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Tracing Identities Through Time

Assisted Reproduction, Narratives of Time and Women's Biographical Work

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to change
from one moment to the next
over time.

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Acknowledgements

At the risk of going cliché, but this is the place to acknowledge that writing any 'thing' is a journey and that we never come out at the other end the same person that we came in.
Let me tell you, that is a good thing.

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to the family who believes in obstacles, recognizes the comic value in lamenting and has mastered the art of not taking my perfectionist inclinations too seriously;

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Tempora mutantur,
nos et mutamur in illis.
-
Times change,
and we change with them.
-
Die Zeiten ändern sich,
und wir ändern uns in ihnen.

Latin Proverb,
Various Sources

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1 Introduction

"There is a meaning for everything, and everything has its time", she concluded.[1]

Assisted reproduction has many faces, both in a literal and in a metaphorical sense. Since the 1970s countless lives have found assistance and a starting point in ARTs (**A**ssisted **R**eproductive **T**echnologie**s**). Ever since, these technologies have touched on the very conditions of human life, and in most diverse expressions. Assisted reproduction can be the medications prescribed to assist in timing sexual intercourse (what is often called 'infertility treatment' or 'hormone therapy'), it can be inseminations performed by gynecologists or In-Vitro-Fertilizations, during which sperm and egg meet in controlled laboratory conditions and which might include gamete donations or the involvement of a surrogate. Assisted reproduction, in its many forms, also grazes topics as varied and all-out sensational as preimplantation genetic diagnosis, sex selection practices or even human cloning. Assisted reproduction has given rise to institutionalizations seemingly as prevalent as sperm banks or as specialized as infertility clinics, operates on a transnational scale and has become a fixture in all kinds of media, fictional or non-fictional or in-between. It has spawned and taken a key role in discourses on LGBTQ[2] rights, ethics, law in general and making families. And at every turn it is interfacing and testing the medically possible, socially acceptable and what it means and will mean, in collective futures, to be human.

Assisted reproduction can be many things and is involved in many things, but no matter what we are talking about it is always and without exception about individuals, their lives and the lives they can choose to live. As many discussions and controversies as assisted reproduction has fostered or played a part in, it has also and at the very same time been a means to allow individuals in the most diverse life situations to have a genetic child of their own.

Austria's history with assisted reproduction is a particularly curious one. Public discourse on assisted reproduction gained volume in the 1980s and 1990s, producing a central legal text in the early 90s that is, having sustained only little change, still valid to this day. Well into the 21st century the number of individuals undergoing assisted reproductive treatment appears to be steadily on the rise (see BMG 2010; ÖBIG 2013, 108) and yet large-scale public discourse remains rather quiet. This thesis, therefore, raises a small voice within the silence and tries to bridge the boundaries between the lived realities of assisted reproduction and mostly expert-driven discussions.

Assisted reproduction is, in every possible way, a transboundary matter at the very seams of having children, becoming parents, making and negotiating families, kinship, society at large and the technoscientific possible. It is intimate and private as much as it is public and political. Children born

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[1] Quote from one of the biographical interviews conducted for this research - however, this does not necessarily apply to all sub-headings of this kind. I therefore open them up to interpretation.

[2] This refers to **l**esbian, **g**ay, **b**isexual, **t**ransgender and **q**ueer - knowing that there are many variants of this and likeminded initialisms, and that each has history and meaning.

of ARTs are at the same time the children of their parents as they are at the hub of on-going debate and negotiation about the conditions of their very existence.

In the past four decades assisted reproduction has also proven to be a site of intense international scholarly discussion, particularly in the field of **S**cience and **T**echnology **S**tudies (STS). Assisted reproduction is happening *in* and *as* a complex mesh of natures, cultures, ethics, bodies, state laws and politics, gender relations, techno-science, global-local practices, spaces, temporalities and individual subjectivities. It challenges us in ever more compelling ways to extend and complicate our modes of thinking while, at the same time, we must keep research grounded in the very reality of what is at stake here: that is, *life itself* (Franklin 2000).

It is in this vein that the present thesis tries to strike. For this, in particular, it links with two key strands in the scholarly debate that have cast powerful frames and critiques over the matter at hand.

On the one hand, assisted reproduction is in many instances an answer to *unwanted childlessness*. The process that connects unwanted childlessness, an age-old phenomenon, with assisted reproduction, a phenomenon with a comparatively shorter history, is that of *medicalization*. Medicalization means the interplay of a complex set of processes and (human/non-human) actors that have shifted unwanted childlessness away from the realm of fate and into the realm of a multiply treatable condition. Greil (2002, 101) calls it the *"fait accompli"* of medicalization that couples', and especially women's foremost reaction to an inability to conceive leads them to the purviews of medicine, their (urologists/)gynecologists or general practitioners. Unwanted childlessness is thus transferred to the medical realm, within which it has been framed as a medical problem - the problem of infertility and/or sterility - to be treated by medical means.

In this context, on the other hand, predominantly feminist critique has homed in on the undeniable gendered tilt, and the practices and values inscribed and embedded in ARTs that have been seen to *objectify women* and their bodies (Corea 1987; Strickler 1992). Without question, it is women's bodies who are the object of assisted reproductive treatment, their bodily and subject wholeness broken apart by the medical gaze, its methods and procedures.

Both the medicalization and the objectification discourse serve as key framings for the issue at hand. Both debates have received considerable attention and, more recently, powerful and fruitful reworkings towards more nuanced and subtle perspectives. Thompson (2005), for instance, has shown that objectification (being the object of the medical gaze) and subjectification (being the active subject pursuing the wish of having a child) are not opposing, but fluid and dynamically interchanging states of being. Elsewhere, Gunson (2010) has traced dominant, medicalized discourses in how they are concretely appropriated and refashioned in individual life narratives. Analyses of this kind urge us to attend to phenomena in concrete ways as they impinge on, are acted upon and (re)fashioned in the lives of individuals. This is the only way we can rise up to the

challenge of treating assisted reproduction both as this multiply anchored mesh, while at the same time keeping it grounded in the lives of individuals.

Embarking on this endeavor, I draw on five open-ended, in-depth biographical interviews which I conducted as part of my thesis research in the earlier months of 2013 with women who had undergone assisted reproductive treatment at some point in their life and had, with it, successfully conceived a child.

Particularly the German-speaking tradition of biographical interviewing (see Schütze 1977) has put forth an understanding of individuals as simply the carriers of biography and their narrative accounts as merely a window to objective reality and generalizable experiences. Not least, we find jacking points for critiquing this pursuit of *'the'* generalizable experience also in feminist writings. Talk of categorical same-ness, purported by those who were parsing *'women's experience'* in a one-size-fits-all manner, easily obscured the variable inequalities, but also variable potentials for agency, in different women's lives (Haraway 1991).

It is with this in mind that this thesis engages with women's narrative configurations of their experiences with assisted reproductive treatment not only as invariably situated, but also as result and proof of subjectivity, agency and personal identity. Narrative is understood as concretely *worked*, which is reflected in and through the notion of *"biographical work"* (Holstein and Gubrium 1995). Narrative configurations of biography are thus seen as an expression of agential prowess and the active manner in which personal identity is constituted (Somers 1994). By the same token, personal identity is not conceived of as whole and uniform, but as invariably *partial* (Strathern 1991) and essentially *in movement* (Cussins 1996).

In turn, situatedness in this sense means to perceive narrative configurations not only in terms of *how* things are narratively crafted, but also in terms of the substantive content of *what* is being said (Gubrium and Holstein 2009). Narratives, and interviews more exactly, draw on a range of locally available, relevant and sensible resources that are indicative of their cultural embeddedness. To that end, this thesis will also be concerned with the local framings of assisted reproduction in Austria that draw, additionally, on two expert interviews with medical professionals in the field as well as on an analysis of the specifically *performative effects* (Faulkner 2012; Race 2012) of legal regulations in place. For the further analysis this will allow me not only to consider what assisted reproductive treatment might mean in the lives of individuals, but also to draw tentative conclusions as to the farther socio-scientific stance on and organization of assisted reproduction in Austria.

So as to attend to the question of women's narrative configurations of identity in assisted reproduction this thesis will specifically focus on the *"temporal texture"* (Felt et al. 2014, 17) of this biomedical phenomenon and aim to shed some light on the dynamism of personal identity as it is looked at through the lens of temporality. Recently we bear witness to a surge in studies that study time not only as an external ordering framework, but rather as an "*important topic of enquiry in its*

own right" (Neale, Henwood, and Holland 2012, 6) that is ingrained in certain socio-scientific fields and arenas.

In other words, my thesis latches on to the sciento-creative impetus posed by Dalsgaard and Nielsen (2013, 12) as to considering phenomena and ontologies *"not only* in time *but, indeed,* of time" (emphasis in original). For this I employ a *timescapes* perspective (Adam 1998, 2004) to capture the complex interrelations of different temporal forms - in particular time frames, trajectories, transience and expiration of time, cycles and rhythmicity -, how they come about and how they come to matter for individual lives and women's understanding of self in the context of assisted reproduction in Austria.

2 On Matters of Definatory Concern

...and if they should matter at all

2.1 Assisted Reproduction - so, what?

What is assisted reproduction, assisted reproductive medicine, medically assisted reproduction, technologically mediated reproduction or the like? It is customary in the social sciences, as in many other areas, to kick off the scientific endeavor with definitions, taxonomies and, ultimately, ontological pre-emption. As suggested by the four alternatives presented above, however, this is not a straightforward feat.

First, we need to acknowledge that 'reproduction', as straightforward as it purports to be, is a historically contingent term. Jordanova (1995), for instance, alerts us to a gradual linguistic shift from *generation* to *reproduction* happening during the 18th century. This was a shift co-produced, in large part, by a shift in how reproduction was thought and perceived - as divinity was ousted by biology and private, non-professional premises of control and understanding made way to the professional (medical) domain. Read in a framework of modernity, Clarke (1998, 9) analytically aligns the universal uptake of the term *reproduction* with the technical and rationalized vocabulary tangent to modernity, post-industrialization and its politico-economic rationales, encompassing the whole of "*conception, gestation, and birth of new members of [the] species*". Now, I could build on that and supplement some inkling about postmodernity and how exactly reproduction might be 'assisted'. How to go about that, though?

Technology, for sure, must be added to the above definition for it to apply to 'assisted reproduction'. But what is technology? Is technology the test tubes that have become metonymically associated with ARTs? We are hard-pressed to argue that there is more to it than that. Technology is more than the material - the tubes, the liquid nitrogen storage units, the Petri dishes - in that they become variably assorted through practices: no tube alone is an adequate definition of ARTs, at least not judging by our socially accorded ways of evaluating 'good' definitions. Definitions offer boundaries and guidance and they need to conform to notions of adequacy, applicability and comprehensiveness. So, the question arises: Where does it stop? Does one focus on the technology-aspect or take a frame of assistance to an otherwise 'natural' reproductive process? Do we care for a definition of medicine as well? For what makes it reproductive *medicine*: the involvement of medical staff, its institutionalized forms, the locale of a so-called (infertility) clinic? Definitions - as much as they aim to identify the present *matter of concern* - always carry with them all that they make a *non-concern*, the *matters* they exclude (Star 1995).

So, let me offer this on the topic of definitions before we further embark on this thesis: Let me not give you, dear reader, a definition of assisted reproduction at all. Instead, let me remind you of the

ideas about assisted reproduction with which you enter this thesis - definitions you tacitly harbor and will always harbor *no matter* what I tell you here. And let me assure you that there is a locally adequate definition of assisted reproduction to be found in the totality of the following pages. The women, whose experiences and stories are at the core of this project, were talking about assisted reproduction. We talked, sensibly and for hours, about assisted reproduction: forging stories of technologies and practices, of the greatest expectations and deepest disappointments, stories of doctors and nurses and 'alternative medicine', of failures, successes, goals and the woes along the way. Just because I cannot give you *the one* definition for assisted reproduction applicable in this very case, this is not to say that there are not countless definitions out there. Children are born and lost, every day, and stories are forged, told and heard, every day - and none of it happens with the least doubt about what assisted reproduction 'really' is or how it is defined.

Contrary to scientific habit I thus urge you to go into this thesis without a pre-ordained definition for assisted reproduction and to take away from all that you will read here the very practical, very local and very handy definitions instantiated every time '(assisted) reproduction' is referred to.

2.2 ARTs - Terminology and some Technical Details

The following list comprises a short description of terms and procedures used throughout this thesis. This list was compiled using various sources (chiefly Knoll 2011; also Hadolt 2005) and information gathered from original research. It thus offers a situational glimpse at that which *can be* and *is* commonly subsumed under the term ARTs, or aspects in association with ARTs, but it is hardly exhaustive.

It must also be noted that a list of this kind can be thought to treat terms and procedures as having singular meanings. However, while the below list resorts to concise descriptions of terms and procedures reminiscent of medical encyclopedias, one must not overlook the multiplicity of meanings and daily meaning-making in assisted reproduction. In temporal terms this is particularly important with respect to developmental stages and their frames (days, weeks etc.): These points of transition/transformation are by no means instantaneous or fixed. They are similarly imbued with meaning, made relevant and co-produced through laws and socio-scientific practices that aim to disambiguate continua in a practical and local bid to *sort things out* (Bowker and Star 1999). In more material and procedural terms we also need to be aware of the many and variant practices that are pulled together under an acronym such as IVF (Hadolt 2005, 5), and of the many ways in which practices are aligned to and synchronized as singular treatment cycles or sequences of treatments. Whatever the term depicted below is, therefore, it must be perceived as socio-materially achieved and not given, in relation to its own history, various assembled presents and multiple futures[3].

[3] Subsequently, terms that can be found in this list are marked with ➔ when mentioned for the first time.

Blastocyst - Cell structure formed in the early stage of human development during which the fertilized egg (ovum) undergoes continuous cell differentiation and structural changes: The blastocyst stage occurs approximately four to five days after fertilization. The structure is already indicative of what will become the embryo and the placenta, respectively. At the end of this stage the blastocyst adheres to the uterine wall (implantation).

Combined oral contraceptive pill ("the pill") - Specific combination of hormones, ingested orally in the form of a tablet, which simulates the state of pregnancy and thus suppresses ovulation. Generally, the pill is geared to a 28-day cycle: 21 days of standard intake, followed by no pill or a placebo pill for 7 days, during which menstrual bleeding will occur. Greater control over menstrual bleeding is achieved via continued intake of pills containing hormonal agents.

Cryopreservation - Deep-frozen storage of embryos, ovarian tissue, sperm etc. in liquid nitrogen units (-196 °C). Austrian law permits storage of fertilized eggs for a maximum of 10 years. For use in assisted reproduction cryopreserved ova must first be thawed.

Egg retrieval - In IVF-procedures immature ova are retrieved from the ovaries prior to ovulation. The ova are aspirated by means of an ultrasound-guided needle.
Commonly, the German term used is ***'Punktion'*** (*'puncture'*) whereby greater emphasis is put on *the act of piercing* the vaginal wall necessary to aspirate the ova. The English term, as well as variations thereof such as *egg removal* or *ovum pick-up*, emphasizes motion and the transition of ova from one (intracorporeal) locale to an (extracorporeal) other. In turn, the German term awards precedence to the means of achieving that transition. While the English meaning suggests that the eggs are held in some location from which they need to be removed as part of the procedure, the German meaning accentuates the procedural manipulation necessary to do so without particularizing locations or its localized objective (the egg).

Embryo - Fertilized ovum in the first two months of pregnancy: During that time the embryo undergoes cell divisions, structural changes, implantation and early-stage development of the unborn child.

Embryo Transfer - Following fertilization of the egg(s) outside of a woman's body the embryo(s) is/are transferred back into the uterus with the intention of establishing pregnancy, which first and foremost involves the implantation of the embryo. Commonly, the transfer takes place 2-5 days after egg retrieval/fertilization, at which time the embryo has entered different stages of development.

Fertilization - Fusion of sperm cell and egg cell (gametes), that is, formation of a diploid cell (2N) from two haploid cells (N).

Fetus - Following the end of embryonic development (approx. 60 days into the pregnancy), the unborn child is referred to as fetus.

Follicle or ***Ovarian Follicle*** - Cellular structure in the ovaries in which oocytes develop: Following ovulation the mature ovum is ejected from the follicle into the fallopian tube. The follicle is then transformed into the yellow body of the ovary (*corpus luteum*), producing progesterone which

in turn maintains the endometrium. If the egg is not fertilized, the corpus luteum is lost and the endometrium is shed during menstruation.

Hyperstimulation (Syndrome) - Swelling of the ovaries following overreaction to the hormonal regimen in preparation for assisted reproductive treatment.

Implantation - Adhesion of the blastocyst to the uterine wall (*endometrium*): The structure surrounding the blastocyst breaches (hatching) and the endometrium, hormonally pre-prepared to receive the ovum, envelops the embryo. Following implantation the embryo receives oxygen and nutrients from the mother. In the vernacular, implantation is sometimes referred to as the transfer of the embryo into the uterus following extracorporeal fertilization. This multiplicity of meaning is particularly interesting seeing as it exemplifies the duality of ARTs operating on advance promises of achieving pregnancy, while at best only *assisting* up to the point where the ovum has to implant 'by itself'.

Insemination[4] - Procedure whereby (washed) sperm is inserted into women's reproductive tract: either *intracervical* (ICI - injection of semen into the cervix), *intrauterine* (IUI - injection of semen into uterus) or *intratubal* (ITI - injection of semen into fallopian tubes). As distinct from the latter insemination is also performed as *gamete intrafallopian transfer* (GIFT) whereby semen and oocytes are mixed outside of the woman's body and then immediately inserted into the fallopian tubes where fertilization takes place.

Insemination by donor[4] - Insemination procedure in which sperm is used from a donor: Donor procedures are further signified as *heterologous* procedures, whereas procedures using gametes of the partners involved are referred to as *homologous.*

Intracytoplasmic sperm injection (ICSI) - IVF-procedure during which a single sperm is directly injected into an oocyte with a needle for fertilization to occur.

In-Vitro-Fertilization (IVF) - Extracorporeal handling of gametes and fertilization of oocytes *in vitro* (Latin for '*in the glass*'): After a greater-than-usual number of oocytes are stimulated and surgically extracted from the ovaries, they are mixed with sperm (obtained via masturbation) in a nutrient solution in order for fertilization to occur. Fertilized ova are then transferred back into the uterus.

Menstrual cycle - By convention, the beginning of the menstrual cycle is counted from the first day of menstrual bleeding, its end therefore on the day before. As the bleeding slows and eventually stops, follicles begin to develop in the ovaries and the uterine wall thickens. Approximately mid-cycle ovulation occurs, after which fertilization of the mature ovum is possible. Progesterone from the follicle-turned-corpus luteum prepares the lining of the uterine wall for implantation. If no implantation of a fertilized egg follows, levels of progesterone and

[4] Oftentimes called *artificial insemination (AI)* or *artificial insemination by donor (AID)*, respectively, but the adjunct is dropped herein in order to challenge the nature-culture or nature-artificiality divide as a 'fact' and acknowledge any such distinction as the result of constitutive socio-scientific processes (see Haraway 1991; Latour 1993).

estrogen drop and the uterine lining along with the egg are shed, resulting in menstruation. Exact duration of menstrual cycles varies.

Oocyte - A mature ovum develops during oogenesis and oocytes (primary and secondary) are stages during that process of maturation. Part of the oocyte stage is also the formation of *polar bodies* that hold chromatids and are therefore examined as part of preimplantation genetic diagnosis (*PI(G)D*) - a procedure also permitted under the Austrian law. Secondary oocytes are immature ova shortly after ovulation and the largest cells in the human body.

Ovarian Stimulation - Multiple follicles are stimulated to develop in the ovaries in order for them to release a greater number of eggs during ovulation (*superovulation*). In IVF-treatment ovulation is controlled, and 'spontaneous' ovulation avoided, so that oocytes can be picked up from the ovaries, and not the fallopian tubes or the uterus.

Ovulation - Usually, more than one ovum develops in the ovaries every month, but just one mature ovum is released into the fallopian tube during ovulation.

Polycystic ovary syndrome (PCO-Syndrome, PCOS) - One of the most common metabolic disorders[5] in women of reproductive age: Causal explanations and symptoms can vary greatly and are historically contingent. Symptoms can be, but need not be, anovulation (menstrual cycle during which no ovulation occurs) and excess in androgenic hormones. Links to insulin production and overweight are also purported.

Semen analysis (spermiogram) - Analysis of male ejaculate to evaluate sperm quality (including a range of criteria such as morphology, mobility, volume etc.) and thus associated male sterility.

[5] It must be noted that assembling certain causes/symptoms to a specific 'disorder' or 'disease' is a historically contingent and context-bound process, and not an absolute. It is a potent process insofar as assertion of specific 'disorders' or 'diseases' co-constitutes problematization, modes of alleviation, stigmatization and also the empowerment of individuals potentially 'affected' (see discussion on *(BIO)MEDICALIZATION* below).

3 Tending to the Literature

fashioning some points of departure

The *'new reproductive technologies'* have been a particularly contested and diversely discussed topic for decades, traversing different social science disciplines. The perspectives, under which assisted reproduction was opened up to scholarly scrutiny, have been as multi-sited and multiple as the technologies themselves. While a comprehensive round-up would thus easily exceed the limits of this thesis, I will proceed to lead into the topic with some central discursive strands.

If there was a key moment to be defined in the debate at all, it would be pinned down to 1978: the year that the first-ever 'test-tube baby' was born. Beyond the *"test-tube baby moment"* (Clarke 1998, 10), however, the 70s of the past century saw a general rise in public and scholarly interest into the new-at-the-time ARTs and the transformations and redefinitions they called forth, the re-thinking of issues they inspired and the critical voices they incurred - something they have continued to do ever since.

What might be tentatively subsumed under the *(new) reproductive sciences* binds matters of biology, medicine and *technoscience* (Latour 1987) into a complex assemblage that extends into *life itself* (Franklin 2000). Their pervasive reach and premises have prompted scholars to engage with new subjectivities, for instance, particularly in matters of *in utero* surgical procedures, but also in obstetrical care more generally: Prenatal screening, genetics and ultrasound (imagery) have taken part in co-producing what Casper (1998) called the *"unborn patient"*, that is, the ➔ fetus as a variously mediated subject. Writ large, the complexities of postmodern technoculture have led others to speak of *"cyborg babies"* (Davis-Floyd and Dumit 1998), theorizing the technologically enmeshed identities of children conceived, born and raised today.

Scholars have also turned a critical eye to the selection processes tangent to everyday clinical-laboratory routines and reproductive choices: from prenatal gender selection to identifying 'birth defects' and variable genetic screening test (see, for example, Daniels and Taylor 1993; Duster 2003). The topic of prevention/permission of life has obviously a long, deeply morally entrenched and diverse intellectual, social and political history. The discussions surrounding *"selective reproductive technologies"* (Wahlberg 2014) not merely add a new chapter to it, however, but open up new contexts in the wake of novel technoscientific procedures and transnational contexts.

Conversely, one of the most prolific backdrops to analyzing assisted reproduction has been the change it has brought to long-standing kinship structures (Strathern 1992; Edwards et al. 1999; Edwards 2000; Franklin and McKinnon 2001; Carsten 2004). In-Vitro-Fertilization, gamete donation or surrogacy have invited a complex re-thinking of kinship as a concept of postmodernity, but also, and more affectively, of what it means and takes to be a family. Research has tended to surrogacy and sperm/egg donation as they are locally made sense of in forging families and kin relations,

affording active processes of negotiation (Hargreaves 2006; Harrington, Becker, and Nachtigall 2008). Others have emphasized the changing stakes in familial conceptions as parents approach the disclosure of surrogate/donor identities and realities to the children thus conceived, or the narrative resources employed to integrate 'imagined' donors into a coherent family, kin and genealogy narrative (Murray and Golombok 2003; Becker, Butler, and Nachtigall 2005; Mac Dougall et al. 2007; Grace, Daniels, and Gillett 2008). On the other end of the equation, too, 'the donor', as much as 'the surrogate', have emerged as particular *kinds of people* (Hacking 2007) who cannot only be imagined from afar, but who also have to integrate the act of donation, or surrogacy, into their own individual life narratives (Kirkman 2003).

As another expression of the multifold realities co-produced by assisted reproduction still others have taken to *"queering reproduction"* (Mamo 2007b), focusing on the reproductive and relational practices of LGBTQ individuals in juxtaposition with dominant social discourses, everyday politics and in shifting contexts of performing various technologies. Critically, in-depth analyses have traced these reproductive practices as *"social and cultural achievement, an assemblage that has historically unfolded within and through layers of social meanings and processes"* (Mamo 2007a, 371; also Luce 2010; Nordqvist 2011). In that sense, assisted reproductive practices have been investigated, not only as they come to matter for 'new' familial configurations, but also as intrinsically political sites of negotiation for broader socio-scientific issues (also Haimes 1993).

In the following sections I will concentrate more concretely on two strands in the discourse that not only operate in terms of their own scholarly history, but really intersperse all topics in the context of assisted reproduction: the (bio)medicalization of unwanted childlessness and the objectification of women in its wake. I will tend to these two discursive strands specifically inasmuch as contemporary reworkings and interpretations come to be particularly important for approaching the matter at hand in this thesis.

3.1 (Bio)Medicalization and Unwanted Childlessness

Assisted reproduction, particularly in the Austrian context, is closely related to *unwanted*[6] *childlessness*. The past four decades have brought with them the technoscientific advances that have moved unwanted childlessness from the realm of 'fate' to the realm of a multiply 'treatable' condition. Assisted reproduction, as a means of having a *genetic* child of one's own, has emerged as an ever-growing and ever more complex alternative to childlessness and adoption, bringing along transformations and new sites of negotiation for gender-relations, kinship, body and ways to be oneself. Unwanted childlessness has thus been transferred to a medical context, within which it is framed as a medical problem - the problem of infertility/sterility - to be treated by medical means. In

[6] There are many ways to express this, most often the literature speaks of *involuntary* childlessness. Seeing as the term *"Kinderwunsch"* (*'wish to have a child'*) is dominant in the German-speaking context, I link up to it by using the term *unwanted* childlessness.

other words, unwanted childlessness was *medicalized*. Greil (2002, 101) calls it the *"fait accompli"* of medicalization that couples', and especially women's, foremost reaction to an inability to conceive leads them to the purviews of medicine, their (urologists/)gynecologists or general practitioners.

The concept of medicalization itself was, as such, formulated quite some time ago (Zola 1972), but has since incurred many expressions and re-formulations while it vies, today, for sustained traction as a means to analyze the complexities brought about by contemporary postmodern (bio)medicine.

Medicalization seeks to capture the gradual shifting of conditions and behaviors into the medical realm. Such, bodily phenomena and individuals' actions are rephrased in medical terminology of 'illness', 'disorder' or 'disease', and subscribed to medical attention, its actors and institutions. At the same time, the parameters of morality are rearranged, occasioning individuals to adapt their habits and manage their life and new arrangements of risk accordingly.

The processes whereby this is achieved are complex, entailing different mechanisms of assembling bodily and behavioral expressions ('symptoms') to form coherent disease patterns. This, in turn, is engendered by methods that come to be recognized as medical procedures of measuring, testing and assessing. Effectively, the individual is brought under specifically *medical* means of control and ascription. At the same time, this led to a long-standing scholarly tradition of casting medicalization as critique of an illegitimately far reach of the medical empire into the lives of individuals and groups.

Taken up this way, various contexts are addressed in how medical institutions, medical professionals and the state via medical authority upend individuals' capacities to act, know themselves and relate to their own bodies (for example Illich 1975; Ehrenreich and English 1979). More pervasive approaches to power have tempered this top-down conception of an encroaching (male) medical realm with a Foucauldian (1995) repertoire that emphasizes modes of individual self-disciplining and a self-reflexive uptake of dominant ways of thinking, surveying and understanding body and self (see Armstrong 1995).

The concept of medicalization, nevertheless, has not been without its objectors. Critique particularly challenges its normative approach to analyzing transformations at the socio-medical interface as either good or bad, its dualistic and static perception of categories and its failure to attend upon the multifold and hybrid mechanisms that make up complexly interweaving processes of medicalization. Newer re-conceptualizations, therefore, aim a more nuanced lens at how exactly medicalization impacts, is taken up by or is, indeed, co-fashioned or rejected by individual actors. As Purdy (2001) contends, criticizing medical approaches as singularly 'wrong' or 'oppressive' purports that there is some kind of 'natural' or 'true' way to know the body, its expressions and conditions, and also disregards the invariably social manner in which knowing the body has always been practiced. Furthermore, it is worthwhile to consider the 'positive' effects of medicalization as it may offer alleviation and relief from suffering to individuals - or the hope of having a child of one's own.

This is further complemented by the analytic *"decomposition"* (Rose 2007, 700) of what thus far was described as *'the medical realm'*. Medicine does not act as a singular entity, but must itself be unpacked and examined, as different ways of knowing, different groups of professionals and different modes of achieving medicalized control may come into conflict (Oudshoorn 1990; Siegel Watkins 2008). What counts as 'medicine' has become a site of contestation and definitional centers have shifted to multi-sited negotiations, so that investigations as to the individual management of often opposing *"medical worlds"* come to the fore (for example Lin 2013; Pols 2014).

Recognizing how postmodern medicine increasingly reaches inside the human body itself and how it has become enmeshed with technoscience, Clarke and others (2003) have recast the concept in terms of *"biomedicalization"* and tried to grapple with its multiple complexities (see also Thompson 2005; Clarke and Shim 2009):

> *"Biomedicalization is our term for the increasingly complex, multisited, multidirectional processes of medicalization that today are being both extended and reconstituted through the emergent social forms and practices of a highly and increasingly technoscientific biomedicine. We signal with the 'bio' in biomedicalization the transformations of both the human and nonhuman made possible by such technoscientific innovations as molecular biology, biotechnologies, genomization, transplant medicine, and new medical technologies. That is, medicalization is intensifying, but in new and complex, usually technoscientifically enmeshed ways." (Clarke et al. 2003, 162)*

This 'intensification' is not unimportant for conceiving of contemporary practices of assisted reproduction as we try to understand how global and local expressions intersect; how self-governance is largely mediated by ever-novel forms of knowledge production, its proliferation and consumption (the internet comes to mind); how matters become entangled with economic rationales and are intrinsically political; how novel arrangements of risk have emerged along with novel ways to survey, control and discipline; how it is not only about 'illness' anymore, but multiply negotiated in terms of 'health' (think of '*reproductive health*'); and how these aspects and processes, as they overlap, engender multifaceted and new ways of being for individuals.

It is, in large part, these variably interconnected processes that Conrad (2005) perceives as the *"shifting engines"* of (bio)medicalization. (Bio)medicalization in the 21st century cannot be understood without bringing *"commercial and market interests"* into co-equal focus. Otherwise, such powerful roles as they are contemporarily played by the industry in pharmaceutical and genetics research could not be adequately tackled (for example Sunder Rajan 2006; Dumit 2012). In ever different ways, therefore, scholars rally behind Rose's (2007, 701f) call to move *"beyond medicalization"* in the sense that (bio)medicalization *"might be the starting point of an analysis, a sign of the need for an analysis, but it should not be the conclusion of an analysis."*

Echoing this, Gunson (2010) turns towards the lived realities of (bio)medicalization, concentrating her study on women mobilizing dominant discourses in their experiential narratives of menstrual suppression. While (bio)medicalization appears like an increasingly macroscopic mode of analysis, Gunson breaks it apart and attends to its practical traction by tracing the ways in which some of the

key discursive aspects of menstrual suppression (ambivalence and risk, choice and responsibility, nature and motherhood) are concretely mediated and negotiated. The women in her analysis are not pressed down by the discourses tangent to this (bio)medicalized matter, but they do not outright refute them either. Indeed, they activate them variably and in locally meaningful ways. Gunson, therefore, reminds us that *"in new configurations of medicalisation, the concept is not inherently negatively coded"* and, in turn, to perceive it *"in fluid and shifting ways, which have personal, localised and embodied contexts"* (Gunson 2010, 1330).

For the present analysis this rings as the very mandate to satisfy. I will try to tend to the ways in which unwanted childlessness is (bio)medicalized, that is, how it is practically expressed and organized in the Austrian context and how it is concretely negotiated, *in fluid and shifting ways*, in women's experiential narratives of assisted reproduction.

3.2 It's women's bodies - stories, selves, and agency

No discursive strand has weighed in on the distinctly moral, ethical, cultural and political aspects of assisted reproduction as forcibly as those scholars, who have problematized it for its undeniable gendered tilt, and for the practices and values inscribed and embedded in ARTs that are seen to objectify women and their bodies (Corea 1987; Strickler 1992). Branding and collectivizing all these intellectual voices as assisted reproduction's *objectification discourse* can by no means obscure its multifacetedness.

It cannot be negated that it is, for the most part, women's bodies who are implicated in assisted reproduction (Franklin 1997). It is their bodies that become the bodies treated, surveyed and burdened with risks as their bodily integrity is breached by medical means and methods that reach far beneath the skin, and even further into their bodily and mental constitution. Scholars have criticized the treatment of *"women as wombs"* (Raymond 1993), particularly as they take on the responsibility of assuaging male sterility (Lorber 1989). Women are seen to vanish completely behind 'the (female-male) couple' as a peculiar hybrid being, the *"hermaphrodite patient"*, even though it is them who sustain the most and the most invasive parts of the treatment, and it is them who vie with the fetus for recognition of subjectivity (Van der Ploeg 1995, 2001). As Becker (2000) contends, women bear the risk of genetic motherhood under the cultural assumption that it is 'theirs' anyway, merely a 'natural' inherence.

Without a doubt, there are other discursive strands that envisage assisted reproduction as an expression of *"procreative liberty"* (Robertson 1996, 2003). In that sense, ARTs constitute a new range of possibilities for making reproductive choices that are seen to be more in tune with personal wishes and individual life situations. ARTs then step on the stage as a means, particularly for women, to take more active control of their life course and the decisions they can make. While assisted reproduction, in this view, emerges as a way to empowerment and emancipation, such

individualist approaches cannot negate *"other social relations and their power dynamics that are often implicated in reproductive decision-making"* (Van der Sijpt 2014, 279). Indeed, as with contemporary conceptions of (bio)medicalization, analyses of assisted reproduction in the 21st century must be aware of the complexities of the topic and its lived realities that never conform to the dichotomies of good or bad, of objectifying women or emancipating them.

Despite trying to strike into a different vein than that of the *objectification discourse*, I do so honoring its critical and indispensable contributions to understanding the nexus of hegemonic social norms, technoscientific progress and the tilted politics of self that assisted reproduction is, at all points, embedded in and promoting. If anything, I try to adopt the discourse's critical voices in approaching the issue: trying not to take for granted what has become routinized and trying to outline alternative *'politics of life'* (Rose 2001).

Cussins[7] (1996) can be engaged as a striking example that tries to evade discussing assisted reproduction in one of its most central dichotomies by conceiving of women's agency and personhood in seminally different terms. For her, objectification and subjectification are not diametrically opposed, but fluid and constantly interchanging. As she analyzes women's ways of personhood across different sites in assisted reproductive treatment, she recognizes that sometimes both are at play *simultaneously*, such that women *"can manifest their agency (and so enact their subjectivity) through their objectification"*. She problematizes objectification as a consistent way of being in that *"objectification is sometimes opposed to personhood, and sometimes not"* (ibid., 576). By way of their long-term orientation towards the goal of achieving pregnancy women can mobilize, throughout their assisted reproductive treatment, subjectivity even in instances that their body parts might stand in for their agential wholeness.

In that sense, objectification and subjectification appear as co-emergent, and not as opposing, processes. In opposing terms, *lack of* agency (to do, appropriate, fashion, shape) is perceived as marginality, whereas *having* agency is seen as the power to act, rear up and redefine. In keeping with this dichotomous notion of agency, however, we obscure the dynamics of negotiation and re-negotiation at play in everyday life.

Let me take this point also into somewhat more macroscopic dimensions: Das and Poole (2004), with their *Anthropology in the Margins of the State*, have come out to analyze that which is understood as the margins of the state, its frayed ends, as sites where the state is constantly in-talk and in-practice and in-the-making. It is within the state margins they parse that the power of 'the state' - its regulatory, disciplinary and bureaucratic reach - is constantly (re)negotiated. This gives the state an emergent quality, a sense of constantly becoming in everyday practices. With this the

[7] Cussins later wrote a book under the name Thompson (*Making Parents* (2005), see literature list), for which she integrated much of her work from the 1996-article on *"ontological choreography"* into the chapter of the same name. Henceforth, I will refer to the original article, even though these arguments can also be found, finely elaborated and synthesized, in Thompson's book.

authors in Das and Poole's edited volume defy the one-off dichotomization of state and margins, center and periphery. Instead, they conceive of them as co-emergent, to be traced concretely in everyday practices and talk. To think of margins and state in opposing terms, so their argument goes, is to say that there is no state in the margins and no margins in the state. However, the one brings about the other and vice versa, *"much as the exception is a necessary component of the rule"* (Das and Poole 2004, 4). To follow this argument, then, means to acknowledge the complexity of tending to the ways margins and state, center and periphery, but also agency and a lack thereof, are not diametrical opposites, but two sides of the very same coin.

In similar, if more distinctly biomedical ways, Gunson (2010, 1331) shows in her analysis of women's experiential narratives in the context of menstrual suppression that agency must be conceived of in more encompassing terms than *"merely resistance or defiance"*. In turn, *"agency operates through the negotiation of discourses"* (ibid., 1330) in that women narratively configure their state of being and their understanding of self by way of actively appropriating or refashioning dominant (bio)medical and social discourses. Elsewhere, Mamo (2007a) too traces lesbian couples' *"hybrid-technological"* modes of conception not in starkly opposing terms of control and victimization or activity and passivity, but focuses instead on concrete material and discursive practices. This, then, *"allows women to be repositioned as meaning-making subjects always doing, resisting, complying, and/or negotiating discourse"* (ibid., 372). In other words, individual's narrative configurations are not understood as mere parroting of dominant discourses, or 'facts', or knowledge-made-authoritative (by medical professionals, for instance), but an active appropriation and re-appropriation that is indicative of personhood, agency and personal identity.

In turn, as Somers (1994, 629) notes, this allows for a *"switch from fixed notions of agency to relational analyses of identity formation"*. This, now, becomes a central task of this thesis: to tackle a conception of women's agency that does not resort to dichotomies, but appreciates fluidity and contingency; to trace how personal narratives matter in women's configuration of themselves, their bodies and identities; and to do so by parsing, not unquestioningly accepting, the unity of the self.

This echoes with the voices of feminists who have so impressively highlighted the intersection of variable inequalities in women's lives which is obscured by ideas of categorical same-ness purported by those who talk about *'women's experience'* in a one-size-fits-all manner (see Haraway 1991). Whenever I talk about the women who participated in this study, therefore, it is with a consciousness about the situatedness of their stories, that is, not only their spatial, but also their temporal situatedness. This thesis is, necessarily, a case study that draws on women's stories about their going through, undertaking and encountering assisted reproduction in Austria, and how they *story their experiences* as a means to express and bring into action their understanding of self and identity.

It is my hope that, in so doing, I may attempt to bridge the gulf of universalized singular experiences and singularized universal experiences. In tracing storied experiences we also get at the constitutive

discourses, environments, contexts, meta-narratives, tropes, institutions etc. that impinge on women in narratively configuring their life: casting them both as resourceful storytellers with agential prowess and as invariably gendered identities. The manner in which women are confronted with, act upon and embody *being a woman* in a relational field called, for short, *assisted reproduction in Austria*, however, is variable and manifold. There is no *one* 'woman's experience', since being a woman is not a category to be filled, but a meaningful aspect of personal identity to be fulfilled - or not - in concrete ways.

This way the focus can also significantly shift away from medical professionals or clinical practices. Often enough, as we will see throughout this thesis, these are awarded primacy in talking about, framing and configuring assisted reproduction in Austria and they have been dominant in the juridico-socio-political discourses of the past. Focusing on women's experiential narratives, on the other hand, might allow us to pay closer attention to the specific ways in which assisted reproduction is made meaningful in their lives.

4 Localities of Research: ARTs and Austria

making more than one place for this research

Assisted reproduction is both an issue and a business with global dimensions and has been amply researched as such (Ginsburg and Rapp 1995; Ragoné and Twine 2000; Inhorn and Balen 2002; Wahlberg 2012). Any distinctly local or regional fixation of (assisted) reproduction, or biomedical issues at large, must necessarily fail in the face of trans-local and trans-regional biomedical practices and imaginaries. While this research project is, without question, distinctly Austrian in making and results, it is still important to recognize the practical entwinement of localities and the futility of thinking to scale.

4.1 *'Killer cells'* and what they teach us

This research project took its place in Austria. But who is to say that, when it comes down to it, only the national context which I am willing to specify from a researcher's point of view is of import? To wit, it is at this point fruitful to remind us, as Mol (2002, 120ff) does, that thinking in scales and sizes misconstrues the issue.

Let us consider an example from one of my interviews. A.S.[8] underwent assisted reproductive treatment in Austria. At the moment of the following example she is in the middle of detailing her journey through four cycles of ➔ IVF-treatment. After two failed attempts she is made out to have immunological issues or, more specifically, to have "*killer cells*" which are said to kill the male part of the ➔ embryo - the reason why she had thus far been unable to conceive.

Where are those killer cells, then? To scale, we might say that they are in A.S.'s womb, where they act out against the embryo and a sustained pregnancy. At the same time, we imagine them to be quite small and we might as well embellish them with martial props, like spears and helmets, for the 'killing' touch. However, when we take it just a bit further we realize that this kind of scaling, like packing and unpacking a *Matryoshka doll*, is untenable in practice.

> *"I sent those results [from the Viennese day clinic for immunology] to the German immunologist. Yes. She specifically deals with immunology and women who want to get pregnant. We set up a phone appointment. We spoke on the phone. She then told me very specifically, she explained what I had to do. That I have killer cells and that I really need to do something about that. She gave me the treatment plan through the phone. And I went [to my doctor] with that plan." (AS2_1, 638-47)*

[8] Anonymized codes for interview quotes in the text consist of two random letters for the interviewed women, e.g. **AS**, and an **E** for the expert interviews. Furthermore, codes for women include the number of children they conceived by way of assisted reproductive treatment, e.g. AS**2**, and codes for experts are numbered chronologically (E**1** for the first and E**2** for the second interview). The digit following the underscore always indicates the number of the excerpt in the list of original German quotes as cited in the Appendix (p. 109ff). The line number of the quote in the transcript is also indicated after the comma. Names, if mentioned at all, are anonymized.

We are alerted here that those killer cells are enacted differently in different practices and their scale is neither stable, nor overly important. On the charts handed out by the day clinic those killer cells were numbers resulting from tests run on A.S.'s blood sample. Depending on the font size we can assume that those numbers were bigger in scale than that of the structures we previously imagined killer cells in the womb to be. For the German immunologist the killer cells were the assembled result of a number of tests before they were translated to and punctualized as killer cells that, in turn, instigated a treatment plan. That plan, jotted down by hand on a mobile piece of paper, was thus inscribed with the many practical tosses and turns that led up to it, just as it then figured into a particular future course of action. In a matter of a phone call (connecting, no less, Germany with Austria) killer cells also transformed: Killer cells in the womb were linked up with the human (female?) immune system, traditionally thought of as a sensitive whole[9]. Apparently, killer cells do not only fight, they can also be fought - and they should be.

As a counteraction plan the German immunologist advised Cortisone treatment. When A.S. took these results back to the doctor locally tasked to oversee her IVF-cycle, he proposed supplemental treatment with uterine lavages (*"Gebärmutterspülungen"*).

> *"[My doctor] brought that over from Japan. Somehow. I think, did he study in Japan for a year, or I don't know. Anyway, they did that in Japan and did a big research study and discovered that for women who had immunological problems. I had too many killer cells." (AS2_2, 612-4)*

We see, one cannot only *have* killer cells, it seems to be more about having *too many* of them. The fight against killer cells thus becomes a much more directed one given that its target is now the surplus and not the 'normal' amount. It is in interaction with *'a big research study'* in Japan that A.S. fashions that problem of 'too many killer cells' (specifically her 40 % vis-à-vis a *'normal level'* of 5 %) and appropriates the collective identity of *'women with immunological problems'*. Once again we recognize the multiple ontologies of killer cells as they are now inflated to the size of big studies, statistical values and collectives.

Our sense of scales and our sense of locales are strikingly similar. Scaling gives objects a referential size by which they can be put in hierarchical order - one bigger/smaller than the other, the smaller one fitting into the bigger one. To be one size means not to have another. Localization is similarly a relative endeavor. It is done in relation to other objects, other locations. To be somewhere means not to be somewhere else, and vice versa.

In the above example, however, killer cells were in the womb, in the blood and part of the immune system, on the phone and on paper, in day clinics and infertility clinics, in Austria, Germany and Japan, in big studies, singular cases, one person or opportune collectives. Killer cells were both small and big at the same time. They defined individual identity as much as collectives. They produced

[9] On that note, I would argue that this wholeness is achieved quite practically and not without frequent cracks, and would thus deserve a closer look.

transferable and referential courses of action beyond national borders. Effectively, what we need to take away from this is a sense that nothing is really to scale and nothing is really local.

By the same token, it is no less important - and therein lies the analytical challenge - to pay equal attention to the ways in which practices are different places and *somewhere in particular* at the same time by way of their local articulation, embeddedness and growth (Inhorn 1996; Edwards 2000; Paxson 2003; Birenbaum-Carmeli 2009; Silva and Machado 2011). Spinning the story about killer cells a little bit further, A.S. at one point recalled that she was one of the last women ever to get uterine lavages given their recent ban on grounds of reinforced regulations regarding autohemotherapy in Austria. The ways in which killer cells can be counteracted and related to were thus significantly altered by national legal provisions.

It should thus be emphasized that I am not arguing for 'de-localizing' or 'de-scaling' objects or phenomena. On the contrary, I am arguing for paying ever closer attention to location and scale, that is, *matters of relation*. In the following I will therefore turn to the legal underpinnings of assisted reproduction in Austria, focusing on the conditions set forth by the nation-state and its lastingly important role in doing so. My aim is to, at least rudimentarily, tend to what Wahlberg (2012) calls the specific *"juridico-socio-economic assemblage"* operative in national contexts.

4.2 Legal Narratives of Assisted Reproduction in Austria

In matters of assisted reproduction the law must be seen as an important socio-material actor impinging not only on distinctly national, but also on cross-national practices. The law partakes in shaping the conditions and norms under which assisted reproduction can be actualized at the individual level as much as it puts forth ways of knowing and coming to understand (bio-)objects (see Metzler 2013 for reference in the Italian case). It is also a formidable resource in the ways individuals craft their stories, can know themselves and relate to one another. To wit, treating the law as an actor among others is not a particularly novel move and is often done under the auspices of the law as a *performative actor*, even if it is not always made this explicit.

Performativity has somewhat become a signature term for social constructivist approaches. It is thus instructive to turn to recent engagements with the notion of performativity in connection with legal texts as they may offer a sharper handle on the matter. In particular, I refer to Race's (2012) analysis of the performativity of criminal law in framing and effecting responsibilities in instances of HIV transmission, and Faulkner's (2012) analysis of the European Unions' efforts at regulating the emerging sector of 'regenerative medicine'. They both draw on Austin's (1962) speech-act theory and his concept of performative utterances. In so doing, Faulkner in particular seeks to break apart performativity as a singular, all-telling concept and attempts a tentative demarcation of different forms of performativity.

By way of conceiving of legal texts, or *legal narrativity*, as performative, we claim that the text *does* something - and that this *something* can in turn be analyzed and recounted (cf. Race 2012, 330). Legal texts as actors occasion actions and material effects, but do so not in a standalone manner. They are *relationally* performative and a special genre of narrative as they derive their eminent potency from environing and engendering polity and are endowed with a monopoly on force. Their performativity must further be seen to encompass a range of related and relating actors, human and non-human, as they act *through* the legal document and *on* it. As such, legal texts are both the *"endpoints of a political process and blueprints for socio-scientific futures"* (Faulkner 2012, 754). This calls attention to the history and coming-to-be of legal texts, the world-views, values and negotiations inscribed in them, as well as the interdependent co-production of regulatory standards and society, or given social fields, at large.

In his seminal work *HOW TO DO THINGS WITH WORDS* Austin differentiates, even if elusively so, illocutionary from perlocutionary acts, that is, utterances that achieve an action or effect (*'I name this ship Endeavor'*, achieving its name) from utterances that are consequential in taking effect (*'I warn you not to disobey'*, taking effect in that somebody desists from disobeying). Based on this, Faulker develops a tentative demarcation between *enactive performativity* and *generative performativity*. The analytical value added thereby comes from a sharper distinction between effected action and the generation of effects (cf. Faulkner 2012, 757f).

To better understand this we might, once again, refer to Mol (2002, 41ff) and the shift on which she predicates her work: breaking away from the notion of construction and trying on the notion of enactment. Underpinning this shift is the rejection of singular origins creating singular effects: Ontologies, the way things and people are and can be, are enacted as multiple. Keeping them together in a single reality, if at all, requires work (see also Law 2009, 151f).

In turn, Faulkner is trying to stay true to that seminal analytical shift and yet appreciate the legal text as an extraordinary genre, imbued with the powers of the rule of law. The law's generative performativity describes that which is brought into effect. It may generate new authorities, such as ones to keep records of and publish pre-determined data in association with assisted reproduction. By the same token, however, the law cannot be seen to generate, for instance, motherhood. To exemplify this we might consider the federal law governing children's rights[10]:

> *Mother of a child is the woman who has given birth to that child.*
>
> *Mutter ist die Frau, die das Kind geboren hat.*

(Ö-BGBl. 2013, § 143)

In other words, the law *enacts* motherhood as an effect of the retraceable separation of a child from an identifiable woman's umbilical cord during the act of giving birth - but the law does not

[10] Subsequently, legal documents are cited both in English (translations by the author) and original German.

generatively perform motherhood. Motherhood might be differently enacted in other sites and might thus be traced along the practices in infertility clinics or in women's biographical narratives.

More generally, then, in keeping with this analytical direction we are called upon to deal with *law-in-practice*, its material and lived effects as it *"cannot be understood as simply the repository of sets of textual prohibitive or enabling laws"* (Faulkner 2012, 755). Even if the law is not our central focus, it should not be sidelined as merely a matter of formalism. At the same time, it will not be enough to trace performativities in a descriptive manner, but to link them back to the empirical portion of this research. This has been majorly ignored in likeminded endeavors, but we equally need to tend, as Race (2012) tries to do, to the effects on individual lives and lived realities. As such, I understand legal texts as significant narrative resources in the field of assisted reproduction.

In addition, I supplement the view that we should strive for more inclusive analyses and tend to legal intertextuality, that is, the interdependence and interplay of various legal texts in shaping and being shaped by given socio-scientific and technological arenas.

In line with this view, the following section offers an attempt at converging different legal texts: For this I focus particularly on the *Federal Law on Reproductive Medicine* (Ö-BGBl. 1992) and the *Federal Law on Funding In-Vitro-Fertilization* (Ö-BGBl. 1999), starting anachronistically with the latter. Beyond the scope of this thesis, however, further in-depth analysis from a variety of scholarly perspectives would certainly be in order - but more on that later.

4.2.1 IVF-Fund Act

Taking a closer look at the premises of legal regulations and their coming-into-effect we might also cultivate an ambient understanding of the socio-political climate surrounding and engendering assisted reproduction in Austria.

4.2.1.1 Medicalizing unwanted childlessness

In turning to the *Federal Law on Funding In-Vitro-Fertilization*, or the *IVF-Fund Act*, it is first key to elaborate on a decision by the *Austrian Supreme Court of Justice* (Ö-OGH 1998) a few years prior to its commencement. Almost a decade before the *World Health Organization* explicitly recognized infertility as a *"disease"* (Zegers-Hochschild et al. 2009, 1522) this court decision ruminates on sterility as *'irregular bodily state'* (*"regelwidriger Körperzustand"*) and on reproductive capacity as *'biologically essential function of the body'* (*"biologisch notwendige Körperfunktion"*): Following this, the undesirable state of infertility/sterility calls for medical treatment, should therefore be considered an 'illness' (*"Krankheit"*) and fall under the scope of public health insurance (Ö-OGH 1998,5).

Even though medicalization is not straightforward and rather involves the intertwinement of many different actors and processes, this argument adopted by one of the highest Austrian courts allows a glimpse at the way unwanted childlessness comes to be recognized in medically authoritative terms:

It is captured in terms of infertility/sterility, cast as object of the institutionalized medical gaze and realm, to be treated with (Western[11]) medical methods and made to fall in line with established medical institutions and authorities such as public insurance. But there is obviously, and curiously, more to it.

4.2.1.2 Mechanistic body-wholes

The court makes a peculiar distinction between 'state' and 'function' of the body. Infertility/sterility is an affliction of a *body with clear body-boundaries*. That body is not only enacted as a whole, but rather as a *mechanistic* whole where its synchronized functionalities designate its fully functioning state. The fully functioning body is posited as the norm to oppose an *abnormal* or *deviant* body where the synchronicity of its functions is somehow disrupted.

For this, mechanistic imaginations draw on cause-effect reasoning: More exactly, then, it is not infertility/sterility per se, but the *cause* for sterility/infertility that is recognized as an 'illness'. That cause is to be located *within the body* by medical means and medically treated in order to return the individual to a normal bodily state which, in turn, would then be capable of reproduction if a couple/woman/man so wishes.

In-Vitro-Fertilization, however, cannot accomplish that restoration. IVF circumvents treating the purportedly *under*lying cause (that is, lying beneath the skin-as-body-boundary) by establishing pregnancy at once. IVF, too, leaves the abnormal or deviant body untouched and 'artificially' bypasses its in-functionality. Only if mergence of sperm and egg takes place *exclusively inside* normally functioning holistic bodies, can a state of normality be restored.

4.2.1.3 IVF as private matter and female risk

The court decision crafts this argument, and all its implicit consequences, as a means to eventually turn down an appeal for reimbursement of costs for the claimant's IVF-treatment: Based on the assessment that IVF cannot be considered medical treatment for an 'illness' that is recognized as such[12], treatments should not be covered by public health insurance. However, the court contends that the Austrian state should create means to support parents in pursuing costly IVF-procedures to establish pregnancies (Ö-OGH 1998, 6).

This court decision is not only significant in that it is one step in the generational history of one of two Austrian cornerstone laws for assisted reproduction, the *IVF-Fund Act*, it is also significant as regards the argumentation traced above: Public discourse leading up to the implementation of the IVF-Fund in 2000 enacted IVF as the wish of an individual, or that of a couple (cf. Knoll 2001). With

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[11] I concede that I will not further discuss purified demarcations between medical monikers such as *Western* vs. *Eastern* or *Western* vs. a*lternative medicine*. These discussions are, without a doubt, highly important and I refer the reader to all those who have contributed to it.

[12] This further implicates Austrian labor law: Work absences in relation to assisted reproductive treatment cannot officially fall under (paid) sick-leave.

the IVF-Fund the Austrian state committed to bearing some of the financial brunt of this treatment course but, in general, assisted reproductive treatments remain an entirely private (financial) matter. IVF-procedures, therefore, are state-supported exceptions to a larger assisted reproductive rule that continues to position assisted reproduction as grounded in individual wishes.

The law's focal intent was to implement a fund: a legal entity that draws, in equal shares, money from sources for public child benefit and public/private health insurance companies. This (IVF-)Fund covers 70 % of the cost of individual IVF-treatments, with 30 % remaining as deductible[13] for the couples in treatment. This essentially turns IVF-treatments into a contract matter between would-be parents and licensed clinics, which in turn are under contract with the Fund. Beyond this, the Fund emerges as an important actor towards which and through which assisted reproduction, and IVF more specifically, are negotiated and practiced.

The Fund grants subsidy for 4 treatment cycles[14] given that both applicants meet certain criteria. Aside from bureaucratic qualities (citizenship, insurance status) this mainly concerns their age: Women are to be no older than 40, men no older than 50 years of age. Arguments for this peculiar differentiation are made in terms of risk (pregnancy-related complications for women as they get older) or turnout (sinking success rates). However, with regard to an issue such as assisted reproduction, which is elsewhere framed in heavily moral terms, we are hard-pressed to recognize also an embedded idea about points in the life of individuals until which the Austrian state considers having children to be 'natural' and supportable by public finance[15]; a generalized idea about the age-related composition of couples; and an overemphasis of risk and turnout as matters of the *female* body. No less, it adopts the 'biological clock'-made-deadline as determining force that subjects women, much more so than men, to assuming responsibility for not managing their life in accordance with, quite simply, the age of their eggs (more on this in section 8.2).

4.2.2 Reproductive Medicine Act

The *Federal Law on Reproductive Medicine*, or *Reproductive Medicine Act* (Ö-BGBl. 1992), came into effect in 1992 and has since remained virtually unchanged. Hadolt (2005, 8, 2007) evaluates the socio-political debate of the late 1980s and early 1990s which, at its peak, generated the present law

[13] Costs for medication could still vary greatly in individual cases. Consequently, in 2012 the contract terms of the Fund were adjusted to encompass fixed-rate deductibles including cost for medication. Deductibles are now set proportional to women's age in that age is seen to negatively impact dosage: That way, women up to the age of 35 pay less than women between 35 and 40. This, of course, punctualizes to a singular age boundary the interplay of a number of factors that might influence dosage.

[14] The law is even more specific than this: If the couple is 'successful' in terms of the law (that is, the baby's heartbeat was documented no earlier than around the 6th week of pregnancy and the pregnancy is thus understood to be 'intact'), they are entitled to 4 more co-financed treatment cycles, counting from the 'successful' one. In that sense the law supports the 'real' chance of a couple conceiving by means of IVF, counting previous failed attempts as a 'lead-in'.

[15] It should be noted that these age limitations do not keep individuals (in partnerships) who are older than this from assisted reproductive treatment. However, age-discrimination in public financial support intersects critically with economic discrimination in that couples with greater financial means may pursue their wish of having a child indefinitely longer than couples lacking these means, and are in turn less so tasked with managing their reproductive plans and bodies in a 'timely' manner.

and its 25 articles, as a *'restriction discourse'* (*"Einschränkungsdiskurs"*) that sought to restrict already existing and quickly evolving practices in this new policy area with an overarching intent of achieving the largest possible consensus - a politics that has been analyzed as distinctive of Austria's socio-political culture, at least at that time (Pelinka 2009). As such, the Reproductive Medicine Act emerged from and was co-produced through a nexus in which the ingrained strategies of consensus-seeking, the (perceived) dynamism and tempo of new technologies and multifold (expert) perspectives met and interdependently shaped that which is still central to the framing, understanding and practices of assisted reproduction in Austria.

4.2.2.1 Fears, uncertainties and experts

The debate around the Reproductive Medicine Act was prefaced on the side of the legislative by a perception of risks and uncertainty as well as a fear of already lagging behind. The appendant government bill (RV 216 1991, 7) describes the circumstances for legislative action in terms of *'concerns'* (*"Bedenken"*), fears of *'abuses'* (*"Mißbräuche"*) and *'uncertainty'* (*"Ungewißheit"*) regarding consequences of the *'medically possible'* (*"medizinisch Möglichen"*). This particular perception of the emerging field of assisted reproduction was inscribed into a legal text that exhibits the explicit desire to control assisted reproduction and, in more than one sense, keep it from 'getting out of hand': through erecting stark delimitations, establishing 'science' as a gatekeeper and implementing a tight regime of assuring genetic relatedness. Efforts to control the field of assisted reproduction are further complemented by a federal regulation (Ö-BGBl. 1998) covering detailed, non-personalized reporting duties for clinics[16].

Hadolt (2005, 2007), and to a lesser degree the government itself, recognize this socio-political climate as impinging on an incentive for broader expert participation in the discourse. Yet, 'broader' meant only a very distinct class of experts. They were called upon and participated in setting the scope and arenas of discussion as much as they figured into the ideological positioning of Austria's then (and now) leading parties, the Social Democrats (SPÖ) and the People's Party (ÖVP). Hadolt (2005, 46) describes the expert pool involved, and thus the kind of expert knowledge made authoritative in the debates, as mostly male, high academia and nascent in jurisprudence or medicine, less so in moral theology or psychology. Social science disciplines such as sociology played, if at all, only marginal roles. Similar tendencies could be observed in later discussions preceding the IVF-Fund Act that largely endowed the medical realm with expertise worth being heard, and only marginally that of individuals seeking or undergoing IVF-treatment (see Knoll 2001).

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[16] Most notably, parental demographics are only concerned with the *age of the women treated* according to pre-determined age cohorts and *the number of women treated*. Men may only be inferred as the ostensible carriers of sperm involved in those treatments.

4.2.2.2 Nature vs. Artificiality

At the core of assisted reproduction in Austria lies the purportedly clear-cut opposition of 'natural' and 'artificial' reproduction. Nature, in that sense, is awarded the status of 'normality'. As we have seen before, not all interference into 'nature' constitutes artificiality: Medicine might well be equipped to restore a normal bodily state and thus restore the natural function to reproduce. However, if all else is lost, interference must go beyond a state dictated by nature: in comes artificiality, in comes assisted reproduction. Assisted reproduction is enacted as *"ultima ratio"* (RV 216 1991, 11): when nature fails.

It is *'science'* ("*Wissenschaft"*) on whom the authority is conferred to practically delimitate the difference. Even though it is never distinctly specified, in practice this means *medical* science and its ingrained methods. The law's generative capacity institutionalizes IVF-clinics, infertility clinics or *'centers'*[17] (§ 4.2) to be led by ob-gyns-turned-*"Kinderwunschärzte"* (*'child-wish doctors'*) and assisted reproduction is put under the auspices of medicine. It would be a narrow understanding of agency, of course, to deny individuals capacities to navigate their own course through the undertaking of assisted reproductive treatment. However, institutionalized medicine acts as a bottleneck on the way, conditioned by path-defining practices that are made relevant by this particular organization of assisted reproduction.

This is also echoed by the adopted terminology of '*medically* assisted reproduction'. As per § 1 it encompasses the following procedures:

> *Medically assisted reproduction in the sense of this federal law is the use of medical methods to establish pregnancy by means other than sexual intercourse.*
> *Methods of medically assisted reproduction in that sense are in particular*
> 1. *insertion of sperm into a woman's reproductive tract,*
> 2. *mixing of ➔ oocytes and sperm outside of a woman's body,*
> 3. *insertion of viable cells into the uterus or fallopian tube of a woman and*
> 4. *insertion of oocytes or of oocytes with sperm into the uterus or the fallopian tube of a woman.*
>
> *Viable cells are considered to be ➔ fertilized ova and cells developed from fertilized ova.*
>
> *Medizinisch unterstützte Fortpflanzung im Sinn dieses Bundesgesetzes ist die Anwendung medizinischer Methoden zur Herbeiführung einer Schwangerschaft auf andere Weise als durch Geschlechtsverkehr.*
> *Methoden der medizinisch unterstützten Fortpflanzung im Sinn des Abs. 1 sind insbesondere*
> 1. *das Einbringen von Samen in die Geschlechtsorgane einer Frau,*
> 2. *die Vereinigung von Eizellen mit Samenzellen außerhalb des Körpers einer Frau,*
> 3. *das Einbringen von entwicklungsfähigen Zellen in die Gebärmutter oder den Eileiter einer Frau und*

[17] 'Center' is a regional colloquialism prevalent in the Austrian ART-landscape: The people I interviewed refer to the locale where the informational interview took place and to which they routinely returned in the course of a given treatment cycle most often not as an infertility clinic, but as a *"Kinderwunschzentrum"*, which literally translates to a *'center of/for the wish to have children'*. The notion of *Kinderwunsch*, that is, a *'wish to have children'* as well as identifying children born through ART as *"Wunschkinder"* (*'wished-for children'*) are regional peculiarities that cannot be discussed here at length (see also Knoll 2011, 10). Given that the word 'clinic/s' too is of common use and is the more internationally recognizable term, I will continue to use it hereafter.

> *4. das Einbringen von Eizellen oder von Eizellen mit Samen in die Gebärmutter oder den Eileiter einer Frau.*
>
> *Als entwicklungsfähige Zellen sind befruchtete Eizellen und daraus entwickelte Zellen anzusehen.*
>
> *(Ö-BGBl. 1992, § 1)*

The law and legally framed practices are a formidable resource for crafting one's own story. They actively shape courses of action and impinge on the way individuals can relate to themselves and others. In other words, the inscribed idea of *ultima ratio* positions assisted reproduction at a point in time that *results from* a consciousness that *'something is wrong'*: Only if something is wrong in a heavily normative sense, wrong with the normal bodily state, can assisted reproduction be even an option. That option is staked off - among other, but less authoritative means - by the medical realm, its methods and experts. Assisted reproduction is enacted as the solution to a problem, a private and individual one, not a standalone choice. In line with this, → cryopreservation as latency storage for a *future* wish to have children can only ever result from a prior failure and conscious wish to have children. It is not a preemptive choice, but a by-product of standing assisted reproductive treatment.

In this regard we observe an important tension: Assisted reproduction is enacted as a last resort, but it is a private one that the Austrian state does not generally support, publically or financially. It would be a mistake to think that artificiality is enacted simply as an opposition to nature. Closer scrutiny can open up various dimensions about seemingly clear-cut concepts such as artificiality or nature. Thus another dimension can be added to the way assisted reproduction is enacted as artificial: If nature fails, assisted reproduction is a sumptuary choice to artificially defy a state of bodily in-functionality that, if nature would have its will, would be permanent. It is this conceptualization of assisted reproductive treatment as an individual's (or an individual couple's) choice that impedes its acknowledgement and implementation as a common right.

4.2.2.3 Hetero/Homo-norms and the nuclear family as modes of control

Article 2 of the Reproductive Medicine Act introduces key aspects of the manner in which the Austrian state seeks to control the field of assisted reproduction and the values and world-views writ large in this legal text: heteronormativity, genetic relatedness and the ideal of the nuclear family.

Critically, only heterosexual couples - married or living in a registered non-marital partnership - are eligible for assisted reproductive treatment. Reproduction is thus retained as a (mediated) act between woman and man. This hetero-exclusive access can also be seen to co-enact the nuclear family as an ideal of genetic and social organization. Genetic relatedness is primarily constituted by a general ban on heterologous assisted reproductive procedures (procedures with third-party gametes). Still, the ideal can also be seen to encompass also a social dimension: Article 17, for instance, specifies duration of storage for gamete and embryonic tissue and assures that assisted reproductive treatment cannot take place in any way once one of the partners has died. By extension, this consistently precludes the constitution of single-parent households by means of ARTs *at the time* of assisted reproductive treatment.

In a process that is, *per se*, regarded as a deviation from the reproductive norm, genetic relatedness also emerges as carrying the hope of constituting certainty in a purportedly uncertain field. Let us revisit the Austrian legal definition of motherhood to approach this issue:

> *Mother of a child is the woman who gave birth to that child.*
>
> *Mutter ist die Frau, die das Kind geboren hat.*
>
> *(Ö-BGBl. 2013, § 143)*

Manifestly, this is not a definition of 'genetic motherhood'. In theory, assisted reproductive procedures with egg/oocyte donation would thus be possible under the distinct premises of this law and still assume the woman who gives birth to the child as the mother. On the other hand, this legal definition effectively speaks out against surrogate motherhood as any child born by a surrogate would be legally considered the surrogate's child. That, too, is the crux of the issue: The Reproductive Medicine Act disallows egg donation in its entirety, thus assuring genetic motherhood as the only permissible form of motherhood while surrogacy is concurrently prohibited without once actually being mentioned in legal documents.

The old legal saying of *'mater semper certa est'* thus is not, as it was in ancient times, a visual certainty, but a genetic one. This is further underlined in that women are only ever referred to as such, an unspecified collective category (*"die Frau"*). Men, in turn, are only referred to in marital association with women or association based on their partnership, that is, either as *'husband'* or *'(life) partner'* (*"Ehegatte"* or *"Lebensgefährte"*). Seeing as it must be the husband or partner of the women whose motherhood-status is anyway a certainty, *'pater semper certus est'* applies as well.

Beyond this, the law speaks of *'men'* in a general and categorical sense only in § 9(3): the article that prohibits mixing semen of different *men* (*"verschiedener Männer"*) for donor ➜ inseminations. Even though the law does allow *donor inseminations* as the only permissible heterologous procedure - and does so only conceding that its low technological affordances and prevalence make it impossible to control (cf. RV 216 1991, 11) - genetic certainty is, once again, explicitly secured[18].

4.2.2.4 Generative effects on sterile men

Looking at sterility/infertility again is a good way to exemplify and emphasize the productivity of analyzing the law's performative effects and of employing distinctions between enactive and generative performativity. I previously discussed the issue in relation to the IVF-Fund Act, so let us turn to the Reproductive Medicine Act first.

> *Furthermore, assisted reproduction is only permitted once all possible and reasonable treatments to establish a pregnancy by means of sexual intercourse have been rendered unsuccessful or futile by the current state of scientific knowledge and experience [...].*

[18] It should be noted that violations in relation to the Reproductive Medicine Act incur only administrative penalties and are not pursued under the criminal law (see also Köck 2006).

> *Sie ist ferner nur zulässig, wenn nach dem Stand der Wissenschaft und Erfahrung alle anderen möglichen und zumutbaren Behandlungen zur Herbeiführung einer Schwangerschaft durch Geschlechtsverkehr erfolglos gewesen oder aussichtslos sind […].*
>
> *(Ö-BGBl. 1992, § 2.2)*

If we took a formalistic approach to the law, the insight we could draw from this passage is that, legally, one must be considered infertile or sterile to be eligible for assisted reproductive treatment. More so, 'science' is established as a means to determine admissibility. Then we could go on to admonish the law for discriminating against individuals who want to have children, yet cannot produce the juridico-medical indication for *needing* assisted reproduction.

Referring back to Faulkner's (2012) tentative distinction, however, we can understand this passage in terms of enactive performativity. It enacts the absence of infertility/sterility as the functional capacity to get pregnant through sexual intercourse, that is, an act between a man and a woman. It also enacts sterility/infertility as something to be determined by 'science', and its experiential repertoire for doing so: Suddenly, then, infertility/sterility gets quite complicated and ever multiple. It can be traced through practices, procedures and results, through the way it is embodied, gendered, storied and lived.

But let us stay with the law in a narrower sense. Certainly, its generative performativity can be seen to produce institutions and the ascribed authority to partake in determining, and thus shaping, sterility/infertility. If we now turn back to the IVF-Fund Act and its explicit definitions of infertility/sterility as eligibility criteria, however, we can see how the law actively *generates* some men, in the context of assisted reproduction, as *sterile*.

> *Allocation of costs may only be claimed in the case of*
>
> *1. sterility of the woman in association with*
>
> *a) the fallopian tubes*
>
> *b) endometriosis or*
>
> *c) a polycystic ovary or*
>
> *2. sterility of the man.*
>
> *Allocation of costs must not be claimed if sterility is the intentional result of surgery requested by either the woman or the man.*
>
> *Ein Anspruch auf Kostentragung besteht*
>
> *1. bei Sterilität der Frau*
>
> *a) tubaren,*
>
> *b) durch Endometriose bedingten oder*
>
> *c) durch polyzystisches Ovar bedingten Ursprungs oder*
>
> *2. bei Sterilität des Mannes.*
>
> *Der Anspruch auf Kostentragung besteht nicht, wenn die Sterilität die beabsichtigte Folge eines von der Frau bzw. vom Mann gewünschten Eingriffs ist.*
>
> *(Ö-BGBl. 1999, § 4.1 and § 4.3)*

In everyday clinical practice, operating under this legal premise, male sterility is determined by two separate ➔ spermiograms whose results are assembled to indicate low sperm quality and thus, in association, *predict* little to no success in fathering a child by means of sexual intercourse. Male

sterility *at this point* is a momentary prediction that started out as sperm sample in a cup, or even earlier. While ontological connectedness might be retained in practical chains of *traceability* (Latour 1995), sperm becomes the *examinable mobile*. Male reproductive function is singularly associated with sperm, whilst sperm is enacted as a bio-object *sui generis*. Legally, indeed, it is sperm which is *'incapable of reproduction'* - not the human being that produces or harbors it:

> *For [inseminations] third-person semen may however be used,* ***if that of the husband*** *or partner is incapable of reproduction.*
>
> *Für [Inseminationen] darf jedoch der Samen eines Dritten verwendet werden,* ***wenn der des Ehegatten*** *oder Lebensgefährten nicht fortpflanzungsfähig ist.*
>
> *(Ö-BGBl. 1992, § 3.2)*

In a more general sense, sterility/infertility is narratively and practically *incorporated*: Co-operating with the imaginary of the mechanistic body-whole, the skin becomes an impermeable boundary. Causes for infertility/sterility that might be located external to the body (air-borne factors, everyday radiation, dietary issues) are incorporated in that they effect inside-bodily functions that in turn impinge on the whole bodily state. Moments of *"excorporation"* or the *"semi-permeable"* body, as Mol and Law (2004, 50ff) describe it, are not made resources in the manner in which individuals can relate to their own bodies and identities, their partners and assisted reproduction.

In the way they story undergoing assisted reproduction women are quick to give medical reasons, recount *why exactly* they needed ARTs. They give a detailed account of medical reasoning, tests and results in a bid to re-normalize a story that has been made deviant toward 'natural reproduction'. Once again, this speaks to the *'something is wrong'*-chronology enacted by legal and institutional definitions: There must be a reason, a problem to be identified in order to activate ARTs. And that problem, more often than not, is a problem *within the body*.

As we can see above, however, sperm is enacted as *the* male reproductive agent, a reproductive travel agent of sorts. Whereas the cause for its prospectively indicated incapability of reproduction is seen to lie *within* the male body, male reproductive function is externalized in much the same way as men externalize sperm in the act of 'natural' reproduction. It can thus be extracorporeally observed and examined. At a glance we also see how much more complex female infertility is made out to be. It calls for bullet-points in legal documents and, as we see in the quote below, it is wholly internal.

> *"If you take male reasons for infertility. Spermiograms are huge grey areas [...] That's why in more than 70 % of cases men are actually responsible in Austria. But that is not really true to the facts. And the second point is: In women it is sometimes harder to get at the real reasons, because* ***everything is hidden in the body****. Endometriosis is not so easy to detect. And if someone has menstrual cramps and he also has a borderline spermiogram, then you say:* ***It's the man****. Maybe, in reality, the woman has endometriosis in the background." (E2_3, 65-75)*

It is the man.

The law requires individuals to have good reasons for needing ARTs, reasons for applying to the IVF-Fund, reasons to follow the path of artificiality. With it, along with infertility/sterility behind closed-

off skin, and travel-ready sperm, and spermiograms that leave room for interpretation, and everyday clinical practices, *sterile men are constituted*. They are intricately constituted to be enacted in statistical reports (IVF-Fund data, for instance), in treatment plans, in talking to doctors and their wives/partners, in the way these men fashion their own selves and, in turn, the way their wives and partners fashion their selves and their relational identity as a couple.

4.2.3 A Situated Note on Public and Legal Futures, and Hopes

The Reproductive Medicine Act has seen only marginal changes over the past 20+ years. The most substantial ones were an amendment in 2004 that extended the time frame for cryopreservation of embryos from only one to a maximum of ten years, and more recently the establishment of equal access for non-marital heterosexual partnerships in 2009.

At the same time, the issue has periodically regained salience in the past few years, fueled also by the *Austrian Bioethical Review Committee* (Bioethikkommission 2012, 4–7) that supports legal liberalization of assisted reproduction. More critically, as of January 2014 the *Austrian Constitutional Court* has released a decree (Ö-VfGH 2013) that de-legalizes debarment of same-sex couples from medically assisted reproduction. It has further called on the Austrian government to remedy the wording of the law by the end of 2014 in order to allow *women* living in same-sex partnerships to employ → intrauterine insemination by sperm donation.

Future changes to that end will link back to the socio-political context that authored the existing Reproductive Medicine Act and voices that had called for equal rights for same-sex couples even then (Hadolt 2005, 23, 2007, 292). Nevertheless, those changes will neither abolish modes of reproductive exclusion for *male* same-sex couples, nor for single women and men.

Despite an existing momentum for change, public discourse on or touching on assisted reproduction in Austria has shown little and certainly no sustained vigor over the years. Judging from its past, then, future projections for widespread public engagement with the issue allow but for very moderate expectations. Thus far, the issue of surrogate motherhood has, implicitly and explicitly, emerged as the knockout argument against more active re-engagement with a twenty-year-old legal document. The surrogacy narrative is not a straightforward one by all means. It has been inscribed with fears and risks, drawing on scenarios of commodified wombs, high technological demands, the maceration of motherhood as a 'fact of life' and acts against 'nature'. It has also been enacted as a commitment to protecting the body-as-whole from encroaching technologies (see RV 216 1991; Ö-VfGH 1999) and, as such, 'closes off' the topic of assisted reproduction as a whole.

4.3 Local Embedding: some Research Relations in Austria

In part, it might be the kind of socio-legal frame detailed above that has thus far failed to foster diverse academic engagement with assisted reproduction. It is particularly disconcerting to observe

that contemporary research has not strayed far from the disciplines that make up the topic's idiosyncratic expert foundation as noted above: law, medicine and, to a lesser degree, (moral) theology. While theses and other academic publications in these disciplines continue to take part in the staking-out of legal, medical and ethical dimensions of the issue (see more recently for instance Kopetzki 2012; Thöni and Voithofer 2011; Grüblinger 2010; Kreß 2009), lack of comprehensive engagement on the side of the social sciences leaves the variably entangled realities of assisted reproduction in Austria largely black-boxed.

This echoes the manner in which assisted reproduction has been discussed in the past and how silent the individual, or the couple, implicated in its midst have been throughout. By focusing but on legalities, medical procedures, or moral ethics we gain little understanding of how these dimensions are activated at the individual level, how they shape and are being shaped by those who undertake assisted reproductive treatment. By some hopeful inference, then, more involvement on the side of the social sciences might also urge louder and more varied deliberation by and large.

The social sciences have not been completely silent in the past either, of course. There are some notable topical strands this thesis relates to or draws upon in particular:

Early on, Knoll (2001) analyzed the discourse giving rise to and surrounding the IVF-Fund Act. In large part her work focuses a critical-feminist lens on the media debate and its various dimensions. She does not consider these past, and thus concluded, but transcending, and thus encroaching upon and entwining with the present and present discourses. In line with this, Knoll then turns towards an individual woman's encounter with assisted reproduction: *Sylvia* embodies and grounds the preceding analysis of various levels of discourse (everyday values and norms, legal framings, media and the mediation offered by self-help groups), supplementing them with the *"thick description"* (Geertz 1973) of what she calls the 'subjective experience' of the IVF-discourse. With Sylvia's wish of having a child continuing to go unfulfilled the reader is made to recognize the cracks and tilts in the purported smoothness of the newly implemented system. Sylvia's body becomes a site of conflict and a stand-in, simultaneously in-place and delocalized, as Knoll recounts her story in a way that is reminiscent of Biehl (2004) and his seminal work grounded in the life and story of *Catarina*. The present thesis makes a related attempt at a productive mesh of storylines both derived from and simultaneously transcending the individual life story.

Lengauer and Hadolt (2003) went down a similar road and chose case studies with eight couples as a basis for their conceptual theory of *'making children'* (*"Kinder-Machen"*) in Austria. They did so, quite consciously and much like the present thesis, to oppose the topos of ob-gyns as the *'medical proprietors'* (*"medizinische Eigentümer"*; ibid., 80) of assisted reproduction. Their study, spanning over one and a half years, draws on four problem-centered interviews (Witzel 2000) per case, including participant observations, which were analyzed with a classical grounded theory approach (Strauss and Corbin 1990). The authors' conception of unwanted childlessness not as an unquestioned state, but as a complex process in relation to values, social and scientific interactions

is undoubtedly close to the manner in which the issue is conceptualized in this thesis. However, in scouring biographies and interviews for the 'truth' and 'reality' *behind* the narrative they engage an understanding of life stories diametrically opposed to mine (see section 6.1). This specific and 'fact'-based understanding of biographies impinges, then, on the analytical exchange and comparison between the different cases: In that they only understand biographical narratives in terms of external calendric time, the authors' analysis remains on the surface of juxtaposing medical events and life events with chronological time. Thus, their theory of 'making children' and its local conditions - organized around the key dimensions of relationship dynamics, diagnoses and reasons, medical procedures and age - is based on a *'calendar of facts'* (*"Faktenkalender"*; ibid., 54) that leaves these dimensions as such largely intact without deconstructing their meanings for the individual life course or the variable conditions that make them key dimensions in the first place.

A much more diversified understanding of time is put forth by Reischl (2008) in her thesis. For her, time is not only a conceptual aid and a mode of organizing data, but made more productive in that it is the *subject* of her research. She investigates imagined futures and future expectations in the discourses surrounding the commencement of the Reproductive Medicine Act in 1992. In a manner similar to the one employed by Hadolt (2005), Reischl conceives of this as a discursive event that compacted a debate that had engaged public and political interest for much of the 1980s and 90s. Applying discourse and thematic analysis to publically available material such as conference proceedings, monographs and collections of feminist essays, she examines future constructions therein as to their effects on individual and collective action, the modes of their employment and the goals thereby pursued. Using a grounded theory approach she carves out different past future-trajectories for technological development and differences in futures' reach in the opposing future constructions of those objecting to and those in support of the commencement of the Reproductive Medicine Act. Reischl argues that futures are central in structuring debates and particularly sensational sites of analysis where technologies are seen to be just 'emerging'. This aspect of time will be further discussed in section 5.1 as well.

In her dissertation Knoll (2011) extends her previous focus on individual users of assisted reproduction and builds in large part on the notion of assemblages to capture reproductive tourism, or what has more recently been called *"cross-border reproductive care"* (Inhorn and Gürtin 2011). Introducing us to the idea of a *"reproscape"*, Knoll analyzes assisted reproduction as a cross-border, trans-national phenomenon - a *"multiple space"* (ibid., 283) that is not only a geographical, but also a virtual, imaginary, affective, socio-technical, moral and legal one navigated by repro-'tourists' and inhabited also by providers, experts, politicians and other stakeholders. Knoll's travels alongside different repro-tourists lead her through Europe (London, Budapest, Lisbon, Ljubljana and Vienna), the realms of physical space, as well as through the virtual space of the internet. Her participant observations and her travelogue explore the variable issues tangent to cross-border assisted reproduction as they differ and converge in sameness over her multi-sited analysis. Trailing the

multifold paths of assisted reproduction she offers an in-depth description of the reproscape, investigates its variable functionalities and evaluates the conditions for studying it in the first place.

As much as the notion of *scapes* has given Knoll the tools with which to grasp the multiple spatiality of assisted reproduction, it can also be employed to provide perspectives and vocabulary for a nuanced understanding of various forms of time. This, incidentally, is where we will turn next.

5 Sensitizing with Time

giving myself some language to raise a timely fraction of the world

As we engage with certain socio-scientific issues, *sensitizing concepts* (Blumer 1969) become key. They are as much our theoretical as they are our practical tools and as such they put a particular spin on the stories we can tell. Sensitizing concepts allow us to translate the results of our research into a language with which to talk about them and make them intelligible and relatable both in terms of intellectual pasts as well as potential research futures. Focusing, as I am, my analytical lens on multiple *temporalities* serves, at the very least, as a means to sensitize me towards matters oftentimes ignored or rendered invisible: how individuals fashion themselves and are fashioned through time, and how this may guide us towards particularly relevant alternatives in care.

In the recent past *time* and its variable forms have emerged from the shadows of a mere ordering concept for longitudinal panels and surveys as we come to appreciate a growing interest in *"understandings of time as a theoretical category, a methodological and ethical strategy and an important topic of enquiry in its own right"* (Neale, Henwood, and Holland 2012, 5f).

It is the aim of this thesis to glean a better understanding of how temporalities are engaged in the field of assisted reproduction and in the lives of individuals. For this I will try to trace the intertwinement of various temporal forms, captured with the concept of *timescapes* (Adam 1998, 2004), as they come to matter for the narrative construction of women's personal identities.

5.1 Some Time and some Other-Time

It can be argued that time really is of great import to all studies out there as they touch upon temporal matters in the most diverse and multifold ways at any given point during research. This might hold true, for example, for historical analyses about the role of the researcher and the laboratory, for the multi-sited construction of technologies as much as for the changing modes of doing research in general.

STS is most often and openly concerned with matters of time in a distinctively conceptual manner when it comes to accounting for *futures* and futures' hold on the present and past. An illustrious array of studies investigates how futures are designed-in, are inscribed into technologies and technoscientific endeavors, and negotiated in discourses on research, development and innovation. Futures are discussed in terms of anticipations, anxieties, hope, fear, imaginaries, predictions, expectations, goals or agendas.

Brown and Michael (2003), coining a *sociology of expectations*, for instance, have seminally exemplified how pasts, presents and futures in given socio-scientific contexts are assembled in particular and meaningful ways. For this they establish the dual concepts of *"retrospecting*

prospects", that is, *"people's memories of the future"*, and how they are engaged in the present, by *"prospecting [these] retrospects"*, to construct variable, tangible and manageable futures. In that sense, futures never operate as isolated components of how we relate to our modes of existence, they always also reach back in time, to our (collective and individual) pasts, in order to demand and gain traction on the present.

Futures, past and present, are coded into emerging technologies, are policy vehicles to be reckoned with, deeply entrenched in socio-political contexts, embedded in and shaped by legal texts, public discourse, individual and collective identities, and they are thoroughly entangled with ethics and responsibilities (also Jasanoff and Kim 2009). The future is not a tabula rasa that we inhabit and design as we wish, but futures are always already implicated in the present and all forms of '*futuring*' draw, in multiple ways, on meaningful configurations of pasts, past futures, and where we deem ourselves to be at present.

Adams and others (2009) have related to the future in a more encompassing theoretical manner in that they explore the *"regimes of anticipation"* as they come to reconfigure and populate the present. They posit anticipation as an episteme to be closely investigated, and detail its valences for knowledge production, individuals and collectives where *"the sciences of the actual"* make way to modes of prediction and forecasting that are geared to reign in uncertainties. The authors emphasize anticipation as an *"affective state"*, one that seldom steers clear of intense emotions. In that sense, anticipation is *"the palpable effect of the speculative future on the present"* (Adams, Murphy, and Clarke 2009, 247).

It is this mindset that leads Adam and Groves (2007) to speak of *"future matters"* and, with it, to induce an important dual meaning: On the one hand, future matters in that it is made a potent actor in framing courses of action in the present - future is important, it matters. On the other hand, future matters are concerned with its material dimensions, its effect on matter - that is, as future is made into matter.

Without question, (assisted) reproduction is a field ripe with futures, particularly seeing as the prospect of having a child and becoming a parent is among the most obvious and affective anticipations and promises out there (Franklin 1997). Thompson (2005), in particular, voices the *"promissory capital"* inherent in the *biomedical mode of reproduction*, and the conflicts that can thus ensue.

Her notion of *ontological choreography* (also Cussins 1996), too, always retains an orientation towards the (promised, imagined, hoped-for) future of getting pregnant and becoming a mother. Different things in the clinic, things of different ontological orders, actualize and work towards different futures that just as well need to be functionally choreographed in order to achieve the overall (future) goal. This alerts us, once again, to the immanence of multiple futures that are at play in the present and how they co-constitute action and matter in the present.

By the same token, this allows us to consider the multiplicity, not only of futures, but of temporal forms more generally. Pasts, presents, futures as well as different meaningful amalgamations of the same are not the only temporal expressions to be made salient in attempting a time-sensitive analysis. Selin (2006), for instance, tries to unpack the *"anatomy of time"* in the nanotechnology arena and discusses it in terms of trajectories, expectations and the immediacy of the now. This, in turn, allows her to conceive of different time structures and forms as they clash and cohere in contemporary discourses, and materially impinge on the emergence of these technologies.

Felt and others (2014), too, raise the stakes for a more nuanced analysis of the *"temporal texture"* (ibid., 17) of contemporary biomedical phenomena. Focusing on narratives of obesity and tracing them through individual stories as well as media outlets, they recognize trajectories, temporalities and timing as crucial in how the discourse is ordered, how obesity is understood and related to, how it figures into contemporary society and how responsibilities are negotiated. Critically, these greater temporal nuances give them an analytical edge for discerning the interrelating, but distinctly operating logics of different temporal narratives and for interrogating them concretely for *"the work they accomplish"* (ibid., 14).

By way of asking what time *does*, in concrete ways, we may cast temporal narratives as instrumental and constitutive in given (biomedical) fields. In matters of (assisted) reproduction, for instance, Simonds (2002) compares the different ways in which pregnancy, birth and postpartum time are fragmented and clocked by different 'medical expert realms' (such as obstetrics and midwifery). Her analysis shows the power inherent in defining times, making times, setting deadlines and dictating the temporal agenda, and how this may impinge on women's experience of pregnancy.

Beynon-Jones (2012) focuses on these *"politics of temporal ordering"* in a similar manner, analyzing the gestational timing of abortions. Drawing on the accounts of health professionals she lays bare the multiple temporalities that figure into their discursive construction of 'later' abortions as problematic. In that, temporality and subjectivity emerge as co-constructed. In other words, the temporalities discursively and practically actualized in performing, or not performing, abortions give way to who pregnant subjects can and are made out to be in this context.

What we can take away from this is an idea about the close interactions of temporalities and subject positions. It becomes clear that temporal orders *accomplish* certain things. In both Simonds' and Beynon-Jones' analyses time remains a mode of ordering largely external to women's procreative experiences. Friese and others (2006), on the other hand, trace the heterogeneity of meanings women ascribe to the notion of having or being on a *"biological clock"*. They analyze how these women concretely appropriate that temporal topos in relating to themselves and the reality of undergoing assisted reproductive treatment with donor eggs.

These and related voices are the ones that will be heard in this thesis. I will be asking what temporal narratives *do* and how women construct identity and understanding of self *from* these temporal

narratives. In doing so I will try to unpack time and look at different temporalities, different temporal forms, how they interrelate and operate in concrete ways. And this I will attempt from a *timescapes* perspective.

5.2 Timescapes Perspective

Coining the notion, concept and analytical orientation of *"timescapes"*, Adam (1998, 9) argues for rendering visible the commonly invisible. Time, she asserts, *"is taken for granted as the mere framework within which action takes place"*. One way, then, to make time visible, that is, to unpack it and take it for what it *does* concretely is to subscribe to the timescapes perspective.

Recently, the UK's ESRC[19] helmed a large-scale response to a purported gap in qualitative life course research that not only spawned a number of research projects, but also initiated multi-media archives and capacity building for secondary data usage under a common *Timescapes* approach (Adam, Hockey, and Thompson 2008). Neale and others (2012, 5) describe its theoretical backdrop as an orientation toward *"the intersection of biographical, generational and historical time"*.

This emphasis on intersections is important to note. Time is recognized as multiple, in assisted reproduction as much as everywhere else. Thompson (2005, 10) refers to a *"large number of relevant kinds of time"*, Atkinson and others (2013, 1230) to *"multiple and complex forms of time"*. Time might appear uniform, especially if we only relate to it by one name, but it never is. We only ever encounter time actualized in different, often intersecting, forms (also Dalsgaard 2013; Dalsgaard and Nielsen 2013).

Time is always there in the form of calendric time or clock time, cultural appropriations of time or lived time, time as experienced or time as narrated - always there, but never *just* there. It is multiple and contingent, but never arbitrary. When we break apart time, make it multiple and not one, and investigate the coming-together or coming-apart of different temporal forms: this, in turn, allows us to make time salient in our analyses and to ask why certain forms of time take part in the ordering and sense-making of certain socio-scientific fields, and others do not.

Timescape is a portmanteau made up of 'time' and 'landscape', indicating that time is inseparable from space and matter (cf. Adam 2004, 144). It is never without context. As Selin (2006, 126) notes, timescapes urge us to focus on the concrete *"design of temporality"*. This way we might analyze different forms of time as to their relational meaning, how they come about, how they are mobilized and awarded significance, and how they are used to produce order and how they are used to constitute identity. Timescapes consequently sensitize us to the multiplicity of temporalities, how they intersect and what they mean. To analyze with timescapes thus requires *"carefully tracing time narratives and how they relate to each other"* (Felt et al. 2014, 5).

[19] ESRC: the **E**conomic and **S**ocial **R**esearch **C**ouncil, see www.esrc.ac.uk

To capture the complex dis/continuities of different forms of time obviously seems impossible, or as Adam concedes (2004, 144f), *"Clearly, we cannot theorize and analyze without some form of classification, which inevitably means some form of freezing processes"*. Therefore, we orient towards certain temporal forms such as time frames (beginning and end, generations, days, weeks), tempo (speed, pace, intensity), timing (synchronization, coordination), sequences (series, successions) or temporal modalities (past, present, future). It is crucial for a timescapes perspective to see how these interrelate, fashion interdependencies and patterns, and to abstain from considering either temporal form as solitarily at work. The challenge is to recognize *"the abstract and the lived"* (Adam 2004, 142) as interrelated, and thus to consider both at the same time.

Lived time appears of particular importance to this thesis given its orientation towards women's narrative configuration of identity and self. The question will be how women engage temporal narratives to constitute personal identity or, in the words of Dalsgaard and Nielsen (2013, 12), how personal identity is *"constituted not only* in time*, but, indeed,* of time*"* (emphasis in original). I will diligently trace the narratives of women and how different forms of time are mobilized and employed, in concrete ways, to underpin or bring about their understanding of self.

6 Approach - Methodology - Methods

What's it to you, a story?

6.1 Narrative Forays into the Self

The *unity of the self* is a long-standing (social) science thinking tradition. However, when we parse the self as constantly *in-the-making*, analyses can be much different and more nuanced. For this, I will proceed to discuss ideas about biographical interviewing in that the ideas tangent to accessing people's lives via their auto-narrative serve as a good lead-in to the conceptualization of life stories, personal narratives and identities as put forth by this thesis.

6.1.1 Who is it we are talking to?

It is by doing biographical interviews that social science seeks an understanding of issues through the perspectives of individuals, or *subjects*, as they see, do and experience them. Central to appreciating the epistemological, and ontological, implications of doing biographical interviews, however, is how we conceive of interviewees' subjectivity and what we thus may be able to infer about certain socio-scientific issues.

In the German-speaking tradition of biographical interviewing Schütze's (1977) work is key. His strand of biographical inquiry is seen to target, not objective reality, but reality as it is experienced by the subject. Subjects are considered to 'carry' a biography (*"Biographieträger"*), that is, life experiences and events that they can report on in accountable and factual ways. Such, biographical processes can be meaningfully reconstructed by analysts, who can then get at generalizable 'facts' of life lived.

As Engler (2001) notes, the conditional premise of this understanding of biographical interviewing and concurrent ideas of subjectivity is, on the outset, an ontological split: An inward world (*"Innenwelt"*) of the subject is divorced from an outward world (*"Außenwelt"*) of society. The target of biographical inquiry, therefore, is not the outward world or 'objective reality' that, by way of claiming its 'objectivity', would mistrust the individual's 'subjective' account of it (cf. Gardner 2001). Instead, it is the inward world that is seen to be accessible by analysis: the inward experience of outward events as it constitutes subjectivity and personal identity. Speech renders these experiences available to the analyst who, in turn, uses it to reproduce the meaningful succession of biographical events. Going with Schütze, analysts get at events as they were 'really' experienced based on what Engler (2001, 32) terms the *'assumption of homology'* (*"Homologie-Annahme"*): That events as recounted in the interview correspond to events as experienced in the past, so that events as experienced can then be reproduced by the analyst. In that sense, subjects are considered mere *"passive vessels-of-answer"* (Holstein and Gubrium 1995, 8) that are capable of impromptu-recounting life *exactly* as they experienced it.

This understanding of subjectivity comes with a set of second-order conditions that can be problematized - as Engler (2001, 36ff) does insistently: In order to recount their stories sensibly and coherently, Schütze's approach promotes the interviewer and the interview setting as mere disturbances to the narrative, or sources of bias, that have to be removed as much as possible. Such, the interviewee may recount the events of the story take-by-take, exactly as they were experienced, without interference. It is the experiences which are singularly of interest, inasmuch as they allow for a reconstruction of certain, generalizable biographical processes. Narrative is not considered an act of construction, which is why speech remains simply a means to access life events. Narrative merely represents life as experienced.

Dismissing an interest into *how* life is constructed and remembered, then, this approach can also disregard the question of *what* is remembered, because it is *premised* on everything being remembered that needs to be remembered. Subjectivity, therefore, is endowed with consciousness and intentionality: for only if events are consciously and intentionally lived, can they be remembered and recounted in this explicit manner. What is more, time is supposed as invariably linear. Events as they have happened and been experienced are, in a homologous manner, recounted and analytically retraceable.

According to Engler (2001) it is particularly Bourdieu (1990) who criticizes the above approach as resting upon a *"biographical illusion"*: the illusion of thinking, as social science analysts, that the interview situation itself and the interviewer as an *"accomplice"* in the construction of the narrative can, or *should be*, ignored; that life is recounted, and can be represented, just as it is experienced; and that lived time is homologous to recounted time.

Ricœur (1984) tackled the latter illusion in a similar, if effectively more comprehensive manner, and reminds us that time as it is *"emplotted"* and made *'follow-able'* in the narrative configuration can never be reduced to external calendric time or the succession of events as they were, in a lived past, experienced. To propose such a reduction is to fall for what he calls the *"abstraction of the past as past"*:

> *"This abstraction is a result of forgetting the complex interplay of significations that takes place between our expectations directed toward the future and our interpretations oriented toward the past" (Ricoeur 1988, 208).*

Time, succession, movement and action as they are rendered in the narrative are actively configured by the narrator within the narrative situation.

In other words, narrative requires work. It is not merely a representation of having acted and 'suffered', but rather itself becomes the target of biographical interviewing: the *how* and *what* of constructing narrative *in just this way*. This makes the subject narrating more than a mere vessel for experiences. Individuals are endowed with the agential prowess to narratively construct their own life stories or life's events in particular, and not arbitrary, ways. Narrative construction, then, is an expression of subjectivity, agency and identity. We are reminded of Gunson's (2010) analysis and

how women, in their narrative rendering, refashioned and appropriated key themes of the (medicalized) discourse surrounding menstrual suppression.

This critically touches on what Holstein and Gubrium (1995, 2) identify as the central epistemological question for biographical interviewing: *"Where does this knowledge come from, and how is it derived?"* Narrative does not take place under 'ideal' laboratory conditions: It *takes place*, is invariably *situated*. An interview is not a vacuum-isolated colloquy without context that allows information to be exchanged. Rather, an interview is situational as much as it is relational. Inward and outward world are not split, and one does not impose on the other - they are co-constitutive. The way in which narrative construction relates to society, norms, discourses, cultural artifacts or variable 'others' is result and proof of subjectivity, agency and personal identity.

The existence of an interviewer in an interview setting, by itself, engages cultural ways in which life stories may be made understood and rendered accountable. Interviewer and interviewee refer to encultured understandings of how to tell biographical events and make them meaningful in relation to the conversational topic at hand (cf. also Atkinson, Featherstone, and Gregory 2013). Subjectivity here means to actively engage in constructing narrative. Biographical analysis must then be geared to *how exactly* we achieve this as much as to *what* (narrative) resources we mobilize to achieve this.

Gubrium and Holstein (2009) tentatively term these resources the concrete *"environments"* (relationships, local culture, organizations etc.) to which we recur in creating meaning and accountability. Somers (1994, 618f), on the other hand, refers to them as certain meaningful *"public"* or *"meta-narratives"* ('family myths', or assisted reproduction as *'long and winding road'*, or sedimented dichotomies of public vs. private medicine)[20].

Narratives are produced *in situ*, by *both* the interviewer and the interviewee - but they are never *just that*. As meaning is made, narrative is configured of various *"situationally relevant and long-standing resources"* (Holstein and Gubrium 1995, 51). It is the configuration of narrative, in concrete ways, that is thus the site for analyzing personal identity. The inward world of an intentional subject is not accessible just by retracing biographical events as they are being recounted. Instead, we must concretely analyze how personal narrative is fashioned, how discourses are (re)appropriated and how medical(ized) knowledge or other topically relevant resources are mobilized. In this way we can glean an understanding of how assisted reproduction might come to matter in individuals' lives and for their understanding of self.

[20] Frigga Haug (1999a, 1999b) and what she called *'memory work'*, as both a concept and a method, seems to strike into a similar vein. In the future we might tend more specifically to matters of *memory* through an STS lens. We tend to think of memory as an internal something, a something of the mind. However, memory is actively built, as it is told, and made available through the practical interaction of a number of things. As my interview experiences showed, in order to research and ruminate on '*memory*' we not only need to consider interactional factors, but also non-human participants such as calendars or treatment logs that some of the women *worked into* recounting their stories.

6.1.2 Narrative Identity

A conceptual understanding of biographical interviewing and life stories as depicted above, then, is premised on acknowledging personal identity as *"essentially in movement"* and as having *"an irreducibly narrative character"* (Cussins 1996, 579).

We cannot presuppose the unitary subject-whole in much the same way as Mol and Law (2004) call out the body-in-action as constantly *in-the-making* and not at all *"a coherent whole"* (ibid., 54). Personal identity, the understanding and enactment of self, is not unitary and not once-and-for-all, nor does it conform to discrete categories. It is a *"local achievement [...] dependent on the constant ontological exchange between ourselves and our environments"* (Cussins 1996, 578).

Somers (1994) traces different strands of social science thinking that presuppose the unity of the self as they lead her to a conceptualization of *"narrative identity"* as multiple, relational and, ultimately, contingent - and thus a constant *work-in-progress*. Personal identity is not *either* free-form *or* prescribed by overarching structures, but both at the same time. Narrative, its situated configuration and how it comes to speak of individuals' understanding of self are simultaneously embedded in multiple *"overlapping networks of relations that shift over time and space"* (Somers 1994, 607) and crafted by the active subject as a concrete fashioning of identity. This indicates narrative contingency and relationality in that at a different time and in a different place identity would be constituted from a *"different set of prevailing narratives"* (ibid., 624) and would thus engender a different understanding of self, different ways in which to relate to one's own body and know oneself. As we trace the multiple-ness of identity, therefore, we necessarily always trace *"partial connections"* (Strathern 1991) that can never be uncovered whole.

Narrative is practice: It is active and it is constitutive. It is not 'just' speech, but the active rendering of self and identity through, for instance, the rendering of episodes in the lives of individuals as intimate as assisted reproduction. Narrative is not a representation - neither of a categorical and unchanging self, nor of an unmitigated out-there reality and truth. Narrative is work: neither *just* given, nor arbitrary. The emplotment of heterogeneous elements in a successive order works them up into explanations and relevant tales of how individuals situate themselves and their lives. This makes us acutely aware of just how such narrative configurations orient us towards the fashioning of identity and self. The configuring of successive events and the forging of linkages between events and objects and actors, society and discourses and 'facts' figure as explanations and repertoires from which action is derived, and identity is crafted. Conceiving of identity as concretely narratively constructed and related to a variable, but never arbitrary, set of (narrative) resources and linkages, effectively strives to take into account

> *"that people construct identities (however multiple and changing) by locating themselves or being located within a repertoire of emplotted stories; that 'experience' is constituted through narratives; that people make sense of what has happened and is happening to them by attempting to assemble or in some way to integrate these happenings within one or more narratives; and that people are guided to act in certain ways, and not others, on the basis of the projections, expectations, and memories derived from*

> *a multiplicity but ultimately limited repertoire of available social, public, and cultural narratives" (Somers 1994, 614).*

In that sense, analyzing narrative identity must always also be an analysis of its relational embedding. In the following, this perspective will allow us, therefore, not only to understand assisted reproduction as it comes to matter in the lives of individuals, but also how these lives are embedded in and co-constituting the farther socio-scientific context.

Specifically, as is the task of this thesis, this will be done in focusing on configurations of time, that is, how women engage temporal narratives to constitute personal identity and how, in turn, temporality is rendered relationally relevant in the discourses and practices of assisted reproduction in Austria. How, then, to go about that task?

6.2 Tackling Prevalence: a note on active-situated interviewing

Let us revisit, for a moment, Schütze's (1977) conception of biographical interviewing and its concurrent idea of subjectivity as an innermost self that can only be expressed, in its *true essence*, if left very well alone.

Fueled by the idea of making social science research ever more 'objective' in pursuit of a somewhat disconnected and 'true' reality (be that an inward world of the self or an 'out there'-reality), there comes a point for aspiring researchers where we think that just throwing a topic, a word or anything at all at our interview partners will draw out the innermost and truest of responses. The epistemological benchmark thus is the virtual removal of the presence of the interviewer/researcher who, in turn, is framed as a potential disturbance to 'objective' data generation.

This specific idea of objectivity as *"truth to nature"* (Daston and Galison 2007) conceives of the interviewer - many things, really, but the interviewer in particular - as a potential source of bias. Trying to reign in the interviewer bias, then, many handbook instructions to open-ended, narrative, in-depth interviewing advise us to introduce the topic of the interview by way of a lead-in question and give, at the utmost, some specification if the lead-in does not work as well as hoped. 'Working' in that sense means setting off the respondent on an uninhibited efflux of true inner self, experience, perspective and data. Henceforth, if at all, interviewers are to only pursue aspects that are brought up by the interviewee and to abstain from bringing in topics external to their tale.

In other words, the arguably most prevalent social science research method is oftentimes cast in pursuit of what Haraway (1988) debunked as the alleged *"God view"* that pays no heed to the situatedness of knowledge and knowledge production. Without a doubt, as Rapley (2001, 308) contends, "*interviewing is* a specific form *of social interaction"* (emphasis in original; see also Hermanowicz 2002), and as such is one that seeks to derive some form of knowledge or understanding about issues for our research endeavors. So, not anything goes. However,

interviewing is not an alien form of interaction and thus one that should be pursued in a way that is much more conscious of the situatedness of interactional matters.

Interview data is not a representation of a reality that was there before us, inside or outside the individual subject. The dynamics of the interview setting, the one-on-one between interviewer and interviewee, are co-constitutive of the data therein produced. This corresponds with a perspective Silverman (2006, 128) labels as *"constructionist"*: The data is contingent on its interactional production. Accounts derived from an interview are the active products of shared meaning-making, of how sense is collaboratively constituted. The interaction between interviewer and interviewee, which so often is pursued to be made a non-issue, is exactly what interviews are about.

Holstein and Gubrium (1995) condense these conceptions into an interviewing mentality that they call *"the active interview"*. To perform interviews *actively* means to divest oneself from the idea of a vessel-like interviewee who will be able to speak to experiences tacitly residing within and beyond any form of social interaction. An active conduct acknowledges that meaning in the interview is made interactionally, and that *both parties* are involved in the production of the interview data.

More concretely, this encourages us not to laboriously *remove* the interviewer from the interview but, as an interviewer, to *acknowledge* one's own position in this co-production process and orient towards the topic of the interview in an active, but co-constitutive manner. Being active as an interviewer does not mean to override the interviewee, but to make *"specific vocabulary salient"* (Holstein and Gubrium 1995, 49) and orient the interview towards aspects that speak relevantly to the research at hand which, obviously and strategically, has a *"guiding purpose and plan"* (ibid., 76).

The interviewees themselves, in this view, are active participants - not passive vessels, or carriers of biography. They are seen to actively partake and actively construct meaning. Only then can the narrative configurations themselves be understood as substantial forms of data, or as Akrich and Pasveer (2004, 65) point out, *"narratives [...] are not considered as 'reflecting' reality but as constituting the reality we are interested in*." Holstein and Gubrium (1995, 56) echo this by positing the aims of active interviewing as interpretively interrelating the *what* and the *how* of the interview, that is, *"to gather information about what the research project is about and explicate how knowledge concerning that topic is narratively constructed."*

This, in turn, acknowledges the interview as an invariably cultural artifact. Its situatedness is not only expressed by having been produced in a particular setting/interaction, but also by its cultural embeddedness. With that in mind we orient the analysis to *what* is being communicated as much as to the concrete *ways in which* this is narratively configured. Such, we too consider the *environments* (Gubrium and Holstein 2009) or *public, overarching narratives* (Somers 1994) of the interview. Interviewees, therefore, do not simply pluck meaning from thin air, but they draw on locally sensible and relevant ways in which to respond meaningfully and craft a circumstantially coherent story.

Based on these general reflections about interviewing, I conducted both ***semi-structured expert interviews*** and ***in-depth, open-ended biographical interviews***. But other than being handy labels, what did it mean to do them in the context of my research and what were the conditions of their production?

6.3 Field Access, Stats and Data Collection

This thesis draws on ***7 interviews*** that took place at various locations in and around Vienna/Austria between April 25th and July 4th 2013. Two of these interviews were conducted as expert interviews with ob-gyns heading infertility clinics in Vienna/Austria, which bookended the five open-ended, in-depth interviews with women who had undergone assisted reproductive treatment at some point in their lives and with varying results.

All interviews were conducted in German, audio-recorded, transcribed using common transcription norms and anonymized to the extent that they cannot be traced back to the interviewees.

6.3.1 Expert Interviews

(Scientific) Expertise has attracted considerable and variable attention in STS (see famously Collins and Evans 2002; Wynne 1989). This obliges me to prelude this segment by acknowledging that expertise is all but contingent upon its context of production and implication. Its meanings can shift and its ostensibly stable foundation in 'factual' science or training is constantly and variably negotiated. Expertise is conditional.

The conditions under which I conducted semi-structured expert interviews were premised on an initial desire to familiarize myself with the context of my research and, later on, answering a few left-over questions in a setting where I could dig deeper or follow up on certain points interactively. To this end I started off my research with an expert interview in which my intent was to gain insights into the practicalities of assisted reproduction in Austria, to fill some gaps left at that time by dated sources and to develop ideas for the upcoming biographical interviews. The intent of the second expert interview, which was the very last interview to take place for this project, was to zoom in on a few points that had been raised throughout my research and to orient towards certain processes and how they were being explicated by the clinical/institutional side of assisted reproduction in Austria. In both cases my interests, however, were to take away technical details as presented by medical experts. In other words, the yield of expert interviews more generally is that of directed knowledge produced interactively which, viewed analytically, is the thematic content of the interview.

My methodological considerations thus led me to interviewing two ob-gyns who, respectively, preside over two infertility clinics in Vienna. This decision was framed by the legal distribution of authorization to perform assisted reproduction:

> *Only obstetrician-gynecologists licensed for independent exercise of profession are permitted to perform medically assisted reproduction.*
>
> *Eine medizinisch unterstützte Fortpflanzung darf nur von einem zur selbständigen Berufsausübung berechtigten Facharzt für Frauenheilkunde und Geburtshilfe durchgeführt werden.*
>
> *(Ö-BGBl. 1992, § 4.1)*

This is also to concede that interviewing other types of experts would have yielded other types of answers and directions for my research. When asked about all the employees of the clinic as they were involved in a given treatment cycle, one of the experts held that *"it is those three professions, really: doctors, laboratory, nurses"* (E2_4, 322-3). Conditioned by my methodological interests in gaining an overview, however, I focused singularly on doctors.

In all, I had contacted five clinics in the region, either writing emails directly to their institutional heads or requesting my email to be forwarded to him[21]. The clinics were selected from a list filed under *"Institute"* on the website of the *AUSTRIAN SOCIETY FOR REPRODUCTIVE MEDICINE AND ENDOCRINOLOGY* (ÖGRM 2014), an umbrella organization for clinics operating under the premises of the federal law. I asked them to support my Master's thesis research, positioning the expert interviews as framing my central mode of research. I heard back from two clinics and subsequently arranged interviews with their respective institutional heads that ran between 35 and 43 minutes.

6.3.2 Biographical Interviews

While expert interviews were supplement to my research, at its core there are five biographical interviews with women who conceived with the help of assisted reproductive treatment.

6.3.2.1 Labeling and understanding biographical interviewing

I chose to employ the label of *biographical interviews* due to ideationally drawing on different strands of what can be subsumed under 'biographical interviewing'. That said, however, this label is a volatile one. Its claim as to what *makes* the interviews *biographical* is simple: The central intent of the interviews was to produce accounts invariably bound up in my interview partners' lives, making these accounts intimate and personal and interactionally crafted reflections on where they have been, where they are now and where they expect to be in the future. Let us think back to Ricœur (1988) and what he called the *abstraction of the past as past*: What is (narratively) made of the past is always closely linked to what is made of the 'now' and what is made of potential, made-relevant futures. Modalities of time (past, present and future) are never wholly separate, but complexly interrelated.

In prior discussions I have drawn attention to the fluidity of personal identity as it is narratively crafted, and to abandoning the idea of the unity of the self or a unitary core identity. By the same

[21] The ob-gyns presiding over the clinics I contacted were all male. This is only marginally coincidental. Asked about the gender of institutional heads in the region one expert commented, *"Well, officially F's clinic [NB: F is male and identified as proprietor] is headed by W. She's a woman. Other than that, male dominates, that's right. Maybe that's a generational question, maybe a question of interests. Nobody is thwarted just because he [sic!] is a woman"* (E2_5, 340-2).

token we need to acknowledge that one's biography is not linear and one-off. Biographical interviewing in biomedical contexts has a long tradition and is most closely associated with studies on the "*biographical disruption*" (Bury 1982) to people's lives posed by sudden diagnoses of chronic illnesses. The onset of the illness constitutes a 'crisis' which disrupts the life of the individual in a way that affords the mobilization of resources to *repair* this disruption and re-accomplish coherence in the biographical narrative. That way, however, this perspective presupposes biographical linearity that, should it sustain a dent, might subsequently be mended.

Elsewhere, this conception has been criticized for brushing aside the continuousness of an on-going life lived. The concept of biographical disruption focuses on discontinuity relative to a constitutive, critical event. Recasting this concept in terms of a "*biographical flow*", Faircloth and others (2004) try to meet, conceptually, what Adam (2004, 150) called the challenge of considering "*continuity in the light of fundamental change*". They focus on how, and by employing which means/resources, individuals integrate the onset of chronic illnesses into an on-going, flowing biographical narrative.

However, this alternative take still conceives of biography as a *linear* flow and a singular narrative transcending past, present and future. Instead, I adopt herein an understanding of biography as constantly *worked*, as non-linear and steadily under construction. This is in tune with what Holstein and Gubrium (1995) term "*biographical work*". Considering biography as *worked* strives to instigate a sense of activeness in the concrete ways that life, or certain episodes in life, are storied. Storying life, storying biographical narratives, is seen as creative and reflexive process, thus becoming an intensely relevant site for analysis. Biography is not recounted or absorbed in some 'objective' manner, nor is it one-off or immutable. As Felde (2011, 105) notes more concisely, "*biography and biographical work are not set in stone, but interpretively, skillfully practiced, reflexively embedded in shifting contexts.*" Biographical narrative as active work must always be understood as interacting with the context it is embedded in and that which, in turn, it is also (re-)producing. In a way, then, this view of biography brings in the subject as an active agent in storying shifting personal narratives, which also allows us to conceive of narrative configurations as indicative and result of personal identity, a means to express and bring into action a particular and meaningful understanding of self. In this sense, then, identity is not fixed or a linear flow, but is similarly worked, embedded in and drawing on shifting contexts.

Assisted reproduction and its shifting temporal foci throughout treatment serve as these contexts in and through which the women I interviewed practiced biographical work and narratively configured "*multiple alternative forms*" of identity (Felde 2011, 115). This is not something that has to be particularly encouraged, but is rather a continual activity, the basic mode of how we relate to ourselves and ourselves to others. At the same time, biographical work is relationally embedded and thus is not arbitrary, but draws on multifold relevant and meaningful resources that, too, can be analyzed.

6.3.2.2 Contact and conduct details

Early on in this research endeavor I made the decision to interview only women who had 'successfully' employed ARTs - in other words, women who had gotten pregnant by way of or, more than that, had already given birth to children following assisted reproductive treatment. Conceptually, this decision was made in order to give the women I was to interview a relative position *in time* and *in their life* from which they could reflect on a completed trajectory with assisted reproductive treatment - as opposed to an on-going or discontinued one. In large part, however, this was a pragmatic decision made for a research project small in scale: In light of the demands of field access it appeared that women who had stopped treatment (in Austria) altogether for whichever reason would have been much more difficult to get into contact with - particularly via the infertility clinics, as had been my initial plan.

In all, it should be noted that 'success' emerged from this research as a tensely volatile notion and one with diverse meanings. Particularly as regards temporal matters, 'success' is variable in that clinical-laboratory practices will delineate other understandings of 'success' than a women, or a couple, going through assisted reproductive treatment, or the law fixating relevantly universal points of 'success', or the environing expert discourse (for example Heijnen, Macklon, and Fauser 2004). Nonetheless, the decision to seek out interviews with women who had conceived via assisted reproductive treatment was one that stuck and, on the whole, probably facilitated my access to the field. This is also to say that, indubitably, this decision impinges in many ways on the results presented herein - something that will be further considered in the empirical analysis (see section 8).

Initially, then, I planned on approaching women via the clinics that I was already in contact with following the expert interviews. However, the first expert interview made it very clear that the tie that binds infertility clinics and the women whose stories I was interested in was a distinctly temporary one: one that is usually severed around the time a pregnancy is declared '*intact*'[22]. At that time women's private gynecologists, beyond the institutional bounds of the infertility clinic, take over medical care for the remainder of the pregnancy.

By way of my research in the Austrian ART landscape, however, I was alerted to a message board[23] set up for the purpose of exchanging present and past experiences with assisted reproduction. Its content is not public and exclusive for members, but earlier research papers, clinics' websites and, later on, women's accounts framed the board as playing a key role in the arena of assisted reproduction in Austria, particularly in and surrounding Vienna. The board acts in multifold ways as a knowledge resource, a medium for personal exchange, but also as a site where (collective) meanings, preferred vocabularies and opinions are negotiated. In that sense, the board is a significant resource for women in configuring their narrative accounts, but one that needs to remain

[22] Legally and practically this refers to an ultrasound ascertaining fetal heart tones.

[23] In view of the personal details of interviewees included in this thesis and for reasons of maintaining their anonymity the message board is not otherwise identified.

obscure in this study. Due to ethical reasons and necessary research delimitations I did not register and did not conduct further explorations.

Instead, I contacted the administrator of the board, who then put up a pre-formulated notice regarding my Master's thesis research and my interest in interviewing women who had 'successfully' conceived via assisted reproductive treatment, including my contact details. Over the course of the next months I was contacted by eight women willing to share their stories with me, of which five eventually did so - general details about the interviews are listed below (see Table 1).

	children *(age at time of interview)*	***date of interview***	***length of interview***
A. S.	***2*** *girls (twins)* *2 years old*	*May 3rd 2013*	*1:12:46 h*
B. W.	***2*** *girls* *3 ½ and 1 ½ years old*	*May 27th 2013*	*1:43:10 h*
K. M.	***pregnant*** *with a girl at time of the interview*	*June 14th 2013*	*2:03:54 h*
C. T.	***1*** *boy* *5 years old*	*June 17th 2013*	*1:28:49 h*
F. T.	***2*** *girls (twins)* *1 ½ years old*	*June 24th 2013*	*1:20:25 h*

Table 1: Interview Breakdown

I was quickly contacted by the first two women, whereas all the others approached me later and partly in reaction to a prompt the first interviewee (A.S.) had added to my initial post about the interview having been a good experience and that I was still in search for interview partners.

Methodically, I conducted the interviews as *open-ended* and *in-depth* in that we went into great detail about their (assisted) reproductive stories. In line with an *active* stance towards interviewing my research interests, which were geared to temporal forms of their assisted reproductive treatments, offered general directions for the interactional production of the interview. To that end, I started each interview off with a *'framing story'* to outline my research interests and aspects that I was specifically trying to pursue with my study. Furthermore, I variously 'interjected' myself and did not try to remove myself from the interview situation. The structure of the interviews, therefore, was situationally and interactionally accomplished.

6.4 Reflections on Ethics and Responsible Conduct

As many variants as there may exist for defining 'ethics' in research, they are frequently relegated to an add-on role. Oftentimes ethics slip in as those two sentences at the end of the methods chapter about anonymization, informed consent and non-proliferation of sensitive material. Arguably writ large in (bio-)medical research, however, this sub-chapter is consciously wedged between data

collection and analysis as it seeks to enhance the importance of reflecting what is routinely taken for granted or ignored in interactive research.

Ethical conduct raises the stakes for what it means to go about research in a responsible and accountable manner. To that end, all of my interviewees signed ***informed consent*** sheets detailing the purpose of the interview, their rights to discontinue the interview at their will, and assuring their consent to recording, transcribing and publishing (parts of) the anonymized data. Throughout, I have ensured that all my notes, both on paper and digitized, as well as transcripts were thoroughly anonymized and handled confidentially. So far so good.

Doing biomedical social science research, it is easy to fall prey to the thought that *bioethics* only apply to invasive medical research and procedures. As if bioethics stopped being just as profoundly important when we limit our research to talking and observing. The body is considered our intimate property, its integrity our right and harm done to it a violation against our autonomous selves. Not the same appears valid for our stories and our behavior. However, this is all the more reason to conduct social science biomedical research more responsibly and consciously. Not anything goes.

I was entrusted with some of the most private and intimate stories of my interviewees' lives. Even more so, they entrusted me vicariously with the lives of their children and their partners. I had assured the women of their anonymity via the informed consent sheet, but that had never included all those many 'others' implicated in their stories. For instance, when their stories led them to divulging details about their husbands' health or medical history:

> **A.S.:** *"He had an operation. He had- They had to operate on him- This is really completely anonymous, right?" (AS2_6, 703-5)*
>
> ***I:*** *"Yes, yes, of course."*

This quote happened two-thirds into the interview and A.S. only ever made anonymity an issue this once: At the point when she realized that her husband, even if he had consented to her doing the interview beforehand, was not present and had no present say on the extent that his medical details were shared with a scientific stranger. I was allowed intimate insights into the lives of people whose consent I had never gotten. Consequently, their integrity and autonomy was enacted and assured by various strategies employed by the women: They double-checked, they avoided personal names, and they constructed concise explicatory rationales for a loved-one's actions.

At the same time, (lay-)people *trust* that research is conducted in an ethically sound manner. This trust constitutes the very foundation for us to conduct research in the first place and thus affords direct responsibility. This issue can be exemplified by the following quote:

> *"We did it all very anonymously. We actually kept it a secret from my parents for a long time, too. I only talked to my sister about it. Other than that I actually told nobody." (FT2_7, 142-5)*

F.T. said this after leading me to a café in the periphery of the town where she lived: She did not want anybody to accidentally overhear us talking about her children's conception seeing as she had

since not told many more people that her girls were 'IVF-children'. And yet, save for those measures of discretion, she readily told *me*, the scientific stranger.

In their critical discussion of informed consent practices in medical research Felt and others (2009, 90) emphasize that *"a linear correlation between the provision of factual information and subjects acting autonomously appears untenable*." As stated above, the figure of the 'autonomous subject' does not hold in the face of 'implicated others'. At the same time we can assume that my interviewees' reasons for participating in my study were multi-variant and not mere rational decision-making based on the information they had gotten prior to contacting me.

As for the provision of factual information, another way of doing accountable research goes hand in hand with embracing the activeness of the scientific interview: The interview itself was locally tested and made accountable in the very aftermath of my verbal introduction, my 'framing story'. All participants followed this up with questions as to my topic, methods and the general orientation of my research. In other words, those women tried to make explicit and render accountable the ways of knowing that held meaning to them, apart from that which I was willing to divulge in a few sentences on an informed consent sheet or during an introductory paragraph (cf. Felt et al. 2009, 91f). Validating interviewees' ways of knowing and providing information in accordance with interviewees' relevance system is part of responsible scientific conduct and marks a significant transition to *"situated and processual ethics rather than contractual ethics"* (Neale, Henwood, and Holland 2012, 10).

As it was, my third interview took place in the early morning hours. K.M. agreed to meet and talk to me before work. We scheduled our meeting at 8 o'clock and she was supposed to be at work at 10 o'clock. We had previously rescheduled it, moving it from 9 to 8, because I was concerned that an hour would not give us enough time. As a researcher I had an interest in having two full hours and not have the interview be under too much of a time constraint. The day before the interview, however, K.M. contacted me asking if I was sure about needing two hours, because she could not be at work earlier than 10. I assured her of it and the interview did in fact last a little over two hours. However, what we need to take away from this is the ethical importance of taking responsibility, as a researcher, for the disruption that our methods can bring to our research participants' lives.

Ethically, we need to be aware of the implications of an interview. It is in the markedly different biographical context of surviving the *Shoah* that Rosenthal (1995) developed the conception of life storying as *'healing'* and *'therapeutic'* for those asked to do so. While I would not want to go just as far in my own claims, it would be inconsistent to argue *against* the idea of a vessel-like interviewee and not argue *for* the reciprocal implications of conducting interviews.

> *"There's a reason why you are sitting here as well. And if it's just for all that thinking about it and dealing with it. It's like I said [in one of my emails], I probably take away from this just as much as you do." (CT1_8, 644-8)*

Ethical conduct in research also encompasses an awareness of the real consequences of doing that research. Pursuing 'objectivity' by almost 'taking away' the researcher as an active part in the research process, we would easily forget that research actions have consequences and impinge on the lives of people who are not vessels pouring out information, but active participants who likewise take away experiences. In that, ethically sound research cannot be brushed aside by clutching to the principles of *volenti non fit iniuria*. It is much more complicated and a much subtler endeavor to pursue accountable, responsible research - and our reflections should be testament to that.

6.5 Data Analysis

Inasmuch as STS in general might invite a particular idea of tinkering with methods or, as Law (2007) would have it, of *making a mess with them*, any kind of time-related analysis does so in particular. As time and its various and variable forms prove difficult to be comprehended and apprehended with a 'classical' repertoire of methods, we can benefit from a creative mixture of analytic approaches.

Overall, I went about analysis in a productive, but nevertheless messy, back and forth between the original transcripts - which I transcribed in full, including the interviewer's parts, in order to account for situational and interactional meaning-making - and more condensed *'summaries'* or *'maps'*. Particularly the expert interviews, which served primarily informational and contextual needs, were made more readily accessible via *summarizing content analysis* (related, for example, to Mayring 2010). This way the transcripts are parsed and categorically coded, allowing for recurrences and varying associations to inform an understanding of key topics/themes and how these might be connected.

The overarching guiding principle for the process of analysis was the central interest of this research into narratives and meanings of time and different temporal forms. Indeed, this mode of parsing the content of the expert interviews allowed for an overview of time, or temporal forms, as they were talked about, as they were made interactionally relevant, or even as they occasioned momentary misunderstandings. Keeping different temporalities foregrounded during content analysis, therefore, helped to develop a relational, and initial, understanding of which kinds of times appeared particularly meaningful, and how or of which elements these times were crafted.

However, this breaking up of the overall texture of the narrative appeared unfit for analyzing the core biographical interviews. In order to contour and trace temporal dis/continuities, critical moments, parallel processes and the artful composition of pasts, presents, futures and other temporal forms in the women's accounts I thus turned to *narrative analysis* as put forth by Gubrium and Holstein (2009).

As noted at different points in this thesis already, their approach tries to navigate methodically between *what is being said* and *how it is said*, while keeping an ever-watchful eye on the

"consequences for the storyteller of storying experience in particular ways" (Gubrium and Holstein 2009, 21). For this purpose they suggest a mode, or analytic mentality, which they call *"analytic bracketing"* (ibid., 28). This means a productive back and forth between the *hows* and *whats* so as to capture the constant interplay between the manner in which narrative is configured and the resources mobilized (contested, appropriated) to do so. Methodologically (not ontologically), they hence suggest a practical distinction between an *"interactional"* and a *"situational terrain"*.

For the *interactional terrain* the analysis may be oriented towards the variable *activation* or emergence of stories or episodes; towards *"linkages"* (Gubrium and Holstein 2009, 55) that award meaning to stories in how they interrelate different aspects; and towards the *compositional work* that crafts these aspects into overall themes and plotlines and particularly inasmuch as this might help us not to homogenize these different accounts into *'the' experience* of women undergoing assisted reproductive treatment. The authors also urge us to consider the *performativity* of narrative, what it situationally and contextually *does* (e.g. how it is worked into certain, partial identities).

For the *situational terrain*, understood as a *"landscape of meaning-making preferences"* (Gubrium and Holstein 2009, 33), the interactional *hows* are related to the resources or environments that offer (not presuppose) preferences for the *whats* of the matter. These can be close relationships, local culture (and its 'smaller' articulations), jobs, organizations - as much as infertility clinics, legal frameworks, medical knowledge or 'facts of nature'. The possibilities are generally endless, but are forged into locally accountable stories, making them meaningful, not arbitrary, and oftentimes complexly interlinked.

In other words, this interpretive practice allows us to comprehend the data neither as a representation of 'the real world', nor as a figure of the 'inner world' of an autonomous subject. Its goal is much rather premised on the *doing* done when storying one's life experiences. In that sense, this perspective offers itself to a co-productionist lens (Jasanoff 2004) in that it allows us to conceive of individual narratives not as arbitrary or singular cases without context, but as both reflective and constitutive of that context.

To account, now, for the complexities of multiple temporal forms I worked out what I call *'time maps'* that draw inspiration from the kinds of maps commonly associated with *situational analysis* (Clarke 2005). These maps, one for each biographical interview, were employed to lay out each interview as concrete, but also multiply interrelated, narrative situation.

Going with Ricœur's (1984) approach to narrative configuration and matters of time, we are reminded that time as it is told is not the same as physical/calendric time. As we try to account for the complexities of temporal dis/continuity, therefore, it is not enough to just go with chronological lists and compare the women's biographical accounts based on those. Instead, using two-dimensional space, applying these maps served as a means to sketch the way (human/non-human) elements were assembled in storied time, how that corresponded to external calendric time, yet

also to note how these elements were temporally related and where different 'times' were coming from. In turn, this allowed for an overall perspective on the individual narrative configurations, on their flow as much as on occasional ruptures and contradictions.

Drawing up these maps also allowed relational interpretations between the different biographical accounts as well as the expert interviews, while still always keeping an eye on multifold (temporal) processes and relationships between different (storied) elements. In a way, then, the maps aided a concise and strategic back and forth between closer readings in the interactional and situational terrain of the biographical interviewing data.

7 Research Questions

like red threads on a yellow brick road

In order to get answers we need to have questions first and different questions will elicit different answers. The following research questions, therefore, open up a concretely focused field of vision with regard to *assisted reproduction in Austria*. They guided my research endeavor as much as they emerged from the empirical process itself - and, subsequently, they will come to define scope and reach of the answers provided and those left unanswered by this thesis.

This research draws on five open-ended, in-depth biographical interviews with Austrian women who, at one point in their lives, undertook and conceived with the help of assisted reproductive treatment. Thinking with and through the notion of *biographical work* (Holstein and Gubrium 1995), we may understand the way in which the respondents storied their biography and life experiences as a creative and reflexive process, invariably situated in shifting contexts. This makes their narrative configurations central to the analysis (see section 6.3). This analysis, in turn, seizes on conceptions of active interviewing and narrative analysis (see section 6.5) as put forth by Gubrium and Holstein (2009), thus allowing us to variably consider the *hows* and *whats* of personal narratives. In other words, the following ***framing questions*** orient this thesis towards *both* the concrete ways in which narratives are configured - that is, the (inter)active work done in the interview -, *and at the same time* towards their substantive content (resources, environments, overarching narratives) - that is, the relational embeddedness of the respondents' personal narratives.

- **HOW DO THE WOMEN STORY THEIR EXPERIENCES WITH ASSISTED REPRODUCTIVE TREATMENT?**
- **WHICH NARRATIVE RESOURCES AND ENVIRONMENTS DO THEY MOBILIZE?**

In order to gain analytical traction these framing interests were specified as to a particular focus. The following ***analytical questions*** provide the lens through which the empirical material was parsed - instead of other and different vantage points from which assisted reproduction and its lived realities could be analyzed. Most importantly, it should be noted that all questions posed in relation to this research endeavor are of equal importance to the analysis and not hierarchically ordered. They offer specifically focused lenses, with which to look at the material, and together they serve as a specifically focused means to find answers and open up new leads for contemplating assisted reproduction in Austria.

First of all, the analytical lens was trained on *narratives of time* in the context of assisted reproduction and how the respondents actively mobilized these to construct *identity* and *understanding of self* (see section 6.1). Within shifting temporal foci we can thus observe shifting and variable forms of identity as they are narratively crafted by the respondents, and the narrative resources specific to the focus on temporalities which they employ in doing so:

- ***How do the interviewed women construct their identity through narratives of time in the context of assisted reproduction?***

As a sensitizing concept, therefore, time is adopted as the key guidepost for analysis. From the premises of a *timescapes* perspective (see section 5) further ensues an understanding of time as multiple. Time is not uniform, but actualized in different and often intersecting temporal forms. More concretely, the respondents engaged different *forms of time* (frames, trajectories, deadlines etc.) in constructing identity. These temporal forms, in turn, are not considered arbitrary or prescript, but are narratively mobilized in concrete and contextually relevant ways. In other words, tracing these temporal forms and how they figure into the women's understanding of self also helps us to understand the wider relevance of different temporalities in the context of assisted reproduction in Austria:

- **How do selected temporal forms figure into the women's understanding of self?**

Casting the women interviewed for this thesis as resourceful storytellers also means to understand the *nuances of agency* at play, that is, not to consider them as invariably objectified by the lived realities of assisted reproduction, but as actively assembling their experiential narratives (see section 3). This means not to short-circuit agency and make "*action and agency [...] almost indistinguishable*", but to understand agency as potential to act which is narratively "*claimed for oneself*" or "*attributed to people*" (Cussins 1996, 578). In conjunction with the focus on narratives of time this thesis thus also focuses analytically on that which, and which actors, make certain temporal forms relevant in the context of assisted reproduction in Austria and what exactly these temporal forms occasion as to the women's understanding of self:

- **How do the women attribute and claim agency from and in relation to time narratives?**

Subsequently, pursuing these questions and trying to answer them will be the aim of the second part of this thesis.

8 Tracing Identities through Time

"That's our story", B.W.

In the following section I will present my analysis of the empirical material in pursuing a range of answers to my questions, new leads and potential research futures. I will trace women's construction of identities by focusing a time-sensitive lens on their narrative configurations. More concretely, we set out to find the referential meanings of temporal frames and how certain kinds of trajectories come to matter for women's understanding of self and body. At this point we will see how Austria's local organization of assisted reproduction might impinge on the kinds of personal narratives that can be told. In another chapter we are poised to confront the notion of a transient (female) body and the dates of expiration associated with it. In the same vein, we will tackle the purported objectivity of temporal categorization, women's dynamic appropriation of a dominant discourse of 'artificiality' and 'deviance' as well as the variable pressures of having to manage their eggs. Finally, we will tend to concrete temporal patterns, cyclicality and rhythmicity. In so doing, we consider the role of ignored times and how feelings of temporality might as well lead us to alternatives in care and assistance.

Additionally, five ***vignettes*** will be woven into the analytical thread - one for each interviewee. With this I hope to provide a more in-depth glimpse at the lived realities of assisted reproduction in Austria. At the same time, however, let these also be contemplations on the topic at hand: for I will not give you chronological lists. I might have done so in order to make these vignettes appear more 'scientific' in a sense. However, that is not what I intend them to be and thus my concrete rendering of the stories that I was told will reflect the temporal ordering and configuration of events as they serve my intent to instill a 'feel' for the lived realities of assisted reproduction and for the kind of persons my interviewees made themselves out to be.

8.1 Narrative Frames and Trajectories of Reasons

Depending on the temporal frame one employs, details become visible or obscured and plot points that would be important when positing one temporal frame for a story can be entirely ignored for another. Depending on whether we story in terms of days, weeks, even hours, or in terms of months, years and life-times, the story will be different every time. It will make some things stand out and other things stand back; open us up to variations while closing off others as we evaluate change; and neither is less valid or less 'true' than the other. On the contrary, temporal frames are, as Adam and others (2008, 8) contend, "*not given but chosen*". They are not arbitrary, but telling as to their referential meaning.

The same holds for the trajectories we understand our lives to have taken. They depict the events-in-time that we emplot in a plausible, sensible manner to narratively craft our movement through

time and account, situationally and temporally, for where and who we are, where and who we were as well as where we are headed. Both, the temporal frames and the explanatory trajectories we narratively employ, are not only particularly forged from time, they also allow us at closer inspection to investigate how identity is constructed through them.

8.1.1 Temporal Frames-in-Reference

As I was talking to C.T. over strawberries and a coffee on a hot summer day in 2013 only minutes before her husband was to show up and we were to get talking *'on record'*, she suddenly claimed that her story really would not turn out to be that long. She then looked up at me and elaborated, saying that her son had been conceived in their first IVF-attempt and that was going to be a very short story to tell.

Selfishly, the young researcher out to get her data might have been momentarily disconcerted following that assertion. To be sure, *"narrative adequacy"* (Gubrium and Holstein 2009, 202) is not to be conflated simply to the measures of clock-time passing while a story is told and criteria of a 'good story' might be as rich and affluent as some really good stories themselves. Even so, some really good stories are short. In a young researcher's life, nonetheless, the conflation of quantity (in clock time) and quality is, at least momentarily, the closest possible criterion. Save for a greater touch of nervousness on my part going into the interview, however, C.T.'s story turned out to last almost one and a half hours and to contain the richest details of going through the first attempt, which gave her a son, and a second attempt, which left her devastated when her baby died at 17 weeks. She talked about her own childhood and past, bodily changes, values and life plans, relationship pasts and being in the midst of another, one last attempt right as we were speaking. In the end, her story was neither short, nor short on detail. But what had changed between that *'off the record'* statement in the garden, and the actual interview? The short answer is: *nothing*.

The change, if there even is one, lies in the temporal frame for change itself. During the interview we continually reframed, without causing any disruption to the interview as such. We went from years, to weeks, to days, to hours and back, and by doing so had eventually created a *long story* by all accounts. Very different temporal frames, and forms, can easily co-exist without causing any disruption as they are seamlessly emplotted in the same story. It is, essentially, the same story, but looked at through different temporal lenses as these are made situationally plausible to emplot certain instances or episodes. These lenses were referentially occasioned by her experiential knowledge of assisted reproductive treatment procedures, embodied experiences, clinical routines or held very personal meanings.

IVF-procedures, for instance, entail certain *'protocols'*, short or long ones depending largely on the exact kinds of procedures during ➜ ovarian stimulation: using ➜ the pill to 'down-regulate' the ovaries first or waiting for the next ➜ menstrual bleeding to start stimulation right away. From their orientation towards menstrual cycles these protocols, including the phase of stimulation, derive a

particular weekly frame that is bolstered by weekly or bi-weekly ultrasound appointments (on work-days) at the clinic. Relating to her experiences during treatments, C.T. took to that weekly frame as she identified with the *'long protocol'* she underwent at *her* clinic and how that worked quite well for her as opposed to *"modern"* protocols.

For women having undergone IVF-treatment these are significant details, with which they discern and associate themselves: the kind of protocol used for stimulation and the specifics of that protocol, which often recur to certain standards (medication, injections, ultrasound 'surveillance'), but might also entail extra-ordinary elements. In clinical practice, deviations from standards may occur based on knowledge drawn from previous attempts. The concrete configuration of elements to be choreographed during stimulation is taken as crystallization and anchor-point for women's pasts, that is, *past attempts* at assisted reproduction and thus referentially telling of the particular kind of 'IVF-patient' that she is or was.

But let us also return to the initial statement, when C.T. and I were talking *'off the record'*, and explore the temporal frame, in reference to which she called *short* what she claimed as *her story*: Between *not* being a mother and wanting to be one on the one end of a linear scale, and holding her son in her arms on the other end of the same scale, the temporal distance in calendric measuring units was two years - with the very first attempt proving successful. For her and at that moment of our meeting this made hers *a short story*. *Short* here must not be confused with an absolute measurement. Rather, it was this the temporal distance with which she situated herself in relation to others (artifacts, actors, narratives) in the field of assisted reproduction. *Short*, in that sense, must be taken as *relational* and *multiple*, that is, a measurement taken in particular and multiple *(temporal) frames of reference*.

On the surface, of course, her story was short in relation to the time it took her to formulate that one sentence. So, shortness was measured in seconds relative to hours. This way she related her statement to her commonsensical judgment of what qualifies a story's clock-time length (shortness and long-ness, respectively). At the same time, she made this statement knowing that we were to follow up on it in an interview. In that sense she also mobilized it as a premise, bringing in the putative run and outcome of the interview even before we had sat down to do it. Early on in the interview, then, she elaborated a quick succession of steps on her way to having a son. She employed little embellishments and did not account for long-winding detours as she narratively connected a starting point - testing her putative infertility by way of hysterosalpingography[24] - to an end point - an emergency C-section that gave her a son. That way she brought to bear a fast-paced tale on events that, in calendric measurements, spanned two full years - fulfilling, at that time, her premise of it being a short story.

[24] Radiologic procedure whereby a radio-opaque substance is introduced into the uterus (and the fallopian tubes) in order to explore permeability.

Curiously, common calendric measurements in relation to assisted reproduction define sterility/ infertility, or a strong indication for it, as approximately one year of unprotected sexual intercourse without getting pregnant. With that frame of reference in mind those two years - or, more exactly, one and a half years passing before receiving a positive pregnancy test - would certainly make for a *long* story of pursuing the wish of having a child.

However, C.T.'s depiction of her story as *short* was made in reference to the time investments of other couples and their stories, of which she had gained intimate knowledge throughout her treatment experiences at the clinic and throughout connecting with other couples, mainly women, via message boards. In relating her story to the *public narrative* of assisted reproduction as a *'long and winding road'* that is said to take many years rather than just two, C.T. forged for herself, faced with an infertility diagnosis, an identity of someone with quick and easy success, utilizing in a stringent manner the methods of an IVF-procedure.

So as to fulfill the premise, and her self-understanding, of having a *short story* C.T. set a specific temporal frame which she pursued with stringent directionality and which she cut off, early in the interview, at both ends from the IVF-attempts that followed and the past she vividly connected with her ART-present. What we might take away from this, then, is that her story being a short one, her understanding of the temporal distance she went to have a child, is one major way in which she narratively constructed her identity from time.

C.T. contacted me via text message, saying that she would be happy to talk to me. While we were trying to arrange for a meeting - by then, through emails - she shared some of her story with me already. Christian was her five-year-old son - almost to the day when we eventually met - who had been born following her first IVF-treatment. She also had a second son, Cosimo, who would have been three at the time of our interview had she not lost him at 17 weeks. Cosimo was a big part of their lives, though. He was a son and a brother. He had died of unknown causes shortly after a routine ultrasound check-up, so that he had already been dead for three weeks by the time the next check-up could no longer pick up his heartbeat.

When we met, C.T. was in the early phase of her very last co-financed IVF-cycle. After Cosimo's death she had undergone two further IVFs with cryopreserved eggs that had been left over. Both had gone awry in a way that prompted her to change clinics earlier that year in an attempt to change and finetune every aspect of the last treatment cycle that she could think of - she was even trying to control time:

> *"But if I get pregnant now, I already said that, I want to shorten the intervals. And I think, when I avoid the intervals between ultrasounds, if it really happens that I have another miscarriage, a stillbirth, or whatever, maybe I can forestall it, that maybe it won't take just as long" (CT1_9, 909-12).*

At the same time, she already had *"won a 100 %"* (CT1, 1090), had a child, the reason why she had

sought out assisted reproductive treatment in the first place. Talking about ARTs meant both the lows and highs that she had gone through to have a child, and to be trying for another one. It meant, for her, that *"there is a meaning for everything, and everything has its time"* (CT1, 621), but that she still could not leave that very last attempt - unable to pay for another one from her own pocket - just up to chance. She wanted another child, but she knew she could not force it either. In that sense, her future at the time of our interview was built on a 50:50 chance - *yes or no*, no matter the intricate statistics of success rates that float around in the assisted reproductive discourse.

Vignette 1 - C.T.

8.1.2 Explanatory Trajectories

Temporal frames closely interact with what I call *explanatory trajectories*. In mathematical terms, trajectories denote movement across time, that is, relative change in space as a function of relative change in time. The movement might be gradual or abrupt, but it has a clear *forward*-directionality since spatial relocation demands temporal advance. In turn, any given point on the space-time function is a direct result of all prior points in time. This makes any given trajectory conditional on all previous movements through time which it depicts as having happened in linear sequence to one another.

In an analogous manner, trajectories, as they are activated in narrative space, resonate with the conceptual logic of *cause-and-effect*. Primarily, cause-and-effect is an explanatory logic: It helps us explain certain events by recurring to a necessary cause. Cause-and-effect has an invariable temporal quality in that, for it to work seamlessly, cause needs to happen *before* effect and, strictly speaking, effect should not happen in the absence of cause. Effect always succeeds cause.

In other words, cause is effect's past and any effect can, sequentially, become cause for another effect. Taken together, then, we might construct infinitely more complex trajectories. The complexity of trajectories might be reduced or enhanced by the temporal frame we superimpose: Getting from one point (*not mother*) to the next (*mother*) with a temporal frame set to '*years gone by*' makes for a relatively short story of a limited number of causes and effects and effects-turned-causes in-between. Depicting the same trajectory with a temporal frame set to '*weeks gone by*', however? Infinitely more complex.

What is more, however, this kind of story would probably never be told. As stated above, reframing of temporal perspectives ensues in narratively plausible ways. At some points C.T.'s referential frame was set to weeks during stimulation; to hours of a day as she had routinized specific times in a day for taking her medications; to days as her eggs were fertilized; to fortnights as she was waiting for the results. Different temporal frames, and forms, can easily co-exist and intersect without causing any disruption as they are seamlessly emplotted in the same story.

Felt and others (2014, 9) in their analysis of timescapes in obesity discourse relate to trajectories as particular *"(re)writing of individual life stories"*. Trajectories are narrative constructs that allow an individual to (re)order and (re)assemble elements of life stories, making some past events causally significant in the way they affected less-past events, while ignoring others entirely. This has nothing ever to do with 'truth', and everything to do with the manner in which individuals choose particular and locally accountable constellations of events to relate to themselves, and themselves to others.

In the words of Ricœur (1984, 66) this act of narrative configuration *"consists of 'grasping together' […] the story's incidents. It draws from this manifold of events the unity of one temporal whole."* This whole, in turn, consists of many such trajectories that, taken together, constitute not only the explanatory power of a life lived (or episodes of a life lived), but also enact personal identity.

Central to the way women forge their stories, their selves and identities through explanatory trajectories is their way of explaining what, or rather *who*, is causing a need for assisted reproduction.

8.1.2.1 An instance of displaced responsibility

In the early part of the interview C.T. had also quickly attributed responsibility for needing ART to herself given that her husband had a child from a previous marriage: So, *"it couldn't be him"* (CT1_10, 27-8). Taking her husband's past procreative success to inform her understanding of herself as the reason for their then present (and pressing) unsuccessfulness in getting pregnant, she underwent a hysterosalpingography. She was subsequently presented with the results of impermeable fallopian tubes that, for a moment, pinpointed and embodied responsibility for their lack of procreative success. A moment later, however, her gynecologist offered her a range of *putative pasts* for that present affliction, among which were chlamydia or severe injury to the abdomen.

Presented now with those pasts, C.T. extended the temporal frame of her story to encompass two decades rather than two years. She eliminated chlamydia due to the cycles of control she had established with her gynecologist who would have noticed chlamydial infection in her routine check-ups. In turn, she chose to activate her abusive childhood and the physical abuse she had thus suffered to her lower abdomen, extending the far-left end of her assisted reproductive trajectory that now reached back considerably longer than the date of her hysterosalpingography appointment in 2006.

These causes for impermeable fallopian tubes (*effect-turned-cause*), and needing ART (*effect*), as varied as they might be, cannot be reduced to a normative hierarchy. No rational choice can be brought to bear on why she chose to mobilize the one and not the other. Faced with various pasts, C.T. chose to enact her identity as having an abusive childhood that eventually led her down the path of IVF-treatment, not chlamydia and not anything else.

At this point, we should be reminded of two things: First, particular environments and (meta)narratives impinge on how explanatory trajectories are, and *can be*, crafted. They are not just randomly assorted. I have previously argued in relation to public discourse and legal regulations in Austria that heterosexual reproduction by way of sexual intercourse is the hegemonic narrative in place - a narrative awash in normative and value-laden assumptions about hetero-sex as opposed to assisted reproduction. This makes assisted reproduction *per se* something in need to be explained given its obvious deviance from 'nature' and 'normality': Thus, *'something is wrong'*-typed explanations are set up to re-normalize deviance. While, in itself, this is not necessarily much different for individuals seeking assisted reproductive treatment in other places in the world, this is not an environment that attaches value to *reproductive choice*, but to *reproductive necessity*. Hence, a critical point about ontological narratives in general, and personal trajectories in particular, is the strictly medicalized scope of *'something is wrong'*. More often than not causes are located *within the bodies* of ART - conditioned by the particular local institutionalization of assisted reproduction, which rests on (Western) medical procedures, results, pasts and consequences.

Secondly, and much more importantly, nothing about temporal frames chosen or trajectories chosen is arbitrary and without implications: The frames and trajectories employed *in*, *for* and *through* stories are not random and they are *not prescript.* That is, the temporal frames-in-reference and explanatory trajectories narratively set up so as to temporally situate the events in a story, to make them interpersonally accountable and to enact identity and self are not random and they are *not prescript*. As horrid as an abusive childhood is, C.T. actively mobilized that aspect of her past, and self, to inform her story with assisted reproduction.

Let me phrase this even more bluntly: From a medical point of view C.T.'s abusive childhood is of no real importance. Impermeable fallopian tubes suffice to determine subsequent courses of treatment and they suffice as key feature making up the kind of 'IVF-patient' that she can be within the realms of medicalized infertility. It should also be noted that having been physically abused has not figured into her medical history as it is transcribed to charts or computer logs. In the clinical-laboratory environment C.T. has been a patient with impermeable fallopian tubes, her history reaching back as far as 2006 and the radiologic diagnosis following a hysterosalpingography. In terms of the concrete manner in which assisted reproductive treatment has come to inform her self, no less, it is those years of abuse in her past that become defining features of her assisted reproductive trajectory. They are mobilized to explain where she is at *now* and where she was at *back then*, when she started assisted reproductive treatment. In so doing, C.T. displaced responsibility from within her own body to her upbringing.

8.1.2.2 Reasons and responsibilities

I previously tried to show with the example of *killer cells* that localities and scales are not clear-cut and that things, curiously enough, can exist in different sites and sizes at the very same time. Taking

this seriously, what does it mean, then, to *displace* responsibility? Did C.T. take responsibility from within her body - impermeable fallopian tubes - and put it onto her abusive parent, taking away all responsibility from her embodied self? Things are, once again, not quite so clear-cut.

As alluded to before, trajectories in (bio)medical matters are a powerful and potent thing: The manner in which things are lined up - symptoms and causes, environing factors and bodily expressions - is never without very concrete and traceable consequences. It impacts, without question, individuals in multiple and variant ways. Translated to a temporal vocabulary, individuals are caught at the "*intersection of the medical history (past), diagnosis (present) and prognosis (future)*" (Atkinson, Featherstone, and Gregory 2013, 1233).

We should, at this point, also be reminded of Dumit (1997, 88f) and what he aptly termed "*objective self-fashioning*": the fashioning of selves in reference to knowledge that is made factual and robust in reference to that which is recognized as expert knowledge, and how this may speak authoritatively on the conditions of human nature. PET-scans that map the brain as much as ultrasound pictures that display rolling hills of ➜ follicles are thus made all the more powerful in co-enacting the way in which we relate to and can know our selves. This might also be expressed in temporal terms: In medical treatment certain pasts are trained on explaining presents, which are then connected to futures and diverse strategies to attain or evade them. All this is undergirded by procedures, discourses, actors and artifacts that make knowledge mobilized for crafting such trajectories ring with an authoritative and factual tone.

Listening in to women's stories with assisted reproduction, they sure did not talk about trajectories. In five interviews the word *'trajectory'* (or its German equivalents) was not dropped even once. What they did talk about, however, were *reasons* ("*Gründe*"). Reasons were narratively crafted as motivating agents, as key figures in setting off their personal trajectories through assisted reproduction. They were quick to give reasons as well. Understanding the culturally significant tricks of the trade in making a story "*followable*" (Ricoeur 1984, 67), they established reasons early on as the very foundation upon which their storied experiences with assisted reproduction could follow sensibly.

Two qualities appear of particular importance about the way in which reasons were crafted and integrated into the story and the outline of a plausible trajectory. First, their expression in medical terms, and secondly, their close ties to *responsibilities*: who the "*the factor*" is, whose "*fault*" it is, who "*the problem*" is. Responsibility, in matters of assisted reproduction, is embodied reason: searching for, and linking up sensibly, the cause for assisted reproductive treatment under the skin and thus pinpointing responsibility.

In section 4.2 I explored legal performativity as to its stakes in constituting sterile men: Male sperm is more easily accessible to the *medical gaze* (Foucault 1973) in sterility/infertility practices. More generally, reasons are highly sought-after seeing as they make couples qualify for ART in the first

place and, in many cases, allow them to come under contract with the IVF-Fund. What is more, time appears particularly constricted in matters of determining a reason, as the highlighted segment below exemplifies:

> *"Well, you take, not the easier route, but **where you can get to it more quickly**. She has been trying to get pregnant for 5 years. She has excruciating abdominal pain. And the spermiogram shows limitations. She is scared of an operation. I would say the same thing, it's the man's fault. If I was the couple. Spare myself the operation." (E2_11, 77-81)*

It takes the couples quite some time to gather all the tests that are made relevant and necessary in preparing for potential assisted reproductive treatment. Oftentimes the competent self-gathering of tests and results precedes even the first informational meeting (*"Erstgespräch"*) and oftentimes the couples enter assisted reproductive realms carrying the pasts of previous diagnoses, treatments and failures. In light of this, the medical professional I interviewed posited a quick transition into ART-treatment as imperative. Operating on these timely constraints then, diagnoses, deemed ever so precise and discretely effected by medical means, appear invariably contingent on much more than 'factual' information as they are transformed from present conditions to future courses of action.

Tension arises when that expression of a time-sensitive diagnosis mixes with the cause-effect logics of authoritative medical reasoning and personal trajectories. We could say, dismissively, that given a reality of assisted reproduction as conditioned by determining reasons for treatment, those reasons are merely a formality: a point of transition from a trajectory of failure in reproductive endeavors to a brave 'new' realm of reproductive possibilities - what Thompson (2005) might call ART's inherent "*promissory capital*".

That, however, would be to dismiss the lived realities of medically made-relevant afflictions and conditions. These are much more than formalities, and the matter of making reasons and *responsibilities* in ART is fraught with tension and emotion and very real ramifications for individuals and couples. As a path to assisted reproduction is forged, narratively, by aligning points on a function of time that come to distinguish and intimately signify a life that intersects with the realities of assisted reproductive treatment, the body and the self, reason and responsibility become *defining moments* on individuals' personal trajectories.

8.1.2.3 Affective ramifications: the pressures of responsibility

K.M.'s story spanned over four years of assisted reproductive treatment. Already playing with the thought of wanting children, she suffered a sudden pulmonary embolism in 2009, after which she was no longer allowed to take the pill for contraception purposes.

> *"Because it constricts the blood vessels and these vascular constrictions can cause thrombosis and you're not allowed to do that. And bottom line is, they didn't say 100%, but in the end it must have been the pill. Because they couldn't find anything else, so it had to be the pill. That caused [the embolism]." (KM1_12, 73-6)*

This engendered a gradual shift for her to actively pursue the wish to have a child with her husband. Yet, during the following half-year she experienced no menstrual bleeding whatsoever. This, in turn, led her back to a past diagnosis that had prompted her pill-intake in the first place in a bid to attain a regular menstrual cycle. Establishing a primary reason for needing ART, K.M. reached back into her puberty and thereby re-established herself as suffering from ➔ PCO-Syndrome.

> *"Afterwards I didn't remember anymore that I had gotten the diagnosis with PCO back then." (KM1_13, 52)*

At the same time, she appointed assisted reproduction as *her* responsibility, *"actually, pretty clearly and pretty quickly"* (KM1_14, 53). It was *entirely on her* that she would not be able to get pregnant without assistance (razing one future) and would need to transition to assisted reproductive treatment (launching new futures). What is more, by reaching back into the time of her life that is culturally and medically understood as a key biographical event in relation to female fertility (menarche), K.M. forged her embodied self, from the very beginning, as somehow *'defective'* or *'not normal'*. While the pill had obscured that 'fact' for the longest time, suffering that pulmonary embolism set off a chain of events that led her down the path of assisted reproduction.

Clearly, however, determining reasons and responsibilities is not just a necessary stepping-stone on the way to getting what one really wants: a child. Recognizing a PCO-Syndrome and, more critically, recognizing *herself* as someone who suffers from PCO-Syndrome and all its consequences, had very real and affective implications. On the contrary, such diagnoses leave remarkable traces that come to *define* personal trajectories as much as ontological narratives. Talking about an early spermiogram that yielded *'disastrous'* results for her husband, K.M. comments:

> *"It was uncomfortable for him. His ego was really bruised when the first spermiogram came back really bad. That was like, I was thinking the whole time, I know, it's my fault. He was really hurting too, like, yes, he's also a bit of the problem. That in turn helped me, like, it's not entirely my fault. You too, thank you very much." (KM1_15, 1693-700)*

Reasons and responsibilities are integrated into personal narratives and trajectories and as such become constitutive of personal identity and the way one might relate to one's own body. We can see in the above quote that the way in which K.M. saw herself during her assisted reproductive journey momentarily shifted, the way she saw and defined herself in relation to her husband as he was *momentarily* part of the reason[25]. Hurt feelings, pain, problems, faults - this is not unaffected talk, but rather deeply intimate and impacted.

[25] Thompson (2005, 126ff) discusses male partners in ART-treatment in terms of *"virility"*, which can be seen as central public narrative that critically impinges on the way men might story assisted reproductive experiences. Similarly, Franklin (2013, 37f) notes in relation to ➔ ICSI-procedures and visual expressions thereof in the laboratory setting, and not without her eyes a-twinkle, *"No longer a heroic gamete-Olympian, the sperm must be brought under 'complete control'. The only active agent in this union is the handler."*

K.M. was the only one of my interviewees who was pregnant at the time of the interview. She has since given birth to a healthy baby girl. When we met, however, not only were the long-winding quandaries of her many encounters with ARTs fresh on her mind, but they also resonated with the anxieties and hopeful expectations of a mother-to-be.

Before that, she had gone through a series of treatments at the general hospital in Vienna, during which she had suffered her first miscarriage. Later on, following her first IVF at a private infertility clinic, she had had yet another one. Both miscarriages had happened around the same time into her pregnancies and both had not been 'visible' or at all 'detectable' for her. There had been no bleeding, no cramps. Simply and suddenly there had been no heartbeat on the ultrasound. *Feeling* her pregnancy, therefore, was intimately important to her - that her body was giving her signs, making her feel like she was, indeed, pregnant and going to be a mother.

K.M.'s long history with treatments that primarily targeted her PCO-Syndrome drove and defined her story. Unlike the other interviewees she did not start out with IVF or ➔ ICSI. That step occurred only, and gradually, after three years of being constantly in-treatment, that is, primarily receiving medications to induce ➔ ovulation and/or undergoing inseminations. That change, then, she experienced as intimately affecting:

> *"You don't ask why things didn't work out this time. You have those 25%, or whatever it is, that it will work or won't work. You don't think about it so much if it doesn't work sometime. That's more when you have an IVF or an ICSI. So, if you only have inseminations or only medications and normal sexual intercourse, I didn't think about it at all, because it's normal actually. That you only need medications to get a follicle or an egg. So what? Afterwards, the process itself is natural [...] To take that step to IVF, that was really hard. So, if you can do it with insemination and medications, that's different than saying, okay, you do need IVF. That really bummed me out." (KM1_16, 501-10; 539-41)*

After two failed attempts at IVF she was taken to the hospital showing symptoms of tubal pregnancy in early 2013. As it turned out, however, she was suffering from ovarian torsion (rotation of the ovary). It was then, before her surgery, that her daughter's heartbeat was picked up for the first time and she was, once again, declared pregnant. Following her release from the hospital, then, it took her another 19 weeks until she could *feel* her daughter move and really *feel* pregnant, feeling the success of her assisted reproductive treatment. The cryopreserved eggs that are now in storage at the infertility clinic, no less, are still harboring the promise of another attempt and another child.

Vignette 2 - K.M.

8.1.2.4 Multiplicities, diffusion and definatory power

Explanations, reasons and responsibilities: They leave their marks. They are no mere formalities. They impact, intimately and in concrete ways, how these women undergoing assisted reproductive treatment can relate to themselves and who they make themselves out to be. By the same token, we have seen that explanations, reasons and responsibilities need not be singular - and most often they are not. Most often we are faced with multiplicities and diffusion.

I have previously rejected ideas about the unity of the self and linear biographical narratives. Instead, herein we consider multiple forms of identity that might be engaged in variable, but relevant ways: In the context of assisted reproduction and her personal experiences with it C.T., in terms of explaining her need for it in the first place, casts herself, at least and most openly, as someone with an abusive childhood and someone with impermeable fallopian tubes. The latter is particularly relevant for who she can be in infertility clinics and examination rooms and when exchanging stories with other women undergoing IVF-treatment, whereas the former is more about how she chose to fuse together her past(s) and present(s).

Biographical narratives, in turn, do not run down a directed trajectory, but it appears more fruitful to think them in terms of *various lines* of explanations and relations to self that do not just stop at one event, such as a given diagnosis, to be immediately replaced by something else. At any point many lines run parallel to each other, intersect, some break and are replaced by others, some start anew. And none is without meaning.

As C.T. chose to activate her abusive childhood, this did not do away with the locatable condition of her impermeable fallopian tubes and how that affected the manner in which she crafted her own identity. K.M.'s feelings of responsibility, the faulty workings of her own body, did not just stop at that moment when her husband's spermiogram came back with *'disastrous'* results. It implicated, lastingly, how she related to herself and when further spermiograms yielded much better results, that time she felt - *'thank you very much'* - less of a burden of responsibility might have left her feeling even more glaringly responsible for that four-year journey with ART.

Reasons and responsibilities obviously need not be stable and singular. While early tests left A.S. feeling that *"with me, everything is in order"* (AS2, 120) and her husband carried the sterility diagnosis, she later went on to associate herself with having *'too many killer cells'* and *'immunological problems'*. Again, this 'new' turn of events did not replace her husband's sterility, the ICSI-procedures this affected and the guilt he carried for *"he only stood by [...] and thought, that's my fault"* (AS2_17, 688-9). Instead, her immunological diagnosis came with its own set of explanatory pasts and triggered co-opted treatment futures. The point here is that multiple factors and reasons are woven together to account for failures and misfires and eventual successes.

With multiple reasons, of course, multiple lines of trajectories come in and each, in its relative significance for the overall story, is made specifically plausible. While reasons are essential, this diffusion does not lead to narrative breakdown as multiple reasons are assimilated into coherent trajectories that plausibly intersect and exude explanatory potential. At the same time, all these trajectories have an impact and have meaning - not least on the lives and identity narratives of the people implicated in them.

Explanatory trajectories, the specific constellations of reasons and responsibilities mobilized through them, can be simultaneously multiple and more diffuse than the precision talk in ART might

lead us to purport. Yet, inasmuch as concrete medical diagnoses and results occasion concrete courses of action, responsibilities and reasons are a powerful repertoire for women to relate to and fashion themselves as they construct their personal trajectories leading up to and leading them through assisted reproduction. To that end, the kind of explanatory trajectories that are mobilized reveal, at closer inspection, much about the definatory powers at play.

Most often, explanations and reasons as well as the responsibilities drawn from them will be undergirded by medical authority and, given also Austria's legal premises, located within women's and/or men's bodies. The story of K.M., who so stringently identified as solely responsible for needing assisted reproductive treatment, is also the story of someone deeply affected by that responsibility. Other explanatory trajectories bolstering odd reasons for failures such as her husband's one disastrous spermiogram or building undetected immunities against certain medications - these were merely secondary (and tertiary, quaternary,...) plots intersecting with her faulty body workings and not-the-norm-ness that emerged as *the* central theme.

8.1.3 An Overarching Frame

Let us think back, lastly, to C.T. and how she appropriated to herself a *short story* to tell of assisted reproduction. There is one critical referential frame, which I omitted before, that begs closer attention still: the fact that she already has a child, that her reproductive endeavors were successful; at least this once.

I only interviewed women who had successfully conceived via ART, rendering the long-term goal of becoming a mother, in their specific cases, fulfilled. This serves as an important lens through which they told their assisted reproductive stories and through which they can relate to themselves and their bodies. They have bodies that, despite all detours, faults and responsibilities, have sustained a pregnancy and have given birth to (healthy) children. They are themselves mothers who have integrated their experiences with ART into a coherent narrative of self that distinguishes them in concrete ways.

This *overarching frame* allowed them to delimitate a starting point - incidentally, all women took this to be related to their marriage in some way or another - and a particular, situationally relevant end point: giving birth, having children. This frame served to connect these flank points and follow a trajectory, or multiple intersections of trajectories, that explained their movement through time between the one and the other with a distinct sense of temporal directionality. Seeing as the story's overarching direction was set, plot points, moments and episodes were endowed with referential significance insofar as they were narratively grasped together to serve an arrival at the end point.

Effectively, this kind of narrative and temporal directionality filters immanent uncertainty from figuring into the women's immediate understanding of self. Let us consider what F.T. had to say about doing things over or timing some things differently:

> *"I don't have that pressure anymore. To ask now, 'What if?', that is so hypothetical. Now I can be relaxed talking about it." (FT2_18, 732-4)*

The way they crafted their narratives, and thus also the way they let that inform their understanding of self, moments or episodes of what might fall under the premises of 'uncertainty' - and the deep emotions of despair and frustration, optimism and eager expectancy that come along with it - were made to fit an overall story where things worked out in the end. That is not to say that I was not told stories of deep uncertainty and deep emotions, fears and hopes. However, as they are recounted they are constitutive of identity only insofar as they attend upon the alignment of events towards the ultimate, *successful* outcome.

In turn, having had one's wish fulfilled also prompts a personal narrative in direct relation to *not-mothers* or individuals/couples lacking the long-term success of having a genetic child of their own. It allows comparison and reference that informs their understanding of self.

> *"It was long-winded […] But I'm glad. It could be much longer even." (KM1_19, 1677)*

> *"In comparison […] we were successful very quickly." (FT2_20, 924)*

In Cussins's (1996, 599) notion of *"synecdochal breakdown"* we might recognize a similar point: In her analysis the *"long-range self"* arises as the central point of reference for the choreography of object- and subject-states for women undergoing assisted reproductive treatment. Insofar as an orientation towards the goal of getting a child can be sustained, the self in assisted reproduction attributes to and claims for itself agency and personhood. Moments of objectification and agency are co-constitutive, not diametrically opposed, if treatment is still on-going, the goal of getting a child is still in reach or has even already been attained. It is only when the goal of getting a child has moved beyond reach, with (momentarily) no chance of ever being fulfilled, that agency and objectification become oppositional. Assisted reproduction, rather than a means to an end and a source of having one's wish fulfilled, then is experienced as a source of dehumanization and alienation. The breakdown of the synecdoche identified by Cussins refers to the coming apart of the ties that bind situationally objectified (dehumanized, alienated) body parts of the woman-in-treatment to the person who, in the long range, may achieve her goal in this way.

In more palpable terms, having their wish fulfilled puts a specific and concretely executed spin on the stories that these women tell. Moments of dehumanization and alienation, but also moments of despair and frustration - of course, the narratives are not devoid of them. In all, however, these moments retain their ties to the overall story, the overarching frame, which is that assisted reproductive treatment was overall successful as to the wish and the goal with which they entered into it. The overall story knows its ending and it is with an orientation towards that ending that the plot points, moments and episodes are drawn together to craft a coherent narrative. It is this a narrative of women who underwent assisted reproductive treatment to become mothers. And it is

this the identity, or a particular form of identity, and understanding of self - *being a mother* - that conditions the way in which past, present and future are looked at and narratively configured:

> *"I wouldn't do that to myself a second time. If I didn't have children already, I'm sure I'd do it again, but with two healthy children. The wish to have three kids is not that great." (FT2_21, 471-2)*

8.2 Transience and Expiration of Time

Our bodies demarcate the discrete starting and end points in life: birth and death. Overall, then, the body follows a *trajectory proper* on its way of inexorable transience and decay - which we might curb with variant means, but at the very end awaits death, the *end of time*[26]. *"Body time"*, in that sense, *"is life"* (Adam 2004, 101), and a development that is inexorably coinstantaneous. Stories, narratives, identities and selves: They are invariably embodied, and always retain a bodily existence that carries the marks and memories of the past, grounds us in the situated temporality of the present and engenders, as well as delimits, the undertakings of our various futures.

8.2.1 Conflating Women's Age

8.2.1.1 A note on calendric time and beyond

Starting off on a general note, age - as the embodied time gone by - appears like a straightforward matter. Everyone has a birthday, and a birth-year, in relation to which age is added up - usually in years, early on in days, weeks and months (which is hardly an arbitrary framing in itself, see Simonds 2002). Evidently, the matter can easily get more complicated. This continues when we discuss the premises of birthdays, or birth*dates*, relational years-of-age and calendric time as such (see for a rich discussion Ricoeur 1988, 105ff). We know that not all cultures, or more critically, not all *presents*, have the same *"axial moment"*, in reference to which a birthdate can be sensibly placed: Ours is the birth of Christ. The measuring units used to count to and from dates on this calendric scale, in turn, are obviously historically and culturally contingent as well. However, calendric time is effectively a means to abate contingency, to organize and to steady the flow of everyday life by *"something bigger than the society that is employing [it]"* (Adam 2004, 107).

Despite how big it is, however, it usually remains quite invisible. Calendric time, as much as its smaller-rationed cousin *clock time*, are also known as *physical time*, *chronological time* or *external time*. No matter the terminology employed, they share in being what Adam (1995) refers to as *"non-temporal"* times, that is, times that are invisible in the daily dealings of social life even though, or precisely because, they make up much of its foundational infrastructure.

[26] This is, admittedly, a rather Western biomedicalized and ethnocentric statement - effected, without a doubt, by the very belief system of transience and decay that is part and parcel of how assisted reproduction in Austria is framed and practiced. The end of the body is not always and everywhere the end of time, nor the end of life. And bodily progression is not always and everywhere connoted in just the same way as it is here, now and in this concrete environment. - I thank my supervisor for pointing this out.

> *"The transformation of lived time into a resource that we can use, allocate, control and exchange on the labour market has to be understood with respect to a very specific development:* the creation of a non-temporal time *and the orientation of social life to this very specific kind of time. The capacity to control people's time and the association with money, in other words, is only possible once time has become decontextualized and disembodied from events, once it has been established as a universally applicable, abstract, empty and neutral phenomenon that accords all hours the same value" (Adam 1995, 90, emphasis in original).*

Temporal measurement, numbering and counting, is answer to and condition of organization, coordination and standardization. The specifics of these measurements are fairly historically recent and were co-produced at the interface of technological developments, demands of the market economy and socio-political changes running up to and at the heart of modernity and industrialization.

Measured time is time that knows and can be constantly known. The fact that it is measurable, know-able, standardizeable and generalizable constitutes time as an externality towards which we may refer in order to 'objectively' situate ourselves in time: what hour of the day it is or of which age we are. That purported objectivity, however, is never neutral, it is never empty. It is made, deeply entrenched, contingent and always political. Erecting these externalized and universal time standards, not least in biomedical matters, serves as the very grounds for diagnoses, collectives/ categories, governing and disciplining bodies and people, constituting norms and deviances. When rendered visible, and questioned, time and its variable temporal forms might thus also be investigated as to the consequences of being everything but neutral and empty measures.

Situating, for instance, a woman and her age on a calendric scale does not appear to be much of an effort, and bound to little more consequence than the ability to count to and fro. The crux of the issue, however, lies with the socially negotiated, contextually relevant and larger relational meanings of calendric time, which are of import for the present analysis: When age gives women more or less rights to assisted reproduction and when their age - *biologized and conflated* - becomes a major temporal dimension through which they may relate to their bodies and construct embodied selves.

8.2.1.2 Making age matter

In discussing the IVF-Fund[27] I highlighted its setting of an age limit for men (50 years) and women (40 years), until which treatment subsidies of 70 % of the overall costs are granted, with deductibles also differing for women up to the age of 35 and those between 35 and 40. How do those age-limits come to matter, then: as institutionalized limitations and as points of reference for women in assisted reproductive treatment?

[27] Most of the below discussion relates in particular to IVF-procedures in which oocytes are handled outside of the women's body for a certain period of time. That said, oocyte-orientation in enacting women's age can be considered to matter also more generally.

Further up, I alluded to normative conceptions about *'the'* heterosexual couple (and family), imaginations of 'normality' and 'naturalness', and arguments on risks and success. While risk and success (rates) may be invoked in this shorthand manner, their coming-to-be is hardly just as short. Behind these punctualizations the contingencies of demographic and biomedical statistics converge as collective numbers, gathered via data-keeping in clinical practices and/or extrapolated from trials, and are folded into percentages that come to matter materially and locally.

How exactly do risk and success come to matter for age, though? In short, risk is assumed as an upward sloping curve, so that the greater women's age the bigger pertaining risks will be as regards treatment and a potentially following pregnancy. This is, of course, closely related to success rates, but success has turned out to be a much more *meaningful value* in the field of assisted reproduction (see also Thompson 2005). Success is tied to women's age in a downward sloping curve, even though the notion of success is in itself a contested one. More often than not, for experts and clinics (evident from my interviews, national data reports, depiction on clinics' websites, brochures etc.) success primarily concerns ➔ implantation rates, while so-called *'baby-take-home rates'* (still) take a backseat.

These are some of the mechanisms that bring about a certain temporal frame for *years-of-age* that, as a punctualization that rids itself of the assembly work tangent to its production, is worked into and acted upon in concrete ways as a frame *sui generis*. Turning to a quote by one of the experts I interviewed allows us to expand more concretely on the manner in which this frame works. E1 responded, asked about outcomes of assisted reproductive treatment:

> *"Age-related. So, good clinics today have success rates of 50 %, that is, with young women, and a cumulative success rate of more than 80 %. Young means until 35. From 40 onwards it drops drastically. Then success rates are only at about 15 % per cycle instead of 50 and in-between, between 35 and 40, it really depends on* ***where the woman is biologically****. She can be in really good shape and be more on the young side or she has some kind of impairment. Maybe she's lost an ovary or she's smoked a lot, then she's more like a 40-year-old." (E1_22, 40-5)*

This excerpt draws a powerful picture of decay and decline for women going into assisted reproductive treatment at an ever-increasing age. But we also see that age, as it is concretely embedded into a specific environment of social life, does not remain external and exact, decontextualized and disembodied. While age in calendric measures is not completely displaced, it is '*inscribed'* with a contextually relevant measure (cf. notion in Ricoeur 1988, 109). More exactly, this measurement is made in terms of 'normal' biological functions.

Normality here is constructed in reference to the biological development of the female body as it corresponds to reproductive capabilities at a certain calendric age-unit. Both scales, biological and calendric, exert authority in one way or another for assisted reproductive treatment. The calendric or chronological age-scale, bolstered by its purported objectivity, serves to sort women into age groups. In this way they are also allotted collectivized chances of success or, even more critically, rights to receive, for instance, financial backing for their endeavors. The biological age-scale, in turn,

is not so much reinforced by the state of law than by medical authorities, the doctors on site who ascertain practically (looking at medical histories, doing tests and examinations) *"where the woman is biologically"*. Biology, other than calendric time, is apparently also susceptible to shifts. The quote exemplifies that women in assisted reproductive treatment can be older than their chronological age, which goes hand in hand with being dealt much smaller success rates. Calendric age thrives upon and derives authority from its standardized measuring, which is part and parcel of its claims to 'objectivity'. Biological age, on the other hand, appears less predictable and, what is more, less knowable in this context by people other than medical professionals.

> *"It's kind of peculiar. It changes so suddenly. First you are young alright and suddenly you're old." (BW2_23, 484-5)*

In this complex interplay of age-scales, then, the biological one emerges as higher up on the hierarchy in terms of authoritatively certifying women's age and making it matter in the context of assisted reproductive treatment - making it also a source for women to relate to and know themselves and their bodies. In this sense, women's age in assisted reproduction is *biologized*.

Nevertheless, this is still taking the whole body as a backdrop to this biological model of relative age. In assisted reproductive treatment women's age is not only made relevant in terms of the function or mis-function of biological processes, it is also *conflated* to the woman's oocytes (eggs/ova), that is, the quantitative capacities and the quality of her oocyte production.

> *"Well, age is a big influence. First of all, on the number of oocytes. There are big differences in individual cases as well. And secondly, quality of the oocytes. You cannot really evaluate that from outside. We know anyway, at around 35 the number of healthy oocytes declines considerably. Then there are those who are 45 and they still have 10 oocytes, when you do the ➜retrieval, but often with really lousy quality." (E2_24, 269-74)*

On a larger historical scale, Friese and others (2006, 1552) detect a *"rupture"*, or a temporal break, with regard to evaluating women's (continued) fertility between past orientations towards menstrual regularity and this re-conceptualization of oocytes commanding female reproductive age and capacity. We will see below that experts and clinical practices attach little importance to women's menstrual cycle, whereas success, and publically accountable outcome and success rates, are wholly pegged into oocyte quantities and qualities.

Taken back to the individual cases, then, oocytes emerge as particularly fraught with tensions and uncertainties, which are constantly at play in assisted reproductive treatment as it is. The very futures of assisted reproductive success, the futures of bearing a child and becoming a mother, along with the lived pasts of women as far as they are seen to have affected oocyte presentation (e.g. having *'lost an ovary'* or *'smoked a lot'*) converge and are locally folded into present oocyte results in number and quality. In an ontological sense, therefore, women's understanding of body and self all throughout the treatment is governed by *"reductions of one kind of thing to the other"* (Thompson 2005, 9).

B.W. had wanted children all her life and, having just gotten married, she found herself actively expecting that future, the future where she was pregnant next spring. Spring of 2009 came and went and yet, she was not pregnant. Months and months of monitoring her own cycle followed, of dreading every time she had to go to the bathroom and know for certain that another month had gone by without the desired result. Once she finally did get pregnant, but lost the baby. During that time she could not help but feel forsaken by 'traditional' medicine.

> *"That's when I started doing my own research. And I found that my husband's parameters, the parameters on the spermiogram so to say. On the results there are the WHO-guidelines and you could see that he was within the margins there and they only look for a tick somewhere on the results that says he doesn't have the recommended values. I found that he was within the margins there, but that the IVF-Fund had different terms [than the WHO], and for those we qualify alright." (BW2_25, 48-54)*

It was not until after the first informational interview at the infertility clinic that she felt as though, *"yes, there is someone who can help"* (BW2, 59). Presenting not clearly with PCO-Syndrome it was *"both at the same time"* (BW2, 72), also her husband's borderline spermiogram, that prompted three ICSI-treatments which eventually gave her two daughters: Bea (3 ½) and Bella (1 ½ at the time of the interview).

While she had experienced her fist ICSI-attempt - the first-ever and first successful one, at that - in a positive and relatively uneventful way, that experience deteriorated going through subsequent treatment cycles. During the second one, more than anything, *"everything came to a head"* (BW2, 494): She had been unable to start treatment as planned, her job was taking more out of her, and the egg transfer had been scheduled on the day of her daughter's birthday party. In the end, she chalked that second attempt up to simple bad timing. A different protocol, more medications and more injections made the third attempt, too, much more laborious than the first, and much harder on her. However, that treatment cycle got her a second daughter - and, as far as she could tell, the end to their family planning for the foreseeable future.

Vignette 3 - B.W.

8.2.2 Managing Reproductive Time, Managing Eggs

8.2.2.1 Prospecting Retrospects in Ovarian Response

The number of eggs retrieved and their quality[28], what Thompson (2005, 90f) so fittingly termed *"ovarian response"*, marks a significant *point-in-time* during treatment. Numbers and quality, as produced by the woman-in-treatment, and their subsequent implantation rate (if at all) are conceived of as concrete and locatable responses to the steps taken in the previous treatment cycle. In that sense, ovarian response is a key moment on the treatment trajectory cast over a temporal

[28] In Austria this is commonly measured by a discrete 'score' in terms of contextual aesthetics with regard to size and regularity of the cell structures among other criteria. That is why women or medical professionals will call oocytes *'beautiful'*, essentially referring to a good score. There are different procedures in use, however, to evaluate chances of successful implantation - many of which are also oriented towards genetics and thus largely prohibited in Austria.

frame of a few weeks' time. Ovarian response is an effect to be reckoned with, and a cause that impinges on future courses of action like no other. Deemed either good or bad, acceptable or not, it will, by way of prospecting retrospective fault-lines or achievements, come to define women's future in assisted reproductive treatment.

Just how crucial ovarian response can be might be exemplified by the following quote. B.W. is looking back on approximately four years of assisted reproductive treatment and in the following excerpt she recounts the interrelations between her three ICSI-attempts, of which the first and the third were successful:

> *"And around the first attempt I said to [my doctor], I remember, I said, I'm a little concerned that Bea, the eggs, that they weren't that good, and that we were somehow just lucky. And he said, no, no, that's okay and we will do that again. And at the follow-up consultation [after the failed 2nd attempt] he told me, well, we will go with a different treatment plan [for the 3rd attempt], because Bea was obviously more of a lucky strike than anything else, okay?" (BW2_26, 396-401)*

Ovarian responses, *ceteris paribus*, might be seen to persuasively override women's intimate perceptions of treatments and pregnancies, and thus come into conflict with their understanding of themselves and their bodies. Also notable is the mechanistic perception of female bodies, B.W.'s in particular, with which her doctor responded to her ovarian response. Without accounting for contingencies of whatever kind ovarian response, and the exact manner in which it figures into the treatment, emerges as the element *sine qua non*.

Women relate to their oocyte results as stand-ins for their bodies and overall constitution in a *synecdochal manner* (Cussins 1996). As such, their results emerge as *defining moments* along treatment trajectories from which identities are actively forged and understood. As oocyte results are considered key intersections of pasts and potential futures, they become primary sites of investigation and tinkering between treatment attempts. While changes in the specific choreography of injections and medications are dominant and the typical reactions of medical professionals, broader lived realities will similarly figure into women's making-sense-of: Work days that were too busy, apartments that were the *'wrong nest'*, preoccupation with other things. In a way, for a moment women inscribe their selves and bodies into oocyte results and implantation outcomes, and work *themselves* back from there.

A.S. tried for two years to have children with ARTs until she finally got pregnant and could give birth to twin girls following her fourth and last co-financed IVF-attempt. Her first two attempts had played out similarly in that she had produced a fair number of oocytes - both times to the point of (almost) suffering ➔ hyperstimulation syndrome -, which were likewise attested very good 'scores' and fertilized accordingly. After two embryos in each attempt were ➔ transferred back into her uterus, however, neither implanted.

> *"I was thinking, 'What?' Why don't they stay with me?" (AS2_27, 900)*

Given that her ovarian response *prima facie* was satisfactory according to all medical standards, A.S. started her own research and, together with different medical knowledge in different locations, emerged as having an immune system deemed too active and as having *'too many killer cells'*. Appropriating this essential moment, she changed her understanding of self and her body in a particular manner. In turn, this change intersected with her 'primary' reason for needing ARTs:

> *"The problem really was my husband. And the reason why it didn't work the first few times, well, that was probably on my immune system." (AS2_28, 234-6)*

Ovarian responses (exact numbers and quality of oocytes) are appointed concrete significance by treatment practices, emerging as yardsticks for past and impinging critically on future courses of action. In detailing the results of their ovarian responses at different times throughout their assisted reproductive treatment, women temporally orient themselves within their narratives. Ovarian responses, therefore, become *defining moments* in terms of how these women may understand themselves and their bodies, and how this understanding might change, reconfiguring pasts and futures, in reaction to their ovarian presentation.

A.S.'s earliest depiction of herself was that she had *'a lot of experience'* with the topic of assisted reproduction, having undergone four IVF-cycles. Being successful only on her very last attempt also meant that she had maxed out the IVF-Fund's co-financing - for even a fetal heartbeat had been unattainable for her in the first three attempts. Before their last IVF, therefore, A.S. and her husband had applied for adoption and had almost given up on their wish of having a genetic child of their own - up to the point of actually being placed on the adoption list for Vienna -, so that A.S. knew for certain that *"somehow, I would get a child"* (AS2, 195).

Not unlike the part she had played in establishing her immunological problems, it was important for A.S. to take control of her own treatments, to participate to some extent in the concrete choreography of her treatment cycles. The fact that she had had a 'double transfer' done in 2010 is testament to that, and to the interplay between a women wanting to have a child and the medical professional on site:

> *"Well, with my last attempt it was like this: For my first three attempts I always had a transfer on the 5th day. That's what they're going for. And I thought, somehow, I was thinking, what can I do better. And so I somehow did a lot of research on the Internet and many women there wrote that a transfer on day 3 isn't bad either, because the embryos get back into the womb earlier. And where is it better than in the womb? And so that's what I told [my doctor]. He must've thought, my God, another idea. And then he said, yes, we can do that, but he wants to take along a blastocyst of day 5 no matter what [...] And he said we put in two on day 3 and one on day 5." (AS2_29, 359-376)*

In the end, two of those ➜ blastocysts did finally implant. More than that, the third apparently did so as well, but did not develop further. Suddenly and only a little ways into her fist 'intact' pregnancy, then, A.S. experienced heavy bleeding that led to a stay in the hospital and fueled her fear of suffering a miscarriage. However, it was that third blastocyst that had just been shed and

the developing embryos remained luckily unaffected. In 2011 she gave birth to healthy twin girls, born by way of IVF - a procedure which, years before and in response to a documentary on BBC, she could have never imagined ever needing or undergoing.

Vignette 4 - A.S.

8.2.2.2 Mobilizing extracorporeality

Ova/oocytes are never entirely separate from the women in that a set of socio-material routines retain their connection to the woman *in her place* and for a span of only days while they are handled extracorporeally until they are transferred back into the same woman's body. As such, they may be differentiated as a different kind of bio-object from sperm in assisted reproduction given that with sperm, as discussed earlier, only a loose connection to the man producing it is sustained - a connection which is taken up fully in the ovum at the moment of fertilization.

In matters of fertilization and nidation, temporal frames are set to hours or, at the uttermost, to days. Generally, ➜ embryo transfer in IVF-treatment will take place no later than five days after fertilization, at which time the embryo is recognized as a blastocyst - in a sense, then, extracorporeal embryos derive their distinct ontology *from time*: embryos of day 5, 3rd-day embryos and so on. What is more, expert predictions on their 'behavior' in the uterus towards the goal of implantation occasion action, or non-action, in the present. Their present ontologies, then, are *displaced* (see notion of *"time displacement"* in Van der Ploeg 2001, 61) by their future as a growing fetus in a pregnant woman's body.

If an embryo implants and a set of practices gradually transition a woman from *in-treatment* to *pregnant*, gestational time becomes a significant relational frame. It allows comparison to 'normalized' models of development and, with fixing the due date, sets up a future to be anticipated that impinges on the time of the pregnancy in variously concrete ways. Critically, gestational time is calculated from the day of fertilization and, as Beynon-Jones states,

> *"[because] the date of conception is never known precisely [...], the 'age' of a fetus is only knowable through the conventional practices used to measure and thus* attribute *gestational time to fetuses. Through these practices, the age of these entities can only ever be known as an approximation [...]" (Beynon-Jones 2012, 60, emphasis in original).*

However, for women who conceived by way of IVF, the *'date of conception'* is always precisely known. Given the meaning ascribed to the time window between ➜ egg retrieval and transfer, indeed, this date is of concrete importance.

> *"You go about it more consciously [with IVF]. The chances are really slim that you know it from the very first day when you get pregnant naturally." (CT1_30, 1132-4)*

> *"Others don't even know when their child was conceived, or how [...] You know exactly when your child was conceived, yes?" (BW2_31, 433; 857-8)*

The above quotes exemplify that exact time know-how as a significant part of an IVF-trajectory is mobilized as a characteristic that differentiates women who conceived via ARTs from 'others'. This kind of 'othering' is, in turn, a potent way of crafting one's own identity and integrating assisted reproductive treatment coherently and consistently into one's life story and narrative of self.

More than that, this might also be understood as an example of how public and, as we have seen above, particularly legal discourse is dynamically appropriated - not statically, and not in a one-off suppressive manner. While it is assisted reproduction that is seen to be 'othered', branding it as the *kind* of reproduction that is 'artificial' and 'deviant', the surplus of temporal know-how and its exactness gained by undergoing assisted reproductive treatment is one way to turn this logic on itself.

8.2.2.3 Biological Clock qua Egg Timer

The biologization and conflation of women's age in assisted reproduction to the number and, even more importantly, to the quality of the oocytes has yet other concrete dimensions.

> *"Everything hinges on the age of the woman. So, starting with 30 fertility drops noticeably and with 35 onwards it's extreme. And it's about the quality of the oocytes, right? That drops. Not with us. Now, I was 34 and I always had really beautiful oocytes." (AS2_32, 230-4)*

This quote by A.S. shows concretely how she activates the public narrative that punctualizes 35 years as a transitional boundary in how women can relate to themselves and their bodies' age in assisted reproductive treatment. She employs it as a referential frame for situating herself, her own age and success rates, seeing as she was clearly close to the 'magic boundary' and was still capable of producing beautiful, and numerous, oocytes "*every time*".

The nexus of reproductive capacity and oocyte presentation, moreover, ties into another topos commonly invoked in any context of reproduction: that of the *'biological clock'*. It is, admittedly, an unfortunate expression and one that should be unpacked very specifically. At closer inspection, indeed, this clock is a *countdown-deadline* and it would depict more clearly what is at stake here if we called it an *egg timer*.

> *"Sure, I'm getting older. It's obvious that I, when I deal with it, then I know that a certain amount of eggs are provided at birth more or less, that's how I'd say it. And when they're done, then it's done. Done." (CT1_33, 1213-4).*

In the above quote C.T. encapsulates the principles of what has been described by 'fertility experts' as "*ovarian reserve*" (Scott and Hofmann 1995): The *biological clock-turned-egg timer* is not concerned with the body as a functioning biological whole or parts properly working in cooperation, nor with women's age as a proxy for their ability to healthily sustain a pregnancy. It is about the eggs - and how their number and their quality decline as women's age progresses, invariably.

Before we turn to the concrete ramifications of this framing, let us remind ourselves of the regulative and institutional grounds that frame assisted reproduction in Austria: It is this a

framework where having enough and qualified oocytes is not a question of *either-or* (either women's own oocytes or those of a donor), but given the ban on oocyte donations and surrogacy it is a question of *if at all*. Managing one's egg reserve becomes an existential, *all-or-nothing* future matter.

That is the crux of the issue, entirely. Women are tasked with managing their procreative capabilities: They live with the sure anticipation of their biological clock/egg timer running out, that is, with a biological/egg *countdown* and a biological/egg *deadline* that is drawing ever closer. This feeds the risk of reaching or exceeding that deadline back into their individual life course management. Adams and others (2009, 254) describe this valence of anticipated futures as *"injunction"*, which is bound up in moral terms: It encompasses the need, the moral obligation, to act upon the anticipative knowledge gained by knowing there is a deadline up ahead.

It is this assembled conception of reproductive time that underpins the notion of assisted reproduction as recoiling on women who are just, *"too late, waiting too long with fulfilling their wish to have children"* (E1_34, 51). By the same token, enacting age limits by law does nothing to ease the pressure that makes up so many women's perception and construction of themselves as they go about assisted reproductive treatment.

The conflict of getting on, given an anticipated deadline, and still having time as there are cases of much older women undergoing the same treatment, is exemplified by F.T.'s quote below. It captures succinctly the structural pressures of the 'biological clock' topos that goes beyond the realms of assisted reproduction and is ticking just as loudly in other socio-scientific contexts:

> *"I was more impatient. My husband is older than me, but he does not have a biological clock. Even though, in comparison, I was not too old either. A colleague of mine had her first child at 41 and I was ten years younger when I had my kids after all. But there in the waiting room, when you look around. The couples there, those were 35 and more across-the-board, that's how I saw it at least. And I was still only 30, right? […] We were very relaxed about that." (FT2_35, 835-46)*

F.T. situates and constitutes her self and body in relation to both the farther social implications of a biological countdown, the peculiar gender differentiation it entails and, more concretely, how knowing about it also served to assure her in pursuing assisted reproductive treatment in terms of the age-related identity she made out for herself.

F.T. claimed, more than once, that she had been incredibly impatient throughout her treatment. Indeed, a doctor she and her husband had consulted early on had assured them that having tried only for a year without success *"was nothing, really"* (FT2, 86). As it turned out later in the interview, F.T. was still reeling from having had a miscarriage earlier that same year, prompting her to think that *"maybe, if we had waited, it would have worked either way"* (FT2, 935).

However, F.T. and her husband eventually did decide to go through with assisted reproductive

treatment after 'only' that one year, collecting doctor's appointments and test results to figure out *"what had to be done"* (FT2, 66) in the first place. It took some time to establish the kind of 'patients' they would, and could, be. When her husband's spermiograms came back *"really bad [...], with effectiveness close to zero"* (FT2, 101), they were free to turn to ICSI-treatments. That course of action did not change even as subsequent spermiograms were attesting him ever better parameters.

Waiting to collect the results, waiting to get an appointment over the summer, and later even waiting to start another treatment cycle after the first one had failed: *"I felt as though it was taking really long, but in the end there it was kind of fast"* (FT2, 48). Working shifts, too, F.T. had to establish a concise routine when she could take her medications and do the injections in order to coordinate her work-life schedule and the treatment schedule - this being the tables and papers issued by the clinics that all of the women I interviewed had kept and had often shared with me.

Her second attempt at ICSI started after the clinic's Christmas break in 2011. It was a cycle with cryopreserved eggs - in other words, eggs that had been retrieved half a year earlier. While she experienced the cryo-attempt as less demanding than the first full one, it still was *"physically extremely draining"* (FT2, 459) for her. Eventually, her efforts resulted in a positive pregnancy test two weeks later and she could give birth to twin girls. Even though she had still had eggs left over from that very first cycle and they had paid for keeping them in storage for another year, it was during her pregnancy that they decided, *"when it was time to pay again, to terminate the contract"* (FT2, 453-54). This is the kind of future that was on F.T.'s mind when we met back in 2013:

> *"We are not considering it. Because we said, we won't submit ourselves to that a second time. It is extremely draining for me, the hormonal things that is. I could have never imagined that it is really this demanding. In terms of side effects it was very draining. And we have two healthy children. We said, if it is meant to be, then it will be, and if not, then not." (FT2_36, 458-62)*

Vignette 5 - F.T.

8.3 The Cycles of Making Life

Cyclicality is an expression of time that is best understood and described by very close inspection. Cycles are never *just that*. Instead, they emerge from bringing together different temporal forms in sensible, relatable ways. In order to recognize cyclicality we must cast particular temporal frames that allow us to perceive as cyclical the relation between past instances, sameness/change and coming return. That, indeed, is the critical thing about cycles: They promise the return of fundamentally alike events of a distinguishable ontological kind in a sequence of change. What is more,

> *"[repeating] cycles become recognizable patterns. Naming and numbering these repetitions makes them predictable, allows for anticipation and planning, creates a sense of ownership and control" (Adam 2004, 102).*

We could say that cycles are special kinds of trajectories, movements over time, and as such can be seen to intersect with related (explanatory) trajectories. Likewise, cycles have signifying properties, that is, a pace at which events advance over a particular extension of time.

In assisted reproduction many different cycles can be discerned that, so as to figure into the long-term goal of achieving pregnancy, have to be brought into *"one coherent frame of action"* (Adam, Hockey, and Thompson 2008, 9): pre-cycles (cycles that serve to time the beginning of treatments), menstrual cycles and ➔ ovulation cycles (breaks in which will allow us to see that these are more separate than we might assume) and treatment cycles are among the more obvious ones.

Furthermore, there are weekly and daily working cycles (clinics are institutions organized under the common labor law and most women are working themselves), seasonal cycles (clinics are closed during holiday season) and biographical/life cycles (social and legal norms of biographical particulars such as partnership-before-parenthood). They all need to be synchronized, occasion concrete timings and, at times, can be disrupted. While there are indubitably more expressions of cyclicality that matter in assisted reproduction, I will only elaborate on a selected few of them below as they can be understood to figure into women's narrative configuration of identity.

8.3.1 Female-Nature Cycles and Breaks

8.3.1.1 Banking on cycles

There is one aspect about narratively fashioning identity, self and body from time that has gone largely unattended thus far: How identity is constructed from temporal forms *that are ignored* - and what happens when they cannot be ignored any longer, and how this allows us to question what is assumed to be 'natural'.

For this I will concentrate on the menstrual and the ovulation cycle, both of which have historically emerged as sites of negotiating dominant discourses of 'naturalness' and 'artificiality', women's reproductive capacity, their personhood and agency (see for example Gunson 2010).

In assisted reproductive treatment both a woman's menstrual and ovulation cycle serve as temporal orientations, as controlling or as a means to control timing before and during a given treatment attempt. The properties of menstruation generally step onto the scene as patterned and determinable, 'fact'-based, medically undergirded and situationally expanded by women's 'authentic' knowledge: Menstruation starts, by convention, with the first day of the bleeding and runs over a duration of days until the bleeding stops. The cycle itself ends only the day before the next bleeding, since the complete menstruation cycle involves also a distinct number of processes that happen *inside* a woman's body without visible outward traces. Part of those inside-bodily events is the ovulation cycle, that is, the duration of days in the course of which an oocyte matures, ovulation takes place and the ovum is either fertilized or shed along with the endometrium during menstruation. It is specifically this cycle of which assisted reproductive treatment makes use:

> *"We mainly use […] a kind of short [treatment] cycle. There are clinics that will use the pill for precisely determining the egg removal. We always let that take its course the way it is. I don't need to shift around the [menstruation] cycle artificially […] You always start right out of the period with hormonal stimulation." (E2_37, 212-8)*

In other words, a woman's menstrual cycles will determine when she can start treatment. Yet, in the reasoning of this medical professional we too observe the underlying notion of 'naturalness' which he ascribes to the determinable menstrual regularity of a woman-in-treatment. Her menstrual bleeding serves as visible indicator of inner-bodily (hormonal) processes that emerge as the actual site of interference for assisted reproductive treatment. The source of 'artificiality' that he indicates, shifting around a women's period with the pill, however, is the preferred *modus operandi* in the clinic of the other expert I interviewed:

> *"We mainly do scheduled cycles. That means we administer a variant of the pill during the pre-cycle and with that you can kind of shift the period. But we don't do that to shift around the period, we don't care about that, rather we want to start with the stimulation on a specific day." (E1_38, 156-9)*

That specific day is motivated by the regular workweek. Periods which are more precisely scheduled (as opposed to 'natural' regularity) facilitate a reliable projection for the day the ova can be retrieved. Timing this accordingly, then, will allow for the egg retrieval to take place during the workweek, because, *"Who likes to work on a Saturday or Sunday?"* (E1, 170). It also gives the women-in-treatment themselves a schedule for upcoming 'milestones', even though these practices are easily seen to clash with women's own working routines.

Something else stands out in the above quote: E1 does not attach much importance to menstruation as such. Given that, the menstrual cycle emerges as a means to an end by virtue of its easy visibility and determinability - that is, unless menstrual regularity is somehow 'broken':

> *"Well, in principle, if you look at it from a strictly technical perspective, I don't need a [menstruation] cycle. I had a patient, who had an extreme PCO-Syndrome, who never had a natural period in her life. She was over 30 […] You can initiate with the pill. Or with a corpus luteum hormone […] That grows or stabilizes the endometrium and as soon as you stop, the endometrium is shed due to the lack of hormones. But, you see, I don't need a [menstruation] cycle, if you go into extremes.* ***I just need eggs I can harvest."*** *(E2_39, 199-208)*

Real significance is only awarded to one cycle: the kind of cycle that produces oocytes and this is the ovulation cycle. Menstrual cycle and ovulation cycle are 'naturally' seen to coincide in that the one is more of a *cycle of indication* while the other is the *cycle of interference*. What happens, however, if things 'break', as indicated in the above quote about the 30-year-old woman with PCO-Syndrome?

8.3.1.2 Breaking with Female-Nature

When ideas about nature and naturalness are invoked, it is a curious thing how they ring with overtones that are barely audible. 'Nature' is often enough taken for granted and assisted reproductive treatment is no exception to that rule. Taking something for granted and to be known,

however, obscures the assumptions that come along with it and what is required to allow for something to appear 'natural' and given.

When B.W. talks about her 'natural cycle' („*Naturzyklus*"), she does so without giving any emphasis or importance to the coordinative feat that is required within her body.

> *"Usually they will do [a treatment] as it corresponds with the cycle. Which I think is better anyway because, I mean, somehow you should take a little cue from the body as well, yes? [...] That way you can also give nature a little rope, as far as possible, I think." (BW2_40, 1056-62)*

Her menstrual cycle can come *naturally* as a cue from her body, because it takes place cyclically and in a predictable manner that allows her to completely ignore it for what it is most of the time. Whenever she invokes *'the cycle'*, it is to assert herself as a *'regular woman'* with a naturally occurring menstrual cycle that paves the way for interference into the ovulation cycle. Regularity in cyclicality is defining for the women's understanding of self and body. It allows A.S. this swift narrative connection between her first and second attempt: *"We went into the next attempt pretty quickly, no breaks"* (AS2, 148). When cyclicality or *synchronized cyclicalities* happen without breaks, then nature can rest silently to live another day.

This, of course, is not the same as to say that no tensions whatsoever might well arise:

> *"And I thought that will easily work out. Because that would be, I would have to be two weeks late, or something like that, for it not to work out. And it really didn't work out, [my period] didn't come, it really came one, two days too late. And they are closed over the Christmas holidays." (BW2_41, 503-6)*

> *"First we were considering [...] whether we would start another attempt before Christmas. And I was so terribly disappointed that that didn't work out at all. I was so pressed for time somehow, no, let's try again right away. And then the clinic is just closed for two weeks over the Christmas holidays." (FT2_42, 431-4)*

In those instances neither B.W. nor F.T. could ignore their menstrual cycles, because they were let down by their premised predictability and how that regularity would have allowed presents to have been controllably directed towards desirable futures. They both wanted to get started on another attempt, quickly and without breaks just like A.S. had. When their cycles failed them, however, they were not only forced to postpone, they also clashed with seasonal and working cycles. Their *intimate feelings of temporality*, in other words, their feelings of urgency and impatience, came up against a complete failure in synchronization and, in reaction, they had to re-orient their own feelings of temporality and make due with later instances that offered themselves with better *timing*. Akrich and Pasveer (2004, 68) attribute to suchlike instances the notion of a *"dys-appearing body"*: While we are ever-present in our bodies, its hidden internal functions enable *"a certain form of absence from ourselves"*. This disconcertment is turned around when events such as disease, discomfort or other complications make our body 're-appear'.

Now, at last, we revisit K.M.'s story. She suffered from *"severe PCO-Syndrome"* which came to direct her fashioning of self in concrete ways. Along with this diagnosis and understanding of self, she

forged, from her inability to generate predictable regularity for herself and her reproductive endeavor, an identity that put herself at odds with 'others'.

> *"I got my period pretty late, around 15 or something, 16 for the first time. And PCO, that's the polycystic ovary, that you have lots of follicles, but it's because of the hormones, that the stats are all wrong for a follicle to mature into an oocyte or it does mature into one, but every 6 months, or every 3 months or somewhere along the line. At least not regularly." (KM1_43, 53-9)*

Given that lack of regularity in her menstrual as well as her ovulation cycle the start of a treatment attempt always entailed, in the first instance, medication to initiate menstruation and ovulation. Without fail, this prevented her from the kind of encompassing clashes with synchronization as experienced by B.W. and F.T. in the examples above. However, it is not this added *ability* to time her treatment more precisely which she chose to mobilize in relating to herself, but rather her inner-bodily *inability* to synchronize her menstrual and ovulation cycle - as she would sometimes have menstrual bleeds without an oocyte maturing synchronously. She would refer to herself as being *"pretty complicated, or more complicated"* (KM1, 145) and *"well, unlike a normal woman"* (KM1, 1645), forging an understanding of self and an understanding of her body that emerges as '(partially) broken' in terms of what she, too, considers 'normal' synchronization occurring inside 'the' *female body*.

How determinative of a markedly *female* nature she perceives menstrual bleeding and menstruation-based reproductive capabilities to be, is exemplified when talking about the many years, from puberty onward, that she took the pill. In many ways she held the hormonal interferences of taking the pill for such a long time partly responsible for her problems in getting pregnant. However, this comes into conflict with the pill offering a means to experience regularity with her cycles, and thus a means to 'feel like a woman':

> *"Also [it was] a bit of feeling like a woman, unlike getting no period at all for months on end. I'm thinking, if I had gotten my period every half-year for 10 years or something, I don't know what that would've been like." (KM1_44, 1148-51)*

Regularity and the offhand synchronization of menstrual and ovulation cycles are frequently ignored times, even though women forge their identity from the manner in which they *can* ignore these temporal forms - awarding those cycles the imprint of 'naturalness' and effortless inner-bodily function. It is but in instances of breaks in synchronization that we get a glimpse of these temporal forms, and just how important they are and how important it is that they work as they are fashioned to work. Moreover, these breaks in synchronization and in 'naturalness' can be intimately, and oftentimes frustratingly, defining for women who consider themselves afflicted with them.

8.3.2 Feeling and Disruption: Breaking the Stride

At last, I want to briefly expand on something I mentioned earlier: *intimate feelings of temporality*. The wording is, admittedly, a bit of a mouthful, but it speaks to the problems we encounter trying to

phrase what we experience daily, but have thus far - at least in the social sciences and STS - largely failed to inspect further.

Time is intimately felt. We commonly speak of an *'inner clock'* that rebels against the shifts of crossing over time zones. I alluded to the urgency F.T. felt coming from her 'biological clock' and the relaxation that came with feeling 'young enough'. I also alluded to the impatience both she and B.W. struggled with when they were *'thwarted'* (*"ausgebremst"*) by institutional cycles that were, in combining powerfully many heterogeneous elements, 'bigger' than they were at that time. Frequently are feelings of business, stressfulness and relaxation narratively called upon to intersect with explanatory trajectories of timings, failures and successes: Being *'too stressed'* or *'relaxed enough'* often figures explanatorily into failed or successful attempts. To that extent, feelings of temporality are narratively inscribed into the succession of events and intimately permeate the manner in which women relate to themselves and mobilize time in their identity work.

More exactly, with regard to cyclicality, we must not discount *rhythmicity* as a particular temporal expression that closely aligns with cyclical patterns. The succinct pacing and temporal framing of cycles establishes concurrent rhythms that become a source for temporally orienting oneself. These rhythms, in turn, might also imprint on one's feelings of temporality and on the manner in which temporality is intimately configured and felt.

Treatment cycles are cycles of their own kind. They have certain, even if hard-fought, starting points and they have end points which are (momentarily) signified either by success, or by failures. In IVF-procedures treatment cycles entail a choreography of self-administered injections, getting medications right, being surveyed by ultrasound check-ups every week or fortnight, and certain 'milestones' such as egg retrieval, extracorporeal fertilization and transfer. All this happens over the duration of just about two weeks, since *"they do need to get close to the cycle of a woman"* (KM1, 1263).

Then follow two weeks of no check-ups while the embryo needs to implant into the uterine wall. Locally, this is referred to as *'waiting loop'* (*"Warteschleife"*) until the women are called in for a blood test and given the results that either establish them as pregnant, or not.

Between a fast-paced two weeks of active treatment and two weeks of waiting, a sudden *disruption in rhythmicity* occurs. For two weeks women are swept up in a steady rhythm of events, whereas in the second part of each treatment cycle *"there is silence"* (AS2, 402) that engenders, frequently, a *"mental roller coaster ride"* (BW2, 192). The waiting loop is intimately felt as a rhythmic disruption and a *cesura* during which *"you are staggering to and fro, from yes to no"* (FT2, 278). Women are, at once, left *'in neutral'*: They are neither pregnant, nor are they not pregnant[29].

[29] It should be noted that *'being pregnant'* is not quite as straightforward either. Much like *'success'* varies with different fixations of endpoints in assisted reproductive treatment, K.M., who underwent multiple assisted reproductive treatments and two miscarriages, experienced many of those waiting loops which had become *"normal"* to her at some

It is only when certainty is reclaimed - a clear idea of who they are, pregnant or not - that they can start to re-orient themselves accordingly. If the attempt turns out to have been a failure, that re-orientation will involve crafting, at once retrospectively and prospectively, explanatory trajectories and new ways to go about futures. Frequently, then, familiar cycles start anew.

If the results indicate pregnancy, *"the cycling is subverted and the progressive, developmental time scale of a pregnancy is embarked on"* (Thompson 2005, 111). This is when coordinating other cycles will become important, other rhythms will be felt (particularly the child's), other temporalities will become relevant and women's ontological narratives will shift - as much as they will stay the same, and temporal forms and understandings will be carried over, continuing without pause.

point. For K.M., then, 'being pregnant' only started when she could feel her daughter move and the *"real"* waiting loop was happening for her not until early heart activity had been ascertained.

9 Conclusions

looking back to look forward

In this thesis we have tuned in to women's stories in the context of assisted reproduction. While this is not an entirely original vantage point from which to look at this issue in general, it is a vantage point that, specifically in Austria, runs counter to common orientations in public and scientific discourse that is in large part expert-driven or, more often than not, just completely silent.

In the international social science literature assisted reproduction has been a diversely discussed topic for decades. With the present thesis I have tried to offer a small contribution to this vast body of work and moved to tackle this issue from a perspective only marginally, if at all, perused before: I have tended to the *"temporal texture"* (Felt et al. 2014) of assisted reproduction in Austria, parsing personal narratives of women and how they construct identities and understanding of self *from time*.

Pursuing this question empirically meant to set forth with a radically different conception of narrative and biography - radically different, that is, from the German-speaking tradition in that area. I have conceived of narrative as actively worked, reflected in and through the notion of "*biographical work"* (Holstein and Gubrium 1995), and thus indicative of personhood and agency. This further allowed me to divorce myself from perceiving identity as singular and uniform, but to consider different forms of identity as they are forged from different *narratives of time*. Following the *hows* as well as the *whats* in women's narrative configurations, moreover, involved not only an analytical sensitivity to the concrete ways in which these women crafted their narratives, but also to their cultural embeddedness, the narrative resources they were drawing from. This may in turn provide us now, on these last few pages, with important conclusions as to the farther implications of certain temporal regimes in assisted reproduction.

Throughout this thesis we have seen that by foregrounding different temporal forms, rather than considering time only as a matter of past-present-future or keeping it entirely obscured, we can concretely attend to the temporal infrastructures that come to matter for everyday life, or for a person's understanding of self. In this sense, time is not innocent. Temporal forms are not neutral. By the same token, they are neither externally imposed, nor are they created entirely by individuals - time is *both* in variable interchangeable ways. Time is variably co-produced and as such may impinge in concrete ways on personal narratives and identities, that is, on the manner in which we might come to understand and relate to ourselves.

Frames and Trajectories

This has been exemplified by looking at temporal frames and recognizing that they are never without referential context. They are not arbitrary but *chosen*, and situationally and referentially meaningful. When we speak of *'short stories'* in the context of assisted reproduction, for instance, this is no less telling of the many hard-fought and long-winding journeys undertaken by women, and

couples, on their way to getting a genetic child of their own. By the same token, having already had this wish fulfilled emerged as a central overarching frame for all of the women I interviewed. This overarching identity of already being mothers was brought to bear on their stories in various concrete ways. Delimitating starting points and, more critically, *end points* for their experiential narratives of assisted reproductive treatment particularly figured into their understanding of self. It is from that sense of directionality - by way of sensibly connecting starting and end points - that they derived a critical sense of self and drew their claims to agency and personhood. This is not to discount their deeply intimate experiences with assisted reproduction, the despair, frustration and failures they had to endure. The vignettes of their individual stories served as small testaments to that. Nonetheless, in terms of how they have come to understand themselves they tackled the medicalized problem of infertility/sterility with clear agential purpose. In a sense, it is this ability to draw an overarching frame over their experiences that keeps them, as subjects, entirely whole. For future research it might be equally important, then, to tend also to instances where that wholeness has been compromised or, in Cussins' (1996) terms, that agential *"synecdoche"* has broken down and narratives might not be driven by clear directionality, but by temporal uncertainty and evasive futures.

In large part it is the standards in treatment that we have seen to give meaning to frames as they are narratively employed. Hours, days, weeks, months - they are invoked variably and sensibly. Depending on stages during treatment some frames were mobilized and subscribed to while others appeared to be inconceivable framings for the kind of story and experience that was recounted.

In the same vein, temporal trajectories must be understood as central and powerful means from which to craft identity and understanding of self. Trajectories, as we have seen, narratively emplot events in a causal manner, offering a particular (re)writing of one's own life story. Critically, this is not the same as to say, as scholars following Bury's (1982) seminal work on *"biographical disruption"* have done, that biographical narratives are singularly linear. I have tried to show that multiple (explanatory) trajectories can co-exist and inform each other in personal narratives, trying to conceive of them as different *lines*[30] with their own or intersecting pasts, presents and futures. Nonetheless, as no explanatory trajectory is random, we might investigate them as to their concrete meaning and embeddedness.

More exactly, this thesis has shown that in the context of assisted reproduction in Austria, especially when looking to its legal underpinnings, conceiving children via ARTs is enacted as 'deviant' and 'artificial' and, as such, opposing 'normal' and 'natural' reproduction. Overall, explanatory trajectories are employed in order to re-normalize a reproductive story that has deviated from the

[30] While the scope of this thesis has not allowed me to do so, I must emphasize that this conception is inspired by Ingold (2007) and his animating ruminations on the topic of *lines*. This, like many others, is an anchor point that I believe is worth to be pursued further in the future.

hegemonic hetero-sex narrative. I have repeatedly referred to this as the demands of accounting for the purported 'fact' that *'something is wrong'*: for to need ARTs something simply *has* to be wrong.

What is more, this 'wrong-ness' finds its distinct location *within the bodies* of ART more often than not. I have shown, analyzing Austria's legal narrative, that from a legal stance the cause for infertility/sterility is to be found beneath the skin with faults in inner-bodily functions. It is due to casting sperm as easily externalize-able and mobile bio-object that men are often burdened with a sterility-diagnosis in order to satisfy that legal prescription and gain the rights of access to assisted reproductive treatment or financial support therein.

Having to find clear *reasons* for assisted reproductive treatment, however, is much more than a formality, as we have seen. Reasons come with intimately *felt* responsibilities and they impinge on personal trajectories that, in turn, inform individuals' understanding of self. We have recognized, not least in K.M.'s story, that these responsibilities can sometimes weigh very heavily. This is further undergirded by the role medicine has taken up in assisted reproductive treatment: Trajectories forged and assembled from medical tests and procedures speak with exceptional authority to the 'facts' that make up our selves 'objectively' (Dumit 1997). Women will craft their understanding of self from these medically attested results that make up the kind of 'patient' they are, and *can be*, in clinical-laboratory practices, fashioning from these results kinds of personal trajectories that critically inform their identities.

At this point it is worthwhile to emphasize, once again, that I have tried within this thesis to bring nuanced understandings of the lived realities of biomedicalization and of agency to the table, as opposed to mere dichotomizations of oppression and victimization or activity and passivity. This can be exemplified particularly well by the way my interviewees mobilized extracorporeality in order to make up themselves. While law and public discourse are seen to 'other' assisted reproduction in many instances - branding it as 'deviant' and 'artificial', neither 'normal' nor 'natural' - this may be actively re-appropriated by individuals implicated in the realities of assisted reproduction. The interviewed women often used the exactness of their time know-how as a means of 'othering' what is referred to as 'natural' reproduction, as well as individuals and couples conceiving children that way. In other words, their knowledge of the exact moment that their children had been extracorporeally conceived was much more definitive than that of 'others' who never know when *exactly* conception took place. This example might help us to appreciate the dynamics at play when issues are in-practice and in-talk - dynamics that cannot be fully grasped by static dichotomies.

Going beyond stark dichotomies also involves a dynamic rethinking of how to discuss access rights and how we form criticisms in relation to them. Frequently, as we gear up for a barrage of criticism, we see those who have rights and those who do not. To criticize in favor of the discriminated and disadvantaged is valid criticism, no less. However, I argue that there is more to be found if we move a little beyond that.

Talking about the regulative framework operative in Italy, Hanafin (2013) criticizes the *"bio-inequalities"* thereby enacted between those with access and those barred from access to assisted reproductive treatment. Along with Italy, Austria has one of the most restrictive laws on assisted reproduction. Now, if I make a claim like this, I first need to be aware of it being a situated and partial one (employing, loosely, Haraway's (1988) famous notion). To make it, we first need to roll out the scope of comparison over those nations in the world to which we commonly attribute the epithet 'industrial'. Then I need to be aware of the very place from which this claim is made: from an appeal towards greater legal liberalization and from an incentive for social change. Without a doubt, restrictions can also catalyze other developments as they open a space for creation and invention[31].

Nonetheless, this cannot obscure the fact that a range of individuals are unequally disadvantaged and discriminated against in their wish to have (genetic) children of their own: in particular single men/women and men/women living in non-heterosexual partnerships. At the same time, as we call for equal access for these individuals, we must be concurrently concerned with the discursive, practical and public status accorded to individuals already acting upon *having the right of access*, and what it means to be that kind of *biological citizen* (Rose and Novas 2005): As I have tried to show, enacting the body that seeks assisted reproductive treatment as abnormal or deviant is not a matter of the past. Women as well as men (at times even disproportionally so) are continually implicated in a deterministic system of causality and responsibility that encumbers them with assisted reproductive treatment as individual choice, but one that has to be soundly and medically legitimated first. It is those bio-inequalities that deserve just as much analytic attention, because we frequently stop at the appeal for equal rights and remain blind to disadvantaging or discrimination that remains under the surface or simply involves a comparison between a different set of actors.

Based on what I have discussed in this thesis, it would thus appear imperative to make more explanatory trajectories than medically authoritative and reason-embodying ones available to individuals undergoing assisted reproductive treatment. This would be to allow for a multiplicity of framings and the abatement of divisive cause-effect logics in assisted reproductive treatment. Certainly, this does not hinge on the medical realm alone. It is rather one instance of intricate co-production between actors as diverse as the law and infertility clinics and couples and individuals undergoing treatment and procedures and devices and artifacts. They must, and this might be the problem in itself, work together to achieve novel ways in which women, and men, do not need to recur to their own embodied 'faultiness' or do not need to feel the additional intimate pressures of (embodied) responsibility as they walk down the path of assisted reproduction.

Spun further, this might also be a point where we could question the stark differentiation between formal loci of assisted reproduction (clinics or 'expert' organizations) and its informal loci (self-help groups or message boards). We could formulate the hypothesis that a more encompassing

[31] This might apply to evaluative procedures that are not touched by Austria's ban of preimplantation diagnostics - in other words, if they take place before fertilization of the ovum.

conception of the realms of assisted reproduction, beyond the medical, might be another important step. Let me return to this point a little ways down the line, though.

Transience and Expiration of Time

Adam's (1995) notion of *"non-temporal time"* combines two critical premises: firstly, that temporality is always political, entrenched in socio-scientific context and deeply felt, but that, secondly, in order to constitute time as an objective and universal infrastructure, time has been rid of these qualities and made, in that sense, 'non-temporal'. Given that age has emerged as an important aspect of assisted reproductive treatment and a form of time from which women draw an understanding of themselves and their bodies, purported non-temporality has also become an issue for this thesis.

I have discussed calendric time as operating on the claim of 'objectively' situating individuals *in time*, but that this purported objectivity has been co-produced at the interface of technological development, the rationale of the market economy and society at large by means and needs of standardization and coordination. Incidentally, calendric or clock time have been solidified as objective in such a manner that we hardly ever question the sorting practices they bring right along with them. In practicing assisted reproduction calendric age - the years-gone-by counted in standardized and universal measures, starting from a birthdate - serves as a purportedly objective way to sort women, in a much lesser degree also men, into categories that exert indomitable power: They are inscribed into legal texts, they grant or refuse certain (financial) rights and they are linked up with other measures such as risks, chances and success rates.

Far from empty and neutral, however, age comes to matter in concrete ways in the context of assisted reproduction and as a way for women to relate to themselves and their bodies. In assisted reproduction the invariable progression of age, and the ageing body, are inscribed with the notion of transience and decay. Women's age is *biologized*. In other words, in a hierarchy of age scales the one that depicts a 'normal' - and, in that sense, progressively degenerating - development of female biology speaks more authoritatively than even the 'objective' scale of calendric age. We have seen that, depending on the woman's biological history - *"where the woman is biologically"* -, she can be older, seldom younger, than her chronological age. That biological age, therefore, comes to play a critical role in assisted reproductive treatment and becomes a means for women to come to understand themselves and their bodies. It emerges as a temporal crystallization of the different pasts her biology has sustained and for which she must, now that she is undergoing assisted reproductive treatment, account for. What is more, biological age, other than calendric age, is not universally knowable for the women themselves, it is rather spoken for authoritatively by medical professionals and clinical-laboratory practices involved in ARTs.

However, we have to be more exact than this. Assisted reproduction only marginally orients towards women's 'whole' biology, but rather conflates the same to her oocyte presentation. Oocyte results, their quantity and quality, mark the end of the stimulation phase in IVF-treatment. They become

defining moments for women from which they forge their personal narratives, their sense of who they are, in concrete ways. The number and quality of oocytes they can produce in given treatment cycles are considered key intersections of pasts and potential futures, and they become primary sites of investigation and tinkering between treatment attempts and of investigations into themselves. Women may relate to their oocyte results as stand-ins for their bodies and overall constitution in a *synecdochal manner* (Cussins 1996).

The significance of oocyte presentation in assisted reproduction can be rolled out, and problematized, even further. The synecdochal conflation of women-in-treatment to their oocyte presentation has even more encompassing implications. To that end I have recast the popular time topos of the 'biological clock' as an *egg timer*. Its logic is the following: Eggs are transient, both in number and quality. Consequently, women are faced with the expiration of their reproductive capacity. Nonetheless, the date of expiration is known - we have encountered it in the course of this thesis and usually it starts acting up around the age of 40 for women. Since it is known, we can anticipate that egg numbers and egg quality will run out at some point around that time. So, in temporally more exact terms, we are talking about a *countdown* and an imminent biological *deadline*. In turn, their reproductive expiration date and the complex pressures of their biological clock qua egg timer are important in how women relate to their own bodies, their procreative capabilities, in assisted reproduction.

In other words, the risk of running out of (egg) time is fed back to women. They are tasked to manage their life accordingly and to respond to the *"injunction"* (Adams, Murphy, and Clarke 2009) posed by that countdown-deadline. What is more, given Austria's ban on oocyte donation and surrogacy this is not a matter of *either-or* (either women's own oocytes or those of a donor), but one of *all-or-nothing*. Particularly in IVF-treatments, with the age-limits made salient by the IVF-Fund, this egg timer deadline operates in a structural nexus with economic disadvantaging. More financial resources and less dependence on state-side financial backing becomes associated with more leeway in managing one's *"ovarian reserve"* (Scott and Hofmann 1995).

Now, as we are dealing with time, let me take this matter into the future. We have seen that future discourse is a key player for many present issues. In other words, discourse about where an emerging field, technology or issue may be headed can be seen to have concrete implications in terms of co-constituting that future, what is made of the past and which paths are struck in the present (Brown and Michael 2003; Selin 2006; Reischl 2008). In light of the discussion above it would thus be worthwhile to ask where the local field of assisted reproduction might be headed in relation to the complex intertwinement of women's conflated biological age and the importance attached to success rates. What if, for instance, Austria does lift its ban on genetic testing and preimplantation diagnostics, on which both experts I interviewed concurred it should?

> *"This way you will discover whether a woman even still has oocytes that are genetically intact [...] One big topic would be, where there is research underway, how to help a woman of a certain age to still have*

> *good oocytes. That concerns certain pharmaceuticals, certain hormones, maybe techniques in the laboratory. Oocyte rejuvenation is a research topic." (E1_45, 96-7; 106-9)*

This is, within the bounds of Austria, one instance of drawing out future-looking perspectives of research and development in assisted reproduction. Without a doubt, we should not disparage what these developments could mean for the suffering and unfulfilled wishes of many women (see Purdy 2001). However, this should also invite us to problematize that which is recognized as a relevant path for developing the field, while otherwise oriented developments in offering care and assistance to couples, and women specifically, are glossed over and ignored. This might further call into question the very loci involved in future discourse and from which perspectives contributions are, and *can be*, made. Even though this thesis has contributed to highlighting the importance of thinking about futures as they are presently made, to think time critically all around, it would be on a future research endeavor to investigate necessary or important developments as they are discussed, for instance, by those individuals undergoing assisted reproduction or those who have failed to get a genetic child of their own that way.

Cycles and rhythmicity

Lastly, I have talked about cycles as special kinds of trajectories that produce patterns over a certain temporal extension. These patterns become knowable as they return time and again, thus allowing us to take control of them, form expectations and degrees of certainty for future events. There are many cycles that would deserve a closer look in assisted reproduction. In the discussion above, however, I zoomed in particularly on menstrual and ovulation cycles.

I have shown that menstrual cycles are primarily related to for their easy visibility, emerging as *cycles of indication*, while it is ovulation cycles that become the very *cycles of interference* for ARTs and IVF in particular. The complex interrelation of these two cycles comes to a head in the effort of synchronization they afford which, incidentally, often appears to be downright effortless. Ovulation cycles are patterns of inner-bodily events that are approximated for a sense of timing via the menstruation cycle: In other words, menstruation cycles are tampered with for the purpose of gaining control over timing, while it is really ovulation cycles that need to be controlled in order to retrieve the eggs for further treatment. Usually, the synchronization between cycles happens effortlessly and regularly, allowing them to be conceived of as *one* 'natural cycle', and a distinctly *female* one at that. We could say even that this makes the synchronization happening *disappear completely*.

When this synchronization fails, however, it re-appears and starts to play a more concrete role. We have seen that a failure to produce this offhand regularity, including its expectable futures, can cause considerable problems. This is particularly the case when, as I have shown with examples from B.W.'s and F.T.'s story, this inability to count on and act upon this regularity comes up against much bigger institutional cycles, such as seasonal and institutional working cycles, to which they then have to accept a subordinate role.

The story is yet a different one when regular synchronization is somehow 'broken', for example due to suffering from severe PCO-Syndrome. Regularity and the offhand synchronization of menstrual and ovulation cycles are often *ignored times*. Women forge a sense of womanhood, identity and agency from being able to produce and count on that regular synchronization. When synchronization is 'broken', however, this is fashioned as a problematic break with 'nature' and becomes, oftentimes, a source of intimate frustration and a problematized sense of being a woman. Consequently, it is in the temporalities, which are somehow and often complexly 'naturalized', that we may identify critical points of self-fashioning and relations to bodies.

By foregrounding temporal forms, being sensitive to their multiplicity and variability or just starting by making them visible, we might get at aspects of a given socio-scientific matter that hardly receive any attention at all. This is particularly exemplified when we focus on *intimate feelings of temporality* - time as it is felt. We do it all the time, every day. We feel that time goes at too quick a pace - we say that we are stressed - or we agonize over its slowness while waiting for an anticipated event to occur. However, as STS scholars we still lack, I believe, a well-rounded vocabulary in that regard.

Nonetheless, I have tried to tackle this issue with respect to *rhythmicity*, a temporal expression closely aligned with cyclical patterns. In IVF-treatment the women I interviewed attested to that sudden *cesura* they experienced between fast-paced two weeks of ovarian stimulation followed by two weeks of no contact with the infertility clinic whatsoever as they were waiting for the fertilized ova to implant, or not, and waiting to be declared pregnant afterwards, or not. All of them experienced those two weeks of waiting, which are locally referred to as *"waiting loop"*, as particularly emotionally draining - mainly in reference to the rhythms they had intimately aligned their life and experience of time to, at least throughout the two weeks preceding that waiting period.

The question thus arises whether an enhancement of care and assistance to women in assisted reproductive treatment could, and *should*, focus also on this disruption in rhythmicity. We could, with some stretch of imagination, conceive of clinics that offer continuing support during this second part of the treatment, whether women want to make use of that offer or not. The waiting loop is experienced and recounted as an absolutely central aspect, and a problematic one, in assisted reproduction. Yet it is presently, that is, as care and assistance are presently envisaged, entirely cast aside.

It is also at this point that I want to revisit the issue of starkly differentiated formal and informal loci of assisted reproduction in Austria: It appears that self-help groups and message boards do offer some of that additional assistance to women in going through the time of the waiting loop, among other things. However, they operate, at least institutionally, in complete isolation from the places that are 'officially' recognized as the sites where assisted reproduction takes place: infertility clinics or specialized hospital wards. This speaks again to the way in which assisted reproduction is

concisely focused, at least on the side of the law and 'expert' discourse, on the medical realm - in a quite narrow sense.

Research Futures, and a bit of Magic

In this thesis I have tried to open up anchor points for future development and for a critical perspective on the issue of assisted reproduction in Austria by way of foregrounding time as it comes to matter for women's understanding of self and personal narratives. In so doing, I have rendered visible key aspects of the temporal infrastructure operative in the context of assisted reproduction and, by taking a closer look, its concrete implications.

I have lined up alongside a small number of studies investigating assisted reproduction in Austria from a social science perspective. Like most of them I have attended to the lived realities of assisted reproduction, a perspective seldom pursued in a discourse that is still dominated by scholarly writings in law and medicine. I like to think, however, that by considering also the performativities of its legal underpinnings and by turning a critical eye to the dichotomies often tangent to the concept of biomedicalization I have taken a stance *against* marked-off disciplinary territories and concerns, and have instead advocated a dynamic thinking of the complexly enmeshed realities of assisted reproduction beyond disciplinary dominions.

By the end of it all, therefore, my overall glimpse towards the future is twofold: First, engaging with the temporality of biomedical issues is a fairly under-explored analytical venue that deserves closer attention. Foregrounding temporality means to make visible the invisible - and somehow that means not only to be a scientist, but also a kind of magician. Secondly, the vacuum of critical engagement with the variably entangled realities of assisted reproduction in Austria could, and *should*, be roused by exactly that kind of magic as it may contribute to making a topic that appears locked away reappear center-stage. Maybe this is like believing in magic but, as with everything else: Only time will tell.

10 References

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10.3 List of Tables

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11 Appendix

11.1 Original interview quotes

_1 Diese Befunde [der immunologischen Tagesklinik] hab ich dann an die deutsche Immunologin geschickt. Ja. Die beschäftigt sich besonders mit Immunologie und Kinderwunsch. Die hat mir einen Telefontermin gegeben. Wir haben telefoniert. Die hat mir dann genau gesagt, die hat mir erklärt, was ich machen soll. Dass ich die Killerzellen hab und da muss ich unbedingt was dagegen machen. Die hat mir den Behandlungsplan durchgegeben telefonisch. Und mit dem Plan bin ich [zu meinem Arzt] gegangen. (AS2, 638-47)

_2 Das hat [er] aus Japan. Irgendwie. Ich glaub, hat der in Japan mal irgendwie ein Studienjahr gemacht, oder keine Ahnung. Jedenfalls in Japan haben's das gemacht und haben eine große Studie gemacht und sind draufgekommen für Frauen, die ein immunologisches Problem haben. Ich hab zu viele Killerzellen gehabt. (AS2, 612-4)

_3 Wenn man den männlichen Grund für die Unfruchtbarkeit nimmt. Das Spermiogramm ist eine riesen Grauzone. […] Dadurch sind bei mehr als 70 % die Männer eigentlich verantwortlich in Österreich. Aber das entspricht nicht ganz so den Fakten. Und der zweite Punkt ist: Bei den Frauen ist es auch manchmal schwieriger, dahinter zu kommen, was wirklich verantwortlich ist, weil alles im Körper verborgen ist. Endometriose ist nicht so einfach festzustellen. Und wenn jemand Regelschmerzen hat und er hat auch zusätzlich ein grenzwertiges Spermiogramm, dann sagt man: Der Mann ist es. Vielleicht hat die Frau eine Endometriose in Wirklichkeit im Hintergrund. (E2, 65-75)

_4 Also, die drei Berufsgruppen sind es in Wahrheit. Ärzte, Labor, Schwestern. (E2, 322-3)

_5 Naja, beim F ist zum Beispiel die offizielle Leitung die W. Die ist eine Frau. Sonst sind die Männer leider das Dominante, stimmt. Vielleicht eine Generationsfrage, vielleicht eine Interessensfrage. Ausgebremst wird niemand nur weil er eine Frau ist. (E2, 340-2)

_6 Er hat eine Operation gehabt. Er hat- Sie haben nämlich bei ihm- Das ist eh alles anonymisiert, gell? (AS2, 703-5)

_7 Wir haben das sehr anonym gemacht. Wir haben's eigentlich auch lang meinen Eltern gar nicht gesagt. Und ich hab mich nur mit meiner Schwester ausgetauscht. Und sonst hab ich's eigentlich niemandem gesagt. (FT2, 142-5)

_8 Es hat auch seinen Sinn, warum du jetzt da sitzt. Und wenn das nur ist das Überlegen und das Damit-Auseinandersetzen. So wie ich gesagt hab [im E-Mail], ich nehm da wahrscheinlich genauso viel mit wie du. (CT1, 644-8)

_9 Sollte ich jetzt schwanger werden, hab ich aber auch schon gesagt, möchte ich haben, dass wir verkürzen die Abstände. Und ich denk mir, wenn ich die Abstände für die Ultraschalle vermeid, wenn's wirklich sein sollte, ich hab noch einmal eine Fehlgeburt, eine Totgeburt, was auch immer, kann ich dem Ganzen vielleicht ein bissl vorbeugen, dass das Ganze vielleicht nicht so lange dauert. (CT1, 909-12)

_10 An ihm kann's nicht liegen. (CT1, 27-8).

_11 Man nimmt halt, nicht das einfachere, aber wo schneller daraufzukommen ist. Sie versucht seit 5 Jahren schwanger zu werden. Sie hat fürchterliche Bauchschmerzen. Und das Spermiogramm ist eingeschränkt. Die fürchtet sich vor einer Operation. Da würde ich auch sagen, der Mann ist schuld. Wenn ich das Paar wäre. Da erspar ich mir die Operation. (E2, 77-81)

_12 Weil das die Gefäße verengt und durch die Gefäßverengungen halt eben Thrombosen entstehen können und das darfst nicht machen. Und im Endeffekt, sie haben's nicht 100%-ig gesagt, aber es muss im Endeffekt die Pille gewesen sein. Weil es war nichts anderes zu finden, also wird's die Pille gewesen sein. Die [die Embolie] halt ausgelöst hat. (KM1, 73-6)

_13 Ich hab mich im Nachhinein nicht mehr daran erinnert, dass ich damals die Diagnose bekommen hab mit PCO. (KM1, 52)

_14 Eigentlich ziemlich klar und ziemlich schnell. (KM1, 53)

_15 Ihm sehr unangenehm. Er war im Ego sehr verletzt, weil das erste Spermiogramm sehr schlecht war. Das war schon, wo ich mir schon gedacht hab die ganze Zeit, ich weiß, ich bin schuld. Er hat schon auch sehr lang darunter gelitten so nach dem Motto, dass er auch ein Problem ist ein bissl. Was mir wiederum geholfen hat so nach dem Motto: Ich bin nicht allein schuld. Du auch, danke. (KM1, 1693-700)

_16 Also insofern fragst du nicht nach, warum hat's dieses Mal nicht geklappt oder so. Du hast da dann diese 25% oder was das dann auch sind, dass es gehen oder nicht gehen kann. Da machst dir nicht so viele Gedanken, wenn es einmal nicht klappt. Es ist dann eher wenn du eine IVF oder ICSI hast. Also, wenn du nur so Insemination oder mit nur Medikamenten und normalem Geschlechtsverkehr, ich hab mir keine Gedanken gemacht, weil es eigentlich ja normal ist. Dass du nur mal Medikamente brauchst, dass du einen Follikel hast und eine Eizelle hast. Ja, mein Gott. Dann, der Prozess selber ist ja dann natürlich. [...] Wie dann der Schritt dann zu IVF, das war dann schon wieder schlimm. Also wenn du's mit Insemination und Medikamenten schaffst, ist es schon was anderes als wenn du dann wieder sagst, okay, du brauchst dann doch IVF. Also da war ich schon ziemlich geknickt. (KM1, 501-10; 539-41)

_17 Er steht da immer daneben [...] und denkt sich, das ist seine Schuld. (AS2, 688-9)

_18 Jetzt hab ich auch den Druck nicht mehr. Also jetzt zu sagen, ‚Was wäre wenn?', ist so hypothetisch. Jetzt kann ich entspannt drüber reden. (FT2, 732-4)

_19 Es war langwierig [...] Aber ich bin froh. Es könnt noch viel länger dauern. (KM1, 1677)

_20 Im Vergleich [...] haben [wir] sehr schnell Erfolg gehabt. (FT2, 924)

_21 Das würd ich mir kein zweites Mal antun. Hätt ich noch keine Kinder würd ich's sicher wieder machen, aber mit zwei gesunden Kindern. So groß ist der Drei-Kinder-Wunsch nicht. (FT2, 471-2)

_22 Altersbedingt. Also, gute Zentren haben heute 50 % Erfolgschance, also bei jungen Frauen .und eine kumulative Schwangerschaftsrate von über 80 %. Und jung ist bis 35. Ab 40 sinkt's dramatisch ab. Da ist die Erfolgsrate nur mehr 15 % pro Versuch statt 50 und dazwischen, zwischen 35 und 40, hängt's wirklich davon ab, wo die Frau jetzt biologisch ist. Die kann noch wirklich gut beisammen sein und eher bei den Jüngeren oder sie hat irgendwelche Schädigungen. Vielleicht einmal einen Eierstock verloren oder viel geraucht, dann ist sie schon eher bei den 40-Jährigen. (E1, 40-5)

_23 Ist irgendwie lustig. Es geht dann auf einmal so schnell. Zuerst ist man eh noch jung und auf einmal ist man alt. (BW2, 484-5)

_24 Also das Alter hat viel Einfluss. Erstens mal auf die Anzahl der Eizellen. Da gibt es aber auch große Unterschiede zwischen den einzelnen Personen. Und das zweite ist die Eizellenqualität. Die man ja von außen kaum wirklich beurteilen kann. Man weiß also, ab etwa 35 nimmt die Zahl der gesunden Eizellen doch ordentlich ab. Dann gibt es welche, die sind 45 und die haben immer noch 10 Eizellen, wenn man eine Punktion macht, aber die Qualität ist dann oft ganz lausig. (E2, 269-74)

_25 Und da hab ich dann einmal begonnen ein bissl zu recherchieren. Und hab eigentlich festgestellt, dass die Werte von meinem Mann, also die Spermiogramm-Werte quasi. Da gibt's eben auch auf den Befunden da WHO-Richtlinien und da sieht man, dass er zwar drinnen liegt, und sie schauen ja nur, ob ein Kreuzerl da irgendwo auf dem Befund ist, dass er außerhalb ist. Ich hab festgestellt, dass er da zwar drinnen war, aber die Vorgaben des IVF-Fonds, der hat da andere, und da sind wir wohl noch drinnen. (BW2, 48-54)

_26 Und beim ersten Versuch hab ich dann eben zu [meinem Arzt] gesagt, das weiß ich noch, hab ich gesagt, ich hab ein bissl die Sorge, dass die Bea, die Eizellen, dass die eh gar nicht so gut waren, und dass das irgendwie mehr Glück war. Und er hat gesagt, nein, nein, das passt schon und wir machen das noch einmal. Und beim Nachgespräch [nach dem missglückten 2. Versuch] hat er mir dann gesagt, naja, wir machen jetzt [für den 3. Versuch] ein anderes Schema, weil die Bea war offensichtlich mehr ein Glückstreffer als sonst was, ja? (BW2, 396-401)

_27 Ich hab mir gedacht, ‚Was?' Warum bleiben die nicht? (AS2, 900)

_28 Das Problem war halt mein Mann. Und warum es dann bei den ersten Mal nicht geklappt hat, ist dann wahrscheinlich am Immunsystem gelegen. (AS2, 234-6)

_29 Ja, beim letzten Versuch war's so: Ich hab bei den ersten drei Versuchen immer einen Transfer am 5. Tag gehabt. Das ist ja das, was sie anstreben. Und ich hab mir dann gedacht, irgendwie, ich hab überlegt, was kann ich verbessern. Und ich hab dann irgendwie viel im Internet recherchiert und da haben halt viele Frauen geschrieben, dass ein Transfers am Tag 3 auch nicht schlecht ist, weil dann kommen die

Embryonen früher in die Gebärmutter zurück. Und wo ist es besser, als in der Gebärmutter? Und das hab ich dann halt [meinem Arzt] eben unterbreitet. Der hat sich dann schon dacht, um Gottes Willen, schon wieder eine neue Idee. Und der hat dann eben gesagt, ja, das können wir machen, aber er möchte auf alle Fälle einen Blastozysten am Tag 5 dabei haben [...] Und er hat gesagt, wir setzen am Tag 3 zwei ein und am Tag 5 einen. (AS2, 359-376)

_30 Du gehst bewusster damit um. Die Wahrscheinlichkeit, dass du, wenn du natürlich schwanger wirst, dass du das vom ersten Tag an weißt, ist äußerst gering. (CT1, 1132-4)

_31 Andere wissen nicht mal, wann ihr Kind entstanden ist, oder wie [...] Du weißt ganz genau, wann dein Kind entstanden ist, ja? (BW2, 433; 857-8)

_32 Es steht und fällt alles mit dem Alter der Frau. Also, ab 30 fällt die Fruchtbarkeit schon sichtlich und ab 35 schon extrem. Und es ist halt die Qualität der Eizellen, ja? Die da abnimmt. Bei uns nicht. Also, ich war ich war 34 und ich hab wirklich immer schöne Eizellen gehabt. (AS2, 230-4)

_33 Es ist klar, dass ich alt werd. Es ist klar, dass ich, wenn ich mich damit auseinandersetz', dann weiß ich, dass zur Geburt eine gewisse Menge an Eizellen zur Verfügung gestellt werden mehr oder weniger, sag ich jetzt einmal. Und wenn die aufgebraucht sind, dann ist es vorbei. Fertig. (CT1, 1213-5)

_34 Zu spät, zu langes Warten mit dem Kinderwunscherfüllen (E1, 51)

_35 Ich war ungeduldiger. Mein Mann ist älter als ich, aber der hat keine biologische Uhr. Wobei ich jetzt im Vergleich auch nicht alt war. Meine Arbeitskollegin hat mit 41 das erste Kind jetzt gekriegt und ich war doch zehn Jahre jünger, wie ich Kinder bekommen hab. Aber also im Wartezimmer, wenn man schaut. Die betroffenen Paare, die sind durchwegs 35 aufwärts, jetzt für mein Gefühl gewesen. Und ich war doch erst 30, na? [...] Wir haben das sehr entspannt gesehen. (FT2, 835-46)

_36 Die Überlegung ist nicht da. Weil wir gesagt haben, wir tun uns das kein zweites Mal an. Das ist wahnsinnig anstrengend für mich, also diese Hormongeschichten. Das hätt ich nicht gedacht, dass das wirklich dermaßen mühsam ist. Von den Nebenwirkungen her war es sehr anstrengend. Und wir haben zwei gesunde Kinder. Wir haben gesagt, wenn es sein soll, dann wird es so sein, und wenn nicht, dann nicht. (FT2, 458-62)

_37 Wir verwenden vor allem [...] so [einen kurzen] Zyklus. Es gibt Kliniken, die verwenden die Pille, damit man genau terminisiert, wann die wirklich Punktion ist. Wir lassen das immer laufen, wie es ist. Ich brauch jetzt nicht den Zyklus künstlich verschieben [...] Man beginnt immer aus der Regelblutung heraus mit der Hormonstimulation. (E2, 212-8)

_38 Wir machen größtenteils programmierte Zyklen. Das heißt wir geben das so eine Art Pille im Vorzyklus und damit kann man die Regel sozusagen schieben. Aber wir tun's nicht, um die Regel zu verschieben, die ist uns wurscht, sondern wir wollen an einem bestimmten Tag mit der Stimulation beginnen. (E1, 156-9)

_39 Naja, also im Prinzip, wenn man es jetzt ganz streng technisch sieht, brauch ich keinen Zyklus. Ich hab eine Patientin gehabt, die hat ein extremes PCO-Syndrom gehabt, die hat nie eine natürliche Regel gehabt. Die war über 30. [...] Man kann mit einer Pille auslösen beispielsweise. Oder mit einem Gelbkörperhormon [...] Also die baut oder stabilisiert die Schleimhaut und sobald man das weglässt, wird die Schleimhaut abgestoßen durch den Hormonentzug. Aber ich brauche jetzt keinen Zyklus eben, wenn man es extrem macht. Ich brauche nur Eizellen, die ich ab-punktieren kann. (E2, 199-208)

_40 Sie machen's einfach so, wie's grad wirklich vom Zyklus her passt. Was ich auch besser find, weil, ich mein, irgendwie soll man sich schon ein bissl nach dem Körper auch richten, ja? [...] Dann kann man der Natur auch ein bissl noch den freien Lauf lassen, soweit's geht, find ich. (BW2, 1056-62)

_41 Und ich hab mir gedacht, das geht sich leicht aus. Weil das wär, da müsst's zwei Wochen zu spät kommen, oder so, dass es sich nicht ausgeht. Und es ging sich nicht aus, [die Regel] kam nicht, sie kam dann wirklich ein, zwei Tage zu spät. Und über Weihnachten haben sie immer zu. (BW2, 503-6)

_42 Da war zuerst die Überlegung, [...] ob wir nicht vor Weihnachten nicht noch einen Versuch machen. Da war ich wahnsinnig enttäuscht, dass das schlecht ausgegangen ist. Ich hab da irgendwie so den Zeitdruck gehabt, nein, probieren wir's gleich wieder. Und dann ist aber so, dass das Institut zwei Wochen geschlossen hat über Weihnachten. (FT2, 431-4)

_43 Ich hab ziemlich spät die Regel bekommen, also mit 15 oder so, 16 das erste Mal. Und also PCO, das ist das polyzystische Ovar, dass du halt viele Follikel hast, aber das ist von den Hormonen her, dass der Status nicht passt, das ein Follikel zu einer Eizelle heranreift oder schon heranreift, aber halt alle 6 Monate, oder alle 3 Monate oder irgendwann. Jedenfalls nicht regelmäßig. (KM1,53-9)

_44 Auch ein bissl Frau-Gefühl, anders als wenn du monatelang keine Regel hast. Ich denk mir auch, wenn jetzt 10 Jahre lang alle halben Jahr einmal die Regel gekommen wär oder sowas, weiß ich nicht wie's dann gewesen wäre. (KM1, 1148-51)

_45 Da kommt man dann drauf, ob eine Frau überhaupt noch Eizellen hat, die genetisch in Ordnung sind [...] Ein großes Thema wäre eben, wo auch geforscht wird, wie hilft man der Frau schon im fortgeschrittenen Alter, dass sie immer noch gute Eizellen hat? Das heißt durch bestimmte Pharmaka, durch bestimmte Hormone, sei es auch durch Techniken im Labor. Eizellenverjüngung ist ein Forschungsthema. (E1, 96-7; 106-9)

11.2 Abstracts

Abstract. *Well into the 21st century the number of individuals undertaking assisted reproductive treatment in Austria appears to be steadily on the rise. Yet, large-scale public and scholarly discourse, particularly on the side of the social sciences, remains rather quiet. This, in turn, leaves the variably entangled and lived realities of assisted reproduction in Austria largely black-boxed. The present thesis draws on five open-ended, in-depth biographical interviews with women, who undertook and conceived with the help of assisted reproductive treatment, in an attempt to concretely attend to these lived realities. By employing the notion of "biographical work" (Holstein and Gubrium 1995), the women's personal narratives can be understood as actively configured, casting the respondents as resourceful storytellers who work their biographies to become situationally meaningful accounts of themselves and life lived, but also mobilize a range of relevant narrative resources that actively embed their accounts in a given socio-scientific context. In that sense, biographical narratives may also be seen as both result and indication of personal identity, that is, a means to express and bring into action particular and meaningful understandings of self. Specifically, this thesis asks how the respondents forge different forms of identity from narratives of time. For this concrete analytical focus it makes use of a timescapes perspective (Adam 1998) as sensitizing concept, allowing temporalities to be similarly considered as multiple and shifting. To account for the narrative resources which the respondents engage and which are specific to the focus on temporalities, this thesis will also be concerned with the local framings of assisted reproduction in Austria. To that end, it additionally draws on two expert interviews with medical professionals in the field and on an analysis of the specifically performative effects of legal regulations in place.*

KEYWORDS: *ASSISTED REPRODUCTION - BIOGRAPHICAL WORK - IDENTITY - TEMPORALITY - TIMESCAPES*

Zusammenfassung. *Die Zahl derer, die sich in Österreich Methoden medizinisch unterstützter Fortpflanzung unterziehen, scheint im Fortlauf des 21. Jahrhunderts immer weiter zu steigen. Dabei könnte ein umfassender öffentlicher und wissenschaftlicher Diskurs, insbesondere aufseiten der Sozialwissenschaften, teils stiller nicht sein. Im Gegenzug bleiben dadurch die vielschichtig ineinandergreifenden und gelebten Wirklichkeiten von Fortpflanzungsmedizin in Österreich zumeist unbeachtet. Die vorliegende Arbeit verfolgt das Ziel, eben auf diese gelebten Wirklichkeiten konkret einzugehen, und bezieht sich dazu auf fünf offene biographische Interviews mit Frauen, die Methoden medizinisch unterstützter Fortpflanzung in Anspruch genommen haben und mithilfe dieser auch eine Schwangerschaft herbeiführen konnten. Dabei erlaubt das Konzept der „biographical work" (Holstein and Gubrium 1995), die persönlichen Narrative dieser Frauen als aktive Gestaltungen und die Frauen somit als findige Erzählerinnen zu verstehen, die ihre Biographien zu situativ sinnhaften Darstellungen von sich selbst und ihrem Leben verarbeiten, dazu aber auch eine Vielzahl von relevanten narrativen*

Ressourcen mobilisieren, die ihre Darstellungen wiederum aktiv in gegebene gesellschaftlich-wissenschaftliche Kontexte einbetten. Dementsprechend können biographische Narrative sowohl als Ergebnis wie auch als Ausdruck persönlicher Identität gesehen werden, das heißt als Art und Weise, wie die Frauen spezifisches und sinnhaftes Selbstverständnis geltend machen. Konkret fragt die vorliegende Arbeit danach, wie die befragten Frauen verschiedene Formen von Identität aus verschiedenen Zeit-Narrativen heraus konstruieren. Für diesen speziellen analytischen Ansatz rekurriert die Arbeit auf die „Timescapes"-Perspektive (Adam 1998), um Zeitlichkeiten gleichermaßen als vielseitig und veränderlich fassbar machen zu können. Um außerdem auf die narrativen Ressourcen eingehen zu können, die die befragten Frauen einsetzen und die sich speziell aus dem Fokus auf Zeitlichkeiten ergeben, setzt sich die vorliegende Arbeit auch damit auseinander, wie Fortpflanzungsmedizin in Österreich organisiert und institutionalisiert ist. Hierfür werden zusätzlich zwei Experteninterviews mit Fachärzten, sowie eine Analyse der performativen Effekte gesetzlicher Regelungen in diesem Bereich herangezogen.

KEYWORDS: *FORTPFLANZUNGSMEDIZIN - NARRATIVE INTERVIEWS - BIOGRAPHISCHE ERZÄHLUNG - IDENTITÄT - ZEITLICHKEIT*

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