they have to go abroad to access the procedure. While biological age loses its deterministic dimension, questions raised by the fragmentation of motherhood, as well as material and organizational aspects of traveling abroad become the main elements of the choreography.

The autcryopreservation of eggs is considered as another means to intervene in biological time, potentially enabling the synchronization of conflicting timescales (Waldby 2014). It occurs by suspending biological time. This is based on the idea that while the rest of the body ages, the oocytes can be preserved in a state of «suspended animation» (Franklin & Lock 2001) or «latency» (Radin 2013) at the biological age at which they were retrieved, and used later. Drawing on her own painful experience, the interviewee says that she will recommend this fertility preservation strategy to all the young women in her circle. Mirthlessly laughing, she says that she would even be ready to pay for the procedure and regrets that she could not turn to this option. Unlike reproductive treatment with donated eggs, egg cryopreservation has the potential to preserve the genetic line between mother and child. For the interviewed woman, it is the future, the hope that age-related infertility can be prevented, and that future generations will have more reproductive freedom.

How do these different ontologies of reproductive aging co-exist for both partners? How can female reproductive aging be an ineluctable process that IVF cannot change, and at the same time something that can be circumvented or intervened with biotechnologically? Is reproductive aging as an obstacle to the success of IVF, the real process, and the other versions of reproductive aging just superficial ways of compensating for it? The answer will vary depending on the times and places under study, but in this ethnographic case, as far as the woman is concerned, these versions do not conflict, because they appear one after the other as the successive options of a reproductive treatment. They are not excluding each other. Instead, the first version is the condition for the other ones. It is only because female reproductive aging is enacted as an obstacle to the success of reproductive treatment, and thus to the making of a family, that egg donation might be searched for and the frontier of age

might be transformed. However, as the ontology of reproductive aging is mainly gender specific, another potential conflict may arise for the couple. Indeed, even though age materializes in the woman's body, it might be an obstacle for both partners. In this case, there is not a conflict because the couple is momentarily strongly united in its desire for a family. This connection is nevertheless always susceptible of being untied.

In this case, the tool of the ontological choreography allows firstly the de-essentialization of the frontier of age by highlighting its multiplicity. It also allows us to grasp how technological changes in the choreography might produce an ontological transformation of reproductive aging as something that can be targeted and to some extent controlled by reproductive medicine. While these different versions of reproductive aging might be conflicting, their temporal succession in the reproductive treatment of the woman enables their coordination.

Secondly, a focus on the age dimension of the ontological choreography of family-making illustrates how the whole process is fragmented into many stages, and how the passing of time and the biology of aging itself do and do not matter for both partners, depending on their calibrating and on the solidity of their relationship. The ontological choreography of reproductive aging involves a woman and a man differently. A woman experiences the materialization of «old eggs» in her body, while a man does not experience exactly the same with his sperm. But through their grafting as a couple, age becomes an obstacle to the success of the choreography for both partners, materialized in the enduring lack of children as time passes by and in spite of their calibrating efforts. Through the intertwining of these different versions of reproductive aging, the couple wanting to form an incipient family is put to the test by the experience of infertility.

Choreographing queer reproduction

The ontological choreography of making families is strongly informed by legal, political, economic and ethical discourses when it comes to the question of how sexuality and gender are entangled in making kin. LGBTQ's grafting of parts in making and performing kinship and family configurations has interesting temporal impacts that exceed Thompson's understanding of temporality with regard to the ontological choreography. Rather, the ontological choreography of LGBTQ points to an amplified understanding of the implications of temporality and realities in reproduction. This case study reveals three dimensions of the calibration of time

regarding the ontological choreography of familial reproduction: first, a historical and political temporal dimension when it comes to the grafting of homosexuality and reproduction; a second dimension of temporality in terms of LGBTQ that contributes to the increasing hegemony of the biomedical mode of reproduction; and a third, individualizing temporality regarding LGBTQ perceived as being ahead of the times.

The first temporal dimension of the choreography of LGBTQ reproduction is strongly entangled with the legal regulation of gender and sexuality in the realm of procreation. In order to grasp the historical and political impacts of such reproductive temporality, which forms familial realities, it is helpful to sketch how LGBTQ are legally banned from access to reproductive technologies in Switzerland. Since 2007, same-sex couples in Switzerland have been able to register their partnership. In many respects, the Federal Law on Registered Same-Sex Partnership (PartG)¹⁵ grants equal treatment to registered couples and heterosexual married couples. In some respects, however, a clear distinction is made between civil unions and marriage. A key issue with regard to same-sex parenthood is the classification of the law on civil unions as a special legislation. It is in contrast to marriage law, not part of the family law as laid down in the Swiss Civil Code. In addition, there are explicit prohibitions when it comes to establishing a family that includes children. According to Article 28 of the PartG, registered couples are not allowed to adopt children,¹⁶ and they are denied access to reproductive technologies. The latter is reinforced in the law on reproductive medicine (RMA). Single individuals, same-sex couples, and people living in extended, multiple intimate relationships are not allowed to make use of medically assisted reproduction (RMA, Art. 3 Abs. 2 Bst. A; ZGB, Art. 252, see also Nay 2013, Mesquita & Nay 2013).¹⁷ These restrictive regulations of legal access and recognition of LGBTQ's parenting realities ties in with prevailing biomedicine which is shaped by history.

Considering the temporal impact of the choreography of reproduction regarding LGBTQ, these current legal regulations are heteronormative residuals from a long-reigning pathologization of homosexuality by biomedicine that are still enacted in the here and now. They shape the realities for LGBTQ families. For example, homosexuality was until recently considered a mental disorder by the World Health Organization (WHO) in their International Classification of Diseases (ICD) and by the American Psychiatric Association in their Diagnostic and Statistical Manual of Mental Disorders (DSM).¹⁸ That is to say, the current heteronormative regulation of reproduction in Switzerland refers to these historical residues of pathologization. It presumes, firstly, that same-sex couples are not reproductive «by nature». They allegedly lack the opposite sex in the grafting of things to produce offspring. Secondly, it assumes or insinuates – as my analysis on the political discourses on adoption rights for LGBTQ in Switzerland shows (Nay 2013) – that the psychic development of LGBTQ's offspring is at risk, if they are born by and grow up with same-sex parents. Despite the fact that the biomedical pathologization of homosexuality in the ICD and DSM was banned by 1992, in the Swiss Federal Assembly a pathologizing discourse about same-sex couples building families persists (Amtliches Bulletin 2013, Nay 2013). In choreographing their reproduction and family making, while struggling with legal insecurities and emotional doubts, LGBTQ calibrate the simultaneity of the legal recognition of same-sex partnerships and the denial of access to reproductive technologies and parenting-rights.¹⁹

Against this background, the ethnographic case analyzed in this section performs the coordination of different temporally-informed political and biomedical parts of an ontological choreography of reproduction. One of the interviewed gay male couples using gestational surrogacy is a paradigmatic case for the second impact of the calibrating of time in the ontological choreography. The coupled gay men tell in the ethnographic interview, how they were struck to

¹⁵ In German the law is called Bundesgesetz zur eingetragenen gleichgeschlechtlichen Partnerschaft (PartG).

¹⁶ In 2013, the Swiss Federal Assembly approved the preparation of legislation for stepchild adoption for same-sex couples. At the same time, they confirmed the bans on the access to adoption and to reproductive technologies (Amtliches Bulletin 2013).

¹⁷ Although the case study analyzed below in this section does not apply to the question of the legal regulation of transgender persons, it may be mentioned that the current praxis pertaining to the adjustment of civil status for transgender people in Switzerland still requires sterilization, with very few exceptions. Such a legal praxis is not in accordance to the recent federal directive in this matter (Eidg. Justiz- und Polizeidepartement 2012).

¹⁸ Transgender, or «transsexuality» in biomedical terms, is still pathologized by the World Health Organization as a «gender identity disorder» in the *International Statistical Classification of Diseases and Related Health Problems* (ICD-10) and as «gender dysphoria» in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V).

¹⁹ For an analysis of the affectively saturated politics regarding so called «rainbow families» and how they are bound up with the nation see Nay 2014.

hear about the possibility of producing offspring by means of surrogacy after they had almost quit their «wish to build a family». By joining a newly established online community of so called rainbow families they learned about a transnationally operating agency based in Eastern Europe which facilitates gestational surrogacy for gay couples. As they are an economically privileged, well-off gay male couple, they fit the needs for capitalist innovation and a growing biomedical mode of reproduction. Gay men and lesbians are a new consumer group for the mode of reproduction that makes it possible for biomedical technologies to «expand», to use a capitalist term (Bock von Wülfigen 2001, Kalender 2012). Hence, the gay male couple's calibration of time of the choreography oscillates between two different ontologies: a homophobic enactment of devaluation of same-sex families in the restrictive legal regulation in Switzerland, which still consists of elements of the pathologization of homosexuality as showed above; and an enactment of a capitalist notion of reproductive innovation by gay couples regarding the biotechnical mode of reproduction.²⁰

This conflicting simultaneity gives rise to a third temporal dimension in the calibration of time of the ontological choreography of LGBTQ reproduction, and concerns subjectivizing them as «being ahead of the times». The gay male couple in the case study reveal the struggles with the calibrating of different temporalities associated with two different kinds of subjectivities: firstly, being denied parenthood in respect of the political-legal order; and secondly, being considered as a so-called innovation regarding the biotechnical-capitalist order of making use of reproductive technologies. In this calibrating of different temporalities, the decision of the gay male couple to deploy the biotechnical possibilities to produce offspring denotes performing the figure of the innovators in an economically-textured capitalist biotechnical mode of reproduction. They may resort to this possibility because the choreography of making a family may go wrong in their case, due to the fact that they are legally excluded from using reproductive technologies in Switzerland.

As this case study shows, despite this restrictive legal and political order, LGBTQ build family configurations in a transnational context of reproductive technologies that have to be situated in a capitalist biomedical mode of reproduction. Against this background, the gay male couple that enacts «being ahead of the times» reveals conflictive tempo-

ralities regarding the ontological choreography. In particular, the political temporal dimension inscribed as a continuation of the past, constitutes an apparent peril to the time dimension that creates a future for queer families. The ontological choreography of making LGBTQ-families demands complex modes of calibrating time that exceed the processes of reproduction in fertility clinics and is strongly related to historical, legal and economic realities.

Conclusion

To conclude, we would like to come back to the question of how Thompson's ethnographic tool of ontological choreography helps us to get a subtle and deep understanding of the making of families in medical or legal cases of infertility. And how can we fruitfully expand it? If we take Thompson's choreographical analyses as a lead, a first limit we can identify concerns the lack of attention to the issue of family. She is mainly interested in how *individual persons* deal with their destabilized social identities under the new conditions of reproductive medicine, for example the re-enactment of being a good husband in the infertility clinic after the diagnosis of infertility, or the re-enactment of a mother-to-be in the case of egg donation or surrogacy. Thompson analyzes the entanglement of the socio-material environment, but she does not deal with the adjustments in the *relationships* between husband and wife, between the different partners united in their wish to have a child, or between the potential mother, the father, the child-to-be, the potential siblings, as well as other kin and non-kin persons. Thus, the ontological choreography of making parents in Thompson's sense focuses more on individuals and their subjectivities, in contrast for example to Strathern whose key concern is relationality (e. g. Strathern 1988, 1992). In our conceptualization of the ontological choreography of making families, we propose to focus on the enactment and agency of relations between potential family and non-family members, as for example in the case study on the embryo and in the case study about the attempted reproduction of the aging woman and her husband.

Social scientific accounts of reproduction based on Thompson's tool of ontological choreography entail many advantages. In our case, it sensitizes us regarding the manifold enactments of persons and things, including social forces and cultural scripts that come into play to create different

²⁰ It is important to state that the dynamics of the ontological choreography analyzed in this case study do not apply to any other kinship configuration of LGBTQ. For example, transgender parents, single parents and kinship configurations with multiple parents are – as far as this research project shows – not (yet) part of the discourse of innovation in biotechnical modes of reproduction.

realities regarding reproduction and kinship, including family-making. It can also be extended in a productive way, as shown in the case of queer reproduction. The case studies on the temporal aspects of ontological choreographies reveal the ardent efforts of heterosexual people and LGBTQ in the realms of «kinning» (Howell 2006), gender and age, and the uncertainty that prevails when they try to build a family with reproductive technologies in Switzerland. They also make clear that the family in this context is a highly complex and heterogeneous configuration. The first and the second case focus on phases of uncertainty regarding the beginning of family life and of life itself, and the ambivalences that are going along with it. The second and third cases show conflicts of parents-to-be that emerge through the legal reproductive restrictions by the Swiss nation-state.

Unfortunately, the tool of ontological choreography, as Thompson uses it, does not deal with the connections and disconnections between different ontologies, nor with the multiplicity of ontologies, nor with the question of paradoxes or ambivalence due to conflicting realities. This is an open issue, and a second limit, which particularly the third case study reveals. The elements of the ontological choreography must be calibrated in order to create a more or less coherent reality, and historical temporalities must be included as well. Thompson does not reflect on how a specific reality fits or conflicts with other realities. The ontological choreography is about the working together, or staging, of human and non-human elements in the making of relationships in place and time but we get no hints from her about the way in which these elements are exactly coordinated. To understand more about the coordination of different realities we can fruitfully refer to Mol and her work on the multiple enactments of arteriosclerosis in medical practice (Mol 2002).

Persons who try to have a child with the help of biotechnologies follow a long, costly and mostly stressful trajectory of different stages of biomedical and/or social activities (searching for sperms, egg cells and/or a surrogate) to achieve a pregnancy, having a baby, becoming a parent, and becoming a family. They do so with different kinds of performative adjustments in their intimate relationships, and adjustments regarding normative scripts of kinship, gender and age. Thompson illustrates these processes with regard to being a mother and being a masculine husband in the US sense – but not regarding being a family. Many of these parents-to-be who are actors in these ontological choreographies finally have to search for alternative configurations and relations of sociality because no child and no family of one's own ensue. All these efforts and struggles performed by the parents-to-be and by the actors in the field of procreators, includ-

ing legal and political actors, and by the material things such as petri dishes and ultrasound screens, are part of the conceptual complexity of the family in the context of reproductive technologies in Switzerland today. The making of this kind of family is often fragmented. Not only the making of motherhood and fatherhood, but the whole choreography of making a family is distributed among many human and non-human actors, and is composed of many stages. That is why for persons undergoing reproductive treatment, the family becomes an elusive goal that is sometimes hardly mentioned anymore in the process of the treatment. Instead, the achievement of one step after the other becomes utterly important, as Franklin has so impressively shown (Franklin 1997).

Finally, using ontological choreography as an ethnographic tool has enabled us to complicate issues of change. Ontological choreographies of making families prompt us to pay attention to: 1) the intensive work of coordination and calibrating required to make the choreography successful, which will possibly lead to ontological transformations; 2) all the actors, human and non-human, related to the ontological orders of nature, society and self; 3) the permanent possibility of failure, and the fragile character of the choreography. There is no simple causal effect. Transformations are no simple consequences of the use of these technologies. Instead, observing the ontological choreographies of making families allows us to grasp how ontological change is always a fragile and temporary result of an intense work of choreographing various elements of different ontological orders, and various scales. The tool of ontological choreography allows us to show the scope and variety of the elements that need to be brought together, but also pushes us to highlight the complexity of what makes them hold together. It opens up a space for the observation of small changes, small differences that do not make the choreography look totally different but that keep it moving.

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