State of the //ART// of the State

A Political Economy of Assisted Reproduction in Palestine/Israel

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SUMMARY

This dissertation aims to unravel Israel's pronatalist fertility regime as co-produced by ongoing histories of Zionist settler colonialism and biocapitalism. Rather than adhering to dominant culturalist viewpoints on (assisted) reproduction in Israel, which focus on the particularity of fertility in Jewish culture, law and religion, *State of the //ART// of the State* advances a gendered political economy perspective. This transdisciplinary perspective looks into the sociomaterialities of ART in Israel/Palestine at the intrasecting logic of biocapital accumulation and demographic elimination, by bringing to the fore its mutually constituting power hierarchies of class, race, gender, biology, sociality, life and death.

Taking reproductive technologies and practices such as IVF, Pergonal, egg donation and transnational surrogacy as case studies that have been studied through qualitative fieldwork in Israel/Palestine, I have unpacked the gendered political economy approach by consistently looking into four key themes: 1) settler colonial demographies, 2) ART's life and death function, 3) biocapitalism's underlying property –and labour regimes and 4) the (re)productive role of women and their bodies. Using ARTs as a looking glass to understand how Zionism transformed from a European ideology into a practice in Palestine/Israel, has exposed the intimate ways through which reproductive technologies and practices have co-produced a settler colonial state, nationalised bodies, racialised populations and 'pioneering' bio-markets, ánd vice versa.

I concluded that Zionism's demographic arithmetic directed at manufacturing a Jewish majority at the expense of Palestinian life, has enabled the development of an innovative reproductive-embryonic industry, in which women and their bodies play a crucial role, both as reproducers of the settler nation and as (unrecognised) producers of biovalue. Although the sphere of biological and social reproduction constitutes a powerful perspective to understand Zionist policies of demographic control, elimination and biocapital accumulation, it is also a fertile starting point to explore, imagine and construct anticolonial political horizons.

SAMENVATTING

Deze doctoraatsverhandeling analyseert Israëls pronatalistisch geboortebeleid vanuit het perspectief van bevolkingskolonialisme en biokapitalisme. In plaats van de dominante culturalistische verklaringsmodellen te volgen, die focussen op het belang van (medisch begeleide) reproductie binnen de Joodse religie, cultuur en geschiedenis, stelt *State of the ART of the State* een gegenderde politiek-economische analyse voor. Dit transdisciplinair perspectief bestudeert de sociomaterialiteit van medisch begeleide reproductie (MBR) in Israël/Palestina volgens de samenvallende logica van (bio)kapitaalsaccumulatie en demografische eliminatie, en schenkt bijzondere aandacht aan de manier waarop reproductieve technologieën gevormd worden door en vorm geven aan klasse–, gender- en ethniciteitsrelaties, biologie en maatschappij, regimes van leven en dood.

Op basis van een kwalitatieve analyse van reproductieve technologieën en praktijken zoals IVF, Pergonal, eiceldonatie en transnationaal draagmoederschap, werd het voorgesteld politiek-economisch perspectief geoperationaliseerd door telkens de aandacht te vestigen op vier cruciale thema's: 1) Zionismes reproductie-demografie nexus, 2) de biopolitieke en necropolitieke functie van medisch begeleide reproductie, 3) de onderliggende biokapitalistische arbeids –en eigendomsregimes en 4) de (re)productieve rol van vrouwen en hun lichamen. Door MBR als lens te gebruiken om de transformatie van het Zionisme - van een Europese ideologie tot een praktijk in Israël/Palestina – te begrijpen, werd duidelijk hoe deze reproductieve technologieën hebben bijgedragen tot het uitbouwen van een bevolkingskoloniale staat, genationaliseerde lichamen, geracialiseerde bevolkingsgroepen en innovatieve bio-markten, en vice versa.

De Zionistische demografische logica die inzet op het creëren van een Joodse meerderheid ten koste van de Palestijnse bevolking, heeft de ontwikkeling van een geavanceerde en lucratieve reproductieve industrie mogelijk gemaakt, waarin vrouwen en hun lichamen een cruciale rol spelen: als voortbrengers van de nieuwe generatie Israëlische pioniers en als producenten van biowaarde. Hoewel de sfeer van biologische en sociale reproductie een interessant perspectief biedt om de Zionistische politiek van demografische controle en kapitaalsaccumulatie te begrijpen, is het ook een vruchtbaar startpunt om een antikoloniale politieke horizon te verkennen en vorm te geven.

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LIST OF ABBREVIATIONS

AAA: American Anthropology Association

ART: assisted reproductive technologies

CEO: chief executive officer

DES: diethylstilbestrol

DI: donor insemination

EU: European Commission

JDC: Joint Distribution Committee

FDA: Food and Drug Administration

FINRRAGE: Feminist International Network of Resistance to Reproductive and Genetic Engineering

hESC: human embryonic stem cell

HMO: health maintenance organisation

ICSI: intra cytoplasmic sperm injection

IDF: Israeli Defense Forces

ICBS: Israel's Central Bureau of Statistics

IP: intellectual property

iPS: induced pluripotent stem cells

IRB: institutional review board

IT: information technology

ITTN: Israel Tech Transfer Organization

IVF: in vitro fertilisation

LGBTQ: lesbian, gay, bisexual, transgender, queer

MENA: Middle East and North Africa

MOH: Ministry of Health

NEP: New Economic Policy

NGO: non-governmental organisation

NIS: New Israeli Shekel

OCS: Office of Chief Scientist

OECD: Organisation for Economic Co-operation and Development

OHSS: ovarian hyperstimulation syndrome.

PACBI: Palestinian Campaign for the Cultural and Academic Boycott of Israel

PCBS: Palestinian Central Bureau of Statistics

PGD: prenatal genetic diagnosis

PGS: prenatal genetic screening

PIBA: Population, Immigration and Borders Authority

PLO: Palestinian Liberation Organisation

R&D: research and development

SCNT: somatic cell nuclear transfer

S&T: science and technology

STS: science and technology studies

TRIPs: trade-related aspects of intellectual property rights

WIZO: Women International Zionist Organisation

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It would have been great if a sincere and jolly "cheers my dears" had sufficed in thanking you, as to avoid an over-sentimental start of this dissertation. But let's be honest, that brevity would not only be very unfitting for me, it would also do great injustice to all the love, care and labour of a whole lot of good people in helping me to give birth to this PhD.

So here goes.

To my dad, my good friend and my hero, Marc, who all too soon had to learn how to play mom as well. Thanks for your genuinely beautiful soul, for teaching me how to stand up for what I believe is just, and for probably being the only person in the world who - despite our occasional political discussions - can turn my eternal restlessness into peacefulness. Also thank you Rita, for taking such good care of my dad. To my schwester-san, Sara, thanks for your 100 percent of pure dynamite, for making me laugh out loud and for giving life to the best new kid on the block, Stafke.

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I will end this over-sentimental section with the wise words of the famous doglover Donna Haraway who once said that in this crucial moment in capitalism's destructive history, it's time to run fast and bite hard.

And think slow, of course, always think slow!

Cheers, my dears!

Siggie
Brussels, 14th of November 2016.

INTRODUCTION

INTRODUCTION

"Adam she'ein lo banim chashuv ke'met" – *"A man who is childless is accounted as dead"*

- Popular Jewish proverb stemming from'Talmud', tractate 'Nedarim' 64b

"*Israel is a country in which nobody agrees about anything. The only thing anybody agrees about is that to be childless is the probably worst disease. So it doesn't matter if you are ultraorthodox, gay, lesbian, or whatever. Everybody believes that babies are a must*".

- Daniel Seidmann, fertility doctor Sheba Medical Centre, quoted from interview 05/05/2014, Tel Aviv)

State of the ART

In August 2011, the 17-year-old Chen Aida Ayish died after being hit by a car in the streets of Kfar Saba, a city in the centre of Israel. When Chen's parents decided to donate their daughter's organs, they also demanded that doctors would extract and freeze her egg cells, so that they could posthumously use them to produce genetic offspring of their child. Their contentious demand was backed up by the Kfar Sava Magistrate's Court, that allowed the parents to harvest egg cells from Aida's dead body (Even, 08/08/2011) [1]. One year later and 30 kilometers to the east, in Nablus - on the other side of the Separation Wall - Dallal Ziben gave birth to a baby boy Mohanad after being artificially inseminated with the sperm of her husband Ammar Ziben who is serving 32 life sentences in Hadarim prison in Israel. Ammar's sperm reached the Razan fertility clinic in Nablus after he managed to smuggle it out of prison, a strategy that has been copied ever since by dozens of other Palestinian prisoners. A few months later, in December 2012, a report was published by the Israeli feminist organisation *Isha L'Isha* on the disproportional administration of the controversial contraceptive Depo Provera to Ethiopian Jewish women who settled in Israel. Many Ethiopian women reported how they were forced to take Depo Provera shots, which are effective for three months, in the transitcamps in Ethiopia as a condition for making Aliyah. The women complained that this policy continued after they arrived in Israel. Although the Israeli state

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[1] Even, Dan. 2011. "Dead Woman's Ova Harvested After Court Okays Family Request". *Ha'aretz* 08/08/2011. http://www.haaretz.com/dead-woman-s-ova-harvested-after-court-okays-family-request-1.377495 (last entry, 14/11/2016).

comptroller dismissed the allegations in 2016 for lack of evidence, the birth rate of Ethiopian women in Israel has dropped almost 50 percent in a decade [2].

What connects all these admittedly rather sensational stories is the manifest centrality and sensitivity of issues of reproduction and fertility in Israel/Palestine. Already in 1977, Lesley Hazleton put forward the term "*cult of fertility*" to describe the dominant policies, attitudes and practices concerning reproduction in Israel. Since then, social scientists and feminist scholars have been persuasively arguing how - despite the lack of an official fertility policy - the Israeli government has introduced numerous reproductive measures that express its efforts to be a Jewish state (Portuguese, 1998; Kahn, 2000; Weiss, 2002; Kanaaneh, 2002; Birenbaum-Carmeli, 2004, 2008, 2010; Prainsack, 2006; Hashiloni-Dolev, 2006; Gooldin & Shalev, 2006; Nahman, 2006, 2008a, 2008b, 2013; Remennick, 2006, 2010; Hashash, 2010; Shalev, 2010, 2011)[3].

As Yali Hashash (2010) remarked, within this burgeoning field of scholarship on reproduction in Israel two crucial arguments are made, problematising both the quantitative and qualitative aspects of Israel's fertility regime. The first assertion is that Israel's reproductive policies are ardently pronatalist. Since the creation of the State in 1948 (and even before), Israel has institutionalised its pronatalist vision through multifarious funds, councils and committees, including the Heroine Award for mothers with at least ten children in 1949, the Committee for Natality Problems in 1962, the Demographic Centre with its Fund for Encouraging Birth in 1968 and the Israel Council on Demography in 2002. These initiatives proposed and provided monetary incentives for reproducing large families, social and welfare benefits for (working) mothers and high child allowances, depending on the conjunctural flows of the Israeli economy (Portuguese, 1998; Birenbaum-Carmeli, 2007:25).

The same pronatalism has been detected in Israel's assisted reproductive policies. Israel has more fertility clinics per capita than any other country in the world, i.e. 25 public units and more than 100 private units for eight and a half million people. Assisted reproductive technologies (ART) such as in vitro fertilisation (IVF), intracytoplasmic sperm injection (ICSI), donor insemination (DI), surrogacy, egg donation, egg freezing and prenatal genetic diagnosis (PGD) are widely accepted and extremely popular in Israel. Measured by the number of IVF treatment cycles per capita, Israelis are by far the biggest consumers of IVF in the world. For example, in 2005 there

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[2] Yaron, Lee. 2016. "No Evidence That Ethiopian-Israeli Women Were Forced to Take Birth-control Shot, Comptroller Says". *Ha'aretz* 20/01/2016.
http://www.haaretz.com/israel-news/.premium-1.698394?=&ts=_1479123482011 (last entry, 14/11/2016).
[3] A fertility policy is a set of legislative measures, administrative programs and socio-technical imaginaries developed by governmental and non-governmental actors in an attempt to change, affect or manipulate the national birth rate. It normally forms part of a wider population policy (Greenhalgh, 1990, 2005).

were 3.575 IVF cycles per million in Israel, i.e. eight times the international average and three times the EU average (ICMART, 2004; Shalev and Felmayer, 2012; Gooldin, 2013)[4]. Moreover, between 1990 and 2005, there has been a five-fold increase in IVF consumption (Birenbaum-Carmeli and Carmeli, 2010). While in 1995, only 1.7 per cent of total live births in Israel resulted from IVF, by 2010 the percentage had risen to 4.1 per cent.

Many of the aforementioned reproductive technologies are almost entirely state-sponsored. Israel is the most generous country in the world in terms of public funding for infertility treatment. For instance, the Israeli government funds for every citizen of the country - regardless of religious or marital status - an unlimited number of IVF cycles until the live births of two children within the current relationship (Shalev & Felmayer 2012)[5]. According to rough estimates for 2010, governmental expenditures on IVF alone (not including ICSI and other related technologies) stood at 1.7 per cent of the annual health basket cost (Ivry, 2010). While the benefits of fertility treatment are ubiquitously publicised in Israel's public health discourse, the potential health risks, such as hypertension, multiple births, ovarian hyperstimulation syndrome and increased risk of gynaecological cancers, are downplayed (Birenbaum-Carmeli and Carmeli, 2010). Moreover, in contrast to the remarkably generous support for enabling reproductive technologies, treatments that restrict family size remain largely undersubsidised in Israel (Balabanova and Simonstein, 2009). Family planning services are not only inadequate, but they hardly receive state support (Portuguese 1998). Contraceptives are not widely promoted in Israel and abortion, except for therapeutic reasons, is still illegal.

The second contention within this growing body of work is that Israel, although pronatalist is equally concerned with quality and the so-called quest for the perfect baby (Remennick, 2006; Hashiloni-Dolev, 2009; Ivry, 2010). Research has indicated that Israeli women are among the world's biggest consumers of prenatal genetic tests, genetic profiling and counseling. Moreover, as Tsipy Ivry (2010:40) noted, Israeli patients – significantly more than patients in the US or

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[4] According to Israel's Ministry of Health, 17.614 IVF treatment cycles were performed in 1989, resulting in 11.661 transfer cycles and 1.584 live births. By 2010, 34.538 treatment cycles were performed, resulting in 29.961 transfer cycles and 5.612 live births (Israeli Ministry of Health, Department of Health Information, Medical Facilities and Equipment Licensing Division, 2013).

[5] The National Health Insurance Law, signed in 1994, obliges health care funds to provide for all Israeli residents a 'basic basket' of health services, which includes "*infertility diagnosis and therapy and artificial fertilisation […] for the purpose of bearing a first and second child – for couples who do not have children from their current marriage, and also for a childless woman who wishes to establish a single-parent family without any limit on the number of treatment cycles*" (Shalev and Felmayer, 2012:3). Since January 2014 Israel's Health Ministry has tried to limit the number of subsidised IVF cycles to eight so as to "*strike a balance between reproductive rights and public health considerations*". The directive also states that after four consecutive cycles in which the embryo failed to implant, or eight cycles that failed to produce clinical pregnancy, the woman should meet with her medical team and a social worker to discuss options for continued treatment (Efrati, 22/01/2014). In practice, the unlimited subsidising of IVF treatment has continued.

Europe - tend to abort for relatively minor defects such as harelip, chronic sinusitis or deformed feet. According to Meira Weiss (2002) this is partially the result of the societal imperative to produce '*Sabras*', a new type of Israeli-born Jew that shows strong and masculine physical qualities as opposed to the feminine and weak image of the Diaspora Jew. Concordantly, the Israeli regulation on 'red' biotechnology - i.e. biotechnology applied to medical processes - is very loose. Controversial techniques and practices such as therapeutic cloning, posthumous reproduction or sex selection are allowed in Israel. Barbara Prainsack (2006) observed a notable absence of public discussions and controversies about the moral acceptability of technologies such as cloning, genetic modification or human embryonic stem cell research. She viewed this "*fearless, liberal but not immoral embrace of biomedical technologies*" as part of "*doing it the Israeli way*" (Prainsack and Firestine, 2006:42).

ART IN ISRAELI ACADEMIA

"And G-d blessed them; and G-d said unto them: 'Be fruitful, and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that creepeth upon the earth".

- Bereshit/Genesis 1: 28

The Israeli urge to "reproduce New Jews" (Kahn, 2000) has often been explained through what Mahmood Mamdani (2004) has dubbed "culture talk", i.e. a rather myopic focus on the centrality of reproduction in Judaism and Jewish history, culture and tradition. Israeli scholars, often anthropologists or sociologists of science, have referred to the fundamental importance of the first religious commandment (*mitzvah*) that prescribes Jews to be fruitful and multiply and replenish the earth (*pru urvi umil'u et ha'aretz*), to the omnipresence of the Matriarchs and Patriarchs in Jewish tradition and to the compatibility of the Jewish law (*Halakha*) with the principles of ART resulting in the remarkably permissive attitude of the orthodox Jewish establishment toward assisted reproduction. Others have pointed to the violent history of Jews in Europe and tsarist Russia and the virulent waves of anti-Semitism they faced, culminating in the Shoah, through which individual procreation increasingly became a matter of collective Jewish survival (Katz, 1971; Kahn, 2000).

In his research on medical technologies in Israel, Don Seeman (2010) for instance, referred to the dominant biblical theme of barrenness, a condition that affected all the Matriarchs, to explain the popularity of fertility treatment among Israelis. According to Seeman (2010: 343), the desperate attempts by both men and women to bring forth children from childlessness came "*to define the very architecture of biblical narrative".* Similarly, Susan Martha Kahn (2000:6), who wrote one of the first ethnographic accounts of new reproductive technologies in Israel, aimed to explore the

cultural meanings and contemporary rabbinic responses to various reproductive technologies. She concluded:

> "*These phenomena are not the result of unusually high rates of infertility in Israel but reflect the centrality of reproduction in Judaism and Jewish culture*".

Also Elly Teman (2010), in her fascinating ethnographic work on surrogacy in Israel opted for a cross-cultural perspective to scrutinise the intimate experiences of gestational surrogate motherhood. Tsipy Ivry's (2010:45) analysis of reproductive genetics in Israel started from the question whether there is something *"particularly Israeli in the understanding of pregnancy that facilitates the enthusiastic embrace of prenatal diagnosis"*? She explained pregnant Israeli women's excessive use of prenatal tests by referring to culturally constructed versions of conception in Israel. As she stated:

> "*A fear of worst-case scenarios [that] seems to reside at the heart of Jewish folk religion and cuts through the pregnancy cultures of Jews of diverse ethnic origin*" (Ivry, 2010:228).

She urged the reader to revisit and explore the historical moments of existential threat that are so prevalent in Israeli-Jewish history, including:

> "*the enslavement of the Israelites by Pharaoh followed by the exodus from Egypt celebrated at Passover; a temporary relief in the bitter struggles for national and spiritual independence from Hellenistic rule that is celebrated in Hanukah; the inversion of the magisterial verdict to exterminate all Jews in the Persian Empire, and of course the Shoah*".

Lastly, Gali Ben-Or and Vardit Ravitsky (2010:231, 242) attempted to deconstruct the "*open-minded Israeli approach*" on human cloning by referring to the "*traditional Jewish mindset that seeks a delicate balance between caution and progress, while perceiving potential for future treatments and cures as of paramount value*". They concluded that Israel has created a unique model for regulating human reproductive cloning "*which is based on cultural, traditional and religious values and should therefore be understood within the appropriate cultural context*".

What ties together most of these ethnographic accounts on ART methodologically is a rather one-sided focus on Israel's Jewish population while largely ignoring the views, perspectives and experiences of other racialised groups in Israel/Palestine, including Palestinians, Russian settlers, African asylum seekers, South-East Asian migrant workers, Ethiopian Jews etc. These methodological and epistemological choices stem from the prevailing perspective that Israel's different population groups or 'sectors' diverge so substantially in their socio-political contexts and cultural-religious orientations that they require separate analyses (Birenbaum-Carmeli and Carmeli, 2010). Kahn (2000:6-7), for instance, stipulated in the introduction of her book:

> "*It is important to point out that my ethnographic work focuses on Israeli Jews, not on non-Jewish minorities or on Palestinians living in the Occupied Territories. Although Palestinians and other non-Jewish Israeli minorities have equal access to fertility treatment in Israeli*

> *hospitals, state policies regarding the appropriate uses of reproductive technology are constructed with attention to Halakhic concerns about relatedness; Islamic and Christian attitudes are manifest in individual use of these technologies, not in state policy. Thus I would like to make it clear that when I refer to 'Israelis or 'Israeli society,' I am referring to Israeli Jews and Israeli society, unless noted otherwise."*

Similarly, Larissa Remennick (2006:24) legitimised her choice of strictly including Jewish-Israeli respondents in her research on reproductive genetic testing as followed:

> "I *chose to focus on Jewish Israelis because they comprise over 80 per cent of consumers of genetic services and because the set of issues faced by non-Jewish Israelis in the reproductive realm is rather different, calling for a separate research project*".

Lastly, Daphna Birenbaum-Carmeli and Yoram Carmeli (2010:3), who edited an excellent volume on reproductive technologies among Jewish Israelis, premised:

> *"In this volume our focus is on the country's Jewish population. The choice of this axis stems from the view of inter-group differences as substantive. Dissimilar regions, histories, socio-demographic structures, sense of collective identity and position within the local politics have resulted in distinct fertility and infertility patterns in each community".*

Birenbaum-Carmeli and Carmeli (2010) underlined, however, that the reproductive patterns of each sector should be understood in relation to the others, reaffirming a complex power dynamic that is fundamentally rooted in what they termed the Jewish-Palestinian conflict. Yet they refrained from including or foregrounding Palestinians or the Palestinian Question in the research project [6].

I contend that the bulk of the social scientific accounts of ARTs in Israel is entrenched in a culturalist logic and based on circular arguments in which only Jewish Israelis are included in the research framework and questions, subsequently followed by the conclusion that there must be something particularly Jewish at work in the policies and practices on reproductive technologies in Israel. Strictly focusing on cultural narratives of 'Jewishness' to understand and explain Israel's pronatalist stance tends to reproduce hegemonic accounts of reproduction that disregard the Zionist state's inherent stratified and exclusionary reproductive practices, particularly towards Palestinians, but also towards other racialised groups in Israeli society (Nahman, 2013).

In their groundbreaking work on settler colonial societies, Stasiulis and Yuval Davis (1995:5) proposed an understanding of Palestine/Israel that views the gendered histories of indigenous, settler and migrant peoples as interdependent and mutually constitutive rather than separating them into isolated and disconnected cultural categories. Concurrently, in her research on women's

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[6] For Birenbaum-Carmeli and Carmeli (2010:4), a broad gamut of factors influence Israel's fertility policy: "*The diverse cultural backgrounds within the Jewish sector and inter-ethnic relations, religious versus non-religious Jewish camps, internal state politics, professional interests, consumer culture, state versus citizen, general Jewish tradition: each seems to have its contribution, and none would be independent of the Israeli-Palestinian conflict. In fact, the opposite is true*".

citizenship in Israel, native scholar Nahla Abdo (2011:5) concluded that Israeli feminist literature is concerned largely "*with one's own 'national' group*". Moreover, Abdo pointed out that most feminist research on Jewish and Arab women in Israel focuses on the relationship between three cultural institutions, namely family, religion and nationalism. While it is obviously necessary to understand the role of cultural institutions in constituting women's roles in Israeli society, Abdo insisted that this should not obfuscate the material conditions undergirding the relationship between the settler colonial state and its colonising and colonised subjects (Id.:29, 48). She clarified:

> "*The point is that family, culture, religion cannot be treated as ahistorical concepts detached from the specific historical state within which they operate. (…) Cultural institutions are not free-floating agents within a state, any state. They are affixed to the state and operate as base resources for its cultural expression*".

Drawing on these insights, I argue that while it is absolutely necessary to study ARTs within their local socio-cultural context, it is just as important to take into account their embeddedness in global markets of reproductive tissues and labour, transnational geopolitics and colonial power hierarchies (Pavone, 2015; Vertommen, 2015; Lykke and Lie, 2016). Without seeking to downgrade or minimise the pivotal importance of reproduction within Judaism and Jewish history and culture, this dissertation proposes a gendered political economy perspective as a way to supplement the existing and somewhat biased analyses [7]. This perspective does not only consider the centrality of reproduction within the ongoing Zionist settler colonial project that aims to create a Jewish demographic majority in a Jewish State at the expense of Palestinian existence (the logic of elimination), but also Israel's leading bio-economic position in the globalised reproductive health and research market (the logic of capital accumulation). Building further on the innovative work of Nitza Berkovitch (1997), Jacqueline Portuguese (1998), Rhoda Kanaaneh (2002), Adi Moreno (2016) and particularly Michal Nahman (2006, 2008a, 2008b, 2013), who have conceptualised (assisted) reproductive technologies in Israel/Palestine as state and/or global market making practices, this dissertation turns to the gendered entanglements of Zionist settler colonialism and (bio-)capitalism as a way to further understand the emergence and consolidation of Israel's pronatalist fertility regime. Reproductive technologies and practices, including IVF, egg donation and transnational surrogacy, will be used as a socio-technical 'looking glass' (Franklin, 2013), enabling us to see how procreative life, settler colonial biopolitics and biocapitalist accumulation jointly constitute each other in Palestine/Israel.

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[7] In the following section I will explain how I understand and operationalise this gendered political economy approach.

ART IN FEMINIST TECHNO-SCIENCE AND SCIENCE AND TECHNOLOGY STUDIES [8]

Assisted reproduction refers to the wide variety of fertility technologies, techniques and procedures that are used partly to regulate and reduce but mostly to enhance and enable pregnancy. ARTs concern the most intimate spheres of people's reproductive lives but they are just as much public matters influenced by family and gender norms, population and demography concerns, religious prescriptions, global market flows, differentiated policy approaches, legal access etc. (Lie and Lykke, 2016). For a multitude of reasons, the introduction and mainstreaming of assisted reproductive technologies, starting with in vitro fertilisation in 1978, can be viewed as a milestone.

From a societal perspective, IVF has provided infertile couples and singles with the opportunity to have biologically related children. Since 1978, when it was successfully implemented for the first time, five million 'miracle babies' have seen the light of day through this reproductive technology. In the medical-scientific realm, IVF has served as a platform technology for the development of related reproductive techniques such as intracytoplasmic sperm injection (ICSI), prenatal genetic diagnosis (PGD), mitochondrial transfer as well as scientific research on stem cells, tissue cultures, cloning and regenerative medicine.

Furthermore, for the social sciences and humanities, IVF constituted an important epistemological turning point. The rapidly expanding techno-scientific ability to modify human reproduction has been accompanied by new questions, debates and promises for the politicisation and valorisation of biological life (Murphy, 2012). It catalysed fresh waves of intellectual craftsmanship and scholarly debate on how the biological, the social and their mutually constitutive relations are defined and shaped. Particularly within the fields of anthropology and sociology of science and feminist studies, scholars began investigating the place of reproductive science and technology in society.

Science and Technology Studies (STS) scholars start from the foundational premise that the natural and social orders are co-produced. Sheila Jasanoff (2006) introduced the idiom of co-production as a way to evade both social constructivist and technological determinist perspectives on science. Instead, she proposed to conceptualise knowledge, technology and its material embodiments as at once products of social work and constitutive of forms of social life. STS scholars thus began analysing human and reproductive reality as a "*joint achievement of*

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[8] Parts of this section were published as a review article of Sarah Franklin's latest book "Biological Relatives: IVF, stem cells and the future of kinship". See *Vertommen, Sigrid. 2015. Assisted Reproductive Technologies at the Frontier: Towards a Decolonial Approach. Science as Culture, 2015 Vol. 24(4):pp. 532–537.*

scientific, technical and social enterprise, without giving primacy to any one of these" (Jasanoff, 2006:2). They examined the wide array of 'novelties' brought forth by assisted reproductive technologies: new forms of materiality, kinship structures, properties and markets as well as novel identities, socialities, subjectivities and "ontological choreographies*"* of fertility (Thompson, 2005)[9]. Interesting research was done, for instance, on the various ways in which ARTs have fundamentally denaturalised our heteronormative and biologically determined conceptions of reproduction (Franklin, 1993, 1995; Thompson, 2005; Mamo, 2007). By enabling the fragmentation of the reproductive process into separate categories, practices and bodies, ARTs have offered infertile heterosexual couples the possibility to fulfil their personal desires and/or follow societal imperatives of parenthood, while providing same-sex couples with the opportunity to overcome the social obstacles of dysfertility.

Another strand of social science literature on ARTs looked at the ways in which the reconfiguration of the reproductive body's biological boundaries has resulted in the emergence of novel forms of labour and kinship, such as surrogate mothers and gamete donors, and in the formation of new biological 'bio-objects' such as stem cell lines, PGD embryos and mitochondrial DNA (Inhorn, 2003; Spar, 2006; Dickenson, 2007; Waldby and Mitchell, 2007; Inhorn and Gurtin, 2011; Cooper and Waldby, 2014).

While much of the STS literature on ARTs has focused on their disrupting novelty, other researchers have opted to zoom in on their normalising effects by analysing how 'older' hegemonic notions of race, class and especially gender were reinforced through ARTs. In feminist theory and praxis, "*seizing the means of reproduction*", as Michelle Murphy (2012) phrased it, has always been an important struggle. Since the early eighties, feminist scholars such as Gene Corea (1986) and Maria Mies (1998) warned of ARTs' patriarchal effects and their capacity to reify women's reproductive imperative. In coordination with the Feminist International Network of Resistance to Reproductive and Genetic Engineering (FINRRAGE), they also criticized ARTs' relation to international programs of population control, in which the reduction and surveillance of the procreative capacities of marginalised Others in the Global South and North was increasingly seen as a *conditio sine qua non* for various projects of liberal modernity, including capitalist industrialisation, sustainable development and women's emancipation (Murphy, 2012; Franklin, 2013). These modernisation projects implied that women should have enough children to reproduce the labourforce and keep the factories and households running, but not so many as to be unable to emancipate themselves and save the planet at the same time (Murphy, 2012).

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[9] Based on her ethnographic research in American fertility clinics, Thompson (2005) described 'ontological choreographies' of fertility as the dynamics by which technical, scientific, kinship, gender, emotional, legal, political, financial and other issues are coordinated in ART clinics.

Moving beyond the dichotomy of either warning against the patriarchal dangers of ARTs or glorifying them as a means to democratise childbirth and family building, feminist scholars with an interest in techno-science and cyborg politics began to use ARTs as a looking glass to scrutinise the porous and contingent boundaries between nature-nurture or biology-sociality (Haraway, 1991; Strathern, 1992; Franklin, 1993, 1995, 2013). In her latest work on ARTs' multiple genealogies, Sarah Franklin (2013:153) exposed IVF as an "ambivalent model" that simultaneously contradicts and normalises (Western) society's visions on biology, technology, sex, gender and kinship. She convincingly argued that, given its immense popularity and success over the last three decades, "[*I*]*t must be reproducing something else than just offspring*" (2013:5). Others have adopted the term "*trickster*" - introduced by Donna Haraway (2004:321) as a mythological figure that "*embodies undecidability and in-betweenness*" - to analyse ARTs, presuming that "*when tricksters break loose there are always more things going on than you thought*".

Although ambivalence, in-betweenness and hybridity can indeed be productive notions to re-examine the contingencies of ARTs, I argue that the existing STS and feminist techno-scientific scholarship tends to remain slightly ambiguous about which types of power relations are actually reproduced or challenged through ART. Franklin's latest book, for instance, offers a compelling account of the various ways in which IVF has profoundly subverted taken-for-granted configurations of gender, kinship and sex by unfolding how reproductive substances such as eggs and sperm were never merely biological, but always necessitated activation through technologies of gender and kinship. Yet, she shies away from explicating how IVF is also anchored in ongoing global histories of (neoliberal) capitalism and colonialism and how intrasecting technologies of race and class come to matter in these uneven geographies of power. As Vincenzo Pavone (2015:114) succinctly summarised this critique:

> "*The achievement of parenthood by a progressive gay couple in London is often based on the not so progressive exploitation of economically and socially vulnerable women*".

In what follows I will briefly discuss how this double neglect of the political economy of (bio)capitalism and (settler)colonialism takes shape in the current STS literature on ART.

On the one hand, the STS perspective has offered political (economy) scientists - who until recently never paid much attention to matters of science and technology – novel tools to conceptualise power by underlining the role of scientific practices, objects and technologies in establishing and undermining relations of authority, governance and control (Mayer, Carpes and Knoblich, 2014:14). On the other hand, however, a well-established critique of STS scholarship contends that it has not engaged sufficiently seriously with the political economy of contemporary capitalism (Birch, 2006; Lave, Mirowski, and Randalls, 2010; Tyfield and Birch, 2013; Pavone and

Goven, 2013). Tyfield (2012:160), for instance, has called STS "*almost constitutionally allergic to issues of political economy".* Birch (2006) agreed that STS scholars have failed to examine how techno-science is intricately embedded in neoliberal modes of capital accumulation by dispossession, as expressed in processes such as the financialisation of contemporary bio-science, the privatisation of techno-scientific services, the ongoing commodification of reproductive substances and the marketisation of research and development. Following this critique, political institutions and overall accounts of global power hierarchies and inequalities are not sufficiently addressed either within the current STS literature. Pavone and Goven (2013:24), for instance, noted that STS does not so much ignore power, but rather defines it in such a Latourian manner - "*as an effect of more or less ad hoc networks or assemblages"-* that it obfuscates political economy institutions, such as the state and the global market. Jasanoff (2006) herself acknowledged that STS scholars do not draw enough systematic connections between the micro-worlds of scientific practice in the laboratory and the macro-categories of the social sphere, including capital, gender, the state and the market.

The same may be said about taking into account ARTs' embeddedness in colonial histories, practices and epistemologies of dispossession and exploitation. Fertility technologies such as transnational surrogacy and egg donation are highly dependent on cheap reproductive labour from women from/in the Global South and rooted in racialised logics that reproduce imaginaries of whiteness and Europeanness. As I have argued elsewhere, the existing literature proposes a rather eurocentric vision on the reproductive frontier that does not sufficiently take into account the ongoing (settler)coloniality of power in (repro-)techno-scientific practices, policies, explorations, discoveries and developments (Vertommen, 2016b).

There are exceptions, of course, in which STS and feminist techno-scientific scholarship has aptly addressed the multiple workings and genealogies of political-economic power in the co-production, consumption and reproduction of ARTs (Nahman, 2015). Faye Ginsburg and Rayna Rapp (1991), for instance, have introduced the term "politics of reproduction" as a fundamental theoretical starting point for anthropologists and other social scientists studying reproduction. By politicising reproduction the authors sought to pay more attention to the various loci and scales of power in which reproductive relations and practices materialise (Ivry, 2010). A particularly interesting contribution to Ginsburg and Rapp's edited volume was made by Shellee Colen (1986, 1991) whose study of West Indian nannies and their female employers in New York City centred around the notion of stratified reproduction to describe the power hierarchies of race, class, gender, culture and legal status by which some population groups are empowered to nurture and reproduce, while others are disempowered. This approach was also at the basis of Ong and Collier's (2005) edited volume *Global Assemblages: Technology, Politics, and Ethics as*

Anthropological Problems, that specifically looks at the socio-technical stratifications of ART from a global perspective beyond the boundaries of the nation-state. In *The Baby Business* (2006) Deborah Spar offered a historical and empirical account of how money, science and politics have driven the market of conception in the United States. Alternatively, in her research on fertility and population politics in China, Susan Greenhalgh (2005) proposed a political economy perspective (based on time or historical context, method, process, causality and level) to understand fertility practices as products of changes in class-specific opportunity structures in response to transformations of global and regional political economies. A final political economy perspective on ARTs that has gained ground over the last decade is offered by Marxian feminists who are suggesting to analyse ARTs from the vantage point of reproductive labour and property (Dickenson, 2007; Cooper and Waldby, 2014; Vora, 2015; Pande, 2010, 2011, 2014; Rudrappa, 2015; Vertommen, 2016a, 2016b)[10].

Specifically addressing the colonial blind spot, scholars such as Sandra Harding (1994, 2011), Warwick Anderson (2002) and Amy Hinterburg (2013) have issued a strong plea to bridge the theoretical and methodological dissonance between STS and feminist epistemology on the one hand and (post)colonial studies on the other hand. Already in 1994, Harding (1994:305) urged those working with "modern Western sciences" to recognise their own location and situatedness in social relations and history so that:

> "*modern sciences could be situated on the more accurate historical and geographical maps produced by the postcolonial accounts*".

In her *Postcolonial Science and Technology Studies Reader* (2011), she proposed three main pathways for exploring connections between colonial endeavours and science and technology, that have also proven useful for social science research on ARTs and repro-tech (Hinterburg, 2013). The first is an exploration of so called indigenous knowledge as both an epistemological and political challenge to 'Western science', which should also include a critical evaluation of what is at stake when some types of knowledge production are categorised as 'Western science' while others are labelled as 'ethno-science'. For instance, in his most recent work on India's emerging stem cell economy Aditya Bharadwaj (2014) examined how experimental, so-called 'rogue' Indian stem cell therapies constitute both an epistemological and a geo-economical threat for Western science.

A second opportunity for cross-fertilising STS and (post)colonial studies suggested by Harding involves analysing how colonial inequalities and forms of racialisation re-emerge through new technologies. Michal Nahman's work (2013) for instance illustrates how Jewish Israeliness re-

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[10] Given its central importance to my theoretical framework, the latter approach on reproductive labour will be discussed more thoroughly in the section on the political economy of ARTs.

materialises through procreative practices such as transnational egg donation. By documenting stories of Jewish-Israeli recipients who refuse eggs from Palestinian donors or who view whiteness as an essential donor trait, Nahman analysed egg donations as material-discursive practices through which Zionist geographies of racial desirability, mixture, difference and purity are enacted. Similarly, Kalindi Vora's (2015:144) research on surrogacy in India offered a compelling account on the re-emergence of colonial imaginaries through ARTs. She noted how the body of the surrogate is often conceived of as an empty and detached space, similar to settler colonial imaginative geographies of the newly encountered land as empty and unpopulated.

A third and last research agenda for postcolonial STS entails demonstrating how knowledge travelled with and through colonial encounters and relations. As Hinterburg (2013) remarked, this is not only relevant for the sake of historical retracing as such but also as an engagement to envision new kinds of decolonial futures. A beautiful example of a so-called techno-scientific counter-history is Sarah Franklin's earlier work *Dolly Mixtures* (2007). In this book she takes the famous cloned sheep as a case study to put forward a nuanced discourse on the intricate connections between the social and the biological in contemporary repro-biology, while looking back at some of the crucial historical formations that enabled and prefigured Dolly's creation, such as British colonialism and the development of agricultural and industrial capitalism. Franklin historically connects Dolly to the enclosure of the British countryside in the 18th century, when impoverished peasants were massively evicted from their lands to make space for sheep breeding (Helmreich, 2008b).

ART of the State: Research Questions and Operationalisation

Inspired by Harding's suggestion for a post-/anti-colonial STS agenda, this doctoral study on the political economy of ARTs in Palestine/Israel will examine the multiple practices and imaginaries of displacement, violence, extraction, ethnic cleansing and social rupture that have co-produced the Zionist reproductive frontier. Rather than addressing ARTs' colonial or post-colonial 'effects' of power, I aim to touch upon the particularity of assisted reproduction in a settler colonial state formation in which the relations between reproduction, demography, race, gender and indigenousness are articulated in a very specific way. Furthermore, this political economy analysis will equally address the increasing marketisation and commodification of 'pioneering' reproductive science and technology in Israel/Palestine by looking into the underlying regimes of labour and property in the reprotech and stem cell industries.

The aim of this approach is twofold. Firstly, it intends to disrupt the dominant culturalist understanding of ART in Israel/Palestine that still prevails in Israeli Academia. As Nahla Abdo (2011) reminded us in her critique on the culturalisation of gender inequalities in Israel/Palestine, in the context of settler colonialism a political economy analysis of women and gender dynamics is necessary. I will therefore assemble the intricate web of political-economical structures, interests, agencies and relations that have co-produced Israel's pronatalist reproductive policies (Birenbaum-Carmeli and Carmeli, 2010:21). Secondly, a political economy approach can put into perspective the general sentiment of 'optimism' or 'ambivalence' that characterises many of the STS contributions on ARTs (Franklin, 2014; Vertommen, 2015b). Examining reproductive politics in Israel/Palestine offers an interesting case of how ARTs are deeply entrenched in ongoing histories of settler colonialism and neoliberal biocapitalism. By keeping a close eye on repro-tech's 'dark sides', i.e. the socio-historical inequalities and necopolitical violence that are still part and parcel of the world of ARTs, I want to contribute to the debates and discussions that are unfolding in various disciplines on the multiple meanings of assisted reproduction.

The main research question of my dissertation engages with the socio-materiality of ARTs in Palestine/Israel at the crossroads of Zionist settler colonialism and (neoliberal) biocapitalism. I will examine the multiple ways in which practices, policies, imaginaries and markets of ARTs have emerged and taken shape, both discursively as materially, in Palestine/Israel. How have ARTs been co-produced as biopolitical arenas of demographic engineering in a settler colonial society? What are the ways in which reproductive technologies have been "entreprised up", as Strathern (1992) termed it, and inscribed in a capitalist logic of accumulation? And what particular role do gender hierarchies play in the development and distribution of ARTs in Israel/Palestine?

Drawing on the epistemological approach as developed in Science and Technology studies (STS) and Feminist Techno-Science that understands the relation between science & technology and society as one of co-production, I will not view ARTs as fixed and passive objects on which political economies unfold, but rather as constitutive and agential elements in the configuration of social, political and economic power constellations in Palestine/Israel (Jasanoff, 2004). As Omar Jabary-Salamanca (2014:4), who analysed processes of settler colonialism and uneven development in Palestine by "*seeing through*" infrastructures of electricity and roads, aptly phrased it:

> "*Infrastructures are not just material objects resultant from and drivers of uneven socio-political, economic and spatial processes. They are, most crucially the relations contained within them, the actors that plan them, the law that legitimizes them, the discourses and imaginaries that shape them, the knowledge gone into their design, the resources and labour used to build them, the contested histories of their construction, the broader structural forces that shape them and the ways in which they are experienced*".

Similarly, I view assisted reproductive technologies as "*an ever-shifting assemblage*" of populations, markets and bodies that are produced by and productive of political and socio-economic relations in Palestine/Israel (Jabary-Salamanca, 2014) [11] . By seeing through reproductive technologies I wish to explore how discursive-material practices of child removals, IVF, egg donation, Pergonal and surrogacy have co-produced a settler colonial state, nationalised bodies, racialised populations and 'pioneering' bio-markets. (Jabary-Salamanca, 2014; Mayer, Carpes, Knoblich, 2014). In this doctoral research, Zionism's political-economical project and ARTs are therefore viewed as mutually constitutive. I analyse how the State of Israel as a discursive-material effect of ongoing biopolitical histories of settler colonialism and capitalism has governed its subjected populations through a stratified fertility regime, while at the same time examining how reproductive technologies have shaped demographic ideologies, bio -and necropolitical practices and gendered political economies in Palestine/Israel (Haraway, 1988; Nahman, 2013).

Of the various approaches that have been introduced to understand techno-scientific practices as inevitably co-produced by socio-political forces, I have opted to analyse policies, practices and imaginaries of ARTs in Palestine/Israel from a gendered political economy perspective, emphasising the interlocking roles of class, race, and gender. Throughout the different empirical chapters and case studies presented in this dissertation, I will consistently unpack this political economy of ARTs by looking into four key themes that I deem crucial for such a perspective: 1) settler colonial demographies, 2) ART's life and death function, 3) biocapitalism's underlying property –and labour regimes and 4) the (re)productive role of women and their bodies.

First, I will examine the settler colonial demographic arithmetic behind the production, distribution and consumption of reproductive technologies in Israel/Palestine, such as IVF, egg donation and transnational (gay) surrogacy. This means that assisted reproduction will be analysed against the background of the ongoing Judaisation of Palestine/Israel, oriented towards the fruitful and healthy reproduction of the Jewish settler body at the expense of Palestinian existence. Secondly, I will look into the various biopolitical and necropolitical technologies of power through which ARTs have been developed and distributed in Israel/Palestine. Thirdly, I provide an account of how reproduction has been 'entreprised up' in Israel/Palestine by looking into the modes and modalities of capital accumulation underpinning Israel's flourishing bioeconomy (Strathern, 1992). Close attention will be paid to the shifting regimes of labour and

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[11] I will not engage with the literature on assemblage theory, but I do support the general understanding of an assemblage as a socio-material configuration that connects, interrelates and associates human and non-human elements, in my case: wombs, egg cells, sperm, clinics, fertility agencies, technologies, doctors, egg vendors, surrogates, markets, populations, techniques and desires, which all possess a form of agency, although not equally as their agencies do not materialise in a flat ontology but in uneven and hierarchical power configurations.

property as well as to the intimate relations that have been forged between the state, industry and academia in the emergence of what I will term a reproductive-industrial complex. Fourthly, I keep a close eye on the crucial contribution of women and their bodies - ranging from Jewish Israeli egg donors or Yemenite reproductive labourers to wives of Palestinian prisoners undergoing IVF and Indian surrogate carriers for Israeli gay men - in the configuration of Israel's fertility regime, both as (outsourced) reproducers of the settler nation and as (unrecognised) producers of bio-value. By consistently foregrounding these four key themes, I will use reproductive technologies as a lens to analyse how Zionism's ongoing histories of settler colonialism and biocapitalism have materialised in Israel/Palestine (Nahman, 2013; Franklin, 2014) [12].

Structure

This dissertation is not a classic ethnographic monograph, but rather an eclectic and pragmatic collection of different inquiries into particular aspects of Israel's fertility regime on assisted reproduction. It is pragmatic because I decided to integrate (parts of) my papers and book chapters that have been published over the course of seven years into the different chapters of this dissertation[13]. It is eclectic in so far as it assembles a broad variety of case studies from a wide array of theoretical perspectives with a diverse spatio-temporal scope. Consistently meandering through and therefore gluing together the different chapters of this dissertation, however, are technologies of assisted reproduction.

The first two sections of this dissertation are dedicated to theory, methodology and research ethics/politics. The theoretical section is construed as a diffractive reading of four different perspectives that have informed this analysis of ARTs in Palestine/Israel: 1) science and technology studies and feminist techno-science 2) settler colonialism, 3) the political economy of biocapitalism and 4) bio -and necropolitics. The second section offers an account of the methodological foundations of my research (process), including a critical discussion of the spatio-temporal choices of the research design, the data collection and fieldwork practices and the

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[12] When I use the term materialisation, I am inspired by both older and newer views on materiality. I refer to new materialist and feminist techno-scientific views on "materiality" that focus on the corporeality and physicality of ART as embodied practices, as much as to "older" Marxist views on material realities that are structured by regimes of labour, property and capital accumulation. For a more in depth analysis of both paradigms, see *Vertommen, Sigrid. 2016. "Female bodily (re)productivity in the stem cell economy: a cross materialist feminist approach" In: Pitts-Taylor, Victoria (ed). Mattering: Feminism, Science and Materialism. New York: NYU Press. pp. 204-223.*

[13] Being a doctoral student in contemporary Belgian academia, I faced the disciplining challenge of either 'publishing or perishing'. In the impossible attempt to combine the principles of both fast and slow science, I was forced to become a pragmatist. The end result is a dissertation that is neither a classic monograph, nor a collection of published papers, but rather something in-between. I integrated and recycled many of the papers and book chapters I have published during the last seven years into the different chapters of the dissertation, which might affect the overall coherence of the work.

'situatedness' of the analytic-interpretive processes (Haraway, 1988). It also addresses the ethical and political challenges of conducting qualitative research in/on Palestine/Israel.

The empirical section of my doctoral thesis is organised around four chapters, each of which address the socio-materialities of a specific reproductive technology or practice in Israel/Palestine.

The first empirical chapter, *Unsettling Israel's Reproductive-Demographic Nexus: A Case of Stratified (Assisted) Reproduction*, provides an overall historical account of the stratifications in Israel's reproductive policies in relation to its triangular population economy. First it addresses the reproductive binaries of Israel's fertility regime between the settler and the native population. Through a comparative analysis of the reproductive rights of Jewish Israeli and Palestinian political prisoners, I contend that ARTs materialise in Palestine/Israel as a bio/necropolitical arena of demographic engineering in which Jewish fertility is promoted at the expense of Palestinian fertility. Yet ARTs have also been appropriated as a tool of biopolitical defiance by Palestinian prisoners who, for instance, are increasingly smuggling their sperm out of Israeli prisons to impregnate their wives through IVF or donor insemination. A second fault line in Israel's demographic-reproductive regime crystallises around the 'intra-Jewish' tensions between Ashkenazim and Mizrahim. Through a comparative historical analysis of the Yemenite Children's Affair and Australia's Stolen Generations, child removals are conceptualised as a settler colonial technology of demographic elimination and racialised class formation [14].

The second chapter, *From the Womb to the Lab and the Market* explores the multiple ontologies and political economies of egg cell donations in Palestine/Israel. Based on a critical analysis of Israel's recently voted Law on Egg Cell Donations, that allows Israeli women to donate their egg cells for reproductive or research purposes in return for a financial compensation, egg cell donations will be construed as a state and global market-making practice. The settler coloniality of power behind the practice is analysed by looking into the so-called 'religious' restrictions of egg donations for reproductive purposes, that require the egg donor and recipient to share the same religion. The biocapitalist rationale behind Israel's permissive stance on egg cell donations is unpacked by looking into the law's amendment that allows oocyte donation for stem cell research. This lenient bioethical position has furthered the development of a national stem cell sector in Israel, that has been co-produced by three main power dynamics: 1) the maternal-embryonic nexus, 2) academic entrepreneurialism and 3) a bio-expert regime.

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[14] Contrary to the following chapters, this first chapter mainly focuses on the demographic logic underpinning Israel's reproductive regime, and less on its biocapitalist logic, although it touches upon issues of gendered and racialised class formation.

The third chapter, *From the Pergonal Project to Kadimastem* puts forward a genealogy of Israel's reproductive-industrial complex. In the Israeli 'start-up nation', the med-tech and repro-tech sector are internationally acclaimed for their ability to develop experimental therapies based on 'pioneering' biomedical research. These developments have rightly been attributed to the neoliberal turn of the late 1970s when Israel started to position itself as a significant player in the global health and research market. By exploring the (dis)continuities between Pergonal, a fertility drug developed in the late 1950s by the Israeli scientist Bruno Lunenfeld and the Swiss-Italian pharmaceutical company Serono, and the experimental stem cell therapies that are currently being developed by Israeli biotech company Kadimastem, this chapter argues, however, that a much older, but still ongoing history of Zionist settler colonialism also lies behind the emergence of Israel's flourishing reproductive-embryonic industry. A Zionist demographic logic has created fertile conditions for the emergence of a reproductive-industrial complex in which the interests of a pronatalist Jewish state and a biomedical establishment consisting of academic entrepreneurs, venture capitalists, biotech companies and pharmaceutical giants have coalesced. The bodies of Israeli women play a pivotal role in this process, not only as reproducers of the settler nation but also as providers of the raw biological materials that are needed to produce experimental research results and to generate surplus bio-value.

The fourth and final chapter, *Homonormative Pronatalism*, looks into another remarkable niche within Israel's flourishing reproductive economy: the transnational surrogacy industry. While surrogacy is allowed in Israel for married heterosexual couples, it excludes same-sex couples and singles. Since 2006 Israelis are increasingly contracting surrogate mothers abroad, in places such India, California, Thailand, Nepal, Ukraine or Georgia, where surrogacy is either allowed or not regulated at all. While transnational surrogacy has challenged heteronormative kinship patterns by enabling same-sex couples and singles to have genetically-related children, it has also reinforced global power inequalities, as it is mostly white, well-off commissioning couples who are contracting cheap reproductive labourers the Global South. This chapter examines the tension between these two intersecting trends in the context of Israel's 'glocal' state-building project. Although Israel's LGBTQ community and the State of Israel are often presented as antagonistic forces, I argue in this chapter that they are mutually normalising and legitimising each other through practices of (transnational) surrogacy. This has resulted in the emergence of a transnational gay surrogacy industry that thrives on a racialised logic of demographic replacement, colonial exploitation and biocapitalist accumulation.

In the concluding chapter, I will discuss some of the overarching themes that have surfaced when analysing the multiple forms of socio-materiality of ARTs in Palestine/Israel. I will also address the limits and potential horizons of my doctoral research.

Before moving on to the empirical part of this dissertation, I will first discuss the theoretical frameworks and paradigms that were developed in the thesis: Zionism and settler colonialism, the political economy of biocapitalism, and bio-necropolitics.

THEORIES

Sighed Mayzie, a lazy bird hatching an egg:
"I'm tired and I'm bored
And I've kinks in my leg
From sitting, just sitting here day after day.
It's *work!* How I hate it!
I'd *much* rather play!
I'd take a vacation, fly off for a rest
If I could find *someone* to stay on my nest!

If I could find someone, I'd fly away—free. . . ."

Figure 1: Horton Hatches the Egg is a children's book from 1940, written by Dr. Seuss. It tells the story of Horton the Elephant, who is convinced into sitting on a bird's egg while its mother, Mayzie, disappears on permanent holiday to Palm Beach, as she is bored and tired of taking care of her egg. Mayzie visits Horton again shortly before the egg is due to hatch and she demands that Horton returns the egg, yet without offering him a reward in return. When the egg hatches, however, the creature that appears is an "elephant-bird", a type of multispecied cyborg who is a mix of Mayzie's and Horton's features. In the end, Horton is rewarded for his patience and care and gets to keep the elephant bird baby, while Mayzie is punished for her laziness and ends up with nothing (Thanks to Camille Barbagallo for her suggestion to read Horton Hatches the Egg).

THEORETICAL DIFFRACTIONS

The theoretical outlook of this doctoral research positions itself at the crossroads of four different bodies of literature: 1) science and technology studies and feminist techno-science (already reviewed in the Introduction), 2) settler colonialism, 3) the political economy of biocapitalism and 4) bio-necropolitics, which I will discuss in this chapter. Each of these theoretical frameworks offers important analytical tools for a better and more nuanced understanding of the political economy of assisted reproduction in Israel/Palestine. Yet, each of these bodies of work also contains certain blind spots. As the "curiouser and curiouser world of ARTs" – as Sarah Franklin (2014) paraphrased Lewis Carroll - is too complex to be grasped by and reduced to one single theory, I have opted to work from a problem-driven approach by blending together the insights and shortcomings of the four different paradigms across the different academic disciplines.

The complexity of such an eclectic framework lies in the articulation of different ontological realities, epistemological concepts and methodological approaches that do not always correspond well (Mayer, Carpes and Knoblich 2014:3). However, rather than dismissing one body of literature for its presumed incompatibility with the other, I prefer to make use of the productive tension between the different analytical perspectives through a diffractive reading (Barad, 2010; Nahman, 2013; Pitts-Taylor, 2016). Diffraction is a term that originates from quantum physics, referring to the various phenomena, which occur when a sound or electromagnetic wave encounters an obstacle. The term has been adopted by new materialist feminists as a theoretical and methodological tool "*to disrupt linear and fixed causalities between texts, and to work toward more promising interference patterns*" (van der Tuin, 2010:26). Drawing on Donna Haraway, Karen Barad (2010:243) explained diffraction as a method of "*reading and writing ideas, texts and insights intra-actively through one another*". If we take the children's book *Horton Hatches the Egg* (see Figure 1) as an example, there are multiple lenses and perspectives through which we can read and tell this children's story. We can focus on the ways motherhood, parenthood and kinship ties are produces, on the gendered divisions of reproductive labour, on the imaginaries of cross-racial reproduction etc. Yet, it is by reading one perspective *through* the other that we can take note of the relations of difference between them, understand and take into account who/what has been silenced and excluded in the analysis and enact new patterns of analysis and engagement (Barad, 2010). A diffractive approach therefore implies critique, but in its most generous, explorative and productive sense.

The principal body of literature in which I position my analysis on assisted reproduction in Palestine/Israel is science and technology studies and feminist techno-science. As I argued in the *Introduction*, there are three ways in which the existing STS scholarship on ARTs in

Palestine/Israel can be further attuned: firstly by taking into account the ongoing histories of Zionism with its settler colonial demographic logic. Secondly, by resituating ARTs in a global political economy framework and paying attention to the gendered regimes of property and labour. Thirdly by keeping a close eye on how the biopolitical governance of the reproductive body has been inscribed in unequal regimes of life and death. It is by reading STS and feminist techno-science through the lens of political economy, settler colonialism and biopolitics ánd vice versa that I hope to propose new patterns of interferences.

Reproducing Zionism

Take what you need of the night
but leave us a few stars to bury our celestial dead.
Take what you need of the sea
but leave us a few waves in which to catch our fish.
Take all the gold of the earth and sun
but leave the land of our names to us.
Then go back, stranger.
Search for India once more!

-    Mahmoud Darwish, Speech Of The Red Indian

It would be incorrect to say that Zionism is absent from the existing literature on policies of assisted reproduction in Israel. Zionism is often included as one of the explanatory paradigms, next to Judaism, Jewish culture, the Holocaust, patriarchy and familism (Portugese, 1998; Kahn, 2000; Weiss, 2002; Kanaaneh, 2002; Birenbaum-Carmeli, 2004, 2008, 2010; Prainsack, 2006; Hashiloni-Dolev, 2006; Remennick, 2010). However, Zionism is mostly framed as a Jewish nationalist movement/ideology that – similar to other forms of European nationalism – has shown a special biopolitical interest in questions of demographic governance and population management (Kanaaneh, 2002; Neuman, 2004). Consequently, considerable academic work has been invested in documenting the Judaising effects of Zionist reproductive policies, i.e. the strategies that have been used to enlarge the Jewish population, while systematically ignoring its implications for the Palestinian population.

Framing the Zionist project in Palestine/Israel as a settler colonial practice rather than as a 'mere' nationalist ideology fundamentally alters the understanding of the role, function and goals of

population management[15]. It presumes a demographic zero sum game in which the settler population can only be enlarged at the expense of the natives. These paradigmatic shifts matter. In her assessment of the Israeli feminist scholarship on women's position in Israeli society, Nahla Abdo (2011: 61) wrote:

> *"This is the crux of the problem with most Ashkenazi feminist literature: it situates its analysis within an imaginary construction of Zionism as Jewish nationalism, legitimizing Zionism as Jewish national movement rather than critiquing and rejecting it as a settler colonial project in Palestine"[16].*

So what makes settler colonialism so analytically different from colonialism, post-colonialism or even nationalism? In their 'pioneering' comparative analysis of settler societies, including South Africa, Canada, Algeria, the US and Israel/Palestine, Daiva Stasiulis and Nira Yuval-Davis (1995:3) defined settler colonialism as:

> *"a specific type of European expansion that resulted not in overseas empires but in societies in which Europeans have settled, where their descendants have become and remained politically dominant over indigenous peoples and where a heterogeneous society has developed in class, ethnic, racial and gendered terms".*

Emphasising the ontological and analytical distinctiveness of settler colonialism in relation to colonialism and post colonialism, Lorenzo Veracini (2010:15) argued that settler formations are oriented towards "*the establishment of an exogenous political community following a foundative displacement of the native population*". While extractive or franchise colonies, such as Congo under Belgian rule or the Spanish conquest of the Americas, depended on the confiscation of land, raw natural resources and cheap or enslaved labour through the (in)direct colonial control by a relatively small group of mostly male administrators, merchants, soldiers and missionaries, Margareth Jacobs argued (2009:2-3) that settler colonies require much more elaborate political organisation and economic infrastructures. This is because, as founders of new societies and political orders, "*settlers come to stay*" (Wolfe, 2006:388). This crucial difference fundamentally affects the particular types of sovereignty, population economies, labour markets and foundation narratives that have shaped these socio-historical formations.

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[15] Zionism is not a homogenous movement, but encompasses a broad spectre of ideological subdivisions, interpretations and perspectives, including political Zionism, labour Zionism, national-religious Zionism, revisionist Zionism, green Zionism, feminist Zionism and even post-zionism (Shimoni, 1995). Despite their profound differences, the common denominator of all these perspectives – with the exception of Ahad Ha'am's spiritual Zionism - is the territorialisation of the Jewish national identity. I will term as settler colonial all the conceptualisations of Zionism that start from the premise that Israel/Palestine should be the national homeland of Jews.

[16] Some Israeli feminist scholars of ARTs have been very straightforward about their position towards Zionism. In her reply on a book review by Veronica Ouma, Susan Marta Khan wrote: "*Opponents of Zionism and racism should look elsewhere for 'ammunition' – any alert reader will not find it in my book*". http://psreview.org/content/view/22/70/ (last entry, 19/02/2016).

Although the distinction between extractive and settler colonies should not be understood as rigid binary but rather as a continuum in which both models often intersect and overlap, settler colonialism should still be viewed as an independent research field that requires particular analytical categories (Jacobs, 2009). However, Veracini (2010) noted that settler colonialism still addresses a scholarly gap, particularly when it comes to Israel/Palestine. In their introduction to the special issue in *Settler Colonial Studies*, *Past is Present: Settler Colonialism in Palestine*, Jabary-Salamanca, Qato, Rabie and Samour (2012:6) noted that whereas settler colonialism was once "*the pivotal framework of ideological understanding, comparative study and political action – for scholars and activists alike",* such as Fayez Sayegh (1965) and Maxime Rodinson (1973), much of present-day research tends to conceptualise Palestine/Israel as a unique and exceptional case. This *sui generis* perspective has not only hampered the analytical understanding of Palestine/Israel in the framework of ongoing global histories of capitalism and colonialism, it has also impeded the emergence of political imaginaries to transcend the current status quo. Slowly, however, the tide is turning again. Scholars such as Gershon Shafir (1996), Nahla Abdo and Nira Yuval-Davis (1998), Walid al Khalidi (2006), Patrick Wolfe (2006, 2007, 2016), Lorenzo Veracini (2006, 2010), Ilan Pappé (2015), Omar Jabary Salamanca (2012, 2014, 2016), Nadera Shalhoub-Kevorkian (2015) and Nadim Rouhana and Areej Sabbagh-Khoury (2014) are steadily incorporating Zionism and the Palestinian Question into the developing body of academic work on comparative settler colonialism again.[17]

My own doctoral research follows this growing trend. It aims to analyse the particular ways in which (assisted) reproductive policies, practices and markets materialise in a settler colonial society such as Palestine/Israel that is structured around the demographic replacement of the native population. Although for the most part my research entails a single case study – with the exception of the first empirical chapter, which includes a comparative analysis of indigenous child removals in Australia and Israel/Palestine– it strongly encourages the further exploration and comparative analysis of the particular role (assisted) reproduction plays in other settler societies.

According to Patrick Wolfe (2006, 2007) settler colonies share a set of common features despite their variations in creation and development. First and foremost, settler colonial projects are concerned with territorial expansion and the maximum accumulation of indigenous land. Secondly and consequently, settler colonies intend to transfer the settler population to the newly

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[17] Brenna Bhandar and Rafeef Ziadah (Jadaliyya, 14/01/2016) have questioned the alleged 'novelty' of the scholarly field of settler colonialism by referring to the body of Palestinian anticolonial writings that have not necessarily used the settler colonial paradigm, but in practice have laid the groundwork for contemporary research on land appropriation, border controls and surveillance, political economy and displacement in Israel/Palestine. Moreover, Kēhaulani Kauanui (2016) remarked that while Native/Indigenous Studies is an older discipline that discusses similar structures and processes as Settler Colonial Studies, the latter has gained wider traction and popularity within the academic community.

acquired lands. This process of resettlement has resulted in societies where, according to Richard Philips (2009:241), "*indigenous populations were being overwhelmingly displaced, replaced and outnumbered by settlers under the auspices of European imperialism*". Wolfe (2006, 2007) argued that settler colonialism's double movement of territorial accumulation and demographic replacement is undergirded by a societal logic of elimination of the native population. As he phrased it:

"*A settler colony's aim is the replacement of native society, its governing logic is thus one of elimination or removal rather than incorporation of indigenous peoples*" (Wolfe, 2007:58).

Wolfe understands settler colonialism as a process of creative destruction that destroys to replace. Negatively, it strives for the dissolution of native societies. Positively, it develops a new colonial society on the expropriated land base. As Theodor Herzl, the founding father of political Zionism, prophetically wrote in his utopian novel Altneuland (1902:38): "*If I wish to substitute a new building for an old one, I must demolish before I construct*".

ZIONISM AND POPULATION: MANUFACTURING A JEWISH STATE

Zero Sum Demography: Aliyah vs Tihur

"*Between ourselves it must be clear that there is no room for both peoples together in this country. We shall not achieve our goal of being an independent people with the Arabs in this small country. The only solution is Palestine, at least Western Palestine [i.e. the West Bank, S.V.] without Arabs and there is no other way but to transfer the Arabs from here to the neighbouring countries; to transfer all of them; not one village, not one tribe should be left.*

- Joseph Weitz, 1943, head of the Jewish Agency's Colonisation Department

The Zionist project of 'creative destruction' began to take shape at the end of the 19th century when Jewish pioneers, inspired by the Zionist ideology and evading horrendous forms of anti-Semitism in Europe and Tsarist Russia, immigrated to Ottoman Palestine. Between 1882 and 1939, in five large waves of *aliyah* or Jewish settlement from the Diaspora to the 'Land of Israel', around 600.000 *halutzim* or pioneers settled in Palestine. Whereas in 1878 Jews represented only five per cent of the total population in Palestine, by 1947 they constituted one third of the total population (Rashed and Short, 2012). The Jewish resettlement in Palestine required the accumulation of indigenous lands, first through market-coordinated practices of Jewish-Zionist land purchase and, after 1948, through state-controlled intervention of the newly created State of

Israel that confiscated the lands and properties of Palestinian refugees under the Absentees' Property Law[18].

Rather than incorporating Palestinians into the New Society, Zionist thought and practice crystalised around the foundational Hebrew concept of *tihur,* which literally translates as purification (Masalha, 1992; Rashed and Short, 2012). In practice *tihur* refers to population transfer and the broad variety of legal, political, economic, cultural and military strategies aimed to expel Palestinians from their homeland (Stasiulis and Yuval Davis, 1995:4). In his theoretical overview of settler colonial formations, Veracini (2010) stated that "*all settler projects are premised on fantasies of ultimately cleansing the settler body politic of its indigenous and exogenous alterities*". He distinguished more than twenty different forms of transfer, ranging from narrative/conceptual transfer to ethnic transfer. These different modes of transfer or elimination are clearly notable in the Zionist project, whose *raison d'être* has always been the systematic Judaisation and therefore de-Palestinisation of Israel/Palestine. Already in 1965, Fayez Sayegh (quoted in Jabary-Salamanca et al, 2012:209*)* observed how Zionism materialised as zero sum game in Israel/Palestine:

> "*Other European settlers could co-exist with the indigenous populations – whom they would exploit and dominate, but whose services they would nevertheless require and whose continued existence in the coveted territory they would therefore tolerate. But the Zionist settlers could not countenance indefinite co-existence with the inhabitants of Palestine. The Zionist colonisation of Palestine was essentially incompatible with the continued existence of the native population in the coveted country".*

Indeed, the crux of settler colonial state formation is that it functions as a winner-takes-it-all model where settlers can only thrive at the expense of natives (Jabary-Salamanca, 2014). Therefore, Judaisation requires de-Palestinisation, or, in demographic terms, Jewish *Aliyah* presupposes Palestinian *tihur*. Between 1947 and 1949, in what Palestinians call the Nakba or Catastrophe, 750.000 Palestinians - i.e. 75 per cent of the Palestinian population - were expelled and 531 Palestinian villages and eleven urban neighbourhoods demolished by Zionist forces (Abu Sitta, 1998; Morris, 1999). This process was repeated again in 1967, during the Six Day War, when Israel occupied the West Bank (including the annexation of East-Jerusalem) and the Gaza Strip and pushed an additional 300.000 Palestinians into exile.

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[18] The Ottoman Land Law of 1858 allowed Jewish philanthropists and Zionist organisations such as the Jewish National Fund to start buying lands in Palestine that were cultivated by Palestinians farmers but often owned by absentee property owners who were living in Lebanon, Turkey or Syria. After the creation of the State of Israel in 1948 the Absentees' Property Law became the most important legal instrument for confiscating between 4.200 and 5.800 km^2 of land that was left behind by Palestinian refugees between 1947 and 1949. These Palestinians were considered absent during an Israel population census and their land was consequently seized and transformed into Israeli state land. Today the Israeli Lands Administration owns 93 per cent of the land in Israel (Badil, 2013).

Drawing again on Wolfe (2006), I will not frame Zionist settler invasion as an event that ended in 1948 with the creation of the State of Israel or that started in 1967 with the military occupation of the West Bank, Gaza and East-Jerusalem. Rather, I will analyse it as a structure that started at the end of the 19th century with the arrival of the first Zionist settlers and has not ceased since it moved on from the era of frontier homicide and mass expulsion. Describing the ongoing temporality of the settler colonial catastrophe, Joseph Massad (2008) wrote on the 60th anniversary of the Nakba:

> "*I hold that the Nakba is a historical epoch that is 127 years old and is ongoing. The year 1881 is the date when Jewish colonization of Palestine started and, as everyone knows, it has never ended. I submit, therefore, that this year is not the 60th anniversary of the Nakba at all, but rather one more year of enduring its brutality; that the history of the Nakba has never been a history of the past but decidedly a history of the present*"[19].

In today's ongoing Nakba, more than six million Palestinians have been displaced by Zionist violence and many of them are living scattered in refugee camps across the world. Approximately five million of them are officially registered as refugees with the United Nations. Israel, on the other hand, in 2013 celebrated its Jewish population passing the symbolically significant six million mark. "*It's a great joy to know there are more than six million Jews in Israel, equivalent to the number of Jews killed in the Holocaust*", said Dina Porat, chief historian of Israel's Holocaust museum, in an interview with the Guardian (Sherwood, 01/01/2013)[20]. However, this symbolical number is not only significant in relation to the Shoah, but also in terms of Israel's ongoing demographic struggle to consolidate a Jewish majority in a Jewish State.

Similar to other settler colonies, the Zionist project is ultimately premised on demography (Hopkins, 1999). Since its early inception, the Zionist movement defined Israel as a Jewish state, presuming that at least the majority of the population should be Jewish. This conceptualisation has obviously deepened its concern for Jewish versus non-Jewish demography (Kanaaneh, 2002). In this respect, the presence of Palestinians, within and outside the borders of Israel, has always posed an existential threat to the Jewish collective body. Rhoda Kanaaneh (2002) noted that Israel chronically suffers from a national and existential preoccupation over too many Palestinian/Arab bodies and too few Jewish bodies in Israel/Palestine.

This fear of being outnumbered is further enhanced by the fertility differential between Palestinians and Jewish Israelis. Historically, Palestinians on both sides of the Green Line have had higher birth rates than Jewish Israelis, a fact that is collectively feared by Israeli society as a

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[19] Massad, Joseph. 2008. "Resisting the Nakba", *Al-Ahram Weekly*, May 15–21, 2008, Issue 897. http://weekly.ahram.org.eg/2008/897/op8.htm (last entry 16/06/2015).

[20] Sherwood, Harriet. "Israel's Jewish population passes 6 million mark". *The Guardian* 01/01/2013. http://www.theguardian.com/world/2013/jan/01/israel-jewish-population-six-million (last entry 03/03/2015).

lingering demographic intifada. Israel's Central Bureau of Statistics meticulously monitors demographic trends by annually measuring the birth rates of its Jewish, Muslim and Christian populations in order to calculate the ratio of Jews to 'Arabs' (Kanaaneh, 2002). Patrick Wolfe (2016:263) remarked that Israel's demographic fear is not about raw numbers, but about relative proportions. As former Prime Minister Yithzhak Rabin put it: "*The red line for Arabs is twenty per cent of the population, that must not be gone over*" (quoted in Kanaaneh 2002:50). Today, there are over 1.4 million Palestinian citizens in Israel, who represent 21 per cent of the total Israeli population. In addition to that, there are 4.4 million Palestinians living in the West Bank and Gaza. This prompted the Palestinian Central Bureau of Statistics (PCBS) to release the following statement.

> "*By 2016 the number of Arabs and Jews in Israel and the occupied areas will be equal. But the number of Arabs will exceed that of Jews by 2020*".[21]

The so called 'battle of the cradles' is further fuelled by influential geo-demographers such as Arnon Soffer from Haifa University and Sergio DellaPergola from the Hebrew University in Jerusalem. Both academics can be considered as Zionism's contemporary demographic architects who have made a career out of 'counting Arabs' (Denes, 2011:240). In 1988, Soffer wrote an apocalyptic pamphlet entitled "*The Demographic Jinni: The End of the Zionist Dream*?" on the demographic threat of high Arab birth rates for Israel's national security. Since then he has published numerous studies on demography, geography and national security, while working as a policy advisor for various state planning programmes, such as the relocation of the Bedouin population in the Naqab, the construction of the Separation Barrier and the unilateral disengagement from Gaza in 2005, which he all viewed as necessary demographic measures to guarantee a Jewish state with a Jewish majority (Denes, 2011). Concurrently, DellaPergola started his latest book "*Jewish Demographic Policies*" (2011) with the central message:

> "*The main demographic challenge of the State of Israel as the core state of the Jewish People is to preserve a clear and undisputed majority among the State's total population. This is a prerequisite to Israel's future existence as a Jewish and democratic state*".

The demographic norm of manufacturing a Jewish majority in a Jewish State has consistently structured Zionist history, not only as a utopian idea, but also as a material practice. Since its creation in 1948, the State of Israel has attempted to create a Jewish majority in two significant ways. First and foremost, by attracting Jews from the Diaspora (preferably Ashkenazi Jews from Europe or Russia) through the Law of Return which automatically grants every Jew in the world the right to Israeli citizenship and nationality, while simultaneously denying Palestinian refugees

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[21] S.N. "Palestinians to Outnumber Jewish Population by 2020, Says PA Report". *Ha'aretz* 01/01/2013. http://www.haaretz.com/middle-east-news/palestinians-to-outnumber-jewish-population-by-2020-says-pa-report-1.491122 (last entry, 27/02/2016).

their Right to Return [22]. Secondly, by issuing pronatalist reproductive policies that would encourage Israelis to reproduce the nation. My analysis will centre on the latter intervention by scrutinising the ways in which demographic concepts such as *aliyah* and *tihur* materialise through assisted reproductive practices, procedures and policies.

Managing the Triangular Population Economy: Mizrahim vs Ashkenazim

> *Dozens of films were shot throughout the 60s and 70s and 80s in Jaffa. In most of them you would never see a Palestinian. And even if you see Arabs in films like The Delta force, starring Chuck Norris, they are not Palestinians, they are Israeli Mizrahi Jews acting as Arabs. We were completely excluded from the image and therefore uprooted twice in reality and in fiction.*

- Kamal Aljafari, Palestinian film maker

In Settler Colonial and Native Studies the distinction between native and settler is conceived as a crucial and primordial binary as it "*informs all power relations in settler societies, and their relations with societies worldwide*" (Morgensen, 2011:1). However, strictly focusing on the dichotomy between indigenous and settler can obfuscate the complexity of social, economic, political and ideological relations with and towards other racialised population groups in settler societies. According to Veracini (2010:18-19) settler colonial formations tend to establish a triangular system of population management comprising of three different agencies: the settler coloniser, the indigenous colonised and a variety of racialised 'exogenous' alterities [23]. Veracini (2010: 18-19) argued that these categories are "*open to ongoing and protracted contestation, are never neatly separate, mutually shape each other and are continually tested and reproduced*". In the case of America, for instance, the triangular population system took shape through the categories of European settler, the Native American and the African slave who was brought in as unpaid labourer. The Zionist triangular population project in Israel/Palestine is even more complex, as it blurred the boundaries between so called endogenous and exogenous population groups. Zionism

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[22] The law is called the Law of Return, assuming that every Jew in the world today is a descendant of the Israelites who populated the Land of Israel in biblical times. According to the logic of this law, a Jewish American making Aliyah to Israel returns home rather than arriving in a new country.

[23] The use of the term "exogenous alterities" can be viewed as problematic as it revisits older concepts from kinship studies that have been debunked for their colonial and racist roots (Thanks to Michal Nahman for this remark). Moreover, identifying Mizrahim as 'exogenous' groups can reinforce Zionism's racist imaginaries of Ashkenazi Jews as the 'real' Jewish Israelis and Mizrahim as secondhand Jews. Yet, I do believe it is necessary, both analytically and politically, to differentiate between settlers, natives and 'exogenous' alterities, as these groups are subjected to different governing logics, and have been gendered and racialised accordingly. It is crucial to emphasise that "race" in settler colonial studies is not seen as a pre-given social category, but rather as the product of the undergirding social relations. This means that the different population groups are racialised based on their position in the triangular population economy.

has not only produced a fundamental demographic binary between Jewish settlers and Palestinian natives, but has also created multifaceted gendered, racialised and classed hierarchies of power within the so called unified Jewish population, i.e. between Ashkenazi Jewish settlers from Europe and Mizrahi Jewish settlers from the Arab world.

According to Nahla Abdo (2011) the expansionist nature of the Zionist settler regime has produced two types of settlers: those required for demographic reasons and others required for economic reasons. While the former are usually selected from the preferential category of white European Ashkenazi Jews who have been consistently encouraged to reproduce the nation, the latter consisted of less desirable groups of Arab Jews who were largely imported as a cheap labour force after the creation of the State of Israel. Between 1948 and 1956 around half a million Arab Jews, mostly from Egypt, Iraq and Yemen were brought to Israel in what in Zionist parlance is known as the Magic Carpet and Ali Baba Operations. These Jews were not given the warmest welcome, but were primarily used as cannon fodder in the ongoing military confrontations with Palestinians and neighboring Arabs and as a low cost labour force for the Zionist capitalist project (Shohat, 1988; Ducker 2006; Abdo, 2011).

Although Zionism succeeded in presenting itself as a Jewish nationalist ideology, it is both analytically and politically problematic to construct Jewishness as a homogeneous population category as this obscures fundamental power imbalances between different Jewish groups (Abdo, 2011). Since the 1980s, Mizrahi scholars have begun articulating a fundamental critique that, as a European Jewish national movement, Zionism has systematically silenced and erased Mizrahi experiences, identities, traditions and histories (Shohat, 1988; Motzafi-Haler, 2001; Lavie, 2007, 2014; Chetrit, 2010). These authors describe how, similar to other late 19th century (settler) colonial ideologies, Zionism was and still is heavily infused with European ideas and practices of Enlightenment, liberal modernity and 'whiteness', which developed in contrast to the image of an underdeveloped, uncultivated and backward East (Weiss, 2002). Lavie (2007:11) asserted that immediately after the establishment of Israel, Mizrahim were "*coerced or co-opted to go through a de-Arabization process in order to become Israel's good-enough non-Ashkenazi Zionist citizen-subjects*". While Ashkenazi Jews were simply 'absorbed' into Israeli society, Mizrahim were required to go through a process of 'assimilation' into the Zionist body politic. This often meant an erasure and rejection of their Arabic identity, language, music, customs and history.

Wolfe (2007) and Veracini (2010) have noted how settler colonial projects tend to uncomfortably balance between claiming and appropriating indigeneity to the settled land and history while simultaneously imposing exogenous processes of enlightened Europeanisation. In the Zionist population economy this ambivalence is best captured through the figure of the Mizrahi Jew, whose 'Arabness' is despised but simultaneously required and desired, as Ella Shohat (1988)

eloquently described it. According to Shohat (Id.), the Mizrahim incarnate the existence of two supposedly antithetical categories, the Jew and the Arab, that have been constructed as antagonistic within Zionist thought and practice. Her main argument is that this division between the Jewish and the Arabic identity is fundamental to the social reproduction of Zionism both as a way to justify the ongoing Nakba towards Palestinians and to consolidate the Ashkenazi class hegemony towards the Mizrahim.

Clare Ducker (2006:43) stated that Israel's reproductive policies cannot simply be defined as directed at the Jewish or the Palestinian population. What she claims is missing from feminist and other analyses on demography and reproduction, is the experiences and perspectives of Mizrahim. My exploration of the settler coloniality of power of ARTs in Israel/Palestine will take Zionism's triangular population economy as an analytical starting point. Without losing sight of the fundamental reproductive-demographic binary between settler and native, this analysis will incorporate the biopolitical entanglements of gender, race and class in the stratified reproductivity of different racialised groups. Particular attention will be given to the gendered and racialised forms of embodied labour by exogenous groups that have proven indispensable for the social reproduction of Zionism, from the late 19th century domestic labour of Yemenite Jewish women to the reproductive labour of Indian or Thai surrogates who are 'reproducing' Jewish babies today.

THE INTIMACIES OF SETTLER DEMOGRAPHIES

Zionism's population project has taken shape through a wide gamut of practices and policies that comprise both biopolitical and necropolitical technologies of power. Emphasising the structural and multifarious character of settler invasion, Patrick Wolfe (2008:120) stated:

> *"Narrating the history of settler colonial invasion involves charting the continuities, discontinuities, adjustments, and departures whereby a logic that initially informed frontier killing transmutes into different modalities, discourses and institutional formations as it undergirds the historical development and complexification of settler society".*

Throughout history, the settler colonial logic of elimination of the indigenous population has thus operated through diverse technologies of power, that included the dissolution of native title to the land, religious conversion, assimilation but also intimate demographic interventions such as child abductions and encouraged miscegenation (Wolfe, 2008). Moreover, as Margareth Jacobs (2009:10) noted, settler colonial formations do not only materialise in governance halls, courtrooms or on battlefields, but also in the most personal spaces including home, family, the body or even dreams.

> "*Far from being intimate matters that were insulated from the public world of national and empire building, the home and the body, and women's association with them, functioned as indispensable building blocks for the settler colonial project*".

Unfortunately, as Stasiulis and Yuval-Davis (1995:2) observed, up until now native and settler colonial studies have been downplaying issues of gender, affect, sexuality and intimacy. There are some notable exceptions, however, of scholars who have put the complex relation between gender, reproduction and (settler)colonialism at the centre of their inquiries. Ann Laura Stoler (1995, 2002), for instance, has conducted pioneering research on the sexual politics of the Dutch empire in 19th and 20th century South East Asia. Drawing on the work of Foucault, Stoler (2002:14) interpreted matters of sexuality and reproduction as "*dense transfer points of colonial power*" that not only served as "*metaphors for colonial inequalities, but were also foundational to the material terms in which colonial projects were carried out*". She introduced the term "*intimacies of empire*" to describe how the settler regulation, management and control of the sexual and reproductive practices of both coloniser and colonised has been indispensable to the colonial order of things (Stoler, 1995:2).

While Stoler offers a compelling account of the intricate connections between sexuality, reproduction and empire, her analytical focus is restricted to extractive colonies, which operate through a different reproductive logic than settler colonies. Given that settler colonial societies are founded on the replacement of the indigenous fabric of life, their reproductive regimes are oriented towards maximising settler reproduction and minimising or even eliminating native procreation (see Figure 3). Therefore, in order to operationalise settler colonialism as an interpretative rather than a 'mere' descriptive framework, a particular understanding is required of the complex and graduated ways in which reproduction is imagined and 'put to work' in relation to its different subjected populations, i.e. settlers, natives and racialised alterities. Dorothy Roberts' work, for instance, has analysed the interrelations between race, reproduction and population control in the United States. In "*Killing the Black Body*" (1997) she makes a historical assessment of America's systematic abuse of Black women's bodies, from slave masters' economic stake in bonded women's fertility to government sterilisation programs for Black women in the 1970's. While Dorothy Roberts focuses on the reproductive policies towards exogenous African American women in the United States, indigenous feminist and queer scholars have scrutinised the biopolitical regimes of sexuality and fertility towards native populations. Andrea Smith (2005, 2014), for instance, explains settler colonialism as sexual violence. She argued that sexual violence and the imposition of European heteropatriarchal gender relations in indigenous communities enabled settlers to colonise and subdue indigenous peoples. In her book "*Conquest: Sexual Violence And American Indian Genocide*" Smith (2005) offered a genealogy of state sanctioned violence against Native women and against their reproductive health from early America to the

19th century. Similarly, Scott Lauria Morgenson (2011:31) defined modern sexuality as "*a key function of the biopolitics of settler colonialism*". According to Morgenson, it was through the sexual colonisation of Native peoples that settler colonialism conditioned the diversely racialised subjects who were produced within queer modernities.

With respect to Palestine/Israel, there are a few scholars who have analysed the Zionist order of things through the prism of gendered violence. Nahla Abdo (2011), for instance, investigated the dynamics between feminism, settler colonialism and the body through an analysis of the sexual violence against female Palestinian political prisoners and Palestinian women in general. Similarly, Nadera Shalhoub-Kevorkian (2015) conducted critical research on the relation between Israeli settler colonialism and the multiple forms of violence inflicted upon Palestinian women and girls, including sexual violence, domestic violence, femicide and so-called 'honour killings'. Rather than framing the physical oppression of Palestinian women as ahistorical remnants of a backward and stagnant Arab or Muslim culture, Shalhoub-Kevorkian (2014:1) understands sexual violence as "*central to the largest structure of colonial power, its racialised machinery of domination and its logic of elimination*". In her excellent latest book on Zionism's security theology she explored the interventions of the State of Israel into intimate and mundane realms of everyday Palestinian life as a site of necropolitical control, including "*to delay or deny passage to pregnant women undergoing labour at checkpoints, to deny medicine at life threatening circumstances, to hinder family reunifications through the 2003 Citizenship and Entry into Israel Law, to demolish homes and to deny dead bodies the right to dignified burial*" (Shalhoub-Kevorkian, 2015:3, see Figure 4). Two other native scholars have conducted interesting research on the relation between reproduction and Zionism. Rhoda Kanaaneh (2002) documented the reproductive strategies of Palestinian women inside Israel in the context of patriarchal culture, Zionist colonialism and modern, consumerist society. Michael M. Karayanni (2010) looked into the religious matching requirement under Israeli adoption law, which – he argued - was primarily introduced to serve the best interests of the dominant group.

Foregrouding the relation between maternity, reproduction and demography, Margareth Jacobs (2009) has offered a particularly gendered account of Australian settler colonialism. Jacobs (2009:126) analysed the specific role that white women settlers were endowed with in the demographic reproduction of the settler colony. She argued that through their bodies, white women would literally reproduce the settler population necessary to establishing dominance over the invaded territory. Richard Philips (2009) also examined the particular role of the nuclear family in resettlement societies. Whereas nuclear families often appeared natural, universal and inevitable, Philips argued that they were in fact produced through a series of laws and customs that regulated sex and marriage. In her analysis of Israel's fertility policies, Jacqueline Portuguese

(1998) discussed the changing role of the patriarchal family with its traditional gender divisions throughout Zionist history. Zionist ideology, particularly in the early 20th century kibbutz movement, engaged with ideas of maximal equality between men and women (see Figure 2). This gender equality could only be obtained through the destruction of the traditional family, which was seen as the cornerstone of capitalism, and the collectivisation of reproductive tasks via communal laundry, kitchens and dining rooms and collective children's houses supervised by trained *metaplot* or house-mothers (Palgi, 1997; Lavee and Katz, 2003). However, once they arrived and materialised in Palestine/Israel, these Zionist ideas that aimed to transform traditional Jewish family and kinship relations were not that succesful. In the context of demographic warfare with native Palestinians, 'revolutionary' Zionist family and gender imaginaries morphed into hegemonic practices of national motherhood, in which Jewish women, preferably of the Ashkenazi type, carried the distributed responsibility of producing the next generation of pioneers (Portugese, 1998:57, 60).

This dissertation aims to shed light on the intimacies of settler colonialism in Palestine/Israel by mapping the interrelations between Zionist demographic engineering and the bio/necropolitical governance of (assisted) reproductive practices. By using reproductive technologies as a prism to explore settler colonial imaginaries, practices and political economies, I will analyse how Zionism has crafted and co-produced the reproductive bodies of natives, settlers and exogenous racialised groups.

DISCURSIVE-MATERIAL ENTANGLEMENTS OF ZIONISM

> *"Zionism has to be studied in a genealogical way and as practical systems of accumulation – of power, land, ideological legitimacy - and of displacement – of people and ideas"*
>
> - Edward Said, 1979

> *"The settler colony often serves as a fertile site of transformation"*
>
> - Richard Philips, 2009

In his overall reading of the literature of settler colonialism Jabary Salamanca (2014:22) noted that most of the existing scholarship "*leans towards the discursive aspects and imaginative geographies of settler colonialism in line with the tendency of postcolonial studies to focus on texts, enunciations, identity, memory, and systems of significations imaginaries".* Considerably less attention is dedicated to studying the material, embodied, ecological and infrastructural grounds that have co-produced this discursive and ideological displacement and elimination. For instance,

Veracini's (2010) foundational theoretical analysis of settler colonialism as a specific socio-historical formation, offers an excellent overview of settler narratives, discourses, imaginaries, yet it largely ignores the materialist underpinnings of settler formations as it fails to touch upon crucial themes such as land reforms, the management of natural resources, labour markets, infrastructures, and the overall political economy of settler colonialism.

In the case of Palestine/Israel, the late Edward Said (1979) pointed out that Zionism is not simply an idea with a history and an imaginative future, but also a material practice rooted in a political economy of dispossession. Further elucidating on the tensions between Zionist theory and practice, structure and agency, Patrick Wolfe (2007:316) noted that "*ideas do not have lives of their own, they are born, reproduced, discarded and transformed in and through human activity*". He proposed to "*avoid the quagmire of voluntarism – as well, of course, as the misplaced concreteness of reified abstractions – in favour of an approach that relates historical outcomes to the practical logic of the human activities that produce them*".

Drawing on these ideas, my own understanding and conceptualisation of the Zionist project in Palestine/Israel aims to transcend a strictly discursive and ideational approach by turning to the embodied practices, socio-materialities, political economies and physicality of settler colonial formations. By 'seeing through' reproductive technologies including IVF, egg donation and transnational surrogacy in Palestine/Israel, I aim to unpack the discursive-material entanglements of Zionism's intimate and affective political economy [24].

Figure 2: Jewish settlers in Kibbutz, 1947

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[24] In the first section of the third chapter, *From the Pergonal Project to Kadimastem*, I will offer a historical analysis of the role of medical science and technologies in Zionist thought and practice.

Figure 3: Nakba Last days in Jaffa, 1947

Figure 4: Protest Citizenship and Entry into Israel Law. **This Israeli law was voted in 2003 and excludes inhabitants of the West Bank and Gaza Strip (and other so called enemy states) from automatically obtaining Israeli citizenship and residency permits when marrying an Israeli citizen (i.e. family reunification).**

Political Economy of ART: Reproductive Bioeconomies [25]

"The determining force in history is the production and reproduction of immediate life".

- Friedrich Engels, 1884

In "*Settler Capitalism*" Donald Denoon (1983:122) argued that it is imperative to situate the place of settler societies in global capitalist economy, while taking into account the political, economic and socio-historical specificities that characterise settler economic development and state-building and which are structurally different from colonial dynamics of de-development, cheap labour and the extraction of raw materials. More recently, Lloyd and Wolfe (2016:110) insisted on the need to theorise the lines of continuity between settler colonial regimes of primitive accumulation and dispossession and more contemporary, i.e. neoliberal modes of capital accumulation. As they put it:

> *"The ongoing history of settler colonialism forms a crucial terrain through which to understand military occupation and the formations and practices of the neoliberal state that has emerged to regulate and promote a new regime of accumulation"* (Lloyd and Wolfe, 2016: 109).

My analysis of Israel's settler economy will focus on one sphere of economic development that is closely connected to Israel's ART politics, i.e. the reproductive bioeconomy. It is a widely accepted fact that Israel has one of the most innovative high-tech and biotech sectors in the world. Particularly the med-tech and repro-tech sector are widely regarded as world-class in their ability to develop innovative therapies and medicines based on experimental biomedical research. While an empirical analysis of Israel's reproductive-industrial complex will be presented in Chapter 3, "*From the Pergonal Project to Kadimastem*", I will use the following paragraphs to discuss the current theoretical debates and discussions in the growing scholarship on the global bioeconomy.

Since the development of modern biotechnology in the 1970s with research on recombinant DNA, industrial players and policy makers have been eager to develop a global biotech industry (Birch and Tyfield, 2012). In the policy discourse of the Organization for Economic Cooperation and Development (OECD), for instance, the bioeconomy has been described and boosted as *"that part of economic activities which captures the latent value in biological processes and renewable bioresources to produce improved health and sustainable growth and development".* Similarly, the European Commission (2005:2) underlined the bioeconomy's potential as "*one of the oldest economic sectors known to humanity, and the life sciences and biotechnology are transforming it*

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[25] Parts of this section on the bioeconomy and reproductive labour have been incorporated in a book chapter on feminist materialism. See: Vertommen, Sigrid. 2016. "Female bodily (re)productivity in the stem cell economy: a cross materialist feminist approach". pp. 204-223. In *Mattering: Feminism, Science and Materialism*, edited by Victoria Pitts-Taylor. New York: NYU Press.

into one of the newest''. Already in 2002 the EC released a biotechnology strategy that promoted the life sciences and biotechnology as *''probably the most promising of the frontier technologies''* that could *"provide a major contribution to achieving the European Community's Lisbon Summit's objective of becoming a leading knowledge-based economy''* (quoted in Goven and Pavone, 2014:2). According to the OECD (2005), the bioeconomy is likely to involve three elements: 1) the use of advanced knowledge of genes and complex cell processes to develop new processes and products in agriculture, health and industry, 2) the use of renewable biomass and efficient bioprocesses to support sustainable production, and 3) the integration of biotechnology knowledge and applications across sectors.

Critical STS scholars, such as Hilgartner (2007), Birch and Tyfield (2012) and Goven and Pavone (2014) have remarked that the very concept of the bioeconomy is not a neutral term to describe recent techno-scientific developments or conceptualise future socio-economic concerns. It is also an attempt to produce, promote and further institutionalise these developments on a global scale (Birch and Tyfield, 2012). Pavone and Goven (2014) therefore concluded that 'the bioeconomy' should be understood as an ongoing political project and not simply or primarily as a techno-scientific or economic one. As they phrased it:

> *"There is a widespread taking for granted that 'the bioeconomy' exists, at least in statu nascendi. This in itself has political effects: the circulation of concepts like the bioeconomy between the OECD and the academic world enhances the influence of such concepts by conferring 'scientific authority' upon them".*

Keeping this fundamental epistemological critique in mind, I now move on to discuss the most foundational and influential concepts that have emerged out of the growing STS scholarship on the bioeconomy.

BIOCAPITAL, BIOVALUE AND THE BIOECONOMY

STS Genealogies of Biocapital

A suitable starting point for this theoretical endeavour into the contemporary relation between the life sciences, reproductive biotechnology and capitalism is Stephen Helmreich's enlightening article *Species of Biocapital* (2008), which offers a genealogical classification of the concept of biocapital. The particular term biocapital was popularised by Sunder Rajan in 2006, but has many conceptual siblings, including genetic capital, the biotech mode of (re)production, biowealth, genomic capital, life as surplus, etc. In its broadest sense, biocapital refers to a new set of social

relations in the age of biotechnology through which biological materials are increasingly inserted into speculative projects of commodification and rent-making (Helmreich, 2008). It also builds further on Foucault's (2003) concept of biopolitics, which refers to a modern mode of governance, based on the regulation of life. Theorists of biocapital stipulated that biopolitics no longer strictly operates through the state, but also increasingly through market actors for the creation of profit, wealth, capital and value. (Foucault, 2008; Helmreich, 2008)[26].

In his genealogy of the scholarship on biocapitalism, Helmreich identified two particular strands of theories. The first one is termed a Marxist-feminist cluster, which is mostly concerned with addressing the presumed binaries of production versus reproduction, nature versus culture, and sex versus gender, and draws heavily on the work of Marilyn Strathern, Donna Haraway, Hannah Landecker and Paul Rabinow. The second cluster can be viewed as a Weberian-Marxist one that primarily deals with "*relations of production alongside accountings of ethical subjectivity*" (Helmreich 2008:471). Obviously, as Helmreich (2008:471) remarked, both clusters have significantly influenced each other, with "*Marx's political economy and Foucault's biopolitics operating as the crucial conditions of possibility for each*". Given that adherents of the Marxist-feminist cluster have dealt more prominently with the theme of ART, I will primarily focus on their conceptual explorations of the term biocapital.

Anthropologist Marilyn Strathern (1992) was one of the first to describe the increasing capitalisation of biological and reproductive matter as "*nature, enterprised up*" in her groundbreaking book "*After Nature and Reproducing the Future*". This line of thought was picked up by sociologist Catherine Waldby (2000, 2002, 2007, 2008, 2010, 2013) who introduced the term biovalue to refer to a surplus of biological vitality in reproductive tissues such as embryos, stem cells, oocytes, placentas and even foetuses. In her analysis of tissue economies, she (together with Robert Mitchell and Melinda Cooper) suggests that biovalue is produced wherever the generative and transformative productivity of these living entities can be used and instrumentalised for human projects. Similarly, anthropologists Sarah Franklin and Margareth Lock (2003:8) coined the term biocapital as a kind of wealth that depends upon a "*form of extraction that involves isolating and mobilising the primary reproductive agency of specific body parts, particularly cells, in a manner not dissimilar to that by which, as Marx described it, soil plays the 'principal' role in agriculture*". In the creation of biocapital, Franklin and Lock consider processes of reproduction to be as crucial as relations of production.

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[26] Foucault (2008:116) himself noted: "*The market (free market) becomes the organising and regulating principle of the state. In other words the state under supervision of the market. This is neoliberalism. While in classical liberalism it was the market that was under supervision of the state*".

This conceptualisation of biocapital slightly differs from Nikolas Rose's recent research (2001, 2007:67) in which he foregrounded the concept of vitality. He viewed vitality as being "*decomposed into a series of distinct and discrete objects, that can be stabilised, frozen, banked, stored, accumulated, exchanged, traded across time, across space, across organs and species, across diverse contexts and enterprises, in the service of bioeconomic objectives".* More closely related to Waldby's approach, Rose linked the extraction of surplus biological vitality to value creation in newly established health markets, which resulted in the transformation of biopolitics into bioeconomics.

In her ethnographic research on fertility clinics in the United States, sociologist Charis Thompson (2005:253) foregrounded the term *biomedical mode of reproduction* as part and parcel of ART's ontological choreographies. In the biomedical mode of reproduction, fertility is activated and used in an industrial sense, resulting in the production of standardised molecular entities and cell lines, which operates with promissory capital, i.e. "*capital raised for speculative ventures on the strength of promised future returns*" (Thompson, 2003: 6-7).

Also Kaushik Sunder Rajan's (2006) research focused on what he calls a new phase in contemporary capitalism, centering around the accumulation of biocapital. According to Rajan, biocapitalism depends both on productive industrial capital (via biocommodities) and speculative commercial capital (via stocks). In his book "*Biocapital: The Constitution of Postgenomic Life"* (2006), he compared the Indian and the American regimes of labour and property that characterise the production, distribution and marketing of bioproducts in the biotech industry.

Another interesting STS theorist working on ART and biocapital is Melinda Cooper (2006) who wrote on the biological productivity of in vitro tissues as a lucrative site for capital investment. She opted for the term *life as surplus* to refer to the increasing commodification of bodily processes under neoliberal capitalism. Similar to Thompson and Rajan, Cooper referred to the speculative or promissory value of new biotechnologies, pointing to the ways in which biomedical and life science firms raise venture capital necessary for the production of new products and, as a result, create value (Birch and Tyfield, 2012:311).

Marxian Critiques

Marxian political economists have fundamentally critiqued STS theories on biocapital and the bioeconomy for their techno-scientific focus on the presumed 'novelty' of the relation between

biotechnology and capitalism without paying much attention to financial processes of post-Fordist capitalism (Lave, Mirowski, and Randalls, 2010; Birch and Tyfield, 2012; Goven and Pavone, 2014). Lave, Mirowski, and Randalls (2010) postulated, for instance, that political economy analysis should become a more prominent part of the STS toolkit, given the profound impact of political-economic processes in reorganising the production and consumption of biomedical and life sciences. They mostly refer to the striking absence in the STS literature on the bioeconomy of processes of financialisation and neoliberalisation[27], such as the surge in bio-patenting and the increased importance of intellectual property monopolies through patents, material transfer agreements, licensing options on future research, splitting of future royalties, royalty free access to universities' patent portfolios, but also the increasingly managerial management of scientific practices and organisation of universities. Apart from Melinda Cooper (2006), who shed light on the epistemic relations between the seeming self-regenerative essence of biological material and the capacity of financial capital to overcome the limits to economic growth through speculation, very few of the aforementioned STS scholars have made a thorough analysis of the impact of neoliberalism in the co-production of science and reproductive biology.

Birch and Tyfield (2012) have also problematised various aspects of these theories, including their "*fetishisation of biological matter*" (i.e. the proliferation of bioconcepts such as biocapital/ism, biovalue, and bioeconomies) as the source of value, rather than labour or economic process as well as the "*problematic adoption of Marxist language in these bio-concepts without the necessary adoption of Marx's theoretical formulation of the labour theory of value underpinning key terms like value, capital, and surplus value*" (Birch and Tyfield 2012: 299). Marx's labour theory of value posits that value is realised through the embodied labour power of workers, rather than through any pregiven nature or characteristic of biological matter. Birch and Tyfield question the presumption of many STS scholars that biological productivity is a form of accumulated labour power. Stefan Helmreich (2007, 2008:464) agreed that by viewing the biological process itself as a form of surplus value, much of the STS research on biocapital actually tends to essentialise biotech. He clarified:

> "*This belief is based on a metaphor: that organisms are labourers. We must be careful not to imagine reproduction as a transparently 'natural' process (…), as though their productivity is the essence of their species being. To see matters this way is to see organisms as natural factories or assembly lines, when in fact they only become so in certain relations.*"

He used the example of stem cells as pluripotent and self-regenerating tissues to illustrate this.

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[27] The authors define neoliberalism as a "*new political commitment to expand and deepen market relations into traditionally public arenas, such as health care, education, transport, environmental management and social welfare*" (Lave, Mirowski, and Randalls, 2010: 661).

> "*One might argue that stem cells are animated by a double fetishism—infused with vitality because of the erasure or the labour and regulation that allow them to appear 'in themselves' in such places as laboratories and simultaneously imbued with life because of their origin in living things*" (Helmreich, 2008: 464).

Everyone agrees on the fact that the advent of biocapitalism has catalysed an adjustment of the process of valorisation, but the conceptualisations of what biocapitalism constitutes differ [28]. The point of disagreement boils down to the question of who/what produces value and —even more fundamentally—who is the political subject. STS scholars with a political economy perspective such as Birch and Tyfield criticise STS's post-humanist understanding of biological matter as an agential power. In a strict application of Marx's labour theory of value, it is not the body or biological matter as such that labours and produces value, but human labour power. In Birch and Tyfield's interpretation, there would be no value in a stem cell for instance "*without the effortful and waged application of knowledge and work*" to transform that biological matter into a product or commodity. Contrary to the STS and feminist technoscientific perspective on biological productivity, Birch and Tyfield (2012:221) believe that "*value results from the application of knowledge to nature, and the subjection of that knowledge to intellectual property rights, and not from nature itself or from particular biological material".* They are inspired by autonomist understandings of biocapitalism that perceive contemporary "*life as a social factory*" in which the separation between working-time and life-time has faded. As such, they emphasise the role of knowledge-production as the main source for the creation of value as opposed to the traditional Fordist creation of value by means of material production. Birch and Tyfield (2012:223) claim that "*value, capital, and surplus value are constituted by some form of labor—whether this is knowledge, immaterial, cognitive, or what-have-you labour—and not to some characteristic latent within biological matter.*" The one who appears to vanish again in this analysis is "the lady" and her reproductive labour, as Marxist feminist scholar Donna Dickenson (2007) reminds us.

Although I fully agree with Birch and Tyfield's critique of STS scholarship, what I believe is missing in their 'old school' malestream political economy analysis of the bioeconomy is a feminist reading of the labour theory of value that incorporates issues of gender and social reproduction. By focusing only on the knowledge labour or immaterial labour of the (male) scientist, Birch and Tyfield bluntly ignore the embodied labour of (female) tissue providers whose contribution has been crucial for the development of the reproductive bioeconomy. The issue of reproductive (or affective, care, clinical or regenerative) labour and the social reproduction of capitalism has been

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[28] Birch and Tyfield, for instance, build further on the autonomist tradition of biocapitalism, as introduced by Negri, in which life, society and human existence have been put to work to become entirely productive. Morini and Fumagalli (2010: 235, 238) have defined it as "*a process of accumulation that not only is founded on the exploitation of knowledge but of the entirety of human faculties, from relational-linguistic to affective-sensorial. It refers to the production of wealth by means of knowledge and human experience, through the use of those activities, both intellectual and corporeal that are implicit in existence itself.*

taken up by Marxian feminists and STS scholars, whose insights offer interesting pathways to understand the political economy of assisted reproduction. I will discuss their work in the following section.

REPRODUCTIVE LABOUR AND THE SOCIAL REPRODUCTION OF BIOCAPITALISM

> *They say it is love. We say it is unwaged work.*
> *They call it frigidity. We call it absenteeism.*
> *Every miscarriage is a work accident.*
> *Homosexuality and heterosexuality are both*
> *working conditions…but homosexuality is workers'*
> *control of production, not the end of work.*
> *More smiles? More money.*
> *Nothing will be so powerful in destroying the healing*
> *virtues of a smile.*
> *Neuroses, suicides, desexualization: occupational*
> *diseases of the housewife.*

> -   Silvia Federici, Wages Against Housework, 1975

The reconfiguration of the global economy since the late 1970s has fundamentally transformed previous models of welfare or developmental states, often resulting in the dismantlement of social security and the increasing cost of housing, transport, education and health care (Waldby, 2008). According to scholars such as Sassen (2002), Ehrenreich and Hochschild (2002) and Waldby (2008) these changes have disproportionally affected women, forcing them into what Sassen called the 'lower circuits' of the global economy by working as nannies, household workers, dog walkers, cleaners or as sex workers in the Global North. It is also this sexual division of labour that is structuring the reproductive bioeconomy, which I define as a specific niche in the post-Fordist worldeconomy, resulting in the re-emergence of older and the emergence of 'new' processes of commodification of bodies, intimacies and sexualities, and 'novel' forms of labour such as gestational surrogacy, oocyte vending and other tissue donations for both research and fertility markets [29].

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[29] Critics argued that some groups of women have been commodifying and selling their reproductive services and labour for centuries, via wetnursing, prostitution, domestic slavery, etc. Race obviously played an important role in organising these reproductive labour regimes. For a critical historical appraisal of the supposedly novel character of these processes of embodied commodification, see Angela Davis (1972), Evelyn Nakano Glenn (1992).

Feminist Debates on Reproductive Labour

Rather than emphasising the novelty of these increasingly popular forms of women's labour, this dissertation will build further on the recent attempts made by feminist scholars to revisit them through the Marxian category of 'reproductive labour'. This framework was developed by socialist feminists in the 1970s and early 1980s, and includes the work of Silvia Federici, Mariarosa Dallacosta, Selma James, Christine Delphy, Michelle Barrett and Maria Mies. While this Marxian feminist body of knowledge explicitly drew on Marx's historical materialist reading of capitalism, it also criticised his use of genderblind categories, and his complete neglect of women's unpaid reproductive work in the process of capital accumulation (Federici, 2012).

Indeed, focusing primarily on relations of production under capitalism, Marx himself did not pay much attention to the reproductive realm[30]. According to Marx, what a woman does when giving birth and reproducing life and thus labour-power is 'merely' natural, not social. It was not deemed to produce any exchange-value nor add any surplus value (Dickenson, 2001). Therefore, it could not belong to the sphere of production, but was banned in stepmotherly fashion to the sphere of reproduction or even consumption (Franklin, 2006; Dickenson, 2001, 2007; Federici, 2012). Although Marx (quoted in Franklin, 2007:106) viewed nature and biological life as the "*means of production already produced*", Silvia Federici (1975, 2012:125) reminded us that labour power, similar to all other commodities, must be produced, "*representing thus a definite quantity of average social labour objectified in it*". One of the main mechanisms by which capitalism has consolidated its hegemonic position is through the devaluation, externalisation and socialisation of entire spheres of human and extra-human activity, including all the work necesarry for the reproduction of life, starting with birthing, childcare, housework, sex work and elderly care. In order to contain and lower the cost of life and thus labour power, capitalism depends on processes of primitive accumulation and the perpetual exploitation of the taken for granted and thus unwaged labour of 'naturalised' groups such as women – epitomised in the figure of the housewife - but also colonised and enslaved peoples and extra-human species (Federici, 2012;).

One of the major accomplishments of Marxian feminism has thus been to highlight how women's unpaid reproductive labour has been indispensable for the social reproduction of capitalism. Christine Delphy (1970), for instance, convincingly reconceptualised women's domestic and maternal work under Fordist capitalism as a form of productive labour that complemented the

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[30] Contrary to Marx, Friedrich Engels devoted more attention to the women's question within capitalist societies. In "*The Origin of the Family, Private Property, and the State*" (1884) he argued that women's oppression in bourgeois marriage is deepened and consolidated by their domination as a class of unpaid workers responsible for the material reproduction of persons in households.

industrial labour of the male breadwinner (Waldby and Cooper 2010). The *Wages Against Housework Campaign*, launched by Silvia Federici, Mariarosa Dalla Costa and Selma James, aimed to make the 'natural', invisible and unpaid labour of the housewife visible by demanding a wage for it.

> "*To say that we want money for housework is the first step towards refusing to do it, because the demand for a wage makes our work visible, which is the most indispensable condition to begin to struggle against it, both in its immediate aspect as housework and its more insidious character as femininity. To say that we want wages for housework is to expose the fact that housework is already money for capital, that capital has made and makes money out of our cooking, smiling, fucking*"[31].

Since the late 1970s, however, reproductive labour has moved outside of the domestic sphere, and has radically transformed into commodified, feminised and precarious forms of care and service work. Catherine Waldby (2008) noted that what was once unpaid domestic work performed by slaves and servants as forced labour or by housewives and mothers as a natural gift of love is now incontestably labour, an activitity or service that is sold on the labour market. Federici (2012) concurred that under neoliberalism every articulation of the reproduction of labour power has been morphed into "*an immediate point of accumulation*". Since then, sociologists of work have advanced new concepts to analyse how women are increasingly commodifying their feminised capacities for care, nurturance and pleasure by working as child careworkers, nurses or in the food service industries. Based on her research on flight attendants Arlie Hochschild (1983), for instance, defined emotional labour as labour whose central element is the regulation of emotions. Others used the term care labour to describe a productive process that incorporates affects, desires and bodies, motivations and opinions, relating to the management of domestic activities and practices of care. Autonomist scholars have preferred the term affective labour to describe a similar process under a biocapitalist mode of (re)production in which "*life has been put to work*" (Morini and Fumagalli, 2010). In their compelling reading of contemporary biocapitalism, Morini and Fumagalli (2010) advanced the hypothesis that the labour theory of value has transformed into a *life theory of value* in which the Fordist separations between working-time and life-time, between working-place and life-place, between production and reproduction have been transcended. Affective labour is viewed as an increasingly important phase in biolabour, next to cognitive and symbolical labour (Lazzarato, 1996; Hardt, 1999; Morini and Fumagalli, 2010)[32].

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[31] Federici, Silvia. 1975. Wages Against Housework. Bristol: Power of Women Collective and Falling Wall Press.
https://caringlabor.wordpress.com/2010/09/15/silvia-federici-wages-against-housework (last entry, 23/09/2016).

[32] From an Autonomist perspective, three phases are deemed to be crucial in the biocapitalist mode of production: 1) labour and value generated by the diffusion of knowledge, namely linguistic-cognitive labour, 2) value generated by affective and reproductive labour and 3) value generated by symbolic and imaginary labour, especially in the process of branding (Morini and Fumagalli, 2010:241).

While in the literature care labour is often used to describe commodified forms of reproductive tasks and domestic labour usually refers to the reproductive services performed at home, Evelyn Nakano Glenn (1992:4, 2010) insisted on a conceptual analysis that includes both waged and unwaged reproductive labour. She defined social reproduction as involving*:

> *"mental, emotional and manual labour, that it can also be organised in and outside of the household, be waged or unwaged and create exchange value or only use-values and that these different forms of reproductive labour are not mutually exclusive"*.

Barbagallo and Federici (2012:4) summed up the broad range of activities that could fall under the rubric of reproductive labour:

> "*Household cleaning, shopping, preparing food, doing the laundry, paying the bills, providing intimacy and emotional support, such as listening and consoling; bearing children, teaching and disciplining them, anticipating, preventing or resolving crises, keeping up good relations with kin and neighbours, coping with the growing threats to our health –through the food we eat, the water we drink. Also sex and sex work should be seen as a key component of reproductive work, given that it is an activity that reproduces social life in the same way that other bodily services do (…)*".

I argue in this dissertation that the definition of reproductive work could be further broadened to include all the recent and less recent forms of unacknowledged, feminised body labour, such as surrogacy, oocyte vending and other tissue provision for medical research, that are part and parcel of the reproductive bioeconomy. The labour and work of biological reproduction should be brought into the debates concerning the role and function of social reproduction under capitalism (Barbagallo and Vertommen, 2017). I will draw on the work of scholars such as Donna Dickenson (2007), Charis Thompson (2005), Catherine Waldby and Melinda Cooper (2010), Amrita Pande (2010, 2011, 2014), Kalinda Vora (2009) and Sophie Lewis (2015), who have argued that women who offer their reproductive tissues or services are actually labouring, with each of them putting forward their own specificities and accents. Specifically focusing on (trans)national surrogacy networks, Kalinda Vora (2009) and Sophie Lewis have put forward the term *gestational labour* as a way to look at mothering through the lens of surrogacy, rather than vice versa, in an attempt to unmask the productive character of gestating and birthing in both its commodified and non-commodified form. As Lewis (2015:10) aptly phrased it: "*Gestation and surrogacy are separated only by a name and a choreography*". Donna Dickenson's (2007) research on reproductive tissue economies centered on the Marxist notion of alienation. She perceived tissue donations for stem cell research as a form of reproductive labour in which women are alienated from their own biological materials due to a fundamental lack of property rights over their body. Charis Thompson (2005) concurred that in the *biomedical mode of reproduction* patients and donors are exploited and alienated from their own body parts. In this sense, she compared the industrial

workforce's lack of ownership over the produced commodities with donors' lack of control over their own reproductive tissues. In their analysis of emerging stem cell and regenerative medicine industries in the UK, North America, Western Europe but also India and China, Catherine Waldby and Melinda Cooper (2010, 2014:107) opted for the term *regenerative or clinical labor*, emphasising not so much the reproductive capacities of donated embryos, egg cells, umbilical cords and placentas, but their future regenerating potential in experimental economies.

What all the aforementioned scholars underline is that even though the biological capacities of human bodies and the reproductive labour of women are indispensable for the survival of biocapitalism, they are never recognised as such within the regimes of labour and intellectual property. Discursively they are framed within the realm of altruism. Materially they are often inscribed in a gift economy that is structured by bioethical principles such as donations, gifts, informed consent, compensation and prevention of indue inducement (Cooper and Waldby, 2014). Drawing on the work of Dickenson (2001, 2002, 2007) and Cooper and Waldby (2014), I will critically evaluate these bioethical guidelines from a political economy perspective on labour.

Bioethical Guidelines from the vantage point of Political Economy

The Gift of Life

First, the provision of reproductive tissues for research purposes is mostly organised through a gift system[33]. To avoid the exploitation of underprivileged women who could be unduly induced to sell their bodily materials for financial reasons, women are restricted to donate for altruistic reasons - for the progress of science and humanity - without getting any financial compensation in return. Even in rare cases such as in the State of New York or Israel where women are directly or indirectly reimbursed for providing their tissues to biomedical research, they are still framed as altruistic donors who operate through bioethical rather than economic frameworks (Waldby, 2007; Waldby and Cooper, 2010; Vertommen, 2016a, 2016b, 2016d). The same goes for the provision of fertility services such as egg donation and surrogacy. Although egg 'donors' and surrogate 'mothers' are paid, as will be explained in the second chapter on egg donations and the fourth chapter on transnational surrogacy, they are never framed as labourers who are entitled to salaries but rather as patients who receive a 'mere' compensation for their time, pain, efforts and discomfort.

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[33] For instance, the European Union Tissue Directive from 2004 states that "*as a matter of principle, tissue and cell application programmes should be founded on the philosophy of voluntary and unpaid donation (...), altruism of the donor and solidarity between donor and recipient*".

Although female donors are framed within a gift economy, their 'gifts' are easily commodified throughout the economic value-chain. In the case of tissue provisions for research purposes, for instance, intellectual property law stipulates that donated reproductive materials constitute either biological waste or *res nullius,* i.e. nobody's property (Dickenson, 2007). Although 'spare' embryos and egg cells from fertility treatments, umbilical cords, placentas and even aborted fetuses are donated as nature's gifts to science, they are often transformed into patentable products such as stem cell lines, stem cell technologies and other potentially lucrative bio-objects. Patent law permits the patenting of living organisms since the landmark American court case of Chakrabarty versus Diamond in 1980, after which the U.S. Congress allowed patenting "*anything under the sun that is made by man,*" including stem cell lines (Waldby and Mitchell, 2006)[34]. This implies that embryos or egg cells as such cannot be patented; yet the stem cell lines derived from human embryos can easily enter intellectual property regimes [35]. The valorisation of labour in the stem cell economy is thus underpinned by a Cartesian dichotomy between mind and body. In the logic of the binary, only the mind is considered capable of producing surplus value while the female body is nothing but dumb and passive matter that merely brings forth 'natural' products such as embryos, egg cells and placentas (Gambardella, 1995). As Waldby and Cooper (2010: 8) phrased it:

> "*It [intellectual property law] recognizes the cognitive, highly skilled labour of the researcher, the scientist and the clinician, but it systematically undermines the constitutive nature of the biological material.*"

Marxian feminist scholars have tried to counter the misogynist effects of the mind-body split by arguing that women also *labour* to create bodily tissues for stem cell technologies or fertility markets. For instance, on egg cell donations Donna Dickenson (2007:65) wrote:

> "*There is nothing remotely natural about the process of ovarian stimulation and egg extraction. It involves a lot of emotional and physical labour.*"

She referred to the fact that becoming an egg donor is a labourious and demanding process. First, potential candidates have to go through numerous physical and psychological tests. Then, egg cell donors need to undergo hormonal treatments to overstimulate their ovaries to produce multiple

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[34] Chakrabarty was a genetic engineer working for General Electric who received the right to patent a bacterium that was capable of breaking down crude oil. His patent application was initially rejected because living matter was not patentable according to patent law. In 1980 the American Supreme Court overturned the case in General Electric's favour, allowing the patenting of a living organism.

[35] In 2011 the European Court of Justice had issued a ban against the patenting of embryonic stem cell lines made from unfertilised eggs. In December 2014 the European Court of Justice partially backtracked this decision, after a series of complaints from stem cell scientists and companies alike. It ruled that human embryonic stem cells made from unfertilised eggs could be patented — on the basis that they lack the capacity to turn into a human being (Callaway and Abbott, 2014).

follicles, which have to be surgically removed and 'harvested'. Dickenson aims to upgrade the reproductive labour of egg cell donors by removing it from the natural sphere, which all too often has been equated with passive and taken-for-granted femininity.

Informed Consent

Another guideline that structures the reproductive bioeconomy is informed consent. This bioethical procedure requires that permission of the patient is sought before conducting a healthcare intervention or before participating in research as a human subject. Informed consent was initially introduced to protect the individual patient or research participant against potential physical or mental abuse and/or misconduct by the physician or reseacher. According to critics, however, it also began to fulfill a commercial role in the bioeconomy as the informed consent procedure officialises and regulates the allocation of possession from the donor to the recipient (Waldby and Mitchell, 2006; Dickenson, 2007; Cooper and Waldby, 2014).

In case of embryo donations, for instance, Waldby and Mitchell (2006) noted that once the embryo has been donated, the donor relinquishes all rights for potential commercialisation in the form of stem cell technologies or other embryonic commodities. While the legal and bioethical debates on tissue donations are often framed in terms of gift versus commodity, the work of Michel Callon (1998) or Klaus Hoeyer (2013) suggested that such binaries fail to explain why and how reproductive tissues move in and out of the commodity sphere throughout the economic value chain (Kroløkke, Foss, Pant, 2012). Concurrently, Waldby and Cooper (2010:72-73) argued that although framed as a gift, informed consent is already based on property rights, i.e. the rights of the recipient. As they concisely summarised it: "*Informed consent is the mechanism that transforms a gift into a property*". Donna Dickenson (2002:62) contended that if tissue donors believe they are engaging in an act of altruism, but life science companies and researchers deploy practices of commodification and profit making, then this is not "*incomplete commodification*", as Margareth Radin (1996) famously stated, but "*complete commodification, with a plausibly human face*". She concluded: "*A compulsory and one-way gift relationship is not a gift, but exploitation*" (2001:212). Dickenson added that it is not sufficient to conceptualise tissue transactions in terms of one-time consent alone, as this does not allow the tissue provider to decide on the conditions of her labour in the furtherance of the labour process.

Cooper and Waldby (2014) perceived the omnipresence of informed consent as a re-emergence of the 19th century principle of *volenti non fit unjuria* (or: to a willing person, injury is not done), which presumes that the worker, by agreeing to the labour contract, also consents to take all the

dangers and risks associated with the work. Although the labour movement actually succeeded in erradicating this principle by the late 19th century, it seems to re-appear in the labour conditions of the 21st century bioeconomy, including in acticivities such as participation in clinical trials, tissue donations, and fertility work. Cooper and Waldby (2014:224) therefore concluded:

> "*While their stated aims are to protect the research subjects and tissue donors from undue inducement and to foster truly voluntary participation, in practice they tolerate and incorporate not only transactional recruitment but also atavistic features of labor law that characterized the unprotected labor conditions associated with the high point of 19th century contractual individualism and the laisser-faire state*".

In this gendered political economy analysis of Israel's reproductive bioeconomy, reproductive services such egg vending, surrogacy and other tissue donations will be conceptualised as unacknowledged or undervalorised forms of reproductive labour. Of course, reframing women's participation in the bioeconomy as a form of labour might not be a structural or long-term solution for the often poor and/or marginalised women who are compelled to sell their bodily tissues. Some critics consider a perspective that acknowledges and thus legitlimises the commodification of women's bodies as morally despicable [36]. Others, operating from an autonomist or post-work imaginary, have critiqued the productivist assumptions of a Marxian feminist perspective that remains faithful to the utopia of labour as the only way to uncover the logics of capitalism (Del Re, 1996; Weeks, 2011). Taking these critiques into account, framing women's contributions to the bioeconomy as reproductive labour does offer certain safeguards for their recognition, protection and further organisation/politicisation as workers (Cooper and Waldby, 2014; Pande, 2014) [37]. It also moves the debate beyond the false dichotomy of gift-commodity, that tends to hide all the labour that reproductive acivities require, towards a unitary understanding of the bioeconomy in terms of political economy and social reproduction, one that is built on an integrative historical materialist analysis that 1) engages with the changing regimes of both labour and property throughout the economic value chain, 2) is attentive to *intrasected* and mutually constitutive hierarchies of race, gender, sexuality and class and 3) transcends false dichotomies of nature/society, production/reproduction, waged/unwaged work, gift/commodity.

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[36] For an overview of the feminist critiques on surrogacy, see Sophie Lewis "Defending intimacy against what?: limits of antisurrogacy feminisms". *Signs*. (forthcoming).
[37] During my Marie Curie Fellowship on "Tracing the global fertility chain between Israel/Palestine, South Africa and Nepal: A new political economy of outsourced reproduction" (2017-2019), I will further explore these debates of reproductive labour in the global bioeconomy.

ART between Biopolitics and Necropolitics

A final body of literature that served as a fertile ground for analysing the policies and practices of assisted reproduction in Palestine/Israel revolves around the Foucauldian paradigm of biopower, broadly referring to the politics of biological life itself. In the following sections I will discuss how the biopolitical framework has been taken up in the contemporary social research on biomedicine, biotechnologies and ARTs. Starting from Foucault's initial conceptualisations of biopower and Nikolas Rose's and Paul Rabinow's interpretations, I offer a critical reading of the performativity of biopolitics in the 21st century, based on my research experiences in Palestine/Israel. My perspective on contemporary biopolitics will take into account the interconnections between 1) necropolitics 2) race and the (settler) coloniality of power, 3) gender and reproduction, and 4) the role of the sovereign biopolitical state.

BIOPOWER AND THE GOVERNMENT OF LIFE AND VITALTY IN THE 21ST CENTURY

> "*There is a huge gap between our enemies and us. Not just in ability, but also in morality, culture, sanctity of life and conscience. They are our neighbours here. But it seems to me that a few hundred meters away from us, there live a people who not only do not belong to our continent, not only do not belong to the planet, but actually belong to another galaxy*".
>
> - Moshe Katzav, former president of the State of Israel (quoted in Ghanim, 2008: 72)

During his lectures at the Collège de France in the late seventies, Michel Foucault (2003, 2004) introduced the term biopower to mark a fundamental transformation in the apparatuses of power through which modern European nation-states attempted to subjugate bodies and manage populations. While the sovereign power of the old territorial state was first and foremost concerned with making die and letting live, modern biopower became equally interested in making live and letting die (Foucault, 2007; Lentin, 2008). The biological dimensions of life began to constitute an important object, target and concern of political power, operating at two interconnected poles of the individual body and the collective population. While disciplinary techniques were designed towards controling the anatomo-forces of the individual human body, regulatory technologies of 'government' (as a form of power) intervened upon the management of a new political subject, i.e. the population and its biological and social processes (Foucault, 2007:108-109). In practice this meant that demographic processes such as birth, fertility, mortality and nuptiality were statistically regulated in the name of the security, health and wellbeing of the population. As Nikolas Rose (2006:54) aptly phrased it, there was an increasing

awareness for modern state power that "*human beings were living creatures who are born, mature, inhabit a body that can be trained, augmented and then sicken and die*".

Contemporary social scientists such as Paul Rabinow (1999, 2006), Nikolas Rose (2001, 2007) and Carlos Novas (2001) have used the biopolitical framework to further understand the complex rearticulations of 'life' in the fields of life sciences and biomedicine. They have built further on Foucault's affirmative understanding of biopower by focusing on its hopeful, productive, open-ended, emancipatory, empowering, transformative and life-affirming dimensions (Schurr, 2016:3). Biopower in - what they have termed - "*advanced liberal democracies*" or "*contemporary ethical regimes*" no longer operates through regimes of violence, terror and death imposed upon subjects, but through apparatuses that maximise the vitality and potentiality of the individual and collective living body (Greenhalgh and Winckler, 2005; Rose, 2007)

In his provocative analysis of the *Politics of Life Itself* in the 21st century, Nikolas Rose (2007:3) discerned important historical transmutations of biopower since the 18th century.

> "(...) one could say that the vital politics of the 18th and 19th century was a politics of health – of rates of birth and death, of diseases and epidemics, of the policing of water, sewage, foodstuffs, graveyards, and of the vitality of those agglomerated in towns and cities. Across the first half of the 20th century, this concern with the health of the population and its quality became infused with a particular understanding of the inheritance of a biological constitution and the consequences of differential reproduction of different subpopulations, this seemed to oblige politicians in so many countries to try to manage the quality of the population, often coercively and sometimes murderously, in the name of the future of the race. But the vital politics of our century looks rather different. It is neither delimited by the poles of health and illness, nor focused on eliminating pathology to protect the destiny of the nation. Rather it is concerned with our growing capacities to control, manage, engineer, reshape and modulate the very vital capacities of human beings as living creatures. It is, I suggest, a politics of 'life itself*".

According to Rabinow and Rose (2006) and Rose (2007), contemporary biopolitical configurations in European and Australasian societies are characterised by five important transformations. First, they are based on molecularised understandings of biology that transcend the early 20th century's racialised, phenotypical focus. Secondly, they operate according to the optimised logics of vitality rather than those of mortality. Thirdly, they have created new forms of subjectification based on what Rabinow has termed 'bio-socialities' and Novas and Rose have called 'ethopolitics' or 'biological citizenship', through which individuals and collectives are brought to work on their own health. Fourthly, they are morally guarded and defended by new regimes of somatic expertise, such as bioethics commissions, regulatory agencies and professional biomedical organisations. Fifth and lastly, contemporary biopower is embedded in new capitalised circuits of bioeconomics or so called economies of vitalities. While Rose understands the specificity of biopolitics of the first half of the 20th century to lie in the established connections

between quality, territory, nation and race, he argued that biopolitics today no longer operates in this eugenic problem space.

> "*Individual substitutes for population, quality is no longer evolutionary fitness but quality of life, the political territory of society gives way to the domesticated spaces of family and community, and responsibility now falls on those who govern a nation in a field of international competition but on those who are responsible for a family and its members*".

Although the theoretical insights of Foucault, Rabinow and Rose have been of great importance for my own understanding of the various articulations of biopower, I do believe that there are certain blind spots in these interpretations. First and foremost, they are based on particularly Eurocentric genealogies of sexuality, racism, health and biology that either focus on Europe (in the case of Foucault) or so-called advanced liberal democracies (in the case of Rose). These observations may be inadequate when applied to a (settler) colonial setting such as Palestine/Israel.

Secondly, neither Foucault's, nor Rabinow and Rose's conceptualisations of biopower in the 21st century are particularly gendered. They do not sufficiently take into consideration the different modes of disciplining and regulating women's reproductive and sexual body. In the following sections I will therefore sketch out some of the ways in which the analysis of neoliberal biopolitics in the 21st century could be improved and finetuned. I will focus on the role of the death function, and related to this, the pertinence of intersected issues of race and gender, and the role of the sovereign state in the performance of biopower.

CONTEMPORARY NECROPOLITICS

> *"Everyday another story, another worry; every movement is calculated here in our area, they are after us, even in our own homes. Listen to me carefully; they are after the babies in our wombs. They are – they are scaring us, hoping we will end up unable to bring children into the world".*
>
> - Reham, Palestinian mother in Occupied Jerusalem (quoted in Shalhoub-Kevorkian, 2015: 155)

Influential contemporary thinkers such as Giorgio Agamben, Zygmunt Bauman and Achille Mbembe have contested Foucault's affirmative perspective on biopower, by arguing that managing the health of the body politic inescapably requires the control and elimination of

undesirable bodies, epitomised by Agamben in the enigmatic figure of the 'homo sacer' [38]. In his epochal work of the same name, Giorgio Agamben (1998:222) asserted that terror, violence, destruction and death are not mere ancient or medieval technologies of power out of which a modern, life-affirming biopolitical apparatus emerged. He argued that it is actually 'thanatopolitics', i.e. the politics of death, the threat of death, the fear of death and the example of death, that still counts as the priomordial principle of modern biopower, with the camp serving as its main biopolitical paradigm. According to Agamben life is still dependent on the arbitrary value judgement of the sovereign who can decide to grant life as a favour rather than an established right. Instead of transcending sovereign authority, thanatopower therefore continues to operate in the name of sovereignty, and thus the state (Agamben, 1998; Rose, 2007). Similarly, yet from a postcolonial perspective, Achille Mbembe (2003:18) introduced the notion of *necropolitics* to describe "*contemporary forms of subjugating life to the power of death*".

While Rose and Rabinow (2001) agree with Agamben and Mbembe that biopolitics in the 20th century –with Nazi Germany and the Soviet Union under Stalin serving as the archetypical examples of homicidal biopolitical regimes – materialised as an intricate mix of the politics of life and the politics of death, they disagree that thanatopolitics or necropolitics operate as the main rationale behind contemporary biopolitical configurations. As Rose (2007:58, 70) phrased it:

> "*The troubles of our times are not the reactivation of the past. The four terms that delineated eugenics - population, quality, territory and nation - do not characterize the molecular biopolitics of the present*".
>
> "*Contemporary biopolitics no longer operates according to the logics of mortality but rather of vitality. While biopower today certainly has its circuits of exclusion, letting die is not making die. This is not a politics of death, nor even a politics of illness and health, it is a matter of the government of life*".

Rose and Rabinow (2006) believe that these biopolitical geographies of exlusion are determined by the ever-growing control of pharmaceutical and life science companies that look for cheap clinical labour and high profit rates, or by the autonomous choice of individual patients who can choose to discard undesirable embryos through prenatal genetic testing or select the racial features of their potential egg donors on the reproductive marketplace. As Rose and Rabinow (2006:211) see it, however, *"this is capitalism and liberalism, not eugenics by either the front or the back door"*.

I tend to agree with Agamben and Mbembe: the fruitful reproduction of the Jewish Israeli collective body can only materialise at the expense of Palestinians' right to exist. The biopolitics

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[38] Homo Sacer refers to a figure in Roman law whose crimes did not allow him to be sacrificed, but who could be killed with impunity. According to Agamben (1998) the contemporary Homo Sacer is subjected to the sovereign State's privilege to determine the state of exception, allowing those who are stripped of their political life and reduced to bare life to be killed and tortured without legal restraint.

of reproductive vitality underpinning Israel's ART policies cannot be understood without the necropolitics of demographic elimination of the natives (Nahman, 2006). Palestinian anthropologist Honaida Ghanim (2008), for instance, has poignantly remarked that the biopolitical paradigm for understanding the functioning of power negates the experiences of the destructive side of power from the vantage point of the victims. Ghanim (2008:67) stated:

> "*From the viewpoint of the victims, the moment that power is directed at destroying, eliminating, and dismanteling their group, the decision about their life becomes a decision about their death, biopower thus transforms into thanatopower.*

Also Nadera Shalhoub Kevorkian (2015) has analysed Israel's oppressive apparatus towards Palestinians as a necropolitical matrix of power. Scholars such as Jason Ritchie and Adi Kuntsman (2008) drew on Jasbir Puar's notion of queer necropolitics as a way to scrutinise how LGBT has materialised in unequal regimes of living and dying in Israel/Palestine. Ritchie (2008) has analysed Israel's attacks on Gaza in 2006 in relation to its changing legislation concerning same-sex marriages and adoption. He described the two moments of life and death, as part and parcel of:

> "*the continuous double movement that is Israeli sovereignty: a set of discourses and practices that regulate and govern Jewish Israeli life while also regulating the distribtution of Palestinian deaths".*

Following Ritchie and others, I believe that contemporary biopolitics should not be understood in terms of binaries such as those of making live *or* creating death, care *or* violence, prosperity *or* abandonment, inclusion or exclusion. Instead, biopolitics today - similar to biopolitics yesterday functions as a mutually reinforcing relation between life and death, wherein each presupposes the other. As Honaida Ghanim (2008:67) aptly concluded:

> "*Thanatopower is not an independent or unique form of power, but is always already a supplement of biopower, which is called to action at those delicate moments of passage from calculating life to calculating death, from managing life to managing death, and from the politicization of life to the politicization of death".*

Incorporating the politics of death in the analysis of contemporary regimes of biopower implies accounting for the dense transfer points around which thanatopolitics materialises, such as race, gender, class and sexuality.

RACE AND THE (SETTLER) COLONIALITY OF BIOPOWER

In his famous essay "*Foucault on Race and Colonialism",* Robert Young (1995:1) wondered why a scholar who had so much to say about power, was so circumspect about the multiple ways in which it operated in the arenas of race and colonialism. Particularly when taking into

consideration the specific French historical context of Sartre, Fanon and Althusser, the traumatic defeat of the French in Vietnam, the Algerian War of Independence and other anticolonial liberation movements of the 1950s and the 1960s, Foucault's virtual silence on matters of race and colonialism were striking. Young (1995:1) added:

> In fact Foucault's work appears to be so scrupulously Eurocentric that you begin to wonder whether there is no deliberate strategy involved".

The renowned postcolonial scholar Ann Laura Stoler (1995:viii) concurred that Foucault's work indeed tended to marginalise the biopolitical order's "*imperial coordinates and their effects".* She noted, however, that while empire may have been conspicuously absent from Foucault's analysis of sexuality and biopower, race was certainly not (Stoler, 1995). The last sections of *The History of Sexuality* (1984) and his lectures at Collège de France that culminated in *Society Must Be Defended* (2003) dealt specifically with the complex intersection of sexuality, degeneracy and racism within the emergence of the 'biopolitical' state over the course of the 18th century. Foucault turned to the issue of racism in his discussion of the fundamental paradox that undergirds the modern state. How does the biopolitical state that is dedicated to managing and improving the quality of life of its population, exercise its right to kill (Foucault, 2003; Landertinger, 2011)? According to Foucault (2002:254-258), this is the moment in which race (more than class) became instrumental and pivotal for the performance of state power:

> "*Racism justified the death function in the economy of biopower by appealing to the principle that the death of others makes one biologically stronger insofar as one is a member of a race or a population".*

It is thus with the emergence of biopower over the course of the 18th century that racism got inscribed as the basic mechanism of state power. For Foucault it did so in two specific ways. First of all, a racist discourse enabled the state to fragment and categorise its population into different subspecies or races, which could be classified as fit and degenerate (Foucault, 2003:255). The second function of state racism was to insert the relationship of war into the internal functionings of the state and to establish a biologically racialised type relationship between 'my life' and 'the life of Other'. The right to kill the racialised Other was therefore justified as a way to guarantee and improve the life of the dominant population group (Landertinger, 2011). And it was the state that presented itself as the main gatekeeper in safegaurding the racial purity of the population, and in defending the society against the undesirable races that were infiltrating the collective body.

Although Foucault did explore the relation between race and biopower, he refrained from analysing it from a colonial perspective. In "*Race and the Education of Desire*", Ann Laura Stoler (1995) offered an explicit gendered and colonial reading of Foucault's work on biopower that

scrutinised the sexual and reproductive policies of the Dutch colonial authorities in the East Indies as technologies of control vis-à-vis the colonisers and the colonised. Achille Mbembe (2003) also provided an account of colonial biopolitics in which he put forward his notion of necropower. In fact, most scholars in (post)colonial studies with an interest in the workings of race and biopower have opted to do so from the necro-thanatopolitical perspective as offered by Mbembe, Agamben and the like.

For Mbembe (2003:18-21) the franchise colony constituted the ultimate space of death, a "*phantomlike world of horrors and intense cruelty and profanity* where (...) *the calculus of life passed through the measured death of the Other*". Specific for the performance of necropower in the extraction colony was that it required the free or cheap labour of colonised slaves. It was therefore necessary to keep the slaves alive, although in a permanent state of pain, misery and injury (Mbembe, 2003). However, in a settler colony, which is oriented towards the removal of the native, necropolitcs materialises in particularly different ways that have yet to be analysed further. Shalhoub-Kevorkian (2015) opened her most recent book on Israel's security complex by asking what kind of power is at work in settler colonial formations. For Shalhoub-Kevorkian (2015) the Zionist matrix of power is a necropolitical one, based on a structure of elimination, displacement and replacement of native Palestinians. She concluded that the Zionist settler colony is a terror formation, "*a death world in which colonial or racial differences are interwoven to produce regimes of living and dying*" (Shalhoub-Kevorkian, 2015:8) [39].

Rose and Rabinow (2006) agreed with Foucault that biologised conceptualisations of race played a crucial role in the power apparatuses of modern biopolitical states, particularly in 19th and early 20th century health programs and eugenics policies. They argued, however, that after 1945 these biological understandings of racial difference and superiority have disappeared from politics and policy discourse. For Rose and Rabinow (2006) race has vanished in the shape of a biological truth claim, only to re-emerge again at the turn of the 21st century in a milder and harmless 'molecularised' form, taking shape at the level of genes rather than phenotypes [40]. In contrast, I argue that race has not disappeared from the biopolitical toolbox of the modern state, particularly not of a settler state such as Israel/Palestine. As I will discuss in more detail in the following section, race - intrasected with hierarchies of gender, class and sex - continues to materialise as a

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[39] Some scholars have suggested analysing Israel's necropolitical policies towards Palestinians from the perspective of Genocide Studies (Wolfe, 2006; Shaw, 2013; Rashed, Short and Docker, 2014). Although there are many good reasons to incorporate the paradigm of genocide when researching stratified reproduction in a settler colonial formation such as Palestine/Israel, I have opted to foreground the concept of "elimination" in this dissertation, as proposed by Patrick Wolfe (2006), for its insistence on elimination or removal as a structural process, and for circumventing the issue of intention.

[40] In contemporary genetic research, population groups are often still coded according to 19th century racial typologies such as white Caucasian, black African, yellow Asian, red Native American (Rose and Rabinow, 2006:207).

biopolitical technology of power in Israel's fertility regime. This becomes evident in the graduated access to ART programs and the racialised division of transnational reproductive labour between white egg donors and non-white surrogate carriers that not only reinforce colonial imaginaries of Ashkenazi desirability, but also settler colonial imaginative geographies of elimination (Nahman, 2013; Pande, 2015; Schurr, 2016).

EUGENICS, GENDER AND REPRODUCTION

Reproduction, as Rose and Rabinow (2006:208) postulated, constitutes a biopolitical space par excellence "*in which an array of connections appear between the individual and the collective, the technological and the political, the legal and the ethical".* Unlike many of his followers, Foucault himself hardly touched upon the topic of reproduction as a specific arena of biopower. In part this is due to the fact that his work suffered from a certain genderblindness (Stoler, 1995; Kanaaneh, 2002). Foucault rarely accounted for the ample ways in which the bodies of women and men were shaped and disciplined differently through and within gendered regimes of biopower. Yet, as I discussed earlier in the section on the intimacies of settler colonialism, women and their bodies have often been subjected to a particular reproductive arithmetic that prescribes, for instance, whether to have children or not, when to plan a family, how to raise children, how many babies to have, etc. These reproductive norms, practices and policies have been shaped and regulated in biopolitical regimes while taking into account matters of public health, population control, ecological sustainability and economic performance as well as cultural sensitivities.

Throughout the late 19th and the 20th century these reproductive policies became strongly influenced by eugenic thought. Eugenics was a scientific and medical discipline founded in 1883 by Francis Galton that aimed to improve the biological stock and the racial fitness of the population (Koch, 2004; Spektorowski and Ireni-Saban, 2013). As Stoler (1995:31) concisely phrased it:

> "*Eugenics developed as a national, gendered, racialized and class-specific project for improved natality and selective sterilization".*

Modern states adopted a broad array of eugenic programs that used a combination of incentives and restrictions to craft the reproductive wishes and capacities of its subjects (Rose, 2006). Positively, they encouraged those who were considered fit and healthy to bear more children for the sake of building an improved nation through a broad variety of pronatalist or productive welfarist schemes including child and family allowances and welfare benefits for mothers. Negatively, they aimed to prevent the excessive breeding of those who were considered of lesser

biological or racial quality through programs of involuntary sterilisation, forced contraception or abortion. The most (in)famous examples of eugenic reproductive regimes have been China's one child policy under Deng, Ceaucescu's restrictive abortion policies and India's sterilisation programs [41].

With the development of ARTs since the late 1970s and the increased popularity and availability of reproductive genetic technologies such as prenatal testing, sex selection and pre-implantation genetic diagnosis, the old debate on eugenics has been revived. Scholars of feminist and race studies have warned against the eugenic foundations underpinning the contemporary fertility industry, in which mostly well-off couples are enabled to assemble their designer babies through a careful selection of healthy genes, sperm, wombs and eggs (Almeling, 2010; Spektorowski and Ireni-Saban, 2013; Roberts, 2012; Schurr, 2016). Troy Duster (2003), who viewed reproductive decision-making as a result of a state-enforced policy rather than a matter of individual choice, called it "*eugenics through the backdoor*". Amrita Pande (2015) proposed the term 'neo-eugenics' while researching transnational surrogacy arrangements in India. Alexandra Pows (2011) referred to 'reformist eugenics' to describe how current reproductive and genetic practices are characterised by libertarian ideas of free choice and autonomy.

Others have dismissed the argument of a re-emergence of eugenics through ART (Braun, 2007). For Rose and Rabinow (2006), for instance, there is no way to understand reproductive genetics of the present as the eugenics of the past. Genetics has been transformed into a liberal discipline. As Rose (2007: 62) put it:

> *"Though ARTs have been the site of a discursive explosion (…) it is hard to discern some unified biopolitical strategy underlying these developments. Truth claims underpinning reproductive policies of 'advanced liberal societies' are informed by demography or economic performance, but not those of eugenics and heredity".*

Based on my own assessment of Israel's reproductive policies regarding IVF, egg donation and surrogacy, I will suggest that governing the quality and quantity of the population is still an important underlying rationale of contemporary biopolitical states. Israel, as an exemplary regime of settler colonial biopolitics, still models its ART policies around the copious reproduction of the Jewish Israeli settler and the graduated elimination of the native. These reproductive politics can

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[41] Throughout the 19th and 20th century eugenics developed into a well respected and mainstream scientific and medical discipline. Many states in Europe, Latin America and the United States, including Germany, the United Kingdom, Sweden, France and Finland, established eugenics societies and introduced positive and negative eugenics policies such as sterilisation laws, prenuptial examinations, family counselling and racial segregation for reasons of public hygiene (Koch, 2004; Rose, 2006; Spektorowski and Ireni-Saban, 2013). The Zionist movement too, through figures such as Max Nordau and Arthur Ruppin, was inspired by the eugenics movement (Falk, 2006; Hirsch, 2009).

therefore be viewed as a form of demographic engineering sponsored by the state and enabled by the market that crystalises around the notion of stratified pronatalism.

THE BIOPOLITICAL STATE

One of the main reasons for Rose to disagree with the idea of a re-emergence of eugenics through ART and reproductive genetics is his view on the changing role of the state in contemporary biopolitical regimes. While the particularity of eugenic biopolitics during the first half of the 20th century lay in the entanglement of state sovereignty with ideas of population quality, racial purity and national territory, biopolitics in today's 'advanced liberal democracies' is about ethical autonomy and individual consumer's choice.

> *"Understanding contemporary biopolitics as the politics of a State modelled on the figure of the Sovereign, and of all forms of biopolitical authority as agents of that Sovereign, suits the twentieth-century absolutisms of the Nazis and Stalin. But we need a more nuanced account of power, and of sovereign power, to analyse contemporary rationalities and technologies of biopolitics".*

Before elaborating on the transformations of state power, it is meaningful to question what actually counts as an advanced liberal democracy. While for Rose (2007) it refers to Western and Australasian societies, others would reject this as an ahistorical and eurocentrist perspective that discards the ongoing (settler) colonial histories of these societies. Therefore, while some would categorise Australia, the United States and even Israel as advanced liberal democracies, others would catalogue them as settler colonial etnocracies. Furthermore, in an age of globalised reproduction, with Israeli couples heading to South Africa to look for white eggs, and to Thailand to find cheap surrogates, where exactly are the borders of an advanced liberal democracy? Carolyn Schurr (2016:18) maintained, for instance, that in an age of transnationalised health, geographies of reproductive health are no longer confined to national territories but expand across international borders.

That said, for Rose and Rabinow (2006) the era of state biopolitics is over. In the contemporary biopolitical order, the absolutist state has transformed into an 'enabling state', a 'facilitating state', an 'animating state'. Or as Braun (2007:11) phrased it: "(…) *the state remains neutral".* These analyses suggest that in the current era of biotechnology and biomedicine, it is no longer the sovereign state that monopolises biopower, but rather individual consumers-citizens who make their own racialised and gendered reproductive choices and manage their own reproductive bodies and dreams (Schurr, 2016).

In what could be termed a neoliberal biopolitical order, the state has outsourced its biopolitical authority to, on the one hand, responsibilised and self managing subjects and, on the other hand, a broad variety of so called 'somatic experts', including bioethics committees, genetic counsellers, therapists, embryologists, fertility doctors, and bioeconomic players such as biotech companies, pharmaceutical concerns, etc. Unlike Agamben (quoted in Rose and Rabinow, 2006:202) who argued that today's biopower exercised by "*the jurist, the doctor, the scientist, the expert, the priest arises from the alliance with the Sovereign into which they have entered*", Rose claimed that the biopower has been dispersed through and articulated with a broad variety of interests, agendas and concerns of different actors, "*all of which produce different meanings and different political registrations for what appears discursively as the same language*". Rather than analysing the relation between the biopolitical state, market and society in terms of hegemony, as proposed by Gramsci, or adopting an Althusserian approach to ideological state apparatuses, Rose contends that contemporary biopolitical institutions do not always follow the sovereign's will. There is no unified biopolitical will of the state, but rather tension, friction and disagreement between the state, market players and somatic experts.

While I fully agree with Rose and Rabinow that a neoliberal biopolitical order has radically transformed the role and position of the state, I do not agree that this has resulted in the disappearance or neutralisation of the state. I will argue in this doctoral thesis that the neoliberalisation of biopolitics has merely re-assembled state power, rather than displacing it. As Carolyn Schurr (2016:16) concluded in her research on Mexico's surrogacy market:

> "*The increasing commercialisation and individualisation of reproductive health care has not replaced the 'old' biopolitics of the sovereign state, but has rather reconfigured it into different modalities, technologies and agents of power*".

By scrutinising the intimate relations between the State of Israel and its biomedical establishment and reproductive industry while keeping a close eye on the types of biopolitical subjectivities this has created among Palestinian and Israeli subjects, I intend to analyse Israel's fertility regime as a complex, heterogenous and multiscaled complex of power (Parker, 2013; Moreno, 2016)[42].

Wrapping It Up

This study analyses the popularity and centrality of assisted reproductive technologies in Israel/Palestine as co-produced by ongoing histories of settler colonialism (logic of demographic

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[42] I will discuss this idea of Israel's fertility regime as a "complex and multiscaled dynamics of power" in more detail in the methodology chapter, in the section "Between Writing and Reifying".

elimination) and biocapitalism (logic of capital accumulation). Rather than strictly focusing on culturalist understandings of (assisted) reproduction in Israel/Palestine and thus foregrounding the centrality of fertility in Judaism, Jewish culture and history, I propose a gendered political economy perspective that incorporates the socio-materialities of ARTs at the *intrasection* of class, race and gender and life and death.

This analysis is centered around the following questions: How have ARTs emerged in Israel/Palestine as biopolitical sites of settler demographic control and indigenous resilience? What are the multiple ways in which fertility technologies and practices have been inserted into bioeconomic markets? And which particular role do gender hierarchies play in the development and stratified distribution of ARTs in Israel/Palestine? I will operationalise the gendered political perspective by looking into four key notions throughout the different empirical chapters: 1) settler colonial demographies, 2) the bio- and necropolitics of ART, 3) property and labour regimes and 3) the (re)productive role of women and their bodies.

Four theoretical paradigms will help me (and the reader) to answer these questions: 1) science and technology studies and feminist techno-science, 2) settler colonialism, 3) political economy of biocapitalism and 4) bio –and necropolitics. The diffractive approach, encouraging the reading and analysing of texts and body of literature *through* rather than next to each other, has allowed me to make new connections and interferences and to discern new tensions and blind spots.

The STS perspective of ART and society as a coproduction of material, biological and discursive forces, offers interesting new pathways of understanding power, authority, control and resistance that highlight the role of techno-scientific policies, practices and objects. Yet, STS accounts of reproductive technologies still too often downplay the role of ART within contemporary capitalism and (settler) colonialism. In this dissertation, reproductive technologies and practices such as IVF, egg donation, child removals, sperm smuggling and surrogacy will be used as a lens to analyse how Zionism's political project in Palestine/Israel has taken shape according to the intertwining logics of capital accumulation and demographic elimination.

The settler colonial body of work will allow me to address the particularity of (assisted) reproduction in a settler colonial state formation. Although both Israel/Palestine studies and settler colonial studies have predominantly been inspired by land- and territory-based approaches, I aim to complement this approach by untying the particular relations between fertility, procreation, demography, race and gender. Israel's reproductive-demographic nexus will be unpacked in relation to its triangular population economy consisting of (Ashkenazi) Jewish Israeli settlers, Palestinian natives and racialised alterities, such as the Mizrahim. Whereas much of the current settler colonial scholarship tends to have a discursive focus, I aim to foreground the

embodied practices, intimate socio-materialities and political economies underlying ARTs in Israel/Palestine.

Political economy perspectives on biocapitalism will enable me to account for the importance of ARTs in Israel's unfolding bioeconomy, which consists of research and therapeutic markets in both the reproductive and the embryonic realm. My understanding of Israel's reproductive bioeconomy will be rooted in an integrative historical materialist analysis that focuses on the changing regimes of property and labour in both the productive and the reproductive sphere, 2) is attentive to *intrasected* hierarchies of race, gender, sexuality and class and 3) transcends false dichotomies of nature/society, mind/body, production/reproduction, gift/commodity, waged/unwaged work.

A final perspective is that of biopolitics and the government of (reproductive) life. I aim to complement current understandings of contemporary biopolitics by addressing the interconnections between 1) necropolitics 2) race and the (settler) coloniality of power, 3) gender and reproduction, and 4) the role of the sovereign biopolitical state.

METHODS AND ETHICS

METHODOLOGICAL TRIP ALONG EXODUS[43]

This chapter offers a critical and self-reflexive reading of the methodological journey I have undertaken over the past seven years of doctoral research. The methodological 'trip along exodus' started in *Maison du Peuple*, a bourgeois-bohemian café in Brussels where I joined Palestinian filmmaker Leila Sansour for a quick dinner before screening her film *Open Bethlehem* on the Eye on Palestine Film Festival in Brussels in March 2015.

Leila: *So, what do you do, Siggie?*

Siggie: *I'm doing PhD research on the politics of assisted reproduction in Israel/Palestine.*

Leila: *Come again, what exactly do you examine?*

Siggie*: I'm basically deconstructing why Israel's policies on assisted reproduction are so pronatalist. Rather than strictly focusing on culturalist explanations that revolve around the centrality of reproduction in Jewish culture, religion and history, I explore the role of pronatalism within the Zionist settler colonial project that aims to consolidate a Jewish demographic majority in a Jewish State, and I also examine the ways in which pronatalist ART policies have supported Israel's emerging reproductive industry and have strengthened its biotech-position in a global market.*

Leila: (Laughing) *That's interesting! I am surprised how people still come up with these new, crazy research topics on Palestine. (More laughing)*

At that moment, I joined Leila in laughter, but there were plenty more reasons why I would have actually preferred to burst out in tears. To start with, Israel/Palestine is one of the most popular research destinations in the world. Particularly for anthropologists and political scientists as myself, the Holy Land has basically transformed into the Costa del Sol of academic tourism. There is no brick in the Separation Wall that has been left untouched, no refugee camp where Agamben's Homo Sacer has not set foot and no circus school that has not been framed as a site of non-violent resistance. Life in Palestine/Israel has truly become analytically 'overdetermined'.

On the one hand, this has made my PhD-life easy. Palestinians and Israelis are accustomed to meeting international researchers. As research participants they are mostly eager and fearless to share their stories. Moreover, the libraries packed with studies and analyses on Zionism and the Palestinian Question have obviously helped me situate my own research, craft my research design and substantiate my research claims. On the other hand, it has reinforced my worrisome belief that I was 'yet another white researcher' lining up in the Dismayland of the Middle East to take note of the daily violence and brutal dispossession that Palestinians are subjected to.

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[43] The title of this chapter is borrowed from the documentary "*Trip Along Exodus*" by Palestinian filmmaker Hind Shoufani, in which she recalls the political history of Palestine through the story of her father, the late Dr. Elias Shoufani.

Leila's unsettling comment on Palestine/Israel being 'academically saturated' also confronted me with an ongoing colonial reality that I – willingly or unwillingly - contributed to. By choosing Palestine/Israel as a research object and spending more than fourteen months 'in the field', I became part of a class of 'international expats' that not only cultivates a global injustice, such as the Palestinian Question, but even makes a living out of it and a builds a career on it. Therefore, when my Palestinian friend and documentary maker Sahera Dirbas, asked me to help her translate some of the interviews she conducted with mothers of Molenbeek's youngsters who left to Syria to fight with Daesh, I felt relieved that the anthropological gaze had finally shifted. As Karen Buscher (2011) already suggested, these kinds of 'returning' perspectives are indispensable if we ever want to decolonise academic research on the Global South and North, both epistemologically and methodologically.

I will further elaborate on the broader political frictions of conducting fieldwork in Israel/Palestine in the final part of this chapter. First, I will give an overall account of the methodological foundations of my research (process), including a critical discussion of 1) the spatio-temporal choices and demarcations of the research design, 2) the data collection and fieldwork practices, and 3) the 'situatedness' of the analytic-interpretive processes. I conclude this chapter with a profound reflection on the ethical and political challenges I have faced while conducting qualitative research in/on Palestine/Israel.

Between Writing and Reifying

While the introductory chapter offered an ambitious overview of all the things I have done and will discuss in this dissertation, this methodology chapter allows me to briefly outline all the things I did not do, forgot to do or have taken for granted in the research process.

One of the things I have taken for granted, both conceptually and ontologically, is the existence of the so-called Israeli regime, a term that I use interchangeably throughout the dissertation to refer to the State of Israel, the broader Zionist settler society or the political-economic system in Israel/Palestine. I am aware of the semantic mayhem resulting from the use of troubled concepts such as *the regime* or *the state,* particularly when they are presented – dixit Mitchell (1991:86) - as "*a disembodied ideality, characterized by the national interest and examined as a self-generated and governing idealism*". Similarly, in his genealogical analysis of the 'Arab Regime', Christopher Parker (2013:3) argued that "*the existence of the regime presupposes the immanence of the nation-state, and represents power as an attribute of the state itself. As such, the regime's apparent realism is tied to a particular geometry of scale and conventions for representing and objectifying the*

phenomena of political life". Rather than offering a more precise definition or comprehensive typology of the regime, Parker suggests to "*reconsider the very particular origins of the supposedly universal tropes and categories through which social scientists represent political power*". While very much aware of the fact that I produce a certain reality, rather than merely describing it, I will use terms such as the regime, the state and the bioeconomy throughout this dissertation, not only for the sake of the argument, but also for the sake of science, which always to some extent implies an unavoidable reduction of complex realities. In the following paragraphs I briefly explain what my inclusive typology of the state, the regime and the bioeconomy consists of.

I genuinely attempt to avoid a voluntarist approach that fetishises the regime or re-mystifies the state as 'naturalised and self-willed entities' or as 'objectified representations of political life and power', by dedicating considerable attention to the contingent and intricate ways in which the Zionist regime or the State of Israel emerged as structural effects of complex dynamics of power (Mitchell, 1991; Parker, 2013). In the third chapter, for instance, I trace the genealogy of Israel's reproductive-industrial complex by looking into the complex interplay between a pronatalist State and an emerging biomedical establishment. In her study on the role of statistics in the creation of the State of Israel, Anat Laibler (2004:124-125) strongly criticises the voluntarist approach of the state as disclosed by James Scott (1998) in *Seeing Like a State*. She writes:

> "*While Scott reifies the state and gives it the status of an agent, the assumption at the core of this paper is that statistics was not a tool in the hands of the state. The story being told in the paper is not one of a political abuse of science, but one of scientists and their political patrons, as well as the story of politicians and their scientific patrons. The first statisticians had to have the legitimate power of the state, not only to increase their credibility as scientists, but also, or mainly to enable them to create databases for their scientific practices while politicians used the credibility of the first statisticians to rationalize and legitimize the new state with its institutional practices*".

Although keeping a close eye on the contingencies behind the emergence of certain socio-historical formations in Israel/Palestine (such as the state, the bioeconomy, the regime), I am also interested in unravelling the structural logic or the *raison d'être* behind them. This also becomes apparent in my choice of theoretical frameworks, such as settler colonialism and political economy, which to a certain extent are characterised by a structural-functionalist approach and are less concerned with the contingencies, particularities and conflicting agencies underlying these structures. By trying to make sense of Israel's fertility regime from the vantage point of science and technology studies, settler colonialism, biopolitics and political economy, I have focused on the double, yet intertwined logic behind this political project: a capitalist logic of accumulation and a settler colonial logic of demographic elimination.

Drawing on the work of Parker (2006:97), this has resulted in an understanding of the Zionist regime as "*complex and multiscaled dynamics of power*" that is attentive to the multiple ways in

which state agency became entangled with processes of capital formation and demographic calculation. This approach also avoids the trap of methodological nationalism, through which the social sciences have naturalised the nation-state as both the pivotal arena and scale of political agency (Wimmer and Glick Schiller, 2002; Bogaert, 2011). Analysing Israel's fertility regime as a complex assemblage of power means conceiving it as a political project that transcends false dichotomies between supposed global and local forces, state and market relations, nature and culture, public and private, bodies and populations, in an assemblage that moves far 'beyond-the-state' with its neatly defined boundaries and demarcations (Parker, 2013). Before moving on to explaining how I will operationalise this approach, I add a small note on the field of tension between structure and agency.

The obvious downside or danger of adhering to structuralist-functionalist paradigms is that they tend to overemphasise structure at the expense of locating agency, subjectivity or change. I struggled with these frictions during the PhD research. For example, by analysing assisted reproduction from the vantage point of political economy, I have focused more on the capital flows, labour regimes and state policies concerning ART than on women's personal experiences, subjectivities and interpretations when using these technologies or when performing as reproductive labourers. Also, adhering to the settler colonial paradigm with its logic of elimination often led to an almost exclusive focus on the settler colonial without any substantial engagement with the indigenous or the native. As Kēhaulani Kauanui (2016) sharply remarked, this unintendedly but almost perversely resulted in the (re)production of another form of "*elimination of the native*". While many of my empirical chapters deal with Zionist policies and (Jewish-)Israeli practices of ART, I have genuinely attempted to avoid this discursive elimination or victimisation of the native, by underlining Palestinian agency, as for instance in the chapter on the sperm-smuggling Palestinian prisoners who use ARTs as a way to start a family. The decision of not making Palestinians' usage of (assisted) reproductive technologies the main focus of this dissertation will be clarified the section on *Research Ethics and Politics of Fieldwork*.

Time-Space-Scale-Terminology

In the different chapters a broad variety actors, companies, organisations, populations and entities will pop up, that I consider to be part and parcel of Israel's fertility regime: quasi-state organisations such as the Jewish Agency, NGOs such as *Isha L'Isha* or *Proud/Gay Fathers*, biotech companies such as *Kadimastem* or *Gamida Cell*, pharmaceutical multinationals such as *Teva* or *Merck-Serono*, Israel's Ministries of Health, Trade, Commerce and Industry, technology transfer

companies from Israeli universities, fertility clinics in Israel and the West Bank, Israel's Defence Forces, surrogacy agencies such as *Viva Family* or *Tammuz International* and last but not least, fertile neoliberal subjects who are increasingly responsibilised to govern their own reproductive trajectories. A spatial visualisation of this approach locates Palestine/Israel within the globe. Therefore, the main geographic unit of analysis is Israel/Palestine – 'from the river to the sea' – with occasional excursions to Thailand, Australia, Nepal, Italy or Romania that situate it within a broader political and economic context.

This approach challenges the worrisome trend in both Palestine Studies and Israel Studies to view the Green Line not only as a geopolitical demarcation line between two supposedly separated territories and peoples, but also as an analytical boundary (Jabary et al, 2012:3). Rather than scrutinising the broader historical and socio-political connections between the different peoples and places, current scholarship on Palestine/Israel tends to academically and analytically entrench Zionism's fragmentary settler colonial logics. In his critique on the increasingly popular 'School of Occupation Studies' that has become overly fascinated with the brutality of Israel's occupation of the West Bank and the Gaza Strip, Jabary-Salamanca (2014:26) argued:

> *"This narrow focus tends to abstract Palestine from its regional and global setting, from the larger historical context that constitutes the present situation and ultimately obscure rather than reveal the comprehensive nature and logics of settler colonialism. (…) It also absolves previous generations of Zionists and Israel itself of settler colonialism".*

Echoing this line of thought, I view Palestine/Israel or Historical Palestine as an integrated reality under Zionist/Israeli rule and therefore as a cohesive unit of analysis in spite of the profound institutional and socio-spatial fragmentations. This integrated approach stimulated me to undertake an ethnographic 'trip along exodus'. I visited a wide variety of localities that are often physically dislocated and disconnected, yet analytically entangled: a fertility clinic in Nablus, biotech companies in Ramat Gan, stem cell research units in West-Jerusalem, a feminist centre in Haifa, the home of Palestinian prisoners in Beit Rima, family planning units in East-Jerusalem etc [44].

This integrated perspective has also prompted me to incorporate a wide range of supposedly disconnected populations in my research analysis. Rather than representing them as isolated and detached groups of people, in need of analytically separate categories of understanding, I opted for an inclusive, de-exceptionalising approach. Despite the ongoing disintegration of the Palestinian/Israeli body politic, which subjects Jewish Israelis, Palestinian Israelis, West Bankers, Gazans and East-Jerusalemites to different institutional realities and graduated regimes of control and governance, I include case studies, and thus peoples and places, from both sides of the Green

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[44] For an exhaustive list of the research respondents, see Annex 1.

Line as, I argue, both sides are (still) subjected to Israel's settler colonial rule. I interviewed Palestinian-Israeli fertility doctors in Akka and Haifa, Jewish patent lawyers from the West Bank, Mizrahi and Yemenite Jews in Bnei Brak, wives of Palestinian prisoners in the West Bank and Jewish-Israeli bio-ethicists in Tel Aviv. Populations and places that I did not include in the research project, notwithstanding their relevance for my topic, were Gaza (because of Israel's ongoing blockade and military assaults) and the Diaspora (because of time and budgetary constraints).

Although this dissertation studies a rather new phenomenon, namely assisted reproductive technologies, I will scrutinise it from a broader historical perspective that unravels the ongoing histories of Zionist settler colonialism and biocapitalism in Israel/Palestine. This historical approach is particularly salient in the first chapter, that historicises the stratified character of Israel's pronatalist policies and includes a comparative case-study on the removal of indigenous children in Australia and Israel/Palestine, and the third chapter, that traces the genealogy of Israel's reproductive-industrial complex, Overall, assisted reproductive technologies and practices will be framed as socio-technical materialisations of a settler colonial present. Patrick Wolfe (2007) convincingly argued that settler colonialism is a structure, rather than an event. In the case of Zionism, history starts in 1882 when the first Jewish settler arrived in Historical Palestine. Important events that occasionally arise when narrating Israel/Palestine's ongoing history are 1917 when Lord Balfour promised a national home for the Jewish people in Palestine, 1948 when the State of Israel was created on the ashes of over 400 destroyed and depopulated Palestinian villages, 1967 when Israel occupied the West Bank and the Gaza Strip and annexed East-Jerusalem, 1987 when the First Intifada took place, 1994 when the Oslo Accords were signed that led to the creation of the Palestinian Authority, 2002 when the Second Intifada erupted. My analysis of contemporary dynamics in Israel's fertility regime should be situated in this colonial present (Gregory, 2004).

Israel's settler colonial project, though grounded in a particular place, is constituted by complex dynamics of global and local forces (Jabary-Salamanca, 2014). Concurrently, I understand Israel's fertility regime as a multiscalar political project that is configured on different, yet mutually constitutive scales, from microscopically tiny body parts to global circuits of exchange. Michal Nahman (2013) introduced the term "*synecdochic ricochets*" to designate the intricate connections between the individual body, the nation-state and the global market in the configuration of Israel's fertility complex. Though certain socio-political structures intuitively evoke designated spatial and scalar imaginaries – i.e. settler colonialism imagines the nation-state, bio-capitalism unfolds on a global scale, while repro/biopower is attributed to the woman's body - I aim to subvert or transcend these scalar imaginaries of political agency and power in Israel's reproductive regime. Rather than 'scalejumping' between supposedly national populations, global reproductive

markets and local bodies of women, I argue that each of these sites requires multiscalar interventions. For instance, Israel's 'national' Jewish population is configured by and thrives on multiple 'local' bodies and reproductive tissues from all over the world: from the Jewish-Israeli would-be mothers who undergo thirty IVF cycles, to the Thai surrogates who carry the babies of Israeli gay couples and the Palestinian prisoners' wives who are constrained from having a baby. Moreover, 'global' biocapital requires a historically contingent spatio-temporal fix, just as much as the 'global' field of stem cell research and reproductive medicine is defined by distinct national profiles, or what Sheila Jasanoff (2004) termed 'styles of governance'.

Before moving on to discussing my actual practices of data collection and fieldwork, a small note on terminology is required. Writing about Palestine/Israel means entering a semantic minefield. The terms and words that scholars use to describe life and reality in Israel/Palestine are highly politicised. It obviously matters if one writes Israel or Palestine, West Bank or Judea and Samaria, Palestinian 48 or Arab Israeli. I interchangeably use the terms Palestine/Israel or Israel/Palestine to refer to the place as an integrated settler colonial reality, while using the term Israel or Zionism to refer to the state or the regime. I also take note of the socio-racial stratification of Israel's citizenry by distinguishing between Ashkenazi Jews, who originate from (Eastern) Europe, and Mizrahi Jews who came from the Arab World. I use the term Palestinians in Israel, rather than adopting the popular Zionist lingo of 'Arab Israeli' or 'Arab sector', to refer to the Palestinian citizens of Israel. As Kanaaneh (2002:11) aptly summarised:

> *"The use of the term Israeli Arabs instead of Palestinians is not only an attempt to sanitise and rewrite a brutal and politically threatening history but also conveniently erases the existence of other Arabs in the country – the Arab Jews".*

It remained difficult, however, to preserve consistency in my writings, because even when it was clear to me that Arab Israelis are Palestinians, some of my Palestinian respondents did not identify as such. I remember an interview with Amer Zureik Haifa, 02/08/2013), a 'Palestinian Israeli' fertility doctor from Haifa, who repeatedly elaborated on West Bankers whenever I asked about Palestinians.

S.V. But do you think that also on the Palestinian side reproduction is still politicised?

A.Z. What do you mean politicised?

S.V. You know, like during the Intifadas when Arafat said that Palestinian women have to make more children, this whole discourse.

*A.Z. Actually, I don't know what's going on **there** exactly, I still know that **they** are still not yet a state, and not an organisation; **they** are still something in between. I also think that **they** don't have all the possibilities to make these treatments, because **there** you have to pay for that, not like in Israel where you don't have to pay anything. So **they** don't have the same possibilities, conditions like the Israelis. For the Israelis and the Palestinians who live in Israel, it's a lot more easy to reach. If you don't have money, you go to the public hospital. It takes a bit longer when you don't go to a*

private, but still they can go and access these hospitals. While many people in the West Bank, I'm sure they don't have access because they don't have money.

A.Z. By the way, do you know that Fouad Azim, who is from Taybeh [Palestinian village in Israel], was chosen as the new president of Ayala [Israel's Fertility Organisation, SV]?

S.V. Yes.

A.Z. It's the first time that even a non-Ashkenazim gets in. You should interview him, although I know that he wouldn't like to be asked these type of questions. I know that he's a good person, he has no problem to say he is Palestinian. On the other hand, I think that he prefers not to…you know (S.V. openly identify as a Palestinian), I don't know if he would like to be asked all these questions.

Therefore, when quoting my respondents I will adopt their terminology of (self-)identification so as to avoid imposing my own positionalities on my respondents.

Practices of Data Collection and Fieldwork

The core feature of political ethnography is qualitative fieldwork. Malkki and Cerwonka (2007:33) define fieldwork as an "*interpretive, critical mode of knowledge production, not based on any methodological orthodoxies, but rather a hybrid bricolage of methodological interventions*". Depending on the specific case I looked into, my research techniques ranged between semi-structured interviews, (non-)participatory observations, archival work, discourse analysis of policy documents, promotional material and websites of stem cell companies, surrogacy and fertility agencies and an overall 'being and doing' in Israel/Palestine. Sometimes this meant helping with preparing *kibbeh* or *fatayer* (two typical dishes from Sham region*)*, drinking a *hafuch gadol* (Hebrew for large cappuccino*)* in a Tel Aviv coffee shop or camping out in the Golan Heights. Other times it meant taking the bus from Haifa to Jerusalem, spending time in an Israeli shelter hiding from incoming Qassem rockets, visiting the Herzl Museum in Jerusalem, or going for a summer swim and evening run along the Mediterranean coastline in Haifa. When spending long periods of time in 'the field', everything starts to count as fieldwork. Often there are no fixed schedules or rigidly organised scripts or scenarios to follow. Although some of my interviews and archival visits were well planned in advance, for the most part I had to go with the flow and expect the unexpected. Malkki (2007:182) used the metaphor of jazz to describe ethnographic fieldwork as "*a practice of improvisation*". She wrote:

> "*To get to the point of improvising well, the ethnographer, like the jazz musician, must have devoted countless hours to practice and preparation of various kinds".*

FIELDWORK PERIODS AND "HOME BITTERSWEET HOME" IN HAIFA

In total, I spent fourteen months in Palestine/Israel, divided over ten fieldwork trips. The duration of the stays varied between two weeks and two months. Two trips were actually intended as a holiday to visit friends and 'family', and one trip constituted the annual fieldwork trip of the students in Conflict and Development Studies, that I helped organise in 2016.

In August 2010 I undertook my first fieldwork trip, which was only my second visit to Israel/Palestine. I stayed for four weeks in Jerusalem and Ramallah, and spent most of my time in the West Bank. This was an exploratory fieldtrip, intended to examine how I could empirically ground my initial research proposal on the womb as a biopolitical space of resistance of Palestinian women. As I will explain later in this chapter, I did not like the ways in which this initial research proposal would take shape, or would be shaped by external forces. After a visit to *Isha L'Isha* Feminist Centre in Haifa and a stimulating talk with Hedva Eyal, coordinator of the working group on Women and Medical Technologies, who later not only became my research partner-in-crime, but also a good friend, I decided to make an analytical U-turn and analyse Israel's politics on assisted reproduction.

From January until March 2012 I spent two-and-a-half months in the field. The first four weeks I followed an *Ulpan*, an intensive Hebrew course at Haifa University. I combined my language studies with collecting fieldwork data for my first case study on the political economy of egg cell donations. I began mapping the therapeutic, scientific and political field of assisted reproduction in Israel/Palestine by interviewing clinicians, researchers, policy makers and civil society actors who in one way or another were involved with ART practices and policies. I also explored the stem cell sector by interviewing researchers, CEO's from biotech companies, and universities' technology transfer companies. From July to September, and again in November 2012, I conducted more fieldwork on egg donations and stem cell research through interviews and (non-)participatory observations in the fertility unit of Rambam's hospital in Haifa.

From June until August 2013, I spent two months in Haifa to gather data on the second case study on Pergonal. I combined archival research in Israel's State Archive in Jerusalem with interviews with primary stakeholders on Pergonal's development. I interviewed Pergonal's main inventor Bruno Lunenfeld, fertility researchers from Merck Serono and the Gertner Insitute for Epidemiology.

From April until May 2014 I spent another two months in Haifa. I conducted fieldwork on several of the case studies I'm looking into. I gathered empirical data on the sperm-smuggling prisoners by interviewing the wives of Palestinian prisoners and their lawyers, the Palestinian fertility

doctors who were involved and Israel's Prisoner's Service, and conducting some (non)participatory observations in the Razan Fertility Clinic in Nablus. I also performed some fieldwork on the Depo Provera case (a case that I finally did not include in my dissertation) by interviewing doctors, representatives from the Ethiopian Jewish community, from feminist organisations such as *Isha L'Isha* and the Women's International Zionist Organisation (WIZO) and other civil society actors involved in exposing the Depo Provera scandal. In May 2014, I participated in Israel's annual HighTech and BioMed Innovation Fair for ethnographic data collection.

From July until September 2014, I performed fieldwork on my final case study, i.e. Israel's transnational surrogacy sector. I interviewed directors of Israel's surrogacy companies, representatives from Israel's LGBTQ and feminist community organisations, and officials from Israel's Ministry of Health. I also studied policy reports and documents from Israel's Health Ministry and from the Knesset Research Centre on medical tourism, transnational and national surrogacy.

In March 2015 I spent one month as a visiting researcher at Mada Al Carmel's Research Centre in Haifa to write my doctoral dissertation. I combined this writing-in-splendid-isolation with some final interviews on transnational surrogacy.

Lastly, in July 2015 I participated in the Critical Geography Conference in Ramallah and presented my work on Pergonal and transnational surrogacy tourism.

My choice for Haifa as home base for field research stemmed from my initial decision to follow a Hebrew course at Haifa University. This choice was mostly an intuitive one. I was hesitant about spending long periods of time in Jerusalem, as it counts as the epicentre of racialised tension and division in Israel/Palestine, but neither did I feel like staying in the leftist Zionist party bubble of Tel Aviv. As one of the so-called 'mixed cities', home to major concentrations of Palestinians, Haifa had the reputation of being 'the co-existence city' *par excellence.* I was aware that the co-existence story was mostly a product of Zionist propaganda, but it still comforted and convinced me to 'go north'. Furthermore, Haifa is one of Israel's primary R&D centres, also in matters of repro-tech. Additionally, many Israeli sociologists and feminist researchers who have conducted research on Israel's ART policies and practices, such as Daphna Birenbaum Carmeli and Yali Hashash and feminist activists such as Hedva Eyal and Nuphar Lipkin from *Isha L'Isha* were based in Haifa. This strengthened me in my belief that Haifa would be the most suitable research base inside Israel. I was right, for over the last seven years Haifa has become my second home. I love Haifa for its beautiful bay-scenery, surrounded by Mount Carmel and the Mediterranean, its stimulating musical and cultural scene, but mostly for the inspiring new friendships and heart-warming and

heartrending relationships I have encountered there (on that note, if you think the Palestinian-Israeli 'conflict' is complex, try a long-distance relationship).

FIELDWORK TECHNIQUES

The biggest part of my empirical data consisted of interviews. In total I conducted 99 semi-structured qualitative interviews with a broad variety of stakeholders in Israel's fertility regime, ranging from policymakers, medical and research professionals to civil society actors and representatives from the private sector. More concretely, I interviewed fertility doctors and specialists, embryologists, stem cell researchers, policymakers and government officials of the Ministry of Health, the Ministry of Economy and Industry, rabbis, feminist and LGBTQ-activists, bio-ethicists, and CEOs of biotech, pharmaceutical and technology transfer companies. I also conducted some 'narrative interviews' with stem cell researchers, demographers social scientists researching reproductive policies in order to reconstruct the hegemonic narratives on Israel's reproductive-demographic policies [45] (Chase, 2003; Denes, 2011).

The identification of the research participants took shape by using a combination of purposive sampling and snowball techniques. I managed to identify, contact and schedule interview meetings with key respondents, such as renowned fertility specialists, stem cell researchers, policymakers and feminist activists via e-mail or telephone before leaving on fieldwork or during the fieldwork stay. These key informants often directed me to other important stakeholders and helped me to negotiate access in the process (Denzin and Lincoln, 2013). Most respondents were only interviewed once, but key participants were interviewed multiple times.

Most of my interviews took place in the three big cities: Jerusalem, Tel Aviv and Haifa. Occasionally I went to Rechovot, Nablus, Nes Ziona, Kiryat Ono, Akka, Holot, Ramallah, Nazareth or Shfamer. Most of the Jewish localities and cities in Israel/Palestine are well connected through public transport, which allowed me to travel by bus and train. Traveling to Palestinian localities inside Israel, and particularly in the West Bank was a lot more time- and energy consuming, since these places are not only badly connected to public transport networks but also physically detached from each other through the Separation Wall, checkpoints, bypass roads, roadblocks, settlements, 'national' borders, etc. To give just one example, Nablus is 'only' 118 kilometres away from Haifa, yet by using public transport it took me approximately six hours and multiple bus and tram rides to reach there. First, I took the local bus or *sherut* (Hebrew for collective minivan) from my home to the central bus station in Haifa, where I could take the inter-city bus all the way south to (West-

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[45] I have added an extensive overview of all the respondents in annex.

)Jerusalem. Then, the tram from Jerusalem central bus station brought me to the East-Jerusalem bus station, where I could take another bus to Ramallah, which –if it is stopped at Kalandia Checkpoint- forces you to take another bus from Kalandia to Ramallah. In Ramallah, finally, there is a *service* (Arabic for collective minivan) that goes north to Nablus. This explains why I mostly used private means of transportation to reach cities and localities in the West Bank.

I prepared my interviews with a list of questions based on a thorough preparatory screening of the respondent, but I always left room to anticipate new and unexpected turns in the interviews. I often interviewed scientific elites and policymakers, which meant that I could conduct the interviews in English, rather than in Hebrew or Arabic. Only occasionally did I need assistance to translate Arabic.

As a social scientist it was not always easy to interview medical and scientific elites and experts on complex topics such as assisted reproduction and stem cell technologies. It required some time and a lot of self-study to understand the technical facts and biological processes behind ART and stem cell research and to master the basic jargon. Depending on the respondent, I sometimes performed as an expert who knew exactly what she was talking about, while at other times I pretended to be new in the field and unacquainted with the complex technicalities of assisted reproduction. The more interviews I conducted, the better I became at flip-flopping between sensitivities, tensions and expectations. During the interviews I always took notes. After every interview I consistently wrote down my impressions of the fieldwork scene, the respondents and our interaction.

I recorded almost all of my interviews with the permission of the respondents for the simple reason that I could. Also, creating a primary source is a valuable practice for the social sciences and humanities. If this had a restraining effect on the flow of the interview and the frankness of the respondent, I never experienced it as such. I believe that many of the scientific and medical experts I have interviewed felt they had nothing to fear or lose by talking to a social scientist like myself. As representatives of Science they were only sharing the objective scientific truth. In the social sciences and humanities it might be *bon ton* to claim that facts are constructed and knowledge is produced, but in the medical and exact sciences it is only science that can speak for itself (Haraway, 1988). However, there were some exceptions. Some of the researchers, clinicians and practitioners I contacted have refused to meet me, fearing that their supposedly neutral and objective scientific truths would be politically misinterpreted, used and abused by societal actors such as myself. For instance, when I approached one famous stem cell researcher from Bar-Ilan University for an interview on Israel's politics on assisted reproduction and stem cell research, he replied:

"I have to think about this. One of the words you use is one that "frightens" me, political. I don't want my views used to back any religious, ethical or political agenda, and this concerns me very much. Try Michel [Revel, Israel's most famous stem cell researcher, SV] again, and if he says no, I'll think about it"[46].

All the recorded interviews were transcribed gradually throughout the field research process. Some interviews (fifteen) were transcribed by master students of Conflict and Development, but the greater part I transcribed myself. I vividly remember spending long days, evenings and even nights re-listening and transcribing interviews. This can be an enormously time-consuming and mind-numbing activity, but in retrospect it was worth doing. Re-listening and re-experiencing the recorded interviews allowed me to notice new details, spot meaningful slips-of-the-tongue or re-interpret certain comments. Once the transcriptions were finished, I sent them to the respondents, offering them the possibility to suggest edits and 'veto quotes'. I clearly stated to all interviewees that the transcriptions would serve as the textual base for potential quotations in my dissertation or publications. Well aware of the fact that there is a significant difference between reading the transcription of an interview and reading how a particular 'juicy' quote is framed and maybe de-contextualised in the narrative of a dissertation or paper, I was reluctant to send rough drafts or chapters to the cited interviewees, because I feared that my critical perspective might trigger the discontent of my respondents and affect my further access to the research field. I will further discuss the research ethics and politics of my research in the final section of this chapter.

Apart from interviews, I conducted some (non-)participatory observations in fertility clinics in Haifa and Nablus. In Haifa, I followed Dr. Shahar Kol from the Fertility Unit at Rambam Medical Hospital during his practice hours. In Nablus I joined Dr. Salem Abu Khaizaran at the Razan Medical Centre. I also attended group activities, discussions and lectures on assisted reproduction (egg donation and transnational surrogacy) at *Isha L'Isha*, the Feminist Centre in Haifa. Furthermore, I conducted ethnographic research at Israel's annual two-day Innovation Conference in Tel Aviv, which brings together all the relevant private and public actors – both nationally and internationally – on high-tech and biotech. I joined all the lectures, presentations and talks on Israel's biotech industry, and talked to as many representatives of Israel's Ministry of Industry and Economy, biotech companies, technology transfer units and the pharmaceutical industry as possible. Since I do not talk, understand or read either Hebrew or Arabic fluently – I took Arabic classes for two years and an intensive Hebrew course for three weeks – this obviously affected my research process. Despite the kind help of translators, I missed a great amount of contextual information and details during the field observations. I believe this proved to be a shortcoming during my doctoral research.

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[46] Personal communication to Sigrid Vertommen, 15/01/2012.

Next to oral testimonies and participatory observations, I also consulted written sources, both contemporary and historical, printed and digital. I consulted newspaper articles and policy and legal documents on assisted reproduction, such as reports from the Knesset Research Centre and Israeli laws on surrogacy and egg donation. I also analysed the websites and promotional material and brochures of fertility companies, technology transfer units, stem cell start-ups and other repro-tech companies. For the research on *Pergonal*, I specifically consulted the archives of the Ministry of Health and the Demographic Committee in the Israeli State Archives in West-Jerusalem and parts of the personal archive of Bruno Lunenfeld at his home in Tel Aviv. Over a week, I collected all the relevant documents with the help of a research assistant who was a native speaker. Later, I interpreted the data with the kind help of other translators including Sahera Dirbas, Tamar Novick, Bilal Dirbas, Lana Khaskia, Itamar Shachar and Hedva Eyal.

Analytical-Interpretive Processes: A Plea for Situated Knowledge Projects

FEMINIST OBJECTIVITY

Qualitative research based on fieldwork regularly calls for an interpretative approach. The views, expressions, practices and experiences of the people we study are always explored and deconstructed according to a critical-interpretative understanding of social reality. Political anthropologists are not passive observers or describers, but rather active constructors of new socio-political realities. Therefore, this dissertation will not be a homage to positivist traditions of scientific practice that promise universal objectivity yet too often depart from a white, male and bourgeois perspective. Neither will it be an endorsement of postmodernist scientific relativism that claims objectivity is a mere social construction. As Donna Haraway (1988:584) aptly phrased it: "*Relativism and totalization are both god tricks promising vision from everywhere and nowhere, equally and fully, common myths in rhetorics surrounding Science*". Rather, I will draw on Haraway's doctrine of "*feminist objectivity*" that argues against "*various forms of unlocatable, and so irresponsible, knowledge claims*" and proposes a scientific tradition based on partial perspectives and situated, embodied knowledges. She views feminist objectivity as an *"embodied objectivity that accommodates paradoxical and critical feminist science projects, that privileges contestation, deconstruction, passionate construction, webbed connections, and hope for transformation of systems of knowledge and ways of seeing: feminist objectivity means quite simply situated knowledges"(Haraway, 1988:596).*

While conducting ethnographic fieldwork, it is quite obvious that the produced knowledge is embodied and situated. As my colleague, Marlies Casier (2010:32) posited: "*Ethnographic knowledge is produced by throwing oneself into the equation, as it were, viscerally, emotionally, 'getting involved'*". This inevitably leads to very partial understandings of reality since "*the knowing self is always partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly, and therefore able to join with another, to see together without claiming to be another. Here is the promise of objectivity: a scientific knower seeks the subject position, not of identity, but of objectivity, that is, partial connections*" (Haraway, 1988: 588). The partial connections I made during my fieldwork are largely influenced by my own biography and life trajectories. I have made this 'situatedness' very explicit throughout my dissertation by including biographical notes from my fieldwork diaries. Some might find these personal intermezzos redundant, out of place, shocking or merely annoying. Others might view them as an illustration of postmodern self-centrism disguised as science, referring to the famous joke about the post-modernist anthropologist who told the respondent: "*but enough about you, let's talk about me*" (quoted in Gage, 2009:61). For me, however, these reflexive notes are incorporated as a necessary complement rather than a substitute to the dissertation's main ambition, which is to understand the biocapitalist and settler colonial conjunctures in the historical formation of Israel's fertility regime.

MAKING NEW THINGS WITH WHAT YOU ARE GIVEN

Lisa Malkki once wrote that as an ethnographer *"you work with what you are given – even as you make new things – [which] means also that your gender, age, race, nationality, class, temperament, imagination, subjectivity, histories, and your whole social personhood are in some degree constitutive of the fieldwork process*" (Cerwonka and Malkki, 2007:177). In the following paragraphs I will briefly discuss a few of the 'subjectifying' elements that have affected how I observed and interpreted social realities during fieldwork in Israel/Palestine.

A first factor that played a constitutive role is my disciplinary background. I am a historian/political scientist, who has always expressed a strong interest in feminist theory, the Global South (for lack of a better term) and Marxist political economy. By choosing a topic on assisted reproductive technologies I immersed myself in the multi-disciplinary world of science and technology studies, a field that includes a broad variety of disciplinary perspectives, including sociologists, anthropologists, feminists and historians of science. Therefore, the best way to situate myself in the academic playground is as a disciplinary nomad rather than a sedentary disciplinary expert. This is reflected in the eclectic gamut of conferences, workshops and seminars

I attended and participated in: from political geography, feminist techno-science and anthropology to gender studies, global studies, STS, political economy and Middle Eastern area studies and Palestine Studies. As a disciplinary nomad, I never felt completely 'in place' or 'at home' in any of these events, but always welcome and confident enough to speak up and discuss.

A second generative element of the fieldwork process – one that is impossible to ignore in a settler colonial context as Palestine/Israel – is that of race and racialisation, both in terms of my racialisation of the Other and in the way I was racialised *by* the Other. These practices obviously included stereotypical labelling and racial profiling. A crucial trope of subjectification was that of Jew versus non-Jew and Arab versus non-Arab, but there were other pivotal signifiers that came to matter, including Ashkenazim versus Mizrahim, Palestinian versus non-Palestinian, Arab versus European. The processes of racialisation started at Ben Gurion Airport in Tel Aviv when trying to enter the country. Lining up for the different booths at the border control, I would consciously pick the one guarded by a white Ashkenazi male staff member in order to avoid being questioned by a woman or non-Ashkenazi Israeli agent. My previous 'border' experiences at Israeli checkpoints taught me that non-hegemonic groups in Zionist society, such as women, Druze, Arab Jews or Bedouins tend to act more toughly, while Ashkenazi males - often unaware of their societal privileges – are inclined to be more 'easy going'. In turn, I was also immediately racialised. The first question I was invariably asked when entering the country was whether I have any family members in Israel, which is another way of asking whether I am Jewish. Although I am not, I was very frequently mistaken for Jewish. Comments such as "*You look Jewish*" or "*I thought you spoke Hebrew*" made it clear that many of my Israeli research participants presumed I was Jewish. Surprisingly, as I spent more time in Israel/Palestine, I was 'upgraded' from looking Jewish to looking Israeli. During my last two fieldwork visits I was even occasionally mistaken for an Israeli actress. Admittedly, when crossing borders or interviewing Jewish Israelis, I did not mind being profiled as a Jew. However, when being among Palestinians or residing in Palestinian areas –particularly in the West Bank - 'looking Israeli' was not always a comforting situation. Particularly in the early stages of my research, when I was residing in the Palestinian neighbourhood of Silwan in Jerusalem, the racialised confusion proved to be rather immobilising.

> "*When I was walking home today, the Palestinian children from the neighbourhood greeted me with "shalom", obviously mistaking me for one the Jewish settlers living in the adjacent illegal colony. Yesterday, when I crossed the ultra-orthodox neighbourhood of Mea Shearim, that is located next to Road Nr 1, while wearing a kuffiyeh, I was spat at. Two days ago, I wanted to explore the city by 'getting lost', I came back home after one hour, not knowing how to behave in which part of the city. After three full days in the city, I'm escaping to Ramallah to visit Omar, where –despite the colonial occupation – things are more divided and therefore clear*" (fieldwork notes, 01/09/2010).

The most prevalent and uncomfortable brand when spending time among Palestinians was that of a 'colonial European'. As Casier (2010, 40) wrote:

> "*I often felt treated as someone representing 'Europe', whatever that might be (a wide and variable cultural complex, but certainly including – images and critiques of – the West, economic power, political leadership, developmental advancement, etc.)*".

I remember when spending time at my partner Bilal's house, his mother would occasionally rise up from behind the television whenever she was watching the news on Palestine and the wider region to tell me in broken English: "*Europa [sic], no good*!" Then she would re-narrate the history of Palestine and the crucial role of the British and the rest of Europe in its colonisation. I also recall visiting a well-respected Palestinian scholar at Birzeit University during my first fieldwork visit in August 2010 with questions on my initial research proposal on biopolitical resistance in Jerusalem. She told me:

> "*You all come here during the summer, when we are on a holiday, and then you ask me questions on Jerusalem. I have a green ID, I haven't set foot in Jerusalem over the last twenty years*" (fieldwork notes, East-Jerusalem, 15/08/2010).

Or when, in a discussion on Palestinian/Israeli politics I would express my opinion too outspokenly, my Palestinian friends would very quickly put me in my place. These confrontations were sometimes shocking or unsettling, but they also taught me a useful lesson about what is needed to conduct research in a colonial setting such as Israel/Palestine: modesty and humbleness.

Another factor that heavily influenced my fieldwork were emotions. When conducting fieldwork in a hyper divided settler society such as Palestine/Israel, haunted by structural colonial violence, aggression and dispossession, a wide plethora of negative emotions are put to work, including anger, frustration, paranoia, hatred and fear. In his methodological reflection on the role of emotions during his research in/on South Lebanon, entitled "*Hating Israel in the field*", Ghassan Hage (2009: 65) wrote that because of the destructive bombing of South Lebanon during the 2006 war "*Israel was getting more and more abstract in my mind, I was increasingly imagining it as an evil person*". Also, Michal Nahman (2013), who conducted her research on practices of egg donations in Israel during the Second Intifada, explicated how this affected her analysis. Particularly during my last fieldwork visit in the summer of 2014, which coincided with Israel's last brutal military incursion of the Gaza Strip, it was challenging to digest and properly channel the rage and frustration while being embedded in a war-mongering and war-inciting Zionist society.

> *"The war is everywhere, even when I'm trying not to interact with this society and to live in my safe bubble. It's there when I leave the house, when I have to face huge billboards picturing Netanyahu who encourages "his" IDF boys to "protect the country". It's there when I take the train to Tel Aviv, when I am surrounded by dozens of heavily armed young soldiers with itchy trigger fingers. It's there when I take a taxi, when a taxi driver tries to convince me that Israel's war on Gaza is a just war against terrorists. It's there when I go to sleep, and I'm woken up by the siren that warns us for incoming rockets. I hate this place, the Holy Shit Land"* (fieldwork notes, Haifa, 22/07/14).

As one Palestinian friend tellingly put it: "*You don't have the elephant skin that is built into our social DNA to deal with these situations*" (fieldwork notes, Haifa, 30/07/2014). At several moments it was tempting to dehumanise Israel in its entirety. I remember walking in the streets of Tel Aviv, heading to an interview on surrogacy, when the siren went off and I was instructed by concerned Israelis to go to the collective bomb shelter to hide for the homemade rockets from Gaza. While waiting in the stair case of a big bank until it was 'safe' again to go outside, I recall being scared, but overdramatically thinking: "*Of all the places, please do not let me die here to be framed as a victim of 'Palestinian violence'*" (fieldwork notes, Tel Aviv, 15/07/2014).

Initially, conflict/violence was also the main prism through which I analysed socio-political life in Israel/Palestine in categories of 'normal' and 'abnormal'. When I first arrived in Haifa in 2012, I fell into in the trap of what Jonathan Goodhand (2000) has termed the 'conflict fetish', by which violence and war became the only spectres through which I understood the 'exceptional' abnormality of life in Palestine/Israel. After spending more time and experiencing daily life in Palestine/Israel, I gradually attuned this vision to the extent that I began to perceive life in its banal yet violent normality. I saw the ways in which both Palestinians and Israelis were trying to shape their daily lives of work, family, health and love amidst and despite bullets, shelters and walls. However, with every new orchestrated episode of Israeli military and settler's violence, this bubble of kind-of-normality burst again, and I became aware again of the foundational injustice Palestine/Israel engenders.

A final emotion that shaped my fieldwork practices in Palestine/Israel was paranoia. When conducting and publishing research that is critical of Israel's settler colonial regime, the fear of intimidation by Israeli and Hasbara forces is never far away. Moreover, in Belgium I am involved in the organisation of the annual Films and Arts Festival *Eye on Palestine* and an endorser of the Belgium Campaign of the Academic and Cultural Boycott of Israel. What I therefore feared most was to be denied entry to the country, since this would jeopardise the continuation of my research. At the border control in Ben Gurion Airport I would always avoid using words such as Palestine, Palestinians and/or Arabs, since the mere utterance of these terms raises suspicion among Israeli

security agents. My fear and paranoia would often be exaggerated, but so many horror stories circulate about Israel's security regime that it is easy to get carried away.

> *"When I was entering the country today, I gave my usual talk. When the security agent asked me about the purpose of my visit, I answered him in the most complex terminology possible that I was conducting gender research on assisted reproduction in Israel. Other times, this was sufficient to let me pass, but this time, he started asking me a lot of questions on why I was researching this. I already felt the paranoia kicking in, but I remained calm. I answered him that I was interested in the religious and cultural motivations of Israel's liberal policies on assisted reproduction. I knew these are the buzzwords they like to hear. He smiled very kindly and offered me a cookie while telling me that he had just read an interesting article about this topic. I looked behind me and saw a huge line of people queuing while this guy was chatting with me as if we were discussing a conference presentation. Then, he began suggesting names of researchers whom I should talk to, surprisingly enough most of his suggestions were quite relevant. While I was doing my very best to tell him the mainstream understanding of Israel's reproductive policies, he said: 'Did you consider that it's about demography, Doctor Vertommen, and the demographic race with the Palestinians?"*
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> (fieldwork notes, Tel Aviv, 07/07/14).

In the last section of this chapter I will further discuss the partiality and positionality of my research against the background of the prevalent paradigms in research ethics.

The Research Ethics and Politics of Being a "Negative Fieldworker" in Israel/Palestine[47]

ETHICS AND POLITICS 2.0

As researchers performing fieldwork in war-torn and conflict-ridden areas in the Middle East and North Africa, our desires and modes of understanding 'the Other' are intricately bound to the ambivalent arena of ethics and politics (Armbruster, 2008). Profound ethical and methodological (self-)reflection on what we should say or how we should act vis-à-vis our research participants is therefore an indispensable pre-condition for gaining critical insight into the ways in which the societies, cultures and political economies of the MENA region operate. That research should be guided by ethical standards is an idea that emerged after the Second World War. Since then, according to Carolyn Gallaher (2009), two dominant models for the regulation of ethical behaviour in the research of human subjects have been put forward. The Institutional

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[47] This section will be published as a book chapter "Sleeping with the enemy: The politics of being a negative fieldworker in Israel/Palestine". In: Clark, Janine and Cavatorta, Francesco, *Doing Political Science Research in the Middle East and North Africa: Methodological and Ethical Challenges*, Oxford University Press, forthcoming.

Review Board model (IRB) is the formal, institutionalised model of research ethics monitored by Institutional Review Boards. IRBs usually approve, monitor and review biomedical and behavioural research involving humans that is funded by government agencies. The main logic behind the IRB model is to protect the researched from the researcher (Gallaher, 2009). The ethical standards revolve around respecting human dignity and integrity, ensuring honesty and transparency towards research subjects, getting informed consent, protecting vulnerable persons, ensuring privacy and confidentiality and minimising risks[48]. The IRB model has been criticised because of its legalistic focus and its association with excessive institutional paperwork. Moreover, as Peter Pels (2005:82) reminded us, the sanitised "*rhetoric of ethics tends to obfuscate the wider political complexities that impinge on any ethnographic research*".

The second model, the critical/radical model, proposes a set of informal guidelines emerging from critical paradigms such as Marxism, feminism, queer theory, poststructuralist and post-colonial studies that take power, privilege and oppression as central themes of concern (Cannella and Lincoln, 2013:170). The basic aim of a radical ethical model is to liberate science from the oppressive 'ism's': colonialism, capitalism, sexism, heteronormativism, racism, etc. The foundational principles of the critical model centre around the idea that knowledge is always partial, 'situated' and never value-free. It also suggests that the researcher and the researched should be enmeshed in a relation of empathy and that the research process should be collaborative and participatory (Gallaher, 2009).

Although both the IRB model and the critical model introduce important ethical guidelines and offer valuable deontological safeguards for social scientists, they also leave some voids, particularly when conducting ethnographic research on what Carolyn Gallaher (2009) has labelled "*repellent groups*". She defines this as groups or organisations that promote an ideology and practice of exploitation and oppression of other groups in society: warlords, guerrillas, paramilitaries, and also states and regimes. Inspired by Gallaher's approach on researching white supremacists in the US, I will discuss a few of the ethico-political conundrums that surfaced during my own doctoral research, such as the issue of self-presentation, the use of informed consent and deception during research and the role of political activism [49]. First, however, I will elaborate further on how I ended up conducting ethnographic research on the repellent Israeli state.

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[48] http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf. (last entry, 15/01/2016).

[49] Although in one way or another all state formations could be labelled as repellent, as they are grounded in the political and socio-economic exclusion of certain groups in society, i.e. the homeless, refugees, undocumented workers, housewives, some states prove to be more 'repellent' than others. In this chapter I frame the State of Israel, founded on the ongoing colonial dispossession and ethnic cleansing of the indigenous Palestinian population since (and long before) its creation, as one of those repellent states.

A POLITICAL ANTHROPOLOGY OF VICTIMS VERSUS PERPETRATORS

Das and Poole (2004:4) envisioned anthropology (and related ethnographic methodologies) as a discipline "*that speaks for those populations that have been marginalized by the political and economic strictures of the capitalist world economy and of (post-)colonial rule*". An overview of the research topics and projects conducted in my own department of Conflict and Development Studies reveals a research agenda that closely aligns with Das and Poole's vision of an anthropology of the underdogs. We do research on Bedouins in the Jordanian desert, urban dwellers in Moroccan slums, disenfranchised Palestinian citizens in Israel, exploited textile workers in Egypt, indebted farmers in the Philippines, uprooted refugees in Congo. That many of us study groups of people who live at the margin of the state and/or society and with whom we often politically sympathise obviously raises fundamental epistemological questions. What type of knowledge do we wish to produce about the 'wretched of the earth'? What do we do with the generated knowledge? How do we avoid misuse or recuperation of our research results by oppressive political and/or military apparatuses? In my own research on the politics of reproduction in Israel/Palestine, I faced a similar epistemological conundrum.

Reproduction and demography play a pivotal role in Palestine/Israel. As in other settler colonial societies, the demographic foundation of the Zionist project is to enlarge its Jewish settler population at the expense of the indigenous Palestinian population. In the early stages of my PhD project, while going through the obligatory Foucauldian phase, I wanted to make 'an ethnography of the oppressed' by researching how Palestinian women are using their wombs and reproductive capacities as biopolitical tools of resistance against Israel's demographic 'raison d'état' to consolidate a Jewish majority in a Jewish state. I was keen to examine if Palestinian couples were taking the political situation into account when planning their families. Or if the Palestinian Authority was considering the demographic situation when setting out its reproductive health policy.

As mentioned earlier, after a first trip to the field in August 2010, I decided to change the topic of my doctoral research. When doing a primary round of interviews, it dawned on me that through this type of knowledge production I would actually contribute to legitimising a very racist Israeli discourse on Palestinian fertility. It is common practice for Israeli media and policymakers to diffuse the idea that Palestinians and Arabs constitute a demographic time bomb for the Jewish state; that they are too religious, patriarchal and culturally backward to plan their families. Therefore, rather than focusing on the subjugated groups and consolidate the idea that Palestinian women's 'hyper-fertility' is a political threat for Israel's survival, I decided to shift my focus by making what documentary filmmaker and theoretician Eyal Sivan (2006) has termed an

'anthropology of the perpetrators'. In the early days of his career, Sivan visited Palestinian refugee camps to collect testimonies of refugees as a way to provide visual proof of the ethnic cleansing of Palestinians. After interviewing the umpteenth old Palestinian man who testified how he was displaced from his village in 1948, Sivan realised that, as a Jewish Israeli film maker, he would be better positioned to document the testimonies of Jewish fighters at the time of the Nakba. He clarified:

> "Documenting the point of view of the perpetrator would not only give further credence to the Palestinian narrative. According to Primo Levi's distinction between the witness and the survivor, the primary witness of any war crime is the perpetrator himself or herself. Perpetrator's testimonies reveal the actions they committed, and the reasons they provided – or still provide – as a vindication of their criminal behaviour."

Following Sivan's reasoning, I decided to shift my gaze from the colonised to the colonisers. In the process of examining how assisted reproductive technologies such as IVF, egg donation and surrogacy have emerged as a crucial site of settler colonial biopolitics and neoliberal bioeconomics in Israel/Palestine, I found myself interviewing the proverbial political 'enemy': Israeli stem cell researchers, embryologists, fertility doctors, CEO's of biotech companies, patent lawyers, rabbis, officials from the Ministry of Health. Despite their white coats and/or collars and their liberal Zionist beliefs, most of them are members (by virtue of citizenship, nationality and/or political convictions) and some even official representatives of a repressive colonial regime. In what follows I will discuss some of the ethico-political challenges I faced while researching "the perpetrators" in Israel/Palestine.

THE IRB MODEL ON INFORMED CONSENT AND DECEPTION: JEKYLL AND HYDE IN HAIFA

One of the primary ethical guidelines within the IRB model is the use of informed consent in research on human subjects. For the American Anthropology Association (1998), informed consent is the ethical cornerstone for conducting ethnographic research. Its ethical code states:

> "Anthropological researchers should obtain in advance the informed consent of persons being studied, providing information, owning or controlling access to material being studied, or otherwise identified as having interests which might be impacted by the research"[50].

During my interviews with Israeli research participants who were part of Israel's reproductive-industrial complex, I have always presented myself as a PhD-student from Ghent University who is conducting research on policies (I admit that I avoided the word politics) of assisted reproduction in Israel. I told potential informants, again truthfully, that I wanted to examine why

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[50] http://www.aaanet.org/committees/ethics/ethcode.htm, last entry 10/10/2015.

Israel's reproductive policies were so adamantly pronatalist. But when I was asked by interviewees why I wanted to research this or how I ended up conducting this type of research, I was less keen on revealing my true intentions or research questions. Rather than telling them that I was analysing the role of assisted reproduction from a settler colonial framework –which would definitely be a deal breaker- I emphasised analysing it from a gender perspective, (unfortunately) seemingly still a slightly less threatening analytical framework. So far none of my informants has asked me outright about my thoughts and perspectives on the Palestinian-Israeli conflict, but I suppose many know that I politically disagree with them while others might think that I am curious or even sympathetic to the Zionist cause.

As fieldworkers we are highly dependent on the goodwill and cooperation of our research participants. How we present ourselves to them can thus have a significant impact on our research opportunities: obtaining and maintaining access, managing risks, etc. (Brown, 2009:213). I admit that during my own fieldwork I have creatively and pragmatically adapted 'my persona' to the presupposed political and ideological beliefs of the informants in question. When interviewing Israeli informants, or when passing through the Border Control at Ben Gurion Airport, I started the conversation with *shalom*, referred to the country as 'Israel' and emphasised the fact that I took a Hebrew course at the Haifa University. When interviewing anti-Zionist (mostly Palestinian) informants I referred to the '48 Territory' and underlined the settler colonial framework of my research. At times this led to quite schizophrenic situations in which I desperately attempted to separate 'Sigrid', the formal on-duty researcher, from 'Siggie', the off-duty '*companheira*'.

From January until March 2012 I spent two months in Haifa for fieldwork. During the daytime I was Sigrid, my official, polite, respectful and formal self, who followed an intensive Hebrew course at Haifa University and who conducted interviews with mostly Jewish Israeli informants. At night-time I became Siggie again, my 'normal' and casual self, who shared an apartment with a Palestinian roommate, who sometimes participated in pro-Palestinian actions and who mostly had social contacts with Palestinians or anti-Zionist Israelis. One time during my fieldwork trip in July 2012, this 'Jekyll and Hyde attitude' put me in an awkward situation. I contacted an Israeli patent lawyer at Sanford T. & Colb who was specialised in biomedical patenting. I wrote him – truthfully- that I was interested to know more about the rise, the development and the future of Israel's reproductive bioeconomy and the specific ways in which intellectual property rights are organized in the life science sector. He answered me:

> *"Hi Sigrid, Please call me Dan. Welcome to Israel! I hope that in addition to your research, you're also getting a chance to travel around. My wife and I would like to invite you to our house for Shabbat (Friday evening and Saturday during the day), this week or next week. We can discuss your research topics, as well as any other questions you might have about Israel. We live in Efrat, which is 20 minutes south of Jerusalem by car. There's also easy public*

> *transportation from Jerusalem"* (personal communication to Sigrid Vertommen, 03/08/2012).

Since Efrat is part of the Gush Etzion settlement, the largest settlement bloc in the West Bank, I already suspected that I was dealing with extremely religious, conservative and ultra-right Israelis who call the West Bank 'Samaria and Judea' and who believe that Palestinians have no right to live in the 'Land of Israel' that was promised to the Jews by God. Although politically I hardly draw a distinction between an 'illegal' settler from Efrat and a settler-citizen from Haifa, ethically it felt more 'unsettling' to meet West Bank settlers than Jewish-Israeli interviewees from the other side of the Green Line. I certainly did not feel comfortable going to Efrat to celebrate *Shabbat* with them. I managed to persuade Dan to meet in West-Jerusalem, where he invited me to a cosy kosher restaurant, called *Tmol Shilshom*. When I arrived at the restaurant, I was given a warm welcome by Dan who had invited his wife and their son to join us for the dinner. During our talk I did my best to proactively ask as many of my pending questions on Judaism, Jewish culture and Halacha as possible, but after a while it became hard to circumvent the political issues. Especially when they returned the gaze and I became the object of their interest. They asked me why I chose this research topic, where I was staying in Haifa, who I was hanging out with, who my boyfriend was and what my political convictions were. Although I never really lied, I also never really told the truth. I remained friendly, enthusiastic and interested even though deep inside I was boiling with anger and outraged at the blatantly racist statements they made about Palestinians. At the end of the meal they paid the bill and invited my partner and me for a *Shabbat* dinner in Efrat. I did not contact them again (fieldwork notes, West-Jerusalem, 09/08/2012) [51] . During this interview/dinner I felt how uncomfortably thin the line is between scientific pragmatism and scientific deception. While as an ethical researcher I was supposed to discuss the nature and purpose of my research with the settler family, I knew I had deceived them and myself at the same time.

The question of whether deception in research can be justified is a tricky one, particularly when taking into account anthropology's complicity in so called 'covert research'. In her book on ethics and anthropology Fluehr Lobban (2003:98) described how during the Vietnam War American ethnographers were implicated in counterinsurgency research for the CIA. They rationalised lying about the intent and impact of their research in terms of the end justifying the means. The disinformation was legitimised for the sake of victory and the greater good of history. After the Vietnam War, covert research was condemned and researchers were compelled to be open and

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[51] In 2015 I contacted Dan and Yael again in the framework of the student fieldworktrips to Palestine/Israel that the Department of Conflict and Development organises for master students in Conflict and Development Studies. In 2015, 2016 en 2017 we visited Dan and Yael in Efrat, to listen to their perspectives and views as Jewish settlers in Palestine.

transparent about the intent and potential impact of their research. This implied that if deception was deemed necessary to conduct the propsed research, the project was either to be reconsidered or not to be undertaken at all. The AAA Code of Ethics (1998) stated: "*Once lying and deception are established parts of the methodology, they will overwhelm the research*". Fluehr Lobban (2003: 98) agreed that "*the use of deception is bad ethics and will reap the lies that it sows*". Yet, later in her book she adds: *"In some cases, probably exceptions, the use of deception might be justified because of the greater benefit from the research that may result by not informing participants of the goals and possible uses of the research* (2003: 168).

In the late eighties Philip Bourgois conducted research on ethnic relations on a United Fruit Company banana plantation in Costa Rica. In a provocative reflection on his methodological and ethical strategies as a fieldworker, he suggested it was impossible to obtain important information on unequal power relations by strictly obeying the power structure's rules and laws. According to Bourgois, most political economy studies could therefore be defined as potentially unethical.

> "*Had the management's consent been truly informed and the Company understood what a historical analysis of ethnicity in a plantation context would reveal, I would obviously not have been allowed to document systematically the transnational's quasi-apartheid labor hierarchy, its ethnic discrimination on occupational safety issues, or its destruction of the union movement by ethnic recruitment and so on. The head managers would not have toured me through their golf course, drunk whiskey with me, and made racist comments about their workers to me if they had really understood anthropological participant/observation research technique. Although I was never overtly dishonest; and although I always precisely explained my research topic to everyone; they obviously did not understand my research implications or they would have run me out of the area and/or beaten me up"* (Bourgois, 1990: 51-52).

Although Bourgois' provocative article lacks certain ontological complexity by representing reality in terms of 'the bad guys versus the good guys', and the 'suppressor versus the oppressed' (even in an 'obvious' colonial setting such as Palestine/Israel the distinction is not that straightforward), I agree with his main argument. A disproportionate focus on IRB ethics makes it impossible for a fieldworker to conduct controversial research on the perpetrators.

First of all, in my own defence, I should clarify that the jargon of 'deception' and 'secret research' might be a bit overly dramatic to describe my type of research. I am not exactly recruited by the CIA, or handing over my research results to the *Mossad* or the *Mukhabarat*.[52] Yet, it is correct that I am withholding information from my research participants about the goal and the framework of my research for the 'greater good of history'. 'The greater good' in my case is to critically deconstruct Israel's pronatalist fertility regime from a settler colonial perspective and to expose

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[52] These are respectively the national and military intelligence agencies of the United States, Israel and various countries in the Arab world.

the supposed neutrality of Israel's advanced and lucrative reproductive-industrial complex. I agree, that doesn't just sound pretentious –"do I really think my PhD will solve the Palestinian Question?"- but also a bit arbitrary. Why should my 'greater good' be any greater than the 'greater good' of the counterinsurgency ethnographers during the Vietnam War? The crucial difference, I believe, goes back to the definition of the political and the meaning of emancipatory knowledge production.

Pierre Bourdieu was critical of a "*proletaroid intellectual culture*" that desperately tried to fuse political and scientific pursuits, saying that "*good politics does not necessarily produce good social science*". For him, science should act as an autonomous intellectual field, fearing that if intellectual inquiry were to operate according to a political logic it would lead to scientific simplifications, friend-enemy binaries that would consequently put a limit to further critical exploration (quoted in Hage, 2009: 62). I disagree with Bourdieu's science-politics dichotomy that portrays politics as a fixed, immobile, and never evolving field. Science can precisely refine, attune and further develop political stances through critical inquiry. Moreover, it can also push forward the boundaries and imaginaries of political possibility. As Denzin and Giardina (2007:35) phrased it: "*The ethics of critical social science require that scholars engage with research that mobilizes collective actions that result in a radical politics of possibility, of hope, (...)*".

At the risk of sounding naïve, I believe that if the knowledge we produce benefits a more just redistribution of power, then it truly is 'a greater good'. For me, emancipatory knowledge constitutes knowledge that provides intellectual ammunition for the great democratic struggles of our times: the struggle against climate change, for labour rights, for women and queer empowerment and against racism and colonial oppression (Hill Collins, 1998; Mignolo, 2000). The Palestinian struggle is one against (settler)colonial erasure. Corrine Glesne (2007: 171) has argued that the purpose of research in colonial settings should be solidarity. She paraphrased her research participants: "*If you want to research us, you can go home. If you think our struggle is also your struggle, we have plenty of things to talk about*". Similarly, Ritchie and Rau (2010) suggested a "*counter-colonial alliance*" for knowledge production. Therefore, formulating research questions, developing research projects and generating critical (thus excluding self-censured propaganda) knowledge in solidarity with the Palestinian struggle for self-determination (and in co-construction with Palestinians) can truly be an emancipatory project. Of course, solidarity is a complex issue and it can be dangerous, even neo-colonial, to overestimate academic knowledge or presume confidence on what defines anti-colonial knowledge production. I remember, for instance, how eagerly I wanted to set up a collaborative workshop with Palestinian scholars to share my research results. Yet, there was very little enthusiasm to hear about my so called 'anti-

colonial research project in solidarity with the Palestinian struggle'. So here again, some humbleness is at place.

In conclusion, it is safe to say that by not revealing the entire research framework to my informants I breached the ethical guidelines of the IRB model. I believe, however, that there are valid political motives to be a 'visionary pragmatist', as Patricia Hill Collins (1998) framed it, although I admit it can be a slippery slope.

THE CRITICAL MODEL: MILITANT ANTHROPOLOGY, PACBI AND MACHIAVELLI

Contrary to the more institutionalised IRB model, the critical model acknowledges that the fieldworker cannot (and should not) separate or exclude herself from the broader socio-political reality. In his by now classic article Howard Becker (1967:239) wrote: "*The question is not whether we should take sides, since we inevitably will, but whose side are we on*". Some scholars have even pushed to breach the wall between research and advocacy and urge researchers to clearly "take sides" (Gallaher, 2004:129). In a polemic discussion with Roy D'Andrade on the role of objectivity within anthropology, Nancy Scheper-Hughes (1994) made a strong plea for a "barefoot" militant anthropology. She rejected the traditional "*see no evil, hear no evil, speak no evil*" role of the anthropologist as a dispassionate, rational and objective observer of the human condition (MacCabe in Scheper Hughes, 1995: 410). According to Scheper-Hughes, fieldworkers have to choose between being neutral observers/spectators or engaged witnesses. Claiming that the fearless spectator is accountable to 'science' while the witness is accountable to history, she clearly chooses to be the latter.

> "*We can listen, record, register, touch in acts of solidarity. We can make ourselves available not just as friends or as 'patron' in the old colonialist sense but as comrades (with all the demands and responsibilities that this word implies) to the people who are the subjects of our writings, whose lives and miseries provide us with a livelihood. Anthropological writing can be a site of resistance. This resembles what the radical Italian psychiatrist Franco Basaglia (1987) called becoming a 'negative worker'. The negative worker is a species of class traitor - a doctor, a teacher, a lawyer, psychologist, a social worker, a manager, a social scientis, even - who colludes with the powerless to identify their needs against the interests of the bourgeois institution: the university, the hospital, the factory. [...] Anthropologists, too, can be negative workers* and *practice an anthropology-with-one's-feet-on-the-ground, a committed, grounded, even a 'barefoot' anthropology*" (Scheper-Hughes, 1995:420).

As I argued in the previous section, being a 'negative fieldworker' in Palestine/Israel requires generating critical knowledge in solidarity with the Palestinian struggle for self-determination, emancipation and liberation. Following Scheper-Hughes logic of being a 'negative fieldworker' or

'fieldworker/companheira', also requires an engagement with local resistance initiatives, especially when they are oriented to the international (research) community. One of the most successful Palestinian campaigns in recent years has been BDS, which calls for Boycott, Divestment and Sanctions against Israel until it complies with international law. One of the most successful components of the boycott movement is the Palestinian Campaign for the Cultural and Academic Boycott of Israel. Since its founding in 2004, the PACBI has advocated a boycott of Israeli academic and cultural institutions, based on the premise that these institutions are complicit in the system of oppression that has denied Palestinians their basic rights guaranteed by international law. The website of PACBI states:

> "*Academic institutions in particular are part of the ideological and institutional scaffolding of the Zionist settler-colonial project in Palestine, and as such are deeply implicated in maintaining the structures of domination and oppression over the Palestinian people. Since its founding, the Israeli academy has cast its lot with the hegemonic political-military establishment in Israel, and notwithstanding the efforts of a handful of principled academics, is deeply implicated in supporting and perpetuating the status quo"[53]*.

One of the guidelines of the academic boycott for international students is to refrain from studying abroad at Israeli universities. The international programs that Israeli universities offer are usually part of the Israeli propaganda effort, designed to give international students a 'positive experience' of Israel. Endorsing the PACBI also means advocating a suspension of all forms of funding and subsidies to these academic institutions.

In January 2012 I enrolled for an intensive Hebrew Course at Haifa University. The tuition fees for the course, almost US$ 1.000, were paid by my university, leading me to breach the two aforementioned guidelines of the PACBI. My decision to follow a Hebrew course was mainly a pragmatic one. I believed (and I still do) that for the sake of my research it was imperative to learn and understand Hebrew. Earlier, I had enrolled in a Hebrew course in Antwerp, but neither the pace nor the quality of this course were very satisfying. Moreover, I thought that participating in a Hebrew course at an Israeli University could convince potentially suspicious Jewish Israeli respondents to accept my request for an interview. As these international Hebrew courses or *Ulpans* usually attract American or French (Jewish) students who are zealous Zionists, it could reassure them about speaking freely and unrestrainedly to me during the interviews.

 My Palestinian friends, especially the more left-leaning ones, obviously made fun of the fact that I was taking a Hebrew course. Sometimes they would start speaking to me in Hebrew, as a way of mocking me. *Shalom Siggie, ma shlomech* [54]? During more profound discussions they would point out that by enrolling in a Hebrew course at an Israeli university I was "*normalising the Israeli*

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[53] http://pacbi.org/index.php, last entry 09/10/15.
[54] Hebrew for "Hi Siggie, how are you?"

entity". The accusation of normalisation is a very common, but nonetheless nasty and frustrating one among Palestinians in Israel. It is common because in one way or another all Palestinian citizens of Israel are normalising the Zionist entity. All of them are buying food from Israeli shops, many of them are voting for the Israeli Knesset and some of them even join the Israeli Defense Forces. Yet, Palestinians inside Israel have no other choice or possibility than to 'normalise' Israel because this is the state in which they have to live and survive. There are hardly any Palestinian shops that sell Palestinian products inside Israel; neither are there Palestinian universities nor is there a Palestinian Parliament. Yet for me, as an international student, it was deemed unnecessary and unethical by some of my friends to engage in academic cooperation with the Haifa University. Even though I considered the Hebrew course a necessary step in my research process, my friends argued that it would grant Zionist institutions a degree of power and influence that could easily be avoided.

These accusations obviously put me in an awkward position. Politically, I fully support and endorse the PACBI and the BDS in general. On a personal and practical level, however, the PACBI did not always seem compatible with the successful continuation of my own research. It made me wonder about pragmatism and Machiavelli. Does the end justify the means? Does conducting supposedly critical doctoral research justify breaching the PACBI guidelines? Trotsky once said that the end may justify the means as long as there is something that justifies the end. At that moment, I believed that a certain degree of pragmatism towards the PACBI and the BDS was not a bad idea. Looking back on it now, I would not enrol again. Rather, I would look for alternative ways to study Hebrew that would not entail breaching the PACBI guidelines.

FIELDWORK IS A VERB

My former colleague and good friend Annemie Vermaelen (2012) once wrote "*Fieldwork is a verb*". She was right; it requires time, effort, self-reflection and continuous re-positioning to make the 'right' judgement calls and to strike a balance between the ethics and politics of fieldwork in the Middle East and North Africa. Particularly when performing research on 'the perpetrators', in my case the 'repellent' State of Israel, the guidelines of the existing ethical models are not always appropriate, as Gallaher (2009) convincingly argued. The IRB model, for instance, primarily focuses on the rights of the informants to be fully informed about the goals and modalities of the research. This requires transparency and honesty from the researcher, which in my case was not always possible. The critical model aims to balance the power hierarchies between the researcher and the researched: collaborating on developing research topics, offering veto power to informants, sharing first drafts of articles and book chapters. However, when interviewing Israeli respondents in an attempt to critically analyse and expose Israel's fertility regime, this became

impossible. It would be wrong to abandon the existing ethical guidelines because they offer important safety measures for both the researcher and the researched, but it would be just as wrong to abandon controversial research on the perpetrators. I conclude this section by suggesting that the research strategies I have developed over the past seven years for conducting qualitative research on the repellent Israeli regime are far from perfect. This topic needs further exploration and discussion in order to reach ethically sound and politically convincing research practices (Denes, 2013).

After dealing with questions of theory, research method, ethics and politics, I move on to discuss the empirical part of this dissertation. This part comprises of four empirical chapters, each of which explores the socio-materialities of a specific reproductive technology, medicine or practice in Israel/Palestine: egg donation, Pergonal, transnational surrogacy. In the first chapter I will provide an overall historical account of Israel's (assisted) reproductive policies in relation to its triangular population economy.

CHAPTER ONE

CHAPTER 1 "UNSETTLING ISRAEL'S REPRODUCTIVE-DEMOGRAPHIC NEXUS": A CASE OF STRATIFIED (ASSISTED) REPRODUCTION

"We took a taxi and got off before the checkpoint because cars are not allowed near the checkpoint and we walked the rest of the way; I was in pain. At the checkpoint there were several soldiers; they were drinking coffee or tea and ignored us. Daoud approached to speak to the soldiers and one of them threatened him with his weapon. Daoud spoke to them in Hebrew; I was in pain and felt I was going to give birth there and then; I told Daoud who translated what I said to the soldiers but they did not let us pass. I was lying on the ground in the dust and I crawled behind a concrete block by the checkpoint to have some privacy and gave birth there, in the dust, like an animal. I held the baby in my arms and she moved a little but after a few minutes she died in my arms".

(Rula Ashtiya, quoted in Amnesty International, 2005 [55])

"I pleaded with the soldiers to let us pass; I spoke to them in Hebrew; I know Hebrew because I used to work in Israel; they understood what I was saying but did not let us pass. After the baby was born Rula screamed, then after a while she screamed that the baby died. She was crying. I burst into tears and ran toward the cars on the other side of the checkpoint, ignoring the soldiers; I brought a taxi and went back to Rula; I felt so bad to see her in such condition; she was holding the baby in her arms, covered in blood and the umbilical cord was on the ground, in the dust and still attached and I had to cut it with a stone; I didn't have anything else to cut it with. Then I picked up Rula in my arms and she was holding the baby and I carried her to the car and we went to the hospital. Rula and I are still suffering a lot".

(Daoud Ashtiya, quoted in Amnesty International, 2005 [56])

Introduction

Zionism's settler project in Palestine/Israel is underpinned by a demographic logic that aims to foster a Jewish majority in a Jewish State, at the expense of the Arab-Palestinian population. This demographic logic is as much about enlarging and optimising as it is about diminishing and eliminating, and it therefore simultaneously operates through biopolitical and necropolitical technologies of power. Positively, the State of Israel has striven to enlarge its Jewish population in two significant ways. First and foremost, through its generous Jewish immigration policies, that

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[55] "Conflict, Occupation and Patriarchy: Women Carry the Burden", Amnesty International, March 2005, https://www.amnesty.org/en/documents/MDE15/016/2005/en/ (last entry 31/05/2016). I first read these testimonies in Nadera Shalhoub Kevorkian's latest book "*Security Theology, Surveillance and the Politics of Fear*".

[56] Idem.

are designed to attract as many Jews as possible from what is called the Diaspora while preventing expelled Palestinians to return to their homeland. Secondly, by implementing pronatalist reproductive health policies that stimulate Jewish Israelis to be fruitful and multiply.

Within the unfolding academic research on Zionism as a settler ideology and practice, Israel's stratified migration policies have been well documented (Yuval-Davis and Stasiulis, 1995; Zureik, 2003; Veracini, 2006; Wolfe, 2007; Sa'di, 2014; Rouhana and Sabbagh-Khoury, 2014). This is less the case, however, for studies on the settler coloniality of power behind Israel's (assisted) reproductive health policies (with the exception of Portuguese, 1998, Kanaaneh, 2002, Steinfeld, 2015). This chapter will help to fill this void by unraveling Zionism's reproductive-demographic logic in relation to its triangular population economy. I will look into the stratified character of Israel's (assisted) reproductive policies by examining whether or not certain groups in Palestine/Israel are encouraged to reproduce while others are refrained from doing so.

In her ground-breaking study of West Indian nannies and their (female) employers in New York City, Shellee Colen (1995) introduced the term 'stratified reproduction' to indicate that the capacity to control one's reproductive abilities is unequally distributed in society and is subjected to intersecting regimes of class, race, gender, ability, age and sexual preferences. This is particularly true for racially divided settler societies such as Australia, the United States or Palestine/Israel that were founded on the demographic replacement of the indigenous populations through the arrival of a new settler body (Wolfe, 2007, 2016).

The settler-native binary is obviously crucial when discussing Israel's fragmented ART policies and practices. A first part of this chapter will therefore explore whether Zionism's demographic logic has shaped Israel's ART policies according to the same ethno-racial rationale as its migration policies. Through a comparative case study analysis of the reproductive rights of Jewish and Palestinian political prisoners, I will argue that ART has emerged in Palestine/Israel as a pivotal biopolitical site of settler control by promoting Jewish fertility while simultaneously attempting to contain Palestinian fertility, on both sides of the Green Line[57]. Yet I will also demonstrate how ART is increasingly appropriated as a tool of biopolitical defiance by Palestinians. A second part of this first section will discuss the profound militarisation of the discourses and practices of assisted reproduction in Palestine/Israel during Israel's military operation '*Protective Edge*' in Gaza in the summer of 2014.

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[57] Israel's settler colonial rule has fragmented the Palestinian body politic by subjecting Palestinians inside Israel, West Bankers, Gazans and East-Jerusalemites to different regimes of control, governance and citizenship, Although I will include case studies from both sides of the Green Line, the main focus of this chapter will be on Palestinians inside Israel.

Exploring the reproductive dichotomies between Jewish settlers and Palestinian natives is necessary but not sufficient to unravel the nuanced entanglements of gender, race and class in Israel's demographic project. Despite the need for high Jewish fertility rates, not all Jews have been equally encouraged to reproduce. The second part of this chapter will therefore explore the intra-Jewish tensions between Ashkenazi and Mizrahi Jews in Israel's triangular population economy, based on an analysis of the '*Stolen Yemenite Children Affair*'. This controversial affair refers to the suspicious disappearance of up to one thousand Yemenite Jewish children from their families upon arrival in Israel between 1948 and 1960. By means of a 'return to history' (Rouhana and Sabbagh Khoury, 2014) and a comparative analysis of the Yemenite Children's Affair and Australia's Stolen Generations, child removals will be conceptualised as a settler colonial technology of demographic elimination and racialised class formation in Palestine/Israel.

Through a detailed analysis of these cases, it will be argued that in the Zionist settler colonial formation, Israel's stratified pronatalist policies follow a demographic logic that crystallises around gendered, ethno-racial and classed markers. In this demographic-reproductive nexus the reproductivity of the (Ashkenazi) Jewish population, indigenous Palestinians and other racialised groups such as Mizrahi Jews is targeted differently through both biopolitical and necropolitical technologies of power[58]. Before starting, it is important to note that this chapter, unlike the following ones, will mainly focus on the demographic logic undergirding Israel's fertility regime, and less on its biocapitalist logic.

Reproductive Dualities of Settler Abundance and Native Erasure

"Record !
I am an Arab
And my identity card is number fifty thousand
I have eight children
And the ninth is coming after a summer
Will you be angry?"

- Mahmoud Darwish, Identity Card

VITAL STATISTICS: THE BATTLE OF NUMBERS AND CRADLES

Historically, the fertility rates in Palestine/Israel have always been remarkably high, and this on both sides of the Green Line. In the West Bank and Gaza, the average birth rate in 2012 stood at

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[58] Parts of this chapter have been published as a book chapter "Babies from behind the bars: stratified assisted reproduction in Palestine/Israel" in an edited volume on "Assisted reproduction in a European and globalized perspective - notes on the overall frameworks" Eds. Merete Lie and Nina Lykke (2016).

4.1 children per woman, a rapid decline since the 1960s when it amounted to more than eight children (PCBS, 2013)[59]. In Israel, the total fertility rate in 2013 reached 3.03, the highest of all OECD countries where the average fertility rate has plummeted to 1.7 since 2010 (OECD, 2013).

Israeli sociologists Schellekens and Anson (2007:5, emphasis added by S.V.) noted that:

> *"what makes Israel's fertility so unique in comparison to other **North American and European populations** today is its incongruity with the most significant demographic development in developed countries in the past 40 years, namely the modern shift to below-replacement fertility".*

While Israel's total fertility rate has remained remarkably stable over the last 50 years, only dropping slightly from 3.85 in 1960 to 3.03 in 2013, there are substantial disparities between its different population groups. According to Israel's Central Bureau of Statistics, which measures national fertility patterns in terms of religious categories, Jewish natality remained quite stable over the last decades; dropping from 3.39 in 1960 to 2.53 in 1995 and rising again to a little over three children per woman in 2013 (ICBS, 2016)[60]. The fertility rates of Palestinians in Israel, however, have dropped significantly. Muslim fertility rates decreased from 9.23 in 1960 to 3.35 in 2013, Christian fertility from 4.56 to 2.13 and Druze from 7.49 to 2.21. According to other sources, such as the Galilee Society, a Palestinian NGO that collects data about Palestinians in Israel (without necessarily disaggregating them into religions), the total fertility rate of Palestinian women in Israel for the year 2006 was 3.68 births, compared to 2.75 births among Jewish women. Thus, while in early 1960s the total fertility rate of Palestinian Israelis was more than double that of Jews, this fertility gap has been closing over the recent decades. Palestinian fertility on both sides of the Green Line is rapidly declining, while Jewish fertility is stagnating and even slightly on the rise again[61].

As earlier described in the Introduction, the reasons behind the high Jewish fertility rates are multiple. Research has indicated that the intertwinement of Jewish religious prescriptions, historical legacies of the Shoah, patriarchal ideologies of motherhood, repro-technological avant-gardism and Zionist demographic anxieties has favoured high Jewish birthrates in

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[59] http://www.pcbs.gov.ps/site/lang__en/881/default.aspx#Census (last entry, 07/08/2016).

[60] However, the most eye-catching fertility differentials transcend religious categorisations. The most fertile population groups in Israel are the ultraorthodox Jews, who have an average of 6 children (ICBS, 2016) and the Bedouins in the Naqab/Negev whose total fertility rate is 5.5 (Knesset, 2010).
Central Bureau of Statistics Israel. 2016. Vital Statistics, Live Births.
http://www.cbs.gov.il/publications16/1632_live_birth_2013/pdf/e_print.pdf (last entry 15/09/2016).
https://www.knesset.gov.il/lexicon/eng/bedouim_eng.htm (last entry 20/05/2015).
http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.11/2013/7_3_Estimation_of__size_and_vital_rates_Haredim29112013.pdf

[61] http://www1.cbs.gov.il/shnaton64/st03_13.pdf (last entry 25/08/2015).

Israel/Palestine [62]. This child-friendly attitude has led to the institutionalisation of reproductive health policies, including social benefits for working mothers, high child allowances and the generous reimbursement of assisted reproductive services, which in turn has further reinforced high Jewish fertility. But what can explain the Palestinians' falling birth rates?

The remarkable drop in Palestinian Israeli fertility has been explained by Israeli sociologists as a classic example of the demographic transition (Friedlander, Goldscheider and Eisenbach, 1980, 1996, 2002; Schellekens and Anson, 2007). This hypothesis assumed that fertility rates dropped because of Palestinian Israelis' elevated levels of development due to their transition from patriarchal traditional life to modern Israeli society. With modernisation they referred to the increased urbanisation of the Arab society in Israel, the improved education of Palestinian women in Israel through the Mandatory Education Act and their higher participation in the Israeli economy and on the labour market. Furthermore, through the Marriage Act the minimum age of marriage was raised which also led Palestinian women to postpone the age of childbearing (Portuguese, 1998).

In her by now classic book on Israel's fertility policies, Jacqueline Portuguese (1998:175) contested the alleged developmental underpinnings of aforementioned modernisation theories on the demographic transition of Palestinians in Israel. She argued that while technically speaking the living standards of Palestinians in Israel might have improved, it was inappropriate to frame this transition as 'development'. Rather, more fitting denominators would be "*dispossession, land expropriation, forced proletarianisation and exploitation*". Moreover, Portuguese (Id.) perceived Israel's developmental approach towards the 'Arab sector' as an indirect anti-natal strategy to lower their fertility rates. In his recent work on Zionist population strategies, Ahmad Sa'di (2014) hinted at a similar trend. He referred to the policies of Shmuel Toledano, the Prime Minister's Advisor on Arab Affairs during the seventies and eighties, who summarised Israel's demographic policy guidelines as follows:

> *"First, the inculcation of the family planning notion among the Israeli Arabs. Secondly, the awarding of direct and indirect assistance to those [Arabs] who migrate and thirdly, the initiation of various measures for the liberation of [Arab] women, particularly the raising of their educational standards and the elevating of family life more generally. We reached a conclusion that an increase in the woman's education causes a decline in her fertility*" (Sa'di, 2014: s.p.).

Portuguese (1998) adamantly stressed that this 'developmental approach' never resulted in a clear-cut or systematic anti-natalist plan towards Palestinians, such as occurred in other (settler)colonial societies. Israel has no history of forced sterilisations or abortions of native

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[62] The last two paradigms, Zionism's reproductive-demographic nexus and Israel's repro-tech industry, will be further scrutinised in the following chapters.

Palestinian women. This was also confirmed during my interviews with representatives of both Jewish and Palestinian Israeli family planning organisations. They emphasised that a direct interference with issues of Palestinian family planning and child spacing was too much of a political 'hot potato' for the Israeli government to handle. However, there are some indications that throughout its history, Israel has been as concerned with lowering the Palestinian birth rate as it has been with raising the Jewish one. This concern has materialised through a broad variety of bio-necropolitical discourses and practices of stratified reproduction.

THE NECROPOLITICS OF BIRTH IN THE SETTLER COLONY

> *"Israel is currently fighting a demographic war for survival as a Jewish State. Demographic projections forecast an Arab majority in Israel by the year 2020! It is estimated that as many as half of the 50.000 abortions in Israel every year could be prevented if the women were offered financial and social help. There is thus a potential to save the lives of tens of thousands of Jewish children each year, which would create a badly needed wave of Aliyah – an "Inner Aliyah"!*
>
> - Dr. Eli Schussheim, director Efrat, Committee for the Rescue of Jewish Babies

Despite the clear demographic trend of a decreasing Palestinian fertility rate, Israeli policymakers, politicians, researchers and journalists have continued to created a climate in which Palestinian reproduction is viewed as an 'existential danger', a 'velvet holocaust' or a 'demographic intifada' to Israel's national security (Kanaaneh, 2002). This is done in two particular ways; either by erasing Palestinian life, or by problematising Palestinian fertility. Both of these discursive-material strategies have taken shape through a wide variety of biopolitical and necropolitical policies, policy proposals and institutional measures.

A first discursive-material strategy positions Palestinian natality within a logic of erasure and denial. In September 2014, for instance, Israel's Population, Immigration and Borders Authority (PIBA) released its annual statement for the Jewish New Year. PIBA's report offers all kinds of data about Israel's population, including the official number of Israeli citizens, the number of births and the list of most-popular baby names, which counts as the report's most anticipated attraction. Regarding boy's names, the report indicated that the most popular names remained Yosef, Daniel and Uri. A Ha'aretz journalist revealed, however, that not Yosef, but Mohammed was the most popular boy's name in Israel[63]. Indeed, Arabic names were deliberately omitted from the much-

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[63] Lior, Ilan. "Psst! The Most Popular Boy's Name in Israel in 5774 Was Really Mohammed*". Ha'aretz,* 21/09/2014 http://www.haaretz.com/israel-news/.premium-1.617077 (last entry, 07/08/2016).

publicised list, which only included Hebrew names (Schechter, 28/09/2014)[64]. Although this anecdote can easily be dismissed as a harmless *fait divers,* it should be understood within the necropolitical materiality of settler colonial erasure. Three months earlier, in July 2014, a young Palestinian boy from Jerusalem called Mohammed Abu-Khdeir was burned alive by Israeli settlers as retaliation for the kidnapping and murder of three Jewish Israeli settler kids from Hebron. Omer Shatz (quoted in Ha'aretz, 01/10/2014 [65]) aptly summarised the discursive-material entanglements of setter colonial necropolitics in Palestine/Israel.

> *"Once upon a time there was a child, Mohammed Abu Khdeir was his name, who was burned alive. Now, Mohammed is dead. And in erasing his name and his memory we will perpetuate erasing the name and the memory of all his brothers and cousins named Mohammed – both those who were just born and remain alive, and those who no longer are".*

Overall, the mortality rates among Palestinian infants are significantly higher than among Jewish Israeli babies (ICBS, 2016). In 2014, Israel's Health Ministry published a report stating that the mortality rate of Israeli Arab children under one year old is two and a half times higher than those among Jewish infants[66]. In the West Bank the mortality rate of Palestinian infants is seven times higher, and in Gaza it is almost ten times higher than for Jewish Israeli infants (van den Bergh, et al. 2015). According to a recent report by Physicians for Human Rights, the life expectancy of Palestinians in the West Bank and Gaza is about ten years lower than that of persons in present-day Israel, and maternal death rates are four times higher in the West Bank and Gaza Strip (Mor, 2015)[67]. Focusing on the life of Palestinians in Jerusalem, Nadera Shalhoub-Kevorkian in her latest book (2015:169-170) argued convincingly that the Palestinian woman's birthing body has been framed as a as a security threat and "*thus as a body that should be disciplined or made to disappear, or at least to suffer*". By forcing them to give birth at checkpoints, preventing them from having their babies in a safe and secure manner, denying them access to hospitals and refusing to give them and their newborns Israeli ID numbers, it is obvious for her that the State of Israel is governing Palestinian fertility within a logic of elimination (Shalhoub-Kevorkian, 2015:170).

A second material-discursive strategy depicts Palestinian women as hyper-fertile and pre-modern breeders. In her work on the sexual colonisation of Native American women, Andrea Smith (2003)

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[64] Schechter, A. "Why Israel pretends Mohammed isn't there. It isn't a matter of racism. It's a matter of denial". *Ha'aretz,* 28/09/2014. http://www.haaretz.com/news/features/.premium-1.618013 (last entry, 07/08/2016).

[65] Shatz, Omer. "Mohammed is dead*". Ha'aretz* 01/10/2014. http://www.haaretz.com/opinion/.premium-1.618500 (last entry 07/08/2016).

[66] While in Israel's Jewish population the infant mortality rate was 2.6 per 1.000 live births in 2014, in the Palestinian Israeli population it was 6.4 per 1.000 live births (ICBS, 2014). In the West Bank the infant mortality rate was 18.1 per 1.000 live births in 2010 (PCBS, 2014). In Gaza the infant mortality rate went up from 20.2 per 1.000 live births in 2008 to 22.4 in 2013 (van den bergh, et al., 2015).

[67] Efrat, Mor. 2015. Divide and Conquer: Inequality in Health. Physicians for Human Rights Israel http://reliefweb.int/sites/reliefweb.int/files/resources/256771352-Divide-Conquer-Inequality-in-Health-PHR-Israel.pdf (last entry, 13/09/2016).

already observed how the bodies of native women were particularly besieged in settler colonial states because of their threatening ability to reproduce the coming generations and thus assure the continuance of the indigenous peoples. In 1967, when discussing the future of the Palestinans in the West Bank and Gaza after they had been militarily occupied by Israel, Prime Minister Golda Meir (quoted in Hirst, 2003:85) confessed:

> "*In case of complete annexation we would have to wake up every morning wondering how many Arab babies have been born during the night*".

The same existential anxiety has been articulated towards the alleged surplus fertility of Palestinian women inside Israel. During a conference in 1995 the renowned demo-geographer Arnon Soffer claimed that "*the most serious threat that Israel faces is the wombs of Arab women in Israel*" (quoted in Kanaaneh 2002: 74). A few years later, the same Soffer published an article together with Bystrov (2006: 42-44) recommending to subject Arab Israelis to "a *policy of limiting childbirth on the Singapore model*", which included measures such as childbirth disincentives, coercive sterilisations and abortions (Denes, 2011). In 2014, after a visit to the Naqab/Negev, Agriculture Minister Yair Shamir proposed to examine ways to lower the Bedouin birth rate, claiming that "*only a suicidal country does not recognise the Bedouin problem, and the blindness is terrible*" (quoted in Haaretz, 29/09/2014)[68].

While Israel's fear of the reproductive-demographic potential of Palestinians in Israel is expressed in similar terms to that of Palestinians in the West Bank and Gaza, a different set of strategies and technologies of power had to be developed in order to control their fertility. In her work on Israel's selective pronatalism, Rhoda Kanaaneh (2002) cited the famous example of the Heroine Mother Award. This was a birth prize initiated by Ben-Gurion in 1949 to reward all Israeli mothers with a financial compensation and a personally signed letter on the birth of their tenth child. The program received significant media attention and became the subject of a popular dictum: "*In honor of the motherland. Ten boys to be born. With grandeur we receive Ben-Gurion's prize*" (Steinfeld, 2010). The award was dropped after ten years, however, when it turned out that it was mostly Palestinian Israeli mothers who claimed the Heroine Award. Ben-Gurion (quoted in Kanaaneh 2002:35) intervened by ensuring that:

> "*any future prenatal incentive must be administered by the Jewish Agency and not the state since the aim is to increase the number of Jews and not the population of the state*".

The idea of utilising Zionist semi-governmental organisations such as the Jewish Agency as a way to promote Jewish fertility without benefitting the Palestinian undesired part of the Israeli population reappeared in the infamous Koenig Memorandum. This was a confidential government

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[68] Seidler, Shirly. "Minister: Israel looking at ways to lower Bedouin birthrate". *Ha'aretz* 29/09/2014 http://www.haaretz.com/israel-news/.premium-1.618119 (last entry, 08/08/2016).

document written in 1976 by Israel Koenig, the Northern District Commissioner of the Ministry of the Interior, that put forward a set of strategic priorities aimed at reducing the number of Arab Israelis in the North of the country. Warning against an Arab demographic time bomb, Koenig expressed the need "*to examine the possibility of diluting existing Arab population concentrations*" (quoted in Yuval-Davis and Abdo, 1995:307). Moreover, when discussing the issue of child allowances, Koenig (1976:191), wrote:

> "*The government must find a way to neutralize the payment of big family grants to the Arab population, either by linking them to the economic situation or by taking this responsibility from the national insurance system and transferring it to the Jewish Agency or to the Zionist Organization, so that the grant is paid to Jews only*".

Again in 2003, when the government announced severe budget cuts in child allowances for families with six and more children, Member of Knesset Uri Ariel (quoted in Prainsack, 2006: 186-187) proposed to compensate the Haredi Jewish families though the Jewish Agency, clearly excluding Palestinian Israelis although they were expected to be equally affected by these cuts (Portuguese, 1998).

> "*We have a problem in that although many of these families are haredi and religious, many of them are also Arabs, whose birth rate we have no interest in encouraging; this is a Jewish state, and we have to worry about Jewish demographics. This therefore has to be done through the Jewish Agency, in a gradual manner, and not through the state coffers. It can be done, and has been thought about in the past, but it has not yet been advanced sufficiently; we hope that it will be completed in a few months' time*".

Israel's selective pronatalism did not only crystallise through the outsourcing of supposedly basic governmental services to Jewish-Zionist semi-governmental organisations that strictly serve(d) Jewish Israelis, but also by stipulating military service as a condition for receiving reproductive services. In 1968, for instance, the State of Israel established the Fund for Encouraging Fertility, which provided subsidised housing loans for large families on the condition that at least one family member had served in the Israeli army, overtly discriminating against Palestinian citizens of Israel since they usually do not serve in the army (Portuguese, 1998; Kanaaneh, 2002; Steinfeld, forthcoming). The Fund also offered a grant to encourage recently-released soldiers "*to get married, start a family and increase the number of children that they will bring to the world*"[69]. The grant was conceived as a rigidly timed family planning schedule. The male (and only the male) soldier would be offered the full grant of 15.000 Lira under the strict condition that he would get married between the ages of 20 and 23, have his first child between 22 and 24, the second between 23 and 25, the third between 25 and 27 and the fourth between 27 and 30. The members of Israel's Demographic Centre commented on the plan:

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[69] Israel State Archive, File 2 GAL 2091/6.

> *"This plan is only for people released from army, this way we focus on the population that we are interested to demographically increase more quickly. And it prevents other sectors in the population that already have more children than we desired for, from using the grant. It's possible to argue to that the fund is not discriminating because it is viewed as a reward for the three years that the soldier spent in the army"[70].*

Similarly, the 1970 Veteran's Child Allowance Scheme provided additional child allowances to large families in which at least one member had served in the army (Portuguese, 1998; Kanaaneh, 2002). In 1992, when discussing a bill in the Knesset that would equalise child allowances for all families regardless of the military history of their members, the founder of the right-wing Moledet party Rehavam Ze'evi (quoted in Portugese 1998:108) remarked:

> *"This proposal is an incentive for making more Arab children. They will live off us forever. They will give birth to 50, 60, 70 children and we will pay them discharged soldiers grants".*

Israel's selective pronatalism can also be detected in its more recent assisted reproductive policies, although in more nuanced and subtle ways, as I will discuss in the following section.

STRATIFIED ASSISTED REPRODUCTION AMONG PALESTINIAN AND JEWISH ISRAELIS

By law, Palestinian citizens of Israel are entitled to the same fertility treatments as their Jewish counterparts, since these are covered under the National Health Insurance[71]. Daphna Birenbaum Carmeli and Yoram Carmeli (2011:25) viewed this "*as a fortunate consequence of the state's democratic claim, which in this matter lives up to its promise*". However, despite the fact that on a technical level reproductive technologies are equally accessible to both groups, settler colonial realities as well as cultural-religious restrictions have refrained Palestinian Israelis from making use of these assisted reproductive technologies and from enjoying equal reproductive rights[72].

In case of egg donation and surrogacy in Israel, for instance, the law requires both the egg donor and the egg recipient, and the commissioning mother and the surrogate carrier, to share the same

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[70] Israel State Archive, File 2 GAL 2091/6.

[71] Due to Israel's politics of fragmentation, Palestinians are subjected to different, graduated health regimes. Palestinian Israelis and East-Jerusalemites are entitled to the same health care provisions as Jewish Israeli citizens. Since the 1994 Oslo Accords Palestinians in the West Bank and Gaza are relying on the Palestinian Authority (and international donors) for health care matters. However, since the split between Hamas and Fatah in 2006, the Hamas government is in control of the Gaza Strip.

[72] The Israeli Health Ministry has developed six instructive videos to explain each step of the fertilisation process, based on the IVF treatment experience of a couple, Yael and Roy Israeli. For each step of the procedure the couple visits another IVF unit in Israel and is instructed by renowned Israeli fertility experts and nurses. While all of Israel's 'minorities' (Russian, Mizrahi and orthodox Jews) seem to be well represented in the videos, Palestinians are completely absent in the six videos, which are Hebrew spoken and subtitled in English. http://www.health.gov.il/English/Topics/fertility/Pages/IVF-films.aspx (last entry 28/01/2015).

religion. Since Palestinian women (Christian, Muslim or Druze) rarely donate egg cells in Israel – Sunni Islam forbids third party donation of eggs, uteruses and sperm - this amendment ensured that they would also never benefit from a surrogacy or egg cell donation (Inhorn, 2006; Nahman, 2006, 2013; Vertommen 2016a)[73]. With regards to IVF, the most popular reproductive technology in Palestine/Israel, the access of Palestinian Israelis is first and foremost limited because of the deplorable condition of health care and public transport infrastructure in those areas in Israel that are densely populated by Palestinians, such as the North, the Triangle and the Naqab/Negev. It is well documented how an uneven allocation of state resources between Israel's Jewish and Palestinian sectors has resulted in inadequate levels of health and transport services for Palestinian Israelis (Rouhana and Sabbagh-Khoury, 2011; White, 2011, Khatib, 2012; Pappé, 2013).

Building further on Shellee Colen's concept of stratified reproduction, Michelle Murphy (2011) introduced the term 'distributed reproduction' as a way to upscale the analysis of reproduction beyond the strict micrological space of the female body to more extensive macrological infrastructures. She argued that state, military, agricultural and economic infrastructures are often unevenly distributed in time and space and accordingly rearrange, foreclose or harm one's reproductive capacities. The distributed character of Israel's ART architecture becomes quite visible when mapping out the country's existing fertility clinics. Of the 25 IVF units in Israel, none are located in one of its Arab hospitals. Nazareth for example, the biggest Palestinian city inside Israel, has no IVF unit. The majority of the Israeli IVF units are based in areas that are predominantly Jewish [74]. This, in combination with a systematic lack of adequate public transport services to/from Palestinian Israeli localities, has affected the access of Palestinian Israeli women to ART services. Having conducted ethnographic research on the experiences of Palestinian Israeli women undergoing fertility treatment, Himmat Zu'abi (interview Haifa, 23/07/2012) stated:

> "*Just imagine a Palestinian woman who has never left the village, who does not know Hebrew and who has to go to the hospital. There is no transportation, she doesn't know the language and she has to manage in the hospital with the doctors in a very hostile environment. But having both Zionist and patriarchal forces working against her, she has no other choice if she wants to be considered a full woman in our society. She knows these technologies are existing, so she will do everything to access them*".

However, in her research on attitudes among Jewish and Arab Israeli women towards assisted reproductive technologies, Larissa Remennick (2010) pointed out that Palestinian Israeli women perceived no discrimination between themselves and Jewish women concerning free access to

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[73] The second chapter is dedicated to a close reading and analysis of the law and practice of egg donations in Israel/Palestine. The third chapter will scrutinise Israel's transnational surrogacy industry.

[74] Out of 25 IVF units, 12 are located in Central Israel, four in (West-) Jerusalem, seven in Northern Israel and two in Southern Israel (personal communication, Liat Lerner Geva, Gertner Institute for Epidemiology and Health Policy Research).

ART's. She quoted Tarika (quoted in Remennick 2010: 328), a Palestinian Israeli teacher from Jaffa:

> "*I am glad that at least in this respect there is no sheer discrimination of Arab citizens. The Jewish doctors may not like facilitating higher Arab birth rates, but they are polite enough not to show it*".

When asked by the researcher why she believed that Jewish doctors did not like serving Arab women in IVF clinic, Tarika (quoted in Remennick 2010: 328) replied:

> "*I just know it by their attitude, some comments between doctors and nurses you can overhear, all very subtle, but quite tangible for me*".

Some of the Jewish Israeli participants, however, stated their objections about equal access to costly IVF treatments for Palestinian Israeli women. One woman (quoted in Remennick 2010:330) stated:

> "*I know it is very politically incorrect to say, but I think there should be limits in our generosity towards Arab citizens. They do not serve in the army, they pay less taxes, only a minority of their women work - why should they get the same costly services for free? Do we want to pay thousands of dollars for yet another Arab baby who will grow to hate us and maybe will turn his weapon against my son*?"

However, according to Mira Hibner Harel, the Legal Advisor of the Ministry of Health (MOH), 'Arab Israeli' women are equally represented in the use of assisted reproductive services in Israel. Unfortunately, there are hardly any official numbers to support this claim. Despite the enormous amounts of governmental funds that are poured into ART, there is a surprising lack of official data concerning assisted reproduction in Israel[75]. Mira Hibner Harel (interview West-Jerusalem, 20/02/2012) stated:

> "*We are not yet collecting data on who is having fertility treatment, how many times, how much the health providers are paying for it. The different IVF units know this, but we don't*

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[75] According to Liat Lerner Geva, Director of the Women and Children's Health Research Unit of the Gertner Institute for Epidemiology and Health Policy Research (interview 06/08/2013, Tel Aviv), there are no official figures on the annual expenditure for assisted reproduction. "*We don't really know. We only know from very aggregative reporting from the IVF units that there were approximately 35.000 IVF cycles in 2010. The cost of each cycle is something like NIS 15.000, so you can do the maths*". Based on this estimation, the budget for IVF adds up to approximately US$ 130 million. This means that in 2010, IVF accounted for 1.7 per cent of the annual medical services basket cost (Adva, 2012). This does not take into consideration all the other assisted reproductive services. For 2005, Birenbaum-Carmeli and Carmeli (2010:20) estimated that it accounted for 1.8 per cent.

> *want to collect and centralise this information, because everybody can do IVF and we don't care*"[76].

In this respect Israel's 25 public IVF clinics enjoy a substantial degree of self-government. The Ministry of Health hardly offers any professional guidelines concerning the screening of IVF candidates, potentially leaving space for individual fertility doctors to arbitrarily refuse IVF candidates on grounds of race or ethnicity. However, after conducting a survey with Israeli fertility doctors on their attitudes regarding access to fertility care, Daniel Sperling and Yael Simon (2010) concluded that only a minority of the doctors requested information from the IVF candidates concerning their nationality, religion or military service[77]. Moreover, many of the Jewish and Palestinian Israeli fertility doctors who I have interviewed confirmed that Palestinian Israeli couples have little trouble in finding their way to fertility clinics. They repeatedly stated that (reproductive) health is one of the few sectors in Israel where the ethnic discrimination between Jewish and Palestinian Israelis is limited.

After contacting a Palestinian Israeli fertility doctor from the North, with a request to interview her in the framework of my PhD on the politics of assisted reproduction in Palestine/Israel, I received the following e-mail on July 28th, 2013.

Dear,

I think u chose a weak argument. IVF treatment is given in Israel to all with no discrimination and all have access to all facilities. I have no idea about statistics and I am not qualified to give answers to who uses what and the information me or any doctor will give u will be a pure hearsay that will not qualify as a doctorate paper.

Sorry that I will not be able to help more. And wish u luck.

Disappointed and frustrated about the fact that this doctor had not only dismissed my request for an interview, but as well my entire research before I even had the chance to explain what it was about, I replied the following on 07/08/2013.

Dear Doctor,

Thanks for your kind reply and feedback. Pity that you are not able to meet me, and impressive that you already have your conclusions about my argument, even before I had the chance to explain it.

Best wishes, Sigrid

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[76] In 2013 the Gertner Institute for Epidemiology and Health Policy Research established the National Registry for Assisted Reproductive Services in which all the data from Israel's 25 IVF units is centralised. According to initiator Liat Lerner Geva (interview Tel Aviv, 06/08/2013): "*The purpose of the National Registry will be to improve the quality of the IVF treatment for women by identifying the treatment per woman and per cycle. We will be able to explore what the right treatments are for different kinds of infertility, different kinds of women, adjusted per age and the number of previous treatments. And of course to have a long term follow-up about the side effects of these treatments both to the women and the children".* The reason why it took so long to establish the National Registry is because IVF units were reluctant to transfer data on success rates to the Ministry of Health, out of fear for financial cutbacks.

[77] Of the 46 physicians who participated in the survey, four asked information on nationality (8.7 per cent), three on religion (6.5 per cent) and two on military service (4.3 per cent) (Sperling & Simon 2010: 4).

Israeli anthropologist Sigal Gooldin (2013) challenged the idea of Israel's reproductive health policy as a site of national exclusion. In her analysis of the parliamentary discussions on the extent of public funding for fertility treatments following a proposal by the Ministry of Finance to curtail the subsidies, Gooldin (2013:97) noted how Members of Knesset, from all sides of the political spectrum, justified the large expenses of state-funded fertility treatments in terms of "*the shared emotional distress and existential vulnerability of all childless Israelis, Jews and Arabs alike*". She viewed this blurring of the sectorial dichotomies between Arabs and Jews as one of the "non-intuitive", "unexpected", but very welcomed consequences of IVF as a technology-in-action. She quoted leading Israeli fertility expert Shlomo Mashiach:

> "(...) *That's what's special about the family in Israel, for both Jewish and Arab families. It's not a question of demographics. Israel is different from the rest of the world. In Israel, the most important thing about family is the children. In Israel, the family is special. Who among us can say that he would forgo a child? No one. Maybe a tiny proportion of the population, and they're disturbed. Both Jewish and Arab families must have children, and they'll do anything for it*

Gooldin concluded that even though generous IVF funding may have originated as a nationalist practice of exclusion, it has been appropriated by both sectors as a way to alleviate the shared burden of infertility through the universal language of "*emotional rights" and "human rights"*. Birenbaum-Carmeli and Inhorn (2008:45) adhered to this idea of ART as a "*conciliatory domain in the convoluted Israeli reality*". In their study of Palestinian men's struggle with infertility they suggested that subsidized access to ICSI in Israel has allowed infertile Palestinian men "*to father the children of their dreams*". I agree with both Gooldin (2013) and Birenbaum-Carmeli and Inhorn (2008) that Israel's unbridled promotion of ART has brought forth as many intended as unintended consequences. It is questionable, though, whether Palestinians' inadvertent use of reproductive technologies can be viewed as a proof of appeasement and reconciliation. I argue that Palestinians' appropriation of ART is not a matter of settler generosity or native serendipity, but of struggle. In what follows I will present a case study on Palestinian political prisoners who are increasingly smuggling their sperm out of Israeli jails in an attempt to impregnate their wives through assisted reproductive technologies, such as IVF and donor insemination.

THE MEANING OF LIFE OF PALESTINIAN PRISONERS: "EVERY SPERM IS SACRED"

> *On the 31ˢᵗ of July 2013 Lydia El-Rimawi gave birth to a healthy baby boy named Majd Abdul Kareem Rimawi at the Razan Medical Center in Nablus, a city in the Northwest of Palestine. When entering Lydia's hospital room, which was abundantly filled with flowers, family and journalists, her oldest daughter Rand offered me a small gift destined for the baby visitors; a mini-sized nursing bottle with a chocolate bonbon inside, tagged with the note: "I came from the prison, despite the wardens and the bars. Mention God when you see me. Mention God when you pick me up in your arms. Oh sweet people, Majd has arrived. So congratulate mommy and daddy, for what has happened." It was easy to congratulate the mother, who was sitting on the hospital bed, beaming with pride. Majd's father, however, was only present through his absence. The only glimpse of his presence was assured through a giant portrait hanging above the childbed.*
>
> *(fieldwork notes, Nablus, 02/08/2013)*

Twelve years ago Abdul Kareem El-Rimawi was sentenced to 25 years in prison for firing at Israeli soldiers. Being denied conjugal visits, the only contact he and his wife have had during the last twelve years was through a glass window. Although the Holy Land is famous for its miraculous conceptions, Majd's case was particularly astounding. He was conceived through IVF treatment after his father successfully smuggled his sperm out of the Israeli prison where he is being detained. The Rimawis were not the first ones to undertake this spectacular reproductive endeavour.

Babies from behind the Bars

In 2006, Yigal Amir was caught smuggling his sperm out of jail before officially being granted the right by the Israeli Supreme Court to conjugal visits with his wife Larissa Trembovler, which resulted in the birth of their son in 2007. Yigal Amir became the most despised Jew in Israel after assassinating Prime Minister Rabin during a peace rally in Tel Aviv in 1995. He is serving a life sentence in Ramon Prison in southern Israel, where he has been kept in solitary confinement and under round-the-clock camera surveillance (Steinfeld, 2011).

In 2007, Yigal Amir and his wife Larissa Trembovler, whom he married while incarcerated, gave birth to a son. The marriage and the birth of their child both induced intense public debates in Israeli society (Steinfeld, 2011). Israelis generally believed that, as a convicted murderer, Amir had lost the moral right to start a family (Smajdor, 2009). However, shortly after their controversial marriage in 2004, the Amirs started filing requests with the Israeli Prison Service and with several courts and eventually succeeded in gaining conjugal visits. In her research on fertility politics in Israel, Rebecca Steinfeld (2011) pointed out the remarkable contrast between

permitting Amir to have conjugal visits while denying his request to be moved out of solitary confinement. Steinfeld argued that this seeming paradox of procreation despite isolation could only make sense in the context of Israel's exceptionally pronatalist reproductive policies.

Yet, prison reality looks radically different for the approximately 5.000 Palestinian political prisoners who are currently incarcerated in Israeli jails, serving sentences for offenses ranging from stone throwing to killing Israeli soldiers (Addameer 2013)[78]. The Israeli Prison Service (IPS) classifies them as security prisoners, which a priori excludes them from certain fundamental rights. Family visits, for instance, are only allowed for first-degree family members and are restricted to 45 minutes. No physical contact is allowed between husbands and wives. Prisoners are separated from their visitors by a glass partition and only children up to the age of eight are allowed to touch their fathers for a few brief minutes (Baker, 2011). Conjugal visits are strictly forbidden. Janan Abdo (interview Haifa, 19/05/2014), the wife of the imprisoned political activist Ameer Makhoul, remarked:

> "*Unlike the Jewish prisoners, a Palestinian prisoner cannot touch, smell or feel his family. Try to imagine that*".

Moreover, family visits are randomly cancelled by the IPS as a way to punish the prisoners for organising so called political activities inside the prisons. Dallal Ziben, whose husband Ammar is serving 32 life sentences and has been in prison for the last fifteen years, has only visited her husband a handful of times.

> "*I visited him once in 1997, once in 2006 and another time in 2006. They consider me to be a threat to the national security so I cannot visit him often*" (interview Meithalun, 17/09/2014).

Lydia el Rimawi (interview Beit Rima, 30/08/2014) recalled how she was restricted from visiting her husband for a period of eight years.

> "*The first five years I could only see him in court once his trial had started. The next five years, part of the punishment was that his father and I couldn't visit him. During the last Gaza war, Hamas prisoners were not allowed to receive visits in the Naqab, so we showed solidarity by cancelling our visits as well*".

Obviously, these restrictions have far-reaching consequences for the parental wishes of Palestinian prisoners and their partners. In the early 2000's Palestinian prisoners formulated a proposal in which they demanded the right to conjugal visits. The demand was quickly withheld,

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[78] The decision of the Israeli Prison Service to classify a prisoner as either a criminal or a security prisoner is highly political. Although there are a few Jewish Israeli security prisoners, the majority of them are Palestinians. Moreover, only Palestinian security prisoners suffer the harsh ramifications of being categorised as a security prisoner. According to Abeer Baker (2011:104) it is "*the result of an Israeli worldview which perceives Palestinians as one thing only – a security* threat".

however, when the practical realisations of such an intimate act were taken into consideration. Lydia El-Rimawi (interview Beit Rima, 30/08/2014) clarified:

"*There is no trust in the Israeli authorities, maybe they would put cameras in the rooms...it's oppressive and humiliating*".

The importance of reproductive rights for political prisoners re-emerged with the case of Walid Dakka, a Palestinian Israeli prisoner who has been sentenced to life and incarcerated since the age of 25. Since 2008 Walid and his wife Sanaa Dakka have been demanding conjugal rights to the Israeli Prison Service, which could provide them the opportunity to have children. He wrote a desperate letter from prison to his unborn child "Milad", Arabic for birth[79].

"*I write to a child who is yet to be born*
I write to the idea and dream that frightens the prison warden without aim or reason, before it is even realised. (...)
My beloved son, do you think it's foolish to write to someone who is yet to be born?
What is more crazy: is it a nuclear state that considers an unborn baby as a security threat, embodied as such in the reports of security services and in the closing speech of the public prosecutor?
Or is it me for dreaming to have a baby?
What is more crazy: writing a letter for a dream or turning a dream into a classified file?
My beloved son, do you know that you already have a file in the archives of the Shabak?
What do you think? Should I stop dreaming?
No! I will never stop dreaming despite the bitter reality.
I will continue to look for the meaning of life despite the lifetime that I have lost".

In July 2008 Adalah, the Legal Centre for Arab Minority Rights in Israel, filed a petition to the Nazareth District Court on behalf of Walid Dakka's request for conjugal rights. The petition contained clear references to the ethnic discrimination between Palestinian and Jewish prisoners with respect to conjugal visits. The petition argued:

"*Israeli Jewish prisoners classified as security prisoners are permitted to exercise numerous rights, including conjugal visits, despite their security classification in prison. This is true, for example, in regard to the prisoner Yigal Amir, who was convicted of murdering Prime Minister Yitzhak Rabin for ideological reasons and has since fathered a son. Similarly, the Jewish Israeli prisoner Ami Popper, who was convicted in 1990 of murdering seven Palestinian labourers and wounding 11 others, got married in prison in 1993, fathered his first child who was born in 1995. Since then, he has fathered another two children*"[80].

The desperate claims of Dakka were in vain. The Court decided that conjugal visits of Walid and Sanaa Dakka would pose a security threat. The judge did offer the couple the possibility to use IVF treatment as an alternative means of reproduction, but the Dakkas refused, seeing no medical need for the use of IVF, only a lack of political will (interview Abeer Baker, Haifa, 23/05/2014).

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[79] Walid Dakka, Letter to a child who is yet to be born, 2011, http://www.ism-france.org/temoignages/Pour-l-enfant-a-venir-article-15611 , translated to English by the author with the kind help of Bilal Dirbas.
[80] Prisoners' Petition 609/08, Walid Dakka v. the Israel Prison Service Nazareth District Court.

Reproductive Sabotage: The Case of the Sperm-Smuggling Prisoners

Prisons have always been an intensified microcosm of biopolitics in which the body, and especially the reproductive body of the prisoner, constitutes an important site of disciplinary control in the production of a submissive subject. Contrary to that, bodies can also emerge as an important locus of resistance for prisoners. Sewing lips together, performing hunger strikes and refusing showers are popular and well-documented forms of embodied resistance undertaken by prisoners against the prison authorities. In her research on gendered forms of repression in Northern Ireland, Begoña Aretxaga (1995, 1997) argued that Irish political prisoners often had nothing but their bodies at their disposal to resist the repression of the British regime. In her book *Shattering Silence* *(*1997) she discussed how Irish women prisoners reversed cultural notions of the clean and elegant female body in their "dirty protest" against the British government that attempted to classify them as mere criminal prisoners[81].

In similar fashion, Palestinian political prisoners are increasingly using their reproductive bodies to thwart settler colonial policies by smuggling their sperm out of Israeli prisons in an attempt to 'artificially' reproduce. Fouad al-Khafsh of the Ahrar Centre of Prisoners' Studies claimed that the rapidly growing phenomenon of sperm smuggling constitutes a serious challenge to Israel's penal regime (quoted in Al Jazeera, 20/01/2014). Salem Abu al-Khaizaran, the leading doctor and spokesperson of the prisoner's project in the Razan Medical Centre, estimated during an interview conducted in August 2013 that more than 65 Palestinian prisoners had succeeded so far in sneaking their semen out of prison and into the Razan Medical Center for Infertility in Ramallah and Nablus where it is stored in freezers awaiting fertility procedures. According to "Doctor Salem" – as his patients call him – this had resulted in 18 pregnancies and six live births, with more deliveries expected in the near future (interview Nablus, 03/08/13). Since our interview in August 2013, the sperm smuggling strategy has swimmingly gathered steam, not only in the West Bank but also in Gaza (See Figure 5). In late 2013 the media reported on the births of two IVF babies from Gazan political prisoners, Tamer al-Zaanin and Fahmi Abu Salah (Sherwood, 13/10/2013)[82].

The high cost of IVF in the West Bank –between US$ 2.500 and US$ 3.000 per IVF cycle- prompted the Razan Medical Centre to provide IVF treatments free of cost to the wives of long term prisoners

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[81] After being refused certain fundamental rights, the women prisoners stopped leaving their cells for showers and toilet use and began smearing their excrements on the walls of their cells, in what was called the "dirty protest" (Aretxaga, 1997).

[82] Sherwood, Harriet. 2013 "Gaza's first 'prison baby' on way after jailed Palestinian smuggles out sperm". *The Guardian*, 13/10/2013. http://www.theguardian.com/world/2013/oct/13/gaza-first-prison-baby-palestinian-smuggles-sperm , last entry 25/07/2014.

as part of their community services[83]. Dr Abu al-Khaizaran claimed that it would be "*unreasonable and unethical to charge these poor women whose husbands have been in prison for 15 years or more*" (interview 03/08/13 Nablus). Despite the fact that Islamic law allows the wives of prisoners who have been incarcerated for more than three years to divorce, none of the spouses actually do this. They feel it as an obvious duty to support and stand by their husbands who are considered heroes in Palestinian society. This intimate act of steadfastness implies that by the time their husbands are released from prison, the wives are often too old to conceive in a natural way. Abu al-Khaizaran continued (interview Nablus, 03/08/13):

> "*Because having children is important in our society, the family of the released prisoner will start pushing him to get married to another woman, and often they do*".

According to Abu al-Khaizaran (Id.) the wives of the prisoners are paying a double price:

> "*First, she wastes her life waiting for her husband and by the time he gets out, she might have to live with another woman because she's too old to give him children. This is really unfair*".

Hana al-Za'anin, the wife of Gazan prisoner Tamer al-Za'anin, stressed the importance of the initiative in a society that is still highly patriarchal:

> "*I need to be a mother. Every woman needs to be married and have children. In our society, this is the role of women*" (Sherwood, 13/10/2013).

Dallal Ziben, prisoners's wife and mother of two IVF boys (interview Meithalun, 17/09/2014), concurred:

> "*People would do anything to have a family and a home, it's culturally very important in our society*".

Dallal was the first prisoner's wife to give birth through the smuggled sperm of her husband. Their first son, Mohannad, was born through a PGD procedure, which allowed them to select the desired gender of the embryo. After already having two daughters, it was important for the Zibens to have a son. Dallal (interview Meithalun, 17/09/2014) explained:

> "*For my husband Ammar, having a boy is a way of prolonging his line, since his mother, father and brother have died, and a second brother is living overseas*".

Doctor Salem emphasised the humanitarian importance of the prisoners' initiative.

> "*It's a fundamental human right of everyone, including Palestinian prisoners, to start a family. I look at it from a humanitarian and not a political perspective. Neither the Palestinian Authority nor the Palestinian Prisoners' Organization are involved in this project*" (interview 03/08/13 Nablus).

Yet, the matter became highly politicised when both the family of the political prisoners and the Israeli authorities made repeated references to the political tension surrounding this issue in the

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[83] In The West Bank and Gaza, fertility treatment is not publicly funded by the government and is only available in private clinics.

national and international media. Lydia El-Rimawi proudly stated (interview Beit Rima, 30/08/2014):

> "*The birth of our son Majd is a defeat for the Israelis, and a personal and a political victory for us. Despite all restrictions we managed to find a way*".

Her father-in-law, Abu Abdelkareem, added (interview Beit Rima, 30/08/2014):

> "*When Majd hears national Palestinian music, he always starts dancing*".

Dallal Ziben (quoted in Ma'an News, 31/07/2013) remarked:

> "*This accomplishment is dedicated to the Palestinian people, namely prisoners and their families*".

Motherhood is indeed a highly politicised act in Palestine/Israel. In their study of Jewish mothers in illegal West Bank settlements, Tamar El-Or and Gideon Aran (1995) emphasised how women express their agency as mothers. Similarly, the wives and family of the prisoners made strategic use of the abundant media attention to not only promote the sperm-smuggling strategy to other prisoners, but also to inform the local communities who could otherwise suspect and accuse the wives of adultery. As Doctor Salem (interview Nablus, 03/08/2013) said:

> "*You don't want to see a pregnant woman when you know her husband is serving a long prison sentence*".

This also explains why the Razan Medical Centre sought the approval and support of the political and religious authorities before continuing with the prisoners' initiative. In April 2013 the Palestinian Supreme Fatwa Council issued an official fatwa allowing artificial insemination for the wives of Palestinian prisoners in Israeli jails if certain conditions were met[84] .

Suspicious about the impact of this story on the reputation of Israel's security apparatus and fearful about every event in which Palestinian reproduction is being lauded, the Israeli prison authorities publicly questioned the ability of the prisoners and the Razan Medical Centre to accomplish such a daunting reproductive mission. Sivan Weizman, spokesperson of the Israeli Prison Service, doubted if the sperm could be smuggled out of prison considering the rigid security conditions and the lack of tools at the disposal of the prisoners. Yet, the how-question remains unanswered since neither the Razan Medical Centre nor the wives and family of prisoners are

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[84] To make the procedure religiously acceptable the couple must be married, and the pregnancy must be agreed by both partners and preferably their families. Several of the couple's close relatives must witness the insemination, and the process must be made public. The council also ruled that artificial insemination must be the only possible option for pregnancy.
http://www.maannews.net/eng/ViewDetails.aspx?ID=589018 (last entry 07/07/2015).

willing to reveal how the sperm gets smuggled out, in order to ensure the continuation of this reproductive practice[85].

Apart from the logistical considerations, the Israeli Prison Service also questioned the biological viability of the endeavor. Sivan Weizman (interview 28/07/13) claimed:

> "*Sperm expires after a few minutes or hours when it's not kept frozen. The prisoners are taken out of their cells many hours before the visit and it takes the family many hours to reach the fertility clinic, so we don't see how they could do it*"

Abdulkareem al-Hindawi, fertility doctor at the IVF clinic in Gaza City admitted (quoted in Sherwood, 13/10/2013):

> "*It takes the sperm up to six hours to reach the clinic, which is an unusual long time for sperm to be outside of the body. So we have given the family the advice that the best way to pack it is wrapped in plastic or in a small vial and carried between the breasts, where it's warm and dark*".

What followed was a public media quarrel between embryologists, biologists and government officials alike about the life expectancy of semen. Palestinians claimed that '*the ambassadors of freedom*', as the prisoner's sperm is being called in Palestinian parlance, could survive for 24 up to 48 hours depending on its quality, while Israeli officials were arguing the contrary. In an ultimate display of colonial biopolitics the Israeli Prison Service challenged the Palestinian prisoners to conduct paternity tests in order to genetically prove the father-child kinship. As such, when Lydia El-Rimawi appeared at Nafha prison for the first time after the birth of Majd to present their son to her husband, she was refused entrance. Even though Majd is the spitting image of his father, the IPS would not acknowledge Abdelkareem as the father of Majd without a DNA test. Lydia (interview Beit Rima, 30/08/2014) clarified:

> "*We asked the DNA test to be done by our doctors, but they refused. They demanded to conduct the test in an Israeli clinic by a doctor appointed by them, so we refused. We don't trust their doctors*".

To this very day Abdelkareem still has not set eyes on his son, unless through media reports on television. Apart from cancelling his family visits, he was also punished with a NIS 5.000 fine for smuggling sperm out of prison and initially lying about it.

Being refused the right to conjugal visits, smuggling out semen and using fertility treatments served as the last resort for Palestinian prisoners who wish to start a family or enlarge it. In an official statement Samer Samaro, the Palestinian Ministry for Prisoners' spokesperson (quoted in:

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[85] It is speculated that the sperm-smuggling is done with the help of small children who are allowed to hug their fathers shortly during the visits, or older mothers who are occasionally allowed inside for a picture with their son, the prison cafeteria where prisoners are required to buy gifts for their relatives, and prison guards turning a blind eye.

Rubin, 13/11/2013), summarised the crux of the matter on who has the right to give birth and the right to be born in Palestine/Israel:

> ''*Having the child is a prisoner's right. Even Rabin's murderer had a baby while he was in prison, so why should Palestinians be deprived of that right*? ''[86]

First of all, the quote emphasises the stratified character of Israel's reproductive policies as they are still engrained in a Zionist demographic logic aimed to promote Jewish fertility and defend Jewish society against Palestinians' procreative potential. Secondly, it exemplifies how Palestinians are, as Rhoda Kanaaneh (2002) already suggested, increasingly mimicking the Zionist reproductive/demographic power configurations they are resisting. Kanaaneh (2002) and Jacqueline Portuguese (1998) have noted how the Palestinian resistance movement has, in similar fashion as their Zionist counterpart, deployed the ideology of motherhood as a political tool. Portuguese referred to Yasser Arafat's famous speech from the seventies when he compared the Palestinian woman to *"a biological bomb threatening to blow up Israel from within*" (quoted in Portugese, 1998:165). The discourse of reproduction as a form of resistance gathered steam during the Intifadas when childbearing became Palestinian women's national duty as a way to replenish those who were martyred as a result of colonial violence (see Figure 8).

I would not go so far as terming the Palestinian use of ART services an "everyday form of resistance" (Bayat, 1997). Neither do I agree with Lock and Kaufert's (1998) suggestion that women's relationship with reproductive technologies is merely guided by pragmatism rather than resistance or subjugation to hegemonic power configurations. As Tsipi Ivry (2010) argued, it is important to situate agency in the multiple arenas of power in which reproductive relations are entrenched. Therefore, drawing on the work of Shalhoub-Kevorkian (2012, 2015:157) on Palestinian childbirth in Jerusalem, I opt to frame Palestinian women's use of reproductive technologies as a political act of reproductive defiance. After all, Zionism's demographic rationale has not only disciplined the collective body in Israel/Palestine by creating particular reproductive subjectivities, but the settler colonial reproductive-demographic logic has in turn been challenged and transformed by the same subjectivities it has enabled (Aretxaga, 1997). Thus, one of the unintended consequences of Israel's pronatalist ART policies is that Palestinians on both sides of the Green Line are increasingly using and appropriating these 'technologies-in-action' to thwart Zionist demographic policies[87].

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[86] Rubin, Shira. 2013. "Why Palestinian Prisoners Are Smuggling Sperm Out of Jail". *The Atlantic* 23/11/2013 http://www.theatlantic.com/international/archive/2013/11/why-palestinian-prisoners-are-smuggling-sperm-out-of-jail/281424/ last entry, 17/04/2014.
[87] Similarly, Patrick Wolfe (2016) described how Brazilian runaway slaves escaped on railways that were built to transport the coffee they were destined to cultivate under colonial rule, and Plain Indians used the same horses that enabled the Spanish colonisation of the Americas to hold off European domination until the late 19th century.

When asked during our interview if she wanted to have more children like this, Lydia el-Rimawi replied "*inshallah*" while encouraging other prisoner couples to deploy the same reproductive tactics. In this sense, ART does not only serve as a last resort for Palestinian women to abide with the cultural traditions and societal imperative of motherhood in what is still a patriarchal Palestinian society. It again permeates the political arena as a vexed site through which Palestinians are negotiating and claiming their reproductive rights in an act of embodied sabotage.

This section clearly delineated how Israel's policies of (assisted) reproduction are stratified in a manner that privileges its settler population while disenfranchising Palestinians on both sides of the Green Line. While this reproductive arithmetic is intrinsic to Zionism's settler project in Palestine/Israel, it becomes extremely outspoken in times of intensified military violence. The following section is part of a short article I wrote for Jadaliyya (but which was never published) on militarised repro-scapes during my fieldwork stay in Palestine/Israel in the summer of 2014, when Israel launched another military attack on the Gaza Strip under the name Operation Protective Edge.

FROM GAZA STRIPPING TO THE BIOLOGICAL WILL: MILITARISED REPRO-SCAPES DURING OPERATION PROTECTIVE EDGE [88]

> *"In times of war, don't forget to have sex", "Going down to the bomb shelter at night? Not a good reason to look bad". These are just a few of the headlines of articles I have encountered in mainstream Israeli newspapers and on social media websites these days. As my friend Nadeem aptly phrased it: it seems that Israeli society is getting quite excited and aroused in these "hard" times of war. In a recently created Facebook group called "Standing with the IDF" Israeli women are posting pictures of themselves while stripping for Gaza in support of Israeli soldiers involved in Operation Protective Edge. In the initial description of the Facebook group, the creators wrote: "Dear soldiers, we are here to show that we appreciate you and that you do not need to wait for the afterlife to get 72 virgins, but the beautiful Israeli women are waiting for you here, just come back to us, our heroes. Think of these pictures at any difficult time and remember what you are fighting for and what is waiting for you when you come home."*
>
> *(fieldwork notes, 25th of July 2014, day 18 of Operation Protective Edge)*

Military confrontations tend to magnify settler colonial binaries between the settler's biopolitical right to live and the native's necropolitical obligation to die. In 2008, after the military attack on the Gaza Strip, Israeli soldiers designed t-shirts portraying a pregnant Palestinian woman in the

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[88] Repro-scape is a term introduced by Marcia Inhorn (2010) to describe the ways reproductive substances, bodies, technologies and workers travel across borders and boundaries.

crosshairs of a gun, accompanied by the slogan: "*One shot, two kills*" (Waghorn, 2009, See Figure 6). Again in 2014, during Operation Protective Edge, Gazan women were frequently portrayed as hyper-fertile and sexualised breeders that deserved to be annihilated because of their mere ability to bring forth the next generation of Palestinians (See Figure 7). On the 1st of July 2014, while IDF troops were raiding the West Bank in search of the three settler youths that were kidnapped in Hebron Ayelet Shaked, then Member of Knesset and now Israeli Minister of Justice, (quoted in McGowan, 02/08/2014) posted the following quote on her Facebook page:

> *"Behind every terrorist stand dozens of men and women, without whom he could not engage in terrorism. They are all enemy combatants, and their blood shall be on all their heads. Now this also includes the mothers of the martyrs, who send them to hell with flowers and kisses. They should follow their sons, nothing would be more just. They should go, as should the physical homes in which they raised the snakes. Otherwise, more little snakes will be raised there".[89]*

Shaked's quote has been viewed by the international community as a call for genocide. Shaked's call turned out to be a prophetic one, given the fact that a sizeable number of the almost 2.200 Palestinian casualties of Operation Protective Edge were women and children. The United Nations reported that in total 495 children and 253 women were slaughtered during the 2014 war on Gaza. Meanwhile, videos of Israeli demonstrators cheering for "*Gaza's empty schools*" appeared on social media. During a support demonstration for Operation Protective Edge on the 26th of July in Tel Aviv, Israeli youths were chanting:

> "*Tomorrow there's no school in Gaza. They don't have any children left. In Gaza there's no studying. No children are left there*" (Abunimah, 28/07/2014) [90].

Yet, in an official statement issued on the 29th day of the military operation, Gaza's Deputy Health Minister Yusuf Abu Al-Rish (quoted in Middle East Monitor, 08/08/2014), emphasised the reproductive resilience of the Gazan population:

> "*Since the start of the Israeli war, 4.500 births were recorded in the Gaza Strip, [while] 432 children have been martyred as a result of the ongoing Israeli bombardment of civilians and their homes*". [91]

Abeer Saqqa (quoted in Omer, 14/08/2014), one of the thousands of Gazan mothers who delivered during Operation Protective Edge, stated in an interview:

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[89] McGowan, William. "The member of Knesset who called for genocide — against the mothers of the 'snakes'". *Mondo Weiss,* 02/08/2014. http://mondoweiss.net/2014/08/knesset-genocide-against/#sthash.dbhpO8wO.dpuf (last entry, 01/09/2014).

[90] Abunimah, Ali. "Gaza is a graveyard," sing joyful Israeli youths". *Electronic Intifada*. 28/07/2014. https://electronicintifada.net/blogs/ali-abunimah/gaza-graveyard-sing-joyful-israeli-youths (last entry, 01/09/2014).

[91] S.N. "4,500 Palestinian newborns in Gaza during the Israeli aggression" *Middle East Monitor*, 08/08/2014. https://www.middleeastmonitor.com/20140808-4500-palestinian-newborns-in-gaza-during-the-israeli-aggression/ (last entry 01/09/2014).

> "*Giving birth is part of my will to resist; if they kill one [child] we will give birth to ten more*".[92]

While the hegemonic discourse in Israel was urging the IDF soldiers to collectively eliminate the Palestinian population in Gaza, it was encouraging its Jewish population to be as fertile as possible. On the fourth day of the Gaza war, the popular Israeli family rights organisation *New Family* dedicated its monthly newsletter to the promotion of a Biological Will for soldiers leaving for Gaza.

The Biological Will is a legal invention of the *New Family Organization* that legalises the posthumous retrieval of a man's sperm or a woman's egg cells for the purpose of creating a genetic offspring. In Israel, posthumous retrieval of gametes is allowed on request of the surviving partner, and even in absence of explicit consent of the deceased prior to death (Landau, 2004). This particularly lenient stance on posthumous reproduction has been viewed by Ravitsky (2004:7) as "*consistent with Israel's generally supportive approach to reproductive technology".* In the words of *New Family's* founder, Irit Rosenblum:

> "*The Biological Will synthesises the desire for a biological legacy with the opportunity provided by reproductive technologies into a genetic and demographic insurance policy*".[93]

Currently *New Family* is managing up to 800 Biological Wills of individuals who expressed a strong wish for biological continuity after death. Although the Biological Will is not exclusively intended for soldiers, it is particularly popular among them. At the time of the Israeli invasion of Lebanon in 2006, more than 100 IDF soldiers had made up a biological will before going into combat against Hezbollah. In their newsletter distributed during Operation Protective Edge in 2014, *New Family* spurred soldiers to take into consideration the differential in population growth between Palestinians and Israelis before going to war. In this sense, the Biological Will can be viewed as a noteworthy symbol of Israel's militarised pronatalism. It reflects the intimate connection between war, demography and reproduction in Palestine/Israel while symbolising the Israeli urge to reproduce the nation through soldiers, as Meira Weiss (2002) has already described in her earlier work.

In November 2013, eleven years after his death, the orphaned child of IDF Sergeant Keivan Cohen was born. Cohen had died during a military operation in Gaza in 2002, leaving his parents behind with a wish to eternalise Keivan's existence though a grandchild. With the help of *New Family's* legal assistance the Cohens won the lengthy court case to designate a woman to conceive with their son's posthumously extracted sperm. Since 2002 New Family has also been lobbying to

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[92] Omer, Mohamed. "Voices from Gaza: Survivors speak out". *Al Jazeera* 07/08/2014. http://www.aljazeera.com/news/middleeast/2014/08/voices-from-gaza-survivors-speak-out-20148784631265320.html (last entry, 01/09/2014).
[93] http://www.newfamily.org.il/en/ (last entry 15/12/2014).

establish a sperm bank specially designated for the Israel Defence Forces soldiers, so far without success (Denes, 2013).

The notion of preserving the reproductive capacities of 'soldiers' was equally present in the case of the Palestinian sperm-smuggling prisoners. In a final remark during our interview, Lydia Al-Rimawi mentioned how she hoped her son Majd will grow up to be "*just like his father*" despite the latter being categorised as a dangerous criminal by the State of Israel. Umm Ali, who helped her son Refaat Maarif, a political prisoner serving a 15-year sentence, to impregnate his wife, stated in an interview (quoted in Browning, 07/03/2013):

> "*Prison will not keep our men from having a legacy and passing down their name. The world must realise that the issue of prisoners is the issue of Palestine. If it's not solved, nothing else will be*".[94]

During an interview, David Heyd (West-Jerusalem, 08/08/2013), bioethicist and former member of the National Bioethics Committee, mentioned:

> "*I'm always stunned at the Israeli army. From time to time, when one of the generals is promoted, they always give a short bio in the newspaper about him. All our top officers have between four and six children. What is remarkable is that they are all completely secular, they are not bound by any commandment to be fruitful and multiply. Still, there is a kind of ethos, it's quite surprising*".

The biological continuation of militants, be it in their capacity of Israeli soldiers or Palestinian resistance fighters, appears to be of vital importance in Palestine/Israel. During the 2003 Knesset discussions following announced cutbacks in the domain of ART, Sigal Gooldin (2013:94) noticed how some speakers feared that the state would lose "*potential combat soldiers*". One speaker stated:

> "*Now I understand why they're closing the tank factory, because there won't be any tank drivers[.] It doesn't matter to them anymore that there won't be any people to defend the country, that the demographics will be wrong*".

Another example on how ART practices got infused with notions of militarised violence during Operation Protective Edge occurred in the sperm banks. In July 2014, in the midst of the Gaza War, Haifa's Rambam Medical Center issued a press release reporting a rise in the number of women who requested sperm donors with a background as combat soldiers (Kelner, 10/08/2014)[95]. Shachar Kol, director of Rambam's IVF Unit, explained (interview Haifa, 02/09/2014):

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[94] Browning, Noah. "Palestinian street boils at plight of prisoners." *Insight* 07/03/2013, http://www.reuters.com/article/2013/03/07/us-palestinians-israel-prisoners-insight-idUSBRE92608920130307 (last entry, 01/09/2014).

[95] Kelner, Yaron. "Gaza fighting prompts spike in demand for soldier sperm donations" *Ynet* 10/08/2014, http://www.ynetnews.com/articles/0,7340,L-4557200,00.html (last entry 01/09/2014).

"*We always had this information to disclose, because we ask the donors what kind of military service they did. During the last war in Gaza (…) women came up and raised this question more often than we had before*".

He continued*:*

"*Whenever there is military tension in the area, and the media coverage in the country (…) [focuses, S.V.] on what's going on, and on the bomb alarms, and the rockets, everything is more off the usual way of life. So it's a natural thing that when she comes to the sperm clinic and asks about the donor, she is so bombarded with all what's going on, that she will ask about the donor's military career*".

In Israeli women's requests for soldiers' sperm one can read the enduring importance for the Zionist imaginary of what Max Nordau called the Muscle Jew. When asked about the motivations of the women, Dina Aminpour, head of Rambam's sperm bank, replied (quoted in Kelner, 08/10/2014):

"*These women build a profile of what they feel is the ideal donor and the father of their future child. A man who serves in the army in a combat role is usually assumed to have impressive constitution, which confirms the genetic aspirations of the women. They believe he will be fit, healthy, and have several other important attributes*".

In the introduction to his memoirs, former Prime Minister Menachem Begin (1979:xxv) wrote:

"(…) *out of blood and fire and tears a new specimen of human being was born, a specimen completely unknown to the world for over eighteen hundred years, the FIGHTING JEW*".

Joseph Massad (2005) has argued that the Zionist project of creating a New Jew in Palestine/Israel could only take place through the ontological elimination of the weak, passive and feminized Diaspora Jew. The virilising effects of military violence and combat continue to play an important role in the psychosocial process of creative destruction.

A final instance of Israel's militarised pronatalism are the multiple funds and additional child allowances dedicated to soldiers or families where at least one family member had served in the IDF, that were discussed earlier in this chapter. A remarkable twist to this well-established strategy of using army service as a prerequisite for receiving basic (reproductive) services as a way to exclude Palestinian Israelis was suggested by the well-known demographer Sergio DellaPergola. In his latest book on Jewish Demographic Policies (2011), DellaPergola noted how Israel's military service actually coincides with a moment in which young Israelis normally start their reproductive career. Accordingly, he proposed to make military service obligatory for Palestinian Israelis as a way to lower their birth rates and consequently, contain their seeming demographic excessiveness. As he clarified during an interview (West-Jerusalem, 09/07/2012):

"*Those who do not serve, can marry at the age of 19 and they can already have three babies at the age of 23*".

Transcending Reproductive Dichotomies: Contested Mizrahi Fertility

In her research on fertility politics, Clare Ducker (2006:43) aptly remarked that most of the scholarship on Israel's natality regime has focused on the reproductive binaries between Palestinians and Israelis, while failing to explore the tensions between Israel's different Jewish communities in relation to the Zionist demographic project. The work of scholars such as Meira Weiss (2002), Shoham Melamed (2004), Yali Hashash (2004) and Clare Ducker (2006) has suggested that Israel's reproductive policies cannot simply be understood as pronatalist towards Jews and antinatalist towards Palestinians. Rather, they should take into consideration the ambivalent reproductive position of other racialised population groups in Israeli society such as the *Mizrahim* or Arab Jews.

The Zionist establishment's position towards Mizrahi fertility has always been ambiguous. While large Mizrahim families were needed in the demographic battle against native Palestinians, they also threatened to outnumber the size of the Ashkenazi population, which would in turn jeopardise the desired European make up of the Jewish state. In 1952, after Ben-Gurion issued the birth prize for mothers of ten children or more, Dr Yosef Meir (quoted in Stoler-Liss, 2003:114), a renowned Israeli physicist and head of the Kupat Holim Clalit, Israel's General Sick Fund, commented:

> "*We have no interest in the tenth or even seventh child of the poor Mizrahi families. We must pray for the second child of the families of the intelligentsia.*"

When visiting a poor Mizrahi family of ten children in Jerusalem in 1971, Prime Minister Golda Meir (quoted in Aderet, 02/10/14) remarked at the Committee for Children and Youth in Distress:

> "*The man said to me: 'You see, we love giving many children to the State of Israel.' Had I the courage and the honesty I would have said: 'Leave that to others, you've done your part for the state, on behalf of the state I thank you, and now, for the sake of the state, focus on educating the children you already have.' They're at an age where they could have another ten children*".[96]

In Israel's reproductive policies the quality of the children was considered as pertinent as the quantity. It were mostly the modern, educated and highly skilled European Jewish couples that were stimulated to increase their family size, while the Mizrahi lower classes were urged to limit their excessive reproductive practices[97]. Melamed (2004) and Ducker (2006) described, for

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[96] Aderet, Ofer. "What Golda Meir really thought of big Mizrahi families*". Ha'aretz* 02/10/14, http://www.haaretz.com/mobile/.premium-1.618799?v=5E09D8A02036C28B6A9286767E71424B (last entry, 09/09/2015).
[97] One of the most striking figures in Israel's history of reproductive policies was Roberto Bachi, an Italian-born statistician who founded and directed Israel's Central Bureau of Statistics. In 1962 Bachi was

instance, how only in Ashkenazi neighborhoods Israel's Natality Committee, that was established in 1962 to encourage Jewish reproduction, sponsored the infrastructural conversions of balconies to rooms that could offer space for an extra child. Moreover, while large Ashkenazi families were also offered tax reductions, large Mizrahi families were pushed into stigmatising welfare and family planning arrangements (Ducker, 2006).

Many of the aforementioned authors have discussed the ambivalent stance of the Zionist establishment towards Mizrahi fertility as antithetical to the general conception of Israel being a pronatalist state that encourages Jewish fertility while simultaneously discouraging Palestinian reproduction (Hashash, 2004; Melamed, 2005). Rather than taking this ambiguity as a given, my analysis will conceptualise the contested Mizrahi fecundity as part and parcel of the Zionist settler colonial project in Palestine/Israel, which – I argue – is based on a double logic of capital accumulation and demographic elimination of the Arab Other.

In what follows I will explore a historical case study of contested Mizrahi fecundity, that will be analysed as a reproductive materialisation of racialised class formation in a settler colonial context. The case study revolves around the '*Stolen Yemenite Children Affair'*, referring to the suspicious disappearance of up to one thousand Yemenite Jewish children from their families between 1948 and 1960[98]. This controversial case affair will be discursively analysed through the paradigmatic case of the *Stolen Generations* in Australia, where in the early 20th century thousands of 'half caste' Aboriginal children were systematically removed from their families and communities.

The aims of this section are twofold. First, it sets out to explore how stratified reproductive practices of child removal constitute particular biopolitical technologies of demographic and class engineering that are prevalent in and possibly even endemic to settler colonial societies such as Palestine/Israel. Secondly, it shows that these necropolitical technologies of power do not only target the indigenous populations, but also further the formation of other racialised groups and classes in Israel/Palestine.

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appointed head of the Natality Committee that was established to encourage Jewish fertility and to lower the fertility gap between Jews and Palestinians. Yet Bacchi was equally concerned with the fertility differential between Ashkenazim and Mizrahim, to that extent that it prompted him to commit scientific fraud. Yali Hashash (2004) described how – despite the fact that demographic statistics of the mid-sixties proved that Mizrahi fertility was beginning to decline considerably and that Ashkenazi fertility was actually increasing – Bachi changed the data to prove the contrary in an attempt to stir a polemic over an internal Arab demographic threat (Hashash, 2004; Laibler, 2004; Ducker, 2006).

[98] Yemenite activist Uzi Meshullam claimed that only 70 per cent of the missing children were Yemenite, while 28 per cent of the children were of Sephardic and Balkan origin and two per cent were Ashkenazi. Notwithstanding the ethnic terminology and classifications, this implies that the overwhelming majority of the missing children were Mizrahim (Madmoni-Gerber, 2009).

Although all other case studies in this doctoral study revolve around 'advanced' reproductive technologies, including IVF, egg donation and surrogacy, the case of the Mizrahi and Aboriginal child removals concerns an 'older' example of a reproductive technology in a settler colonial formation. Although this choice might seem a bit out of place to the reader, it emphasises that biological reproduction – as Sarah Franklin (2013) reminded us – has never been 'merely' natural under capitalism, and has always been assisted through different types of technologies of race, kinship, sexuality, class and gender.

CHILD REMOVALS AS BIOPOLITICAL TECHNOLOGY OF DEMOGRAPHIC ELIMINATION: A CROSS-SETTLER COLONIAL ANALYSIS FROM AUSTRALIA AND PALESTINE/ISRAEL

The Stolen Generations in Australia

> *"Colonialism presumes to describe whether the child a woman bears in her womb becomes one of her own people or one of her oppressors".*
>
> - Patrick Wolfe (2016:29)

In Australia, during the late 19th and first half of the 20th century between 20.000 and 100.000 children of mixed Aborigine descent were forcefully removed and separated from their families and communities as part of an official and systematic governmental policy. The children were transferred to institutional facilities operated by missionary or charitable organisations. Peter Reid (1981) has termed this shameful chapter in Australian history the *Stolen Generations*. In 1995 the Australian government established the Human Rights and Equal Opportunity Commission to enquire into the past laws, practices and policies which resulted in the separation of Aboriginal and Torres Strait Islander children from their families (Barta, 2008). After collecting the testimonies of hundreds of Aboriginal people who had fallen victim to these policies, the commissioners published the controversial '*Bringing Them Home Report*' in 1997 which condemned the institutionalised child removals as a form of biological genocide (Jacobs, 2010). In 2008, the government eventually issued a formal apology to the Aborigine communities for the committed atrocities.

The official rationale behind the removal policies was to save the children from the supposedly abusive and dysfunctional behaviors of the Aboriginal parents who were perceived as primitives. Particularly Aborigine motherhood was portrayed as deficient and pathological. As James Isdell, 'Protector' of the Aborigines in West-Australia in the early 20th century phrased it:

> *"All Aboriginal women are prostitutes at heart, and all Aborigines are dirty, filthy and immoral. I would not hesitate for one moment to separate any half-caste from its aboriginal*

mother, no matter how frantic her momentary grief might be at the time. They soon forget their offspring" (quoted in Barta, 2008: 202).

In her research on gendered settler colonialism in Australia, Margaret Jacobs (2010:131) pointed out that these derogatory representations were not restricted to the discursive and ideological sphere, but had tangible material consequences for the Aborigine population whose children were systematically taken away to institutions where white people would raise them in a supposedly civilised manner.

Oddly enough, not all Aborigine children were targeted equally by the Australian authorities, which unmasked the acclaimed rescue motif of the removal operations. It was mostly girls of mixed Aborigine-European descent and not 'full blood' Aboriginal children who were vicitimised by these policies. This well-considered decision concurred within the hegemonic racialised logic of gradually "*breeding out the color*" of the indigenous populations, which meant biologically absorbing them in the settler body politic (Wolfe, 2006) [99]. While the full blood Aborigines were viewed as a "*doomed race*" that was destined to eventually become extinct, the half-caste children still had the potential of 'becoming white' (Manne, 2004). As Australia's Minister of Interior stated in 1933 (quoted in Jacobs, 2010:41):

> "*Children who have only a slight percentage of colored blood in their veins should have the opportunity of becoming white citizens*".

This process of 'becoming' was conceived as an entangled cultural-biological process. By forcing 'half castes' to breed with other 'half breeds' or interbreed with white Australians, they would eventually be biologically absorbed in the white settler society. The cultural transformation would occur by putting these 'part European' children in boarding schools where they would receive a 'white' settler education. As such, half-caste Aborigine girls were both culturally and biologically prevented from (re)producing the next Aborigine generation who could lay claim to the native lands.

The two most avid and notorious proponents of Australia's oubreeding policies were A.O. Neville and Cecil Cook, both Aborigine Protectors during the first half of the 20th century, the former in Western Australia and the latter the Northern Territories. Both Protectors promulgated policies

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[99] The 'breeding them white' policy emanated from the general belief that Aboriginals did not descend from the 'Negro' but from the 'Caucasians'. As so-called 'Dark Caucasians', Aboriginals could still become white. Patrick Wolfe (2006:388) discerned important political-economic motivations in differentiating the racialising regimes of indigenous peoples and African slaves in the US and Australia. African slaves were subjected to the *'one drop rule' "through which the slightest amount of African 'blood' decided one's blackness since the reproduction of black slaves augmented their owner's profit.* Indigenous people's reproduction, however, was not welcomed since it obstructed the settlers' claim to the land. Wolfe described how "*under the blood quantum regime, one's Indianness progressively declined from full bloods to half castes to quadroons and octogoons in accordance with a biological calculus that was construct of Euro-American racial ideologies* (Wolfe, 2006:388).

of systematic half-caste child removals in an attempt to europeanise them in state institutions. They also pursued policies of encouraged miscegenation for Aborigine women of mixed descent in order to breed out their indigeneity (Jacobs, 2010). Although some state officials vigorously objected to the idea of interracial mixing between Europeans and Aborigines, Cook and Neville saw this as a way to satisfy the sexual needs of European men while reducing the number of Aboriginal hybrids.

The Stolen Yemenite Children in Israel

Practices and programs of child removal did not only occur in settler colonial Australia. In America, state-sponsored programs to uproot indigenous children were implemented during the late 19th and early 20th century in an attempt to assimilate Native Americans in the settler fabric of life (Jacobs, 2005). In Israel/Palestine too, after the creation of the State in 1948, similar events occurred, which however did not target the indigenous Palestinian population, but the Arab Jewish community, and in particular Yemenite Jews.

> *"We want to tell you the story of the kidnapping of Yemenite babies from their parents, months, days and sometimes hours after they landed here. We want to form an inducement against a patronising and condescending institution [referring to the State of Israel, S.V] that its pioneers treated Yemenite immigrants as they wished, and its followers still manage to cover up. They told them that the children died but didn't show them a grave. They sent them army draft letters to children that were no longer with their families, they concealed from them that these children were given to others for adoption. They counted on them to keep suffering quietly, bleeding into themselves, just like in the stereotype. Now this is over, the testimonies you will hear tonight are not the end of story and do not replace the investigative commission's work, but they will also leave no doubt with you. There were kidnappings of babies; there were cases of illegal adoption. There was a system that transferred children from the camps to hospitals, to institution of Women's International Zionist Organisation and away from their families"* (Ilana Dayan quoted in Madmoni-Gerber, 2009: 109-110).

These ominous words were part of the introductory narration of an episode of *Uvda,* a famous Israeli investigative television program that in 1996 already dedicated an episode to the Yemenite Children Affair under the telling title '*The Yemenite Babies didn't die'*. The documentary questioned for the first time the official Zionist version of the events, that claimed that over 1.000 Yemenite babies 'got lost' in the bureaucratic and logistical chaos during the first years of statehood (Weiss, 2002). Today, twenty years later, the Israeli newspapers headline: "*So many missing answers to so many missing children*" and "*Time for Israel to admit, the Yemenite children were systematically kidnapped*" [100]. Despite three official governmental committees looking into the matter, the

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[100] Tzadok, Yael. "Time for Israel to admit, the Yemenite children were systematically kidnapped". *Ha'aretz*, 14/08/2016. http://www.haaretz.com/opinion/.premium-1.734537 (last entry 14/08/2016).

Yemenite Children Affair is still an open wound, shrouded in mystery, rumour and conspiracy plotting, that continues to haunt and disgrace Israel.

Upon their arrival in Israeli transit camps in the mid-fifities, many Yemenite babies were removed from their families and taken away for medical treatment in nearby hospitals. Later, the parents were told that their children had died, often without allowing them to see the bodies of their supposedly deceased children. In most cases, when the parents asked about the cause of death or requested a death certificate confirming the death of their children, they were ignored and their demands went unanswered. Many Israelis believe that the Yemenite children were kidnapped and given up for Ashkenazi adoption. Ella Shohat (1997:53), the acclaimed Mizrahi scholar, called it "*an extensive conspiracy*" that included *"the systematic issuance of falsified death certificates for the adopted children to insure that Yemenite demands for investigation were silenced"*. Years later, many of the Yemenite parents started receiving army draft letters for their missing children, who by then would have reached the age for military service. This strengthened the parents' conviction that their children were still alive and fueled their suspicion that the Israeli government was withholding essential information about the disappearance of their children (Shohat, 1997).

From the mid-sixties onwards the Yemenite community began to protest, organise demonstrations and file complaints, which eventually led to the creation of three governmental commissions, the Bahalul-Minkovski Commission (1967-68), the Shalgi Commission (1988-1994) and the Kedmi Commission (1995-2001). Only the latter was an investigative committee with subpoena power while the other two were merely inquiry commissions. Over the course of 34 years these three commissions investigated the disappearance of 1.049 missing children of which they claimed the overwhelming majority had died in hospitals, a few dozen went missing either in the transit camps in Yemen or in the Israeli baby clinics, while a few children had been placed for adoption under legally questionable circumstances (Weiss, 2001; Madmoni-Gerber, 2009)[101].

Ein Gil, Ehud. *"*So many missing answers to so many missing children*". Ha'aretz* 14/08/2016. http://www.haaretz.com/opinion/.premium-1.735137 (last entry 14/08/2016).

[101] Between 1967 and 1968 the Bahalul-Minkovski Commission investigated the disappearance of 342 missing children of which they claimed 316 had died, four were placed for adoption under juridically suspicious circumstances and 22 were still under investigation. The Shalgi Commission operated between 1988 and 1994 and investigated 301 new disappearance cases. The Shalgi Commission concluded that 222 children had died, 14 disappeared from Hashed Transit Camp in Yemen, and 65 cases were unknown. The Kedmi Commission operated between 1995 and 2001 and investigated 406 new disappearance cases of which they concluded that twenty disappeared from Hashed Transit Camp in Yemen, 391 babies had died and 14 were still missing (Madmoni-Gerber, 2009).

Problems cropped up when a few key witnesses provided testimonies in the inquiry committees that refuted the official Zionist version of the facts. Rosa Oushinnsky (quoted in: Weiss, 2001:100), for instance, who was a nurse in one of the transit camps in 1949, testified:

> "*We would take healthy Yemenite babies in the ambulance to the city hospital in Afula and then return to the transit camp without them. These were perfectly healthy babies. I couldn't believe it, even today I get goose bumps when thinking about it. When the parents came for the babies, they were told that the babies had died. But these were healthy babies! I took them, do you understand what happened? It's not true that they died, they were given for adoption, mostly in the USA*".

Similarly, MK Menachem Porush (quoted in Weiss, 2001:105) testified in 1985 that the conspiracy of silence should be halted, claiming that:

> "*Children were taken and [parents] were told that the children were dead. Where were they buried? No one could say. Afterwards, it was found out that documents had been falsified. I hereby determine with clear knowledge that in various places they fabricated documents*".

Notwithstanding these remarkably contrasting interventions, the Kedmi Commission stipulated in its final conclusions in 2001 that the accusations that the State of Israel had kidnapped Yemenite children for adoption purposes were false and that there was no question of a systematically organised conspiracy against the Yemenite community. The commission also ordered the documents to remain classified in the State Archive until 2021.

Between Elimination and Assimilation: The Curious Faith of Yemenite Jews in Israel

Yemenite Jews were brought to Israel between 1948 and 1956, together with around 450.000 other Arab Jews mostly from Egypt and Iraq. Mizrahi scholars such as Ella Shohat (1988), Sami Chetrit (2000) and Yehouda Shenhav (2006) have thoroughly described how they were not given the warmest welcome in Israel. Yemenite Jewish settlers were transferred to three main absorption camps that were later transformed into temporary settlements called *ma'abarot*. The living conditions in these camps and settlements were appalling: diseases, hunger, death, lack of decent housing and sewage system (Shohat, 1988). It was because of these degrading conditions in the camps that the Jewish Agency and the Israeli government decided to separate the Yemenite babies from their parents and to transfer them to neighboring baby clinics. The official explanation was that the babies would be better accommodated and treated in the baby clinics than in the shabby houses and tents where their families lived (Madmoni-Gerber, 2009). As Haim Sadok (quoted in Weiss, 2001:96), head of Jewish Agency's Department for Oriental Immigrants during the early years of statehood, stated in one of the inquiry committees:

> "*Nearly all of the thousands of immigrants at the transit camp had malaria and each night at least a dozen died. Year-old tots looked like newborns. Many mothers, themselves ill, were*

apathetic about the babies and others staunchly refused modern medicine. Babies had to be sent to hospitals throughout the country. There were tens of thousands of people in the camps and children often had several first names. When taken to the infirmary, the babies were emaciated and their heads shaved. Once fatter, with hair and well-dressed, the parents often failed to recognize them. Children were sent from hospital to hospital and it was hard to keep track of them in the general confusion that reigned. In 1949, 250 nurses cared for over 7000 very ill Yemenite children. In such conditions it would be amazing if there weren't lost babies".

The disorganisation and chaos in the crowded transition camps were often put forward as official explanations for the disappearance of the Yemenite children. Furthermore, it was said that upon registration with the Israeli authorities many of the newly arrived Yemenites mixed up the first and family names of their children, which caused them to get lost 'easily' (Weiss, 2002). Apart from referring to the logistical havoc in the camps and clinics, the blame for the disappearance of the Yemenite children was put with their parents in remarkably similar terms as the Aboriginal parents were held responsible for the removal of their offspring. During the inquiry commissions, many testimonies referred to the alleged primitive behavior and lack of parental skills of the Yemenite settlers, which forced the Israeli authorities to remove the children from their homes. One testimony understood "*the Yemenite's apathetic attitude towards their children*" to be the logical result "*after generations of living with Muslims*" (quoted in Weiss, 2001:98). Ahuva Goldfarb, a camp nurse in the late 1940s and early 1950s, claimed that the removal of the children served the Yemenite parents well, since most of them "*did not come in a hurry to get their children*" (quoted in Madmoni-Gerber, 2009: 81).

Another factor at play in the official discourse was that the Yemenites were believed to be irresponsible breeders, unable to properly support their families. The common understanding was that they were actually relieved to give up some of their children. Analogous to the beliefs of the Protector of the Aborigines in West-Australia, James Isdell (quoted in Manne, 2004:223), that *"the aboriginal mother did not feel the forcible removal of her child more deeply than did a bitch the loss of a pup*", Yigal Yosef (quoted in Weiss, 2001:99), former mayor of Yemenite town of Rosh Ha'ayin testified before the committee:

> "*The Yemenite mothers were perceived by the State as baby machines, commodity suppliers for the state that one less child would not matter to. The thinking of the time was that these Yemenites have so many children and there are childless Holocaust survivors. So what's the harm in taking a few*?"

These statements reflected the racist attitude of the Zionist state towards the Yemenite Jews that, according to Meira Weiss (2001:98), was reminiscent of "*the colonial missionaries and the medical troops that had set out to civilize the primitives*".

The Zionist contempt of the Orient was strongly anchored in norms and guidelines on what constituted appropriate parental and pedagogical practices, which have always been highly gendered and racialised arenas of societal engineering. In her research on the social construction of Zionist motherhood through the analysis of early 20th century parenting manuals, Stoler-Liss (2003) concluded that the proper Israeli mother was defined in opposition to the improper 'Other': a Palestinian woman, a Yemenite Jewish woman or a poor Jewish woman in the Old City of Jerusalem. Yemenite mothers were indeed deemed incapable of raising their children in a respectable and civilised manner. Sonia Milshtein (quoted in Madmoni-Gerber, 2009:117), a nurse at one of the Yemenite transit camps, shared her suspicion before the governmental committee on why the Yemenite parents did not come looking for their children earlier:

> "*I, as a European mother knowing how to follow my child, would have gone searching, asking and would have found out where my child was. But they [the Yemenite mothers, SV] in their primitive state of mind, I say primitive, they were shocked and needed food and had many children and diseases, they could not do it*".

European motherhood was evoked and mobilised in various ways during the entire Yemenite Children Affair, not only by state officials from the Ministry of Health or the Ministry of Absorption, but also by Zionist women's organizations. Avigdor Pe'er, deputy director of the Jewish Agency's Department of Migration in 1949, testified before the inquiry committee in 1985 that many of the Yemenite children had been either transferred to institutions run by women's organisations or distributed to women's sections of political parties, such as Mapai's Working Mothers, Agudas Yisroel, General Zionists or even Mizrahi Mothers (Weiss, 2001; Madmoni-Gerber, 2009).

In 1950 a child recovery center was established in the North of Israel by the Israeli branch of the Women's International Zionist Organization (WIZO), a movement of Zionist women dedicated to the welfare and education of Jews in Israel and in the Diaspora. According to Amram, an organisation campaigning on behalf of the targeted families, hundreds of missing Yemenite children stranded in this recovery clinic before being transferred to white adoption families in Israel or abroad, often through semi-legal or illegal constructions (Cook, 05/08/2016). While the director of WIZO Israel denied any involvement or complicity, some conflicting testimonies popped up during the inquiry committee. One WIZO head nurse admitted moving children from camps to adoptive families.

> "*It was the parent's fault, they didn't care. They didn't even come to visit their children. Didn't come to look for them. The Yemenite parents didn't care, this is the truth* (quoted in Madmoni-Gerber, 2009:121).

Little Domestic Beasts: Racialised Class Formation in Israel/Palestine

In his contested work, Naeim Giladi (1990) described how Israel's Yemenite community, more than any other Oriental group, was treated in a brutally oppressive way by the Ashkenazi Zionist institutions. He attributed this to the high degree of Arabness of the Yemenites. Meira Weiss (2001:106) concurred that traditional Yemenite values and habits were indeed erased "*in the name of Zionism's melting pot doctrine, which in reality rather subjected Oriental Jews to an Ashkenazi hegemony with its foundational principles of white Europeanness*". For the Yemenite Jewish newcomers, as for all other Mizrahi settlers, Zionism's psycho-social process of building the New Jew presupposed the deracination of their Arabness (Shohat, 1998; Lavie, 2014). In a Knesset meeting in 1951 about Yemenite immigration, Ben-Gurion (quoted in Giladi, 1990:197), then Prime Minister, stated:

> "*The aim of the government is to inculcate the Yemeni immigrant with Israeli values to the point that he forgets where he came from*".

In that same meeting, Ben Gurion compared Mizrahim pejoratively to the Blacks who were brought to the United States as slaves.

From a cross-settler colonial perspective, these are telling comments that transcend the discursive realm. Contrary to extractive colonies where indigenous populations were put to work as cheap labour forces on the plantations, in the mines or in the factories, settler colonies such as Australia, the United States and Palestine/Israel mostly depended on cheap imported labour from slaves or indentured workers (Wolfe, 2006, 2007, 2012; Jacobs, 2010). Patrick Wolfe explained this hesitancy of settler states to depend on indigenous labour as a way to further deny the native's claim to land. Rather than incorporating the natives as low-cost workers, settler states preferred their disappearance.

In Palestine/Israel, this settler reluctance to depend on the productive vitality of the Palestinian population materialised under the Zionist doctrine of Hebrew Labor. During the early 20th century, second Aliyah settlers actively encouraged Jewish industries to employ Jews instead of Palestinian workers even though the latter were cheaper and more experienced (Shafir, 1996; Wolfe 2007, 2016). Smadar Lavie (2007:11) postulated that the Mizrahim freed Zionism from having to depend on indigenous Palestinian labour. When it became clear that the second Aliyah settlers, coming mostly from Russia or Eastern Europe, were not entirely capable neither suitable for the actual task of rebuilding the Land of Israel, Zionist strategists agreed to choose the Mizrahi option, which basically implied "*recruiting Jews in the form of Arabs*" (Shohat, 1988:14). In 1909, Shmuel Yavne'eli, the emissary of the World Zionist Organization to Yemen, published an

influential article entitled '*The Renaissance of Work and the Jews of the Orient'* in which he called for an Oriental Jewish solution for the 'problem' of the Arab workers. The Yemenite Jew played a crucial role in this process:

> "*This is the simple, natural worker capable of doing any kind of work without shame, without philosophy and without poetry. And Mr. Marx is of course absent from his pocket and from his mind. It is not my contention that the Yemenite element should remain in its present state, that is, in his barbarian, wild present state...the Yemenite of today still exists at the same backward level as the Fellahins [Palestinian farmers, SV]. They can take the place of the Arabs*" (quoted in Shohat, 1988:14).

Already at the end of the 19th century Yemenite Jews were brought to Palestine by Zionist organisations to work as cheap agricultural or domestic workers in often degrading conditions. According to Smadar Lavie (2007:10) this provided European Jews with their 'homegrown' version of Arab labour to exploit in their colonial and capitalist enterprises. She neatly described how Ashkenazi Zionist party officials whose spouses were busy engaging with public charities, favoured Yemeni women – often referred to as "*behemat bayit ketana*", which means little domestic beast in Hebrew – for their reproductive work, including cleaning and laundry. Similarly, Ella Shohat (1988) described how the Yemenite labourers worked long hours, were occasionally violently treated by employers and in return received low wages, unsanitary housing and insufficient food. Furthermore, Yemenites were initially barred from possessing land or joining the *kibbutzim*, which was reserved for Ashkenazi Jews. This relegated Yemenites to the position of wage-earning labourers. After the creation of the State, Yemenite and Mizrahi Jews continued to serve as a cheap blue and pink collar labour force, indispensable to the capitalist development of the State of Israel and the social reproduction of Zionism (Shohat, 1988).

From Australia to Palestine/Israel: Necropolitical Technologies of Demographic Elimination

Child removals have occurred in many different contexts, not only in settler colonial ones. In his typology of what constitutes genocide, Raphael Lemkin (1948) included the transfer or removal of children from a given group for the purpose of educating them within the framework of another human group - racial, religious, national or ethnic - as a recurring technique of biological genocide. He viewed it as "*an attack on the family, with the separation of men and women and the taking away of the opportunity of procreation*" (quoted in Docker, 2008:93). Lemkin cited many historical examples of child removals that transcended a settler colonial context, such as the Huguenots, Albigenses, Turkey's attack on Greek children, and Jewish children who were transferred in Tsarist Russia (Docker, 2008). Moreover, in cases where child removals did occur in settler colonial societies, such as Australia and the US, they were not exclusively targeted at indigenous families. It occasionally happened that white working class families were dispossessed of their

children as well, if they were deemed incapable and unfit to raise their children properly (Jacobs, 2010). Notwithstanding the importance of class and gender hierarchies, markers of race and indigeneity still prevailed in the operationalisation of child removal policies in settler states. The main rationale was to deracinate the indigenous children from their nativeness, and infuse them with European ideas, values and genes.

When analysing the Stolen Yemenite Children Affair, remarkable discursive-material similarities can be discerned with other settler colonial cases where institutionalised child removals occurred. Similar to Australia, where the uprooting and dislocating of children of mixed Aborigine descent bioculturally eliminated the native population, the Yemenite Children Affair can be viewed as a paradigmatic case of settler colonial biopolitics, aimed at eradicating the Oriental Other, in this case the Arab 'half castes', i.e. the Mizrahi Jews, by Europeanising them in institutional facilities or Ashkenazi adoption families. To draw on these commonalities is important. As Margaret Jacobs (2010:11) reminded us in her comparative research on child removal policies in the US and Australia: "*It would be a mistake, to fall under the spell of nationalist narratives of exceptionalism*", as this could obfuscate a common set of ideas, practices, policies and technologies of power that developed in settler societies between newly–arriving settlers, indigenous peoples and imported labourers.

That said, comparing Mizrahim to Aborigines of mixed descent and understanding the Stolen Yemenite Children Affair as an exemplary case of Zionism's projects of demographic engineering could be still a challenging endeavour, as Mizrahim occupy a very ambivalent position in Zionism's triangular population economy. Contrary to mixed Aborigines, Arab Jews were/are part of the settler group and not of the native population. Although treated as second-class citizens, Mizrahi Jews still arrived in Israel as settlers who gradually repopulated the land after it was depopulated from native Palestinians. In some instances, however, their Arabness caused them to be treated as quasi-natives, whose reproductivity was to be halted and/or adjusted. Other times, Mizrahim more closely resembled the settler colonial group of imported workers, since their cheap labour, and thus their bodily exploitation, was needed for the Zionist rebuilding of the Land[102].

Taking these historical nuances and particularities into account, remarkable commonalities between the two 'affairs' can be discerned. In both cases, the reproductivity of the Aborigine and

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[102] According to Patrick Wolfe (2016:3) enslaved populations and native peoples faced different regimes of racialisation and thus reproduction because of their different role and position in the colonial population economy. While enslaved populations were "*demographically fostered*" so as to guarantee the reproduction of the labour force, dispossessed native populations were required to disappear and never return.

Mizrahi 'half castes' was problematised by the settler state as a biopolitical conundrum. On the one hand, their reproduction was needed to serve the demographic needs of the settler project, be it to 'breed the natives white' in the case of the mixed Aborigines or to guarantee the Jewish majority in the case of the Mizrahim. On the other hand, both groups were represented as primitive breeders and unfit parents whose reproductive profusion should be halted, or at least adjusted to the biocultural requirements of the 'white' settler nation. Analogous to the Aborigine 'half castes' who, according to the settler discourse, still had the biocultural potential to be absorbed in Australian society, the Mizrahi Jews were given the opportunity to 'return' to Israel/Palestine under the firm condition that they would assimilate to Ashkenazi hegemony and discard their Arabness upon arrival.

Patrick Wolfe (2007) has noted that, among settler colonial projects, Zionism is infamous for its reluctance to assimilate the indigenous Palestinians. Whereas the United States and Australia still pursued policies to bioculturally assimilate the indigenous population into the settler society, the Zionist *raison d'état* is based on the fundamental denial and exclusion of the Palestinian natives. There are very few instances where Palestinians, on either side of the Green Line, are urged to bioculturally Judaise in order to assimilate in Israeli society. Palestinians' ultimate means of integration in settler society lies in their collective disappearance. Unlike the Australian case, for instance, where the controversial idea of mixed marriages between half caste Aborigines and white settlers was promoted as a way to "*breed the natives white*", this tendency to miscegenation has been completely absent in Palestine/Israel. Up to today, mixed marriages between Jews and Palestinians are very rare. Lorenzo Veracini (2010:30-31) suggested that in the settler population economy, "*hybrid life is a sexually transmitted disease*". When the practice of mixed marriages was discussed by Zionist thinkers or policy makers, at most it referred to an 'intra-racial' mix between Ashkenazi and Mizrahi Jews and not to Jewish-Palestinian relations[103]. Thus, while Zionism's *mission civilisatrice* or assimilation project a priori excludes Palestinian Natives with their "*inbuilt incorrigibility*", it still embraces Mizrahim as a subjected population with the biocultural potential of being de-Arabised and thus rescued to Europeaness (Wolfe, 2016:9).

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[103] In her research on Zionist eugenics and the repercussions of mixed marriages on Jewish racial qualities, Dafna Hirsch (2009) noted that although most Zionist scientists objected to the idea of 'intra-marriages' between Ashkenazim and Mizrahim as a fast lane to racial degeneration, some Zionist thinkers like psychologist and pedagogue Israel Rivka'emphasised the eugenic benefits of mixing different Jewish ethnic groups in the creation of a new strong Jewish type.

> *25/07/2014, it is the 17th day of Operation Protective Edge.*
>
> *I'm sitting in the waiting room of the women's health department of Rambam Hospital in Haifa, suffering from a protracted bladder infection. One my left, women are waiting for an abortion procedure. On my right, infertile couples are impatiently awaiting fertilisation treatment. A couple walks in and approaches the secretary. Over the last four years of conducting fieldwork in Palestine/Israel, my racial profiling skills have improved significantly. By her broken Hebrew accent I can tell she is Russian, while his rosary gives away that he is Palestinian. I am not the only one in the waiting room to notice this. Out of the blue, a middle-aged man starts shouting at the couple in Hebrew. When I checked with the secretary what had just happened, she calmly replied that the man was outraged by the improperness of inter-racial mixing, particularly in times of war.*
>
> (fieldwork notes, Haifa, 25/07/2014).

A final notable similarity between Australia's *Stolen Generation* and Palestine/Israel's *Missing Yemenite Children* was the stratified mobilisation of motherhood by women and feminist organisations. In Australia white women maternalists endorsed and promoted the child removal policies, not only out of misplaced racism or well-intended maternalism, but also as a way to be recognised as full-fledged citizens in their developing nation-state (Jacobs, 2005, 2010). In Palestine/Israel, Zionist women's organizations like WIZO did not so much advocate Yemenite child removal, but they did play a crucial role in accommodating the Yemenite children before transferring them to Ashkenazi adoption families.

In her comparative analysis of child removal policies in the USA and Australia, Margaret Jacobs (2009:52) suggested that given the notable similarities between both cases, it would seem logical that the American and Australian colonial authorities were aware of and influenced each other's policies. She found no evidence, however, of such direct interactions. Given the absence of such policy exchanges between Australian and American administrations, she concluded that settler colonial regimes rather share "*a kind of international lexicon of potential strategies for rule*", or as Ann Laura Stoler (2002:78) noted, "a *modular quality to colonial perceptions and policies*". I have analysed child removal practices as one of these potential biopolitical strategies of demographic control in settler colonial societies. It remains to be seen if Zionist-Israeli authorities were in any way directly influenced or inspired by other settler colonial policies – there is still a lot of valuable research to be done by historians in this respect. Yet, even without such direct linkages, it is safe to conclude that settler societies share a susceptibility for certain bio-necropolitical technologies of power, such as the demographic engineering of their subjected peoples through the reproductive technology of child removals (Jacobs, 2009).

Conclusion

This chapter aimed to disentangle Zionism's reproductive-demographic nexus in relation to its triangular population economy, consisting of (Ashkenazi) Jewish settlers, Palestinian natives and other exogenous racialised groups, such as Mizrahi Jews. I have argued that the common understanding and sweeping generalisation of Israel's reproductive policies as pronatalist should be nuanced and complicated into a stratified pronatalism (Portuguese, 1998; Kanaaneh, 2002). This selective or stratified pronatalism is structured around several faultlines and operates through multiple gendered, racialised and classed technologies of power that are biopolitical and necropolitical at the same time (Birenbaum-Carmeli and Carmeli, 2010).

A first faultline in Israel's fertility regime is constituted by the reproductive-demographic binaries between a settler population that needs to be maximised at the expense of the native population that needs to be erased. Rather than viewing ART in Israel/Palestine as a conciliatory domain between Jewish Israelis and Palestinians, I have focused on the unequal access, stratified distribution, struggle and militarised violence that still permeate this reproductive arena. Based on my analysis of two case studies, i.e. Palestinian sperm-smuggling and militarised repro-scapes during Operation Protective Edge, I conclude that Israeli settlers' fascination with the right to life, vitality and birth cannot be understood without Palestinians' obligation to die. This makes the line between ART's life and death function particularly porous, especially in times of intensified militarisation. While ARTs have materialised in Israel/Palestine as a pivotal site of settler colonial control, it is important to note that fertility technologies have also been appropriated by Palestinians, on both sides of the Green Line, as a tool or tactic of anticolonial defiance.

Israel's pronatalism cannot simply be defined as pronatalist toward Jews and antinatalist towards Palestinians. A second faultline that intersects Israel's demographic-reproductive nexus is an 'intra-Jewish' one between European and Arab Jews. Based on my analysis of the *Stolen Yemenite Children Affair*, I have argued that Zionism's problematisation of Mizrahi fecundity is not an ambiguity, but rather a logical consequence of the Zionist settler colonial project in Palestine/Israel, which is based on the demographic elimination or deracination of the Arab Other (Wolfe, 2016). Based on a cross-settler colonial comparison between 'half blood' Aborigine and Mizrahi child removals, I have argued that child removals constitute a necropolitical reproductive technology in settler colonial formations that are oriented towards the assimilation of these racialised groups into the European settler society.

Zionism's triangular population economy operates through a stratified reproductive demographic logic that desires Ashkenazi Jews to be plentiful, eliminates Palestinians and assimilates Mizrahi

Jews and other imported racialised groups as a settler colonial labour force of low-paid blue and pink-collar workers.

Images

Figure 5: First anniversary of Gazan babies through sperm smuggling, 2014, Gaza City.

Figure 6: "One shot two kills", IDF tshirt

Figure 7: "Bibi, this time finish inside. Signed, citizens in favor of a ground assault", July 2014.

Figure 8: Palestinian family in Lebanese refugee camp in Beirut, by Chris Perkins Peele, 1982

CHAPTER TWO

CHAPTER 2 "FROM THE WOMB TO THE LAB AND THE MARKET": MULTIPLE ONTOLOGIES AND POLITICAL ECONOMIES OF EGG CELL DONATIONS IN PALESTINE/ISRAEL[104]

Introduction

In July 2010 the Israeli Knesset approved a controversial law on Egg Cell Donations allowing Israeli women who are undergoing fertility treatment, but also single women aged between 21 and 35 who are not undergoing fertility treatment, to 'donate' egg cells for reproductive or research purposes and receive a financial compensation of NIS 20.432 which equals approximately € 4.500[105]. Israeli women between eighteen and 54 who suffer from fertility problems can request an egg cell donation, which will be partially refunded by the Israeli Health Insurance. For health reasons, the donors will be permitted to donate oocytes three times, allocated to no more than three women with fertility problems, and this on an anonymous basis (Knesset, Law on Egg Cell Donations 2010)[106].

The Law came about after an intensive ten-year deliberation process that took place in the Knesset and in multiple governmental committees, such as the National Bioethics Committee, the Science and Technology Committee, the Public-Professional Committee on the Matter of Egg Cell Donation headed by rabbi Mordechai Halperin and the Committee on the Status of Women headed by

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[104] This chapter is a further elaboration of a book chapter that I have written. See: Vertommen, Sigrid (2016) "Towards a Political economy of egg donations: doing it the Israel way". In: Critical Kinship Studies: Kinship (Trans)formed', Eds. by Krøløkke, Adrian, Myong and Tjørnhøj-Thomsen. Rowman and Littlefield International.

[105] Initially, the financial compensation was set at NIS 10.000. Given that the Law only attracted a very limited number of egg donors, the Ministry of Health decided to raise the reward to NIS 19.000 in July 2013 and to NIS 20.432 in January 2015. In general terms, the overall cost of the treatment (medications, manpower, examinations, hospitalisation, etc.) that is needed to prepare the donor is paid by the health fund of the recipient. The personal payment that the donor receives is paid by the recipients themselves (Even, Ha'aretz, 16/07/2013).

[106] Despite the advances in medical technologies (low hormonal stimulation treatment, local anaesthesia) egg donation can still be considered as an invasive and potentially harmful procedure in which the body of the donor is hormonally overstimulated to produce multiple egg follicles, which are then surgically 'harvested'. Although research has indicated that the medical risks for egg donors who are not undergoing fertility treatments themselves are smaller than for those donating as part of an IVF treatment, the procedure still carries the risk of ovarian hyperstimulation syndrome (OHSS). OHSS is an unpredictable response to ovulation induction that can involve pain, abdominal inflammation, possible renal failure, venous thrombo-embolism and cardiac instability. Most cases are mild, but in rare cases the condition is severe and can lead to serious illness or death (Steinbrook, 2006; Waldby, 2006; Delavigne & Rozenberg, 2002; Magnus & Cho, 2005). Moreover, researchers have insisted that insufficient research has been conducted on the long-term risks of ovarian stimulation. (Waldby, 2008:20, Beeson, 2006; Werner-Felmayer, 2009, Dickenson, 2005).

Members of Knesset Yael Dayan and Ahmed Tibi (Nahman, 2013). Within these governmental committees several different stakeholders such as fertility doctors, rabbis, bioethicists, nurses, feminists, stem cell researchers, patient rights organisations were invited by the Ministry of Health to discuss the physical, ethical and moral problems arising from the practice of egg cell donations. The Israeli newspaper *Ha'aretz* dubbed it "*a revolutionary law*" while Member of Knesset Haim Katz called it "*one of the most important laws in the sphere of health that the committee has discussed during this Knesset's term* (quoted in Even, 09/06/2010)[107].

In her excellent book on egg extractions, Michal Nahman (2013:26) stated that the story of egg cell donations in Israel/Palestine can be told in multiple ways. *"It's about how you choose to map them. These choices are crucial"*. Israeli policy and opinion makers, for instance, have chosen to explain and legitimise the need for an Egg Donation Law by referring to the will to make infertile women's reproductive dreams come true in a way that religiously and culturally corresponds with existential and ethical Jewish questions. In 2007, when the Egg Donation Bill was discussed in the Knesset, the Minister of Health mentioned in his opening speech:

> *"In the State of Israel the value of parenthood, the right to bring children into the world and realization of the personal aspiration within the family unit are extremely central, both from the **cultural and halakhic** point of view. [...] The opening of many IVF units all over the country, the freezing of fertilized eggs for many years, bringing children into the world by means of surrogacy, posthumous sperm insemination and more – all these are the fruits of technological progress that found legal redress in legislation [...]. The current bill is one more step in this direction, since it addresses the issue of egg donation, a subject that touches considerable suffering of many couples and women and has been a significant barrier to realising the right to parenthood"* (Knesset Plenary 2007, quoted in Shalev 2010:6, emphasis added by S.V.).

Instead of strictly focusing on cultural and religious motives to explain Israel's permissive stance on egg cell donation, I have chosen to analyse the law and practice of egg cell donations from a political economy perspective. This perspective presupposes to conceptualise egg cell donations as both state -and global market-making practices that shape and are shaped by ongoing histories of Zionist settler colonialism and neoliberal biocapitalism and through which exclusionary histories of race, class and gender materialise (Nahman, 2013). In the case of Israel this refers to a Zionist state that has been settler colonial and capitalist since its creation and has been orienting its economy in an explicitly neoliberal direction since the late seventies, which has resulted in the development of crucial high tech sectors, such as the biomedical and life science sector.

The main argument throughout this chapter is that Israel's stance on egg cell donations, codified in the Law on Egg Donations, serves as a primary example of the country's stratified fertility

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[107] Even, Dan. "Knesset approves revolutionary law allowing domestic ova donations". *Ha'aretz* 09/06/2010. http://www.haaretz.com/knesset-approves-revolutionary-law-allowing-domestic-ova-donations-1.295004 (last entry, 13/09/2015).

regime, which is not only co-produced by cultural visions of Jewish kinship, but also by Zionist imaginaries and practices of neoliberal settler colonialism (Helmreich, 2007; Nahman, 2013). Concordantly, I will argue that Israel's recent law on Egg Donations has been co-produced by 1) Zionist demographic politics which aim to consolidate a Jewish demographic majority in a Jewish state while simultaneously containing Palestinian reproduction and 2) Israel's attempt to establish a thriving and competitive stem cell industry in a globalising health and research market.

Through a critical reading of the Law on Egg Donations and grounded in a multitude of interviews with a broad variety of actors, this chapter will unfold the multiple ontologies and political economies of egg cells in Palestine/Israel by following their path from the womb to the laboratory and the market in both the reproductive and the scientific-therapeutic realm (Mol, 2003; Shalev, 2010; Nahman, 2013). The first part of this chapter will further elaborate on the context and genesis of the Egg Donation Law and will deconstruct the discourse of a 'national shortage of eggs' on which the necessity of an Egg Donation Bill was founded. In a second part, the political economy of Israeli egg donations will be discussed by looking into two crucial amendments that have been mostly overlooked in the general assessment of the Egg Donation Law. On the one hand, the law's settler colonial logic will be analysed by looking into the 'religious' restrictions of egg donations for reproductive purposes that require the egg donor and recipient to share the same religion. On the other hand, the law's biocapitalist rationale will be further unpacked in both the reproductive and the scientific realm by scrutinising the amendment which enables the donation of egg cells for research purposes. The third and final part of this chapter will offer an exploration of Israel's stem cell sector, with particular emphasis on three of its underlying dynamics: 1) the maternal-embryonic nexus, 2) bio-academic entrepreneurialism and 3) the bioexpert regime.

The Genesis of the Egg Donation Law

> *The right to parenthood is at the base of all bases, at the foundation of all foundations, it is the subsistence of the human species, it is the aspiration of the human being [...] and its deprivation is a most grave injury to one's basic aspirations and to the essence of one's human existence"*

- Anonymous v. Clalit 2008 (quoted in Shalev, 2010).

SUPPLY AND DEMAND OF OOCYTES

The main motivation for initiating the Law on Egg Cell Donations, which allows healthy women to donate ova, was to provide a solid legislative framework to counter 'the severe national shortage

of egg cells'[108]. This alleged egg deficit was caused by the low supply of donor eggs from fertility patients who were hesitant to donate their spare eggs, combined with an increasing demand for eggs by women in reproductive need (Shalev, 2010). Feminist law scholar Carmel Shalev (2010) estimated that the demand for egg cells tripled in ten years' time, from 2.000 in the year 2000 to 6.000 in 2010. She also observed that the astronomical rise in the demand for oocytes did not so much stem from an increased amount of women with ovulatory disorders as from an increasingly large group of menopausal women in their mid-forties who are still able to carry a pregnancy but whose own egg cells are no longer viable. These women's ultimate hope in fulfilling their procreative dreams lies in the hands (and ovaries) of egg providers who are willing to donate oocytes[109]. It is often argued that biologically speaking women have more oocytes than they reproductively need, which creates the possibility of donating so-called surplus oocytes (Werner-Felmayer, 2009; Shalev & Felmayer, 2012). As Karl Skorecki, director of Molecular Medicine at the Technion Faculty of Medicine and nephrologist at Rambam Health Care Campus in Haifa, phrased it (interview Haifa, 27/02/2012):

> "*I do see it [egg cells, S.V.] as a renewable resource, there is a surplus of eggs that a woman generally has*".

An Israeli egg donor, interviewed by the feminist organisation Isha L'Isha in the framework of their action-research report on Egg Donation in Israel (2010:13) stated:

> "*An egg donation is nothing like [organ donation]… it's an organ that renews itself all the time. It's not an organ, it's one cell. You donated a cell, you see. It's like your hair, it keeps growing even if you donate it to make a wig. Only in this case it's something bigger than a wig, it gives someone the opportunity to have a child, where half of his genes, at least, belong to her partner*". [110]

Unlike semen, however, egg cells are neither abundant nor easy to disentangle from the human body. Gabriele Werner-Felmayer (2009:1) emphasised how oocytes are in fact a very limited resource, seeing as a large part of a woman's gametes actually degenerates, allowing only a limited number to potentially be fertilised[111]. The question of whether a woman has a biological surplus

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[108] Before 2010, ovum donation in Israel was permitted only from women who underwent fertilisation treatments as a result of medical necessity.

[109] According to Israeli law, IVF treatment is available for women up to 45 years old and egg donation for women up to 54. This offers menopausal women the technical possibility and hope to extend their childbearing limits with another nine years.

[110] http://www.isha.org.il/upload/file/EggDonationactionresearchEng2010.pdf (last entry at 15/01/2015).

[111] Gabriele Werner-Felmayer (2009:1) offers the following oocyte count: "*At week twenty of the foetal development, the ovary contains about seven millions of oocytes. This number is reduced to about two million oocytes at birth by a process called follicle atresia. Due to rising oestrogens in puberty, oocyte numbers are reduced to about 250.000 and further decline with obtaining a regular menstrual cycle and then over the years until oocyte maturation in follicles ceases completely during menopause. Naturally, about 300 to 500 mature oocytes are formed during a woman's reproductive years*". Recent discoveries by Dr. Jonathan Tilly of Massachusetts General Hospital of egg-producing stem cells in the ovaries of women might contradict the

or deficit of egg cells is therefore not a natural or self-evident one. It rather depends on the socio-technical imaginaries within biological science on what constitutes reproductive vitality, health and disease (Landecker, 2007; Helmreich, 2007; Birch & Tyfield, 2012)[112]. In many countries, but specifically in Israel where the Right to Parenthood ranks particularly high in the list of constitutional human rights, infertility is framed as a biologically inflicted disease (Shalev, 2010)[113].

SHAME AND SCANDAL ON THE ISRAELI EGG MARKET

The general willingness of women who are undergoing fertility treatment to donate their 'spare' oocytes has always been rather limited (Waldby and Carroll, 2012)[114]. In Israel, the readiness to donate spare oocytes deteriorated dramatically after two scandalous events, the 2000 Egg Trade Affair and the 2009 Sabyc Clinic Affair (Shalev, 2010).

Egg Trade Affair in Israel

In 2000 the Israeli police opened a criminal investigation into two renowned fertility doctors, Professor Zion Ben-Rafael of the Rabin Medical Centre and Ya'akov Ashkenazi from Hasharon Hospital, who were later convicted for the violation of patient rights leading to health risks and damage for the women involved (Remennick, 2001). For several years, both doctors had been harvesting enormous quantities of egg cells from their patients without obtaining their informed consent, transferring them for large fees to other infertile women in need of oocytes. In one case Ben-Rafael harvested 232 oocytes from one woman, using 155 of them for treating 33 other recipients, while from another patient he sourced 256 ova and used 181 of them for 34 different women (Shalev, 2010). Unsurprisingly, six of these women suffered from ovarian hyperstimulation and needed hospitalisation.

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common wisdom that women were born with a fixed number of oocytes that must last throughout their reproductive years. https://www.nih.gov/news-events/nih-research-matters/egg-producing-stem-cells-found-women, last entry 14/07/2016.

[112] Stefan Helmreich (2005:294) claims that current imaginaries on biology depart from the idea that the biological process itself already constitutes a form of surplus vitality and value production. He quotes Hannah Landecker (2007) who argued that "*contemporary biological science has become expert at stopping, starting, suspending and accelerating cellular processes, wedging these dynamics into processes that look like a molecular version of industrial agribusiness*".

[113] The definition of infertility that is put forward by Israel's Ministry of Health is "*the inability to achieve pregnancy after twelve months of regular unprotected sexual intercourse*".

[114] For Israel, though, research has indicated that IVF with donated oocytes worked relatively efficiently (Rabinerson, e.a. 2002:1404).

According to several fertility doctors whom I interviewed, these were not isolated cases. Shahar Kol, fertility specialist at Rambam Medical Centre and Elisha Hospital in Haifa, mentioned (interview Haifa, 29/07/2012):

> "*There's a joke…there's a kid who is punished by the life guard because he was peeing in the swimming pool. The kid says that everybody is peeing in the pool. The lifeguard says: 'yes, but not from the springboard'. In other words, everybody was doing the same as Ben Rafael, but he was doing it from the spring board*".

Despite the severity of the charges, both doctors got away with a relatively mild sentence. They lost their senior posts within the public hospitals, but were allowed to continue their lucrative private practices. However, the egg trade scandal resulted in a crisis of trust between patients and doctors, which almost completely paralysed the practice of egg donation (Shalev, 2010, Shalev & Werner-Felmayer, 2011; Nahman, 2013)[115].

Sabyc Clinic Affair in Romania: Oursourcing Moral Panic

Meanwhile, several cross-border reproductive practices were emerging in order to counter Israel's alleged national deficit of egg cells. In 2002, Israel's IVF regulations were changed by the Ministry of Health, allowing the importation of fertilised ova and frozen embryos from certain fertility clinics abroad. These clinics were mostly based in countries such as Romania, the Czech Republic, Georgia, the Ukraine and Cyprus - countries with loose legislation on fertility treatment and a donor population that could be branded as 'white Caucasian'. It is in these countries that over the past fourteen years Israeli doctors have been setting up their proxy fertility clinics (Simonstein, 2007; Nahman, 2008, 2013). Neri Laufer, head of Hadassah's Obstetrics and Gynaecology Department and the first doctor in the world to ever conduct an egg donation, commented in an interview (West-Jerusalem, 04/03/2012, emphasis added by S.V.):

> "*Ever since the Ben Rafael story, women from IVF programs stopped giving eggs and we* **had to** *resort to other programs. But it's a great shame because we were leaders in egg donations in the world*".

Since then, Hadassah Medical Centre has set up a proxy fertility clinic in the Czech Republic, one of six clinics abroad that have been visited, inspected and accredited by Israel's Ministry of Health. Doctor Yoram Lotan, in charge of licensing fertility clinics at the Israeli MOH, clarified (interview Tel Aviv, 21/08/2014):

> "*There are six official fertility units abroad, in the Ukraine, Czech Republic and the US, but there are so many unofficial units that Israeli doctors are working with…maybe ten or fifteen units all over: in Cyprus, in Russia, in Kazakhstan. Every day, I hear of another place where*

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[115] Rabinerson, e.a. (2002) noted that in 1999 113 egg donations from IVF treatment were registered in Israel's Dan district while in 2000 there were only 34.

> *Israelis go and make business because the women in these countries are often very poor so they are ready to give their eggs for cheap prices*".

Apart from importing frozen or fresh fertilised eggs from cheap donors[116], another cross-border reproductive solution emerged which Israeli women who are in need of eggs travel to the proxy IVF clinics abroad. In her ethnography on the flows of reproductive tourism between Israel and Romania, Nahman (2013) has rigorously described how Israeli fertility doctors prepare their patients medically for embryo transfer in Israeli clinics after which these women travel abroad to be implanted with cheap ova from local donors. Between 2000 and 2010, an estimated 250 Israeli women travelled abroad every month for an ovum donation (Lis and Even, 21/02/2010). The procedure cost them between €4.000 and €8.000 per treatment, which was partially refunded under the National Health Insurance. Out of this amount local oocyte vendors would only receive a modest payment, varying between €400 and €1.000, depending on the donor's skills, traits and qualities[117] (Nahman, 2008a, 2013). As Ira Nissel (interview Tel Aviv, 22/07/2014), director of Embryon, a fertility company that offers egg donation services between Israel and the Ukraine, remarked:

> "*Sometimes you will find somebody extraordinary that is offered more, because of past pregnancies, because of education, because of the way she looks, you know model material*".

In 2009, the Romanian police raided the Sabyc fertility clinic in Bucharest, one of the proxy clinics that was established by Israeli fertility doctors for Israeli women in need of an egg donation (Shalev, 2010). The Romanian authorities arrested the Israeli doctors in charge, Harry Mironescu and his son Yair Miron, accusing them of human egg trafficking and endangering the lives of dozens of Romanian women for the purpose of harvesting and selling their eggs, which is illegal in Romania. The head of the Romanian Doctors' Association, Vasile Astarastoae (quoted in Edelson, 21/07/2009) made grave accusations against the Israeli physicians who were involved:

> "*The doctors from this clinic are comparable to doctors from Auschwitz. They used misfortunate people, sold their organs for money, and showed complete contempt for humanity. Why didn't they have the courage to do this in Israel*"? [118]

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[116] Assuta Medical Centre, which houses one of Israel's most popular and lucrative fertility units, collaborates with Nadiya Clinic in Kiev for surrogacy and transnational egg donation. Their website describes the procedure of cross-border egg donation as followed: "*Our fertility center has elaborated an option which allows to bring fresh embryos to Israel from the unit in Kiev, while the procedure itself takes place in Assuta by Dr. Bar-Hava leaving behind the necessity to travel to Kiev. This route guarantees each patient six mature eggs, which will be fertilised in Kiev from the partner´s sperm. The embryos that will be received will be transported (in a mobile incubator) to Israel while fresh and will be transferred personally by Dr. Bar-Hava. If there will be embryos of good quality left, they will be frozen and preserved in Assuta (medical center) in Rishon Le-Tzion for possible future use*".
(http://www.fertility.org.il/ViewArticle_en.asp?CatID=7&arID=241,last entry 16/01/2015).
[117] In Israel's three largest health funds, there is a standard reimbursement of up to NIS 12.000 for two trials of egg donation abroad, up to one child.
[118] Edelson, Daniel. 2009. "Israeli patient: We'll sue Romania for damages". *YNET* 21/07/2009 http://www.ynetnews.com/articles/0,7340,L-3749895,00.html (last entry, 15/11/2015).

Remarkably, public discourse in Israel did not so much focus on the potential suffering and exploitation of the Romanian egg donors but rather on the sorrow and loss of the desperate, infertile Israeli egg recipients who were portrayed as legitimate victims (Nahman, 2013). Renowned Israeli bio-ethicist Asa Kasher described this attitude as a typical example of "Jewish-Israeli surivalism", which he explained as:

> "*the instinct of people who for millennia thought about possible problems: don't miss an opportunity to strengthen your position because behind the corner there might be a problem lurking and you might need it, so adopt yourself better to your situation. Who knows what will wait for us tomorrow, the day after tomorrow, seize the day, explore every opportunity. If there is a way we can solve the problem [shortage of eggs, S.V.] by doing it in Czech Republic, so let's do it, why not? It's survivalism* (interview Tel Aviv, 26/07/2012)*.*

Carmel Shalev rather referred to this attitude as "*inappropriate victimisation*". During an interview (Tel Aviv, 21/02/2012) she remarked:

> "*There was this woman who appeared in the Knesset: 'Poor me, I had to go ten times to Romania and I still don't have an egg'. First of all, who is the doctor who sent you to Romania and how much money did he make with it? This victimisation is totally inappropriate because it is the infertile woman who is actually in the dominant power position in this relationship. You're not the victim, you're the one making the demand. If it weren't for you, she wouldn't be donating anything, she wouldn't be subjecting herself to these procedures if it weren't for you wanting her egg. So you are the one with the power in this relation, although infertility is a very complex emotional situation in a pronatalist society as Israel*".

FROM NATIONAL SHORTAGE TO BIOLOGICAL SURPLUS OF OOCYTES

Indeed, in a country as Israel where childlessness is pathologised as "*a deviation from the natural order*" (Donath, 2014:6), the fundamental notion underpinning the discourse of a national ova deficit is one of dire biological necessity. Many of the interviewed fertility doctors echoed this line of thought. Ronit Kochman (interview East-Jerusalem, 12/07/2012), fertility expert at Hadassah Hospital claimed for instance:

> "*Because there is a shortage, there is a true problem in this country and many old women **have to** go across the country, to Europe usually, to get eggs*".

The aforementioned quote by Neri Laufer (interview West-Jerusalem, 04/03/2012) already underlined how he felt he "***had** to resort to other [egg, S.V.] programs*" after the Ben-Rafael Affair. Feminist scholars and women's movements such as Isha L'Isha were among the few, marginalised actors in Israel that attempted to denaturalise the idea of a national shortage of eggs as being an artificial one, created by technological possibility and consumer demand. As Carmel Shalev aptly remarked (interview Tel Aviv 21/02/2012):

> "*What do you mean: 'you need eggs'? You need a roof over your head, you don't need eggs. It's not like you go to a quarry and you get some stones and you build a house*".

One of the issues that Marxist political economy has adequately addressed is that scarcity is not a natural or technical phenomenon, but one that is materially-discursively created in an attempt to increase the exchange value of commodities. Birch and Tyfield (2007, 2012) have described how scarcity in the 'bioeconomy' does not depend so much upon the biophysical characteristics or the availability of biological materials, but mostly on the political-economic regimes, such as property and labour rights, undergirding them. As described earlier, the Israeli discourse of a surplus or deficit of egg cells does not so much reflect biological laws of nature, but rather arose from Israel's socio-economic reality in which infertility is socially constituted as an illness and reproductive tissues have been objectified to commodities (Landecker, 2007; Helmreich, 2007).

The attempts of Israel's feminist camp to denaturalise and delegitimise the Israeli need for eggs did not halt the State of Israel's ambition to legislate the practice of egg donation, which over the course of 30 years has turned into a full-blown (trans)national market based on the commodification and traffic of egg cells as scarce resources. Especially after the Ben-Rafael Affair and the Sabyc Clinic Affair, the two dramatic events, which led to the further decline of the supply of ova, the Israeli State was determined to regulate the egg market. By allowing healthy women to donate ova, a better match was to be created between supply and demand of egg cells without pushing infertile Israeli women into the illegal and semi-legal circuits of transnational ova trafficking.

Egg Cell Donations in the Reproductive Realm

FROM OOCYTES WITHOUT A RELIGION TO INTER-RELIGIOUS ZYGOTES

Before Yaakov Litzman, Deputy Health Minister in 2010, agreed to support the Egg Donation Law, he requested the consent of the religiousl authorities. Israel's senior rabbinical figures insisted on adding an amendment that requires the donor and the recipient of the egg cell to share the same religion, as well as a clause stipulating the need for a baby born from the egg of a non-Jewish donor to undergo conversion. The introduction of these strict religious requirements was justified as a way to harmonise the Egg Donation Law according to Halakhic principles, since Judaism follows matrilineal standards by which the religion of a new-born is determined by the mother's religion.

Conflicting Views on Jewish Motherhood: Science vs Religion?

Halakhic standards generally define the mother as the one who carries the baby, favouring gestational motherhood over genetic motherhood[119]. As Ofra Balaban, president of the Israeli fertility patient rights association Chen Lapyrion, paraphrased it:

> "*An egg cell is just a cell, and cells don't have a religion; the mother is the one who carries the baby and she passes on her religion*" (interview Holon 26/02/2012).

In the case of the egg cell donations, however, the rabbinical authorities strongly disagreed on who or what defines motherhood, and thus Jewish kinship. Rabbi Avraham Steinberg, current president of Israel's National Bioethics Committee and paediatric neurologist and expert in medical halakhic ethics at Shaare Zedek Hospital in West-Jerusalem, clarified the stakes of the rabbinical debates on motherhood:

> "*There are at least four opinions among Jewish rabbis. One says that the genetic material is the important one, so the egg donor is the mother. Another one says that the egg is just a chip made in China, and what is important is the pregnancy, carrying the baby and delivering, it doesn't matter where the genetic material comes from. A third opinion says that neither is the mother, because to be a mother you have to fulfill both functions, and once you divide there is no half mother, and since it's half and half, then there is no mother at all. A fourth position is that both are mothers, who says that we can only have one mother, we have two mothers, one is the genetic mother and one is the nurturing mother*" (interview West-Jerusalem, 16/07/2013).

Since the rabbis failed to reach a uniform opinion on what constitutes 'pure' Jewish motherhood, it was decided that both the genetic mother (egg donor) and the gestational mother (egg recipient) should have the same religion, "*so that*", Avraham Steinberg continued, "*we know **for sure** what a child is, either Jewish or non-Jewish*" (interview West-Jerusalem, 16/07/2013, emphasis added by S.V.). Michel Revel, former head of the National Bioethics Committee and an acclaimed molecular geneticist who combines strong Jewish religious beliefs with a successful career in both academia and bio-industry, considered the addition of this clause as a Halakhic U-turn and "*a lack of courage*" of the State of Israel to uphold "*traditional*" Jewish beliefs that favour gestational motherhood over genetic motherhood (interview Nes Ziona, 16/07/2012)*.

> "*I've not understood yet why, but many rabbis have started to change their opinion. Before, it was generally accepted that the child will be Jewish if the woman who gives birth is Jewish. Now, the rabbis started to change their minds. They say: 'Well, the genetic origin of the egg is also important'. Then I say: 'But that's not what's written in the Torah'. And they say: 'Yeah, but the scientists say it's important'. So there is some kind of weird situation and I think - keeping in mind all these problems – they decided to put this clause in the law and to avoid*

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[119] Motherhood used to be confined to the woman who passes on her genetic material, carries the pregnancy and delivers the baby. With the arrival of assisted reproductive technologies, these maternal functions have been fragmented into separate women (genetic, mitochondrial, gestational etc.), resulting in conflicting opinions on what constitutes motherhood.

> *more problems. But in my opinion it's a weakness, a lack of standing for your opinions. It's very beautiful to say that the woman who gives birth is the real mother, because she's not only giving birth, she's going to raise the child".*

Similar to Michel Revel, many of my research participants who self-identified as being secular or moderately religious distanced themselves with great disdain from the farfetched strictness of their Orthodox counterparts.

While in the abovementioned quote, Michel Revel diametrically opposes genetics with Jewish religion, recent work of scholars such as Nadia Abu-el Haj (2012) and Tsipy Ivry (2010) actually points out the ongoing geneticisation of Judaism, and of Zionism, in defining Jewish purity, descent and collectivity[120]. Moreover, as Frida Simonstein (2008) has noted, regarding issues of assisted reproduction and human embryonic stem cell research a remarkable alliance has been forged between the scientific community and the Jewish orthodox community. Thus, even though the inclusion of the religious amendment has been trivialised by many of the involved actors as an unwanted but necessary compromise between the secular and Israel's increasingly powerful religious parties, I would argue that this juxtaposing served as a discursive attempt to depoliticise the racial aspects of egg donations in Israel. As Ben-Porat (2000:223) has pertinently remarked, the alleged split between Israel's secular and religious forces *"has often obfuscated their interdependence in articulating Zionist exclusionary state practices"*.

Religious Divisions and Racial Markers

As Israel defines itself as a Jewish State where full citizenship is largely based on one's degree of Jewishness, being considered Jewish is therefore a fundamental issue. Jewishness (and preferably Ashkenazi Jewishness) is seen as a condition for counting as a legitimate citizen who is entitled to the entire gamut of political and social rights (Yiftachel, 1999, 2006; Ben-Porat, 2000; Shafir and Peled, 2002). In this respect I follow Michal Nahman (2013), who claims that egg donations are as much about Jewish kinship and religion as they are state-making practices through which certain

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[120] In *The Genealogical Science: The Search for Jewish Origins and the Politics of Epistemology* (2012) Nadia Abu-El Haj analyses the scientific premises of Zionism's/Israel's flourishing, century-old field of genetic history. This biological discipline that aims to reconstruct the geographic origins of contemporary populations, in this case the Jewish population, through genetic data is gaining ever more credibility and social reach. A recent example of this genetic quest to biologically determine and reify the historical existence of the Jewish people is Karl Skorecki's 'remarkable discovery' of a set of genetic markers on the Y-chromosomes of the Cohanim, the Jewish priestly class which according to biblical accounts was established 3300 years ago and is determined by strict patrilineal decent ((Science, 1997; Denes, 2011). The social implications and political stakes of this type of research can be read in the preface of Harry Ostrer's book 'Legacy: A Genetic History of the Jewish People' (2012): "*Having a 3000-year genetic legacy can be a source of group identity and pride in the same way that having a shared history, culture, and religion can be sources of pride".* Israeli scientists' unbridled fascination for the biology and alleged genetic relatedness of the Jews can also be interpreted as a way to scientifically lay a claim to a geopolitical existence in Eretz Israel.

imaginaries on Israeliness, citizenship, race, genetics and the nation are performed. One of the important insights from Nahman's work on the egg traffic between Israel and Romania is that practices of transnational egg donation have reinforced the demarcation of Israel's national boundaries. She noticed, for instance, how in an Israeli proxy fertility clinic in Romania, the sperm and embryo vials of the Israeli recipient couples were all labeled with their Israeli ID number, presupposing that they "*somehow already belong to the state*" (Nahman, 2013:60). She also recalled how at a certain moment, when the Israeli government halted the import of ova from an Israeli proxy clinic in Bucharest, the Israeli couples who had already started their fertilisation procedures demanded 'their' embryos back, insisting that the embryos had the 'right to return' to Israel (Nahman, 2006, 2013). The right of return is a highly charged concept in Israel since it mostly refers to the right of Palestinian refugees to return to their homeland, a right which is confirmed by United Nations Resolution 194, but is vehemently denied by Israel. Concordant with Israel's demographic policy it appeared legitimate to bring back Jewish embryos 'from the Diaspora' under the Law of Return while simultaneously denying six million Palestinian refugees their Right to Return.

I argue, in similar fashion, that Israel's 'local' Egg Donation Law should not strictly be understood by referring to religious and existential questions of Jewishness. It could also be viewed as another example of Zionist settler colonial biopolitics, as it not only promotes Jewish natality and concurrently prevents Palestinian natality, but also renders cross-religious kinship ties between Jews and Palestinians more difficult. As the Egg Donation Law requires the egg recipient and donor to be of the same religion, it renders it impossible for a Muslim, Christian or Druze woman to donate an egg cell to a Jewish couple and vice versa, unless this is approved separately by an Exceptions Committee[121]. Since Palestinian women hardly ever donate egg cells in Israel, the law basically impedes them to make use of this reproductive service. Mira Hibner Harel, the Legal Advisor of the Ministry of Health and her assistant Talia Gamon, who were the main architects of the Egg Donation Law, explained the inclusion of the amendment as a way to "*not make more problems than we already have, and we have a lot*" (interview 20/02/2012, West-Jerusalem, emphasis added by S.V.):

> T.G. "*Because in Judaism the mother is the one determining what the religion of the baby would be, and if the rabbis don't agree among themselves if the mother is the egg donor or the recipient, then we have to please both of them. I don't know how it goes in Islam.*
> M.H. *"In Islam it's the father who decides the religion of the baby".*
> T.G. *"If, for example, there would be a Jewish egg donor and a Muslim recipient then this would cause problems because the baby would be* **both Muslim and Jewish***. I said Israel is a*

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[121] The guidelines of the Health Ministry state that if the woman wishes to receive a donation from a donor who is married or who is not her coreligionist or from a woman who is known to her, the responsible physician or the recipient shall apply to the Exceptions Committee.

traditional country and we don't have separation of state and religion and it is important to make sure that everybody is comfortable".

Asa Kasher, a well-respected bioethicist and former member of the Bioethics Committee elucidated:

"*We don't know what will eventually emerge as the religious attitude towards inter-religious zygotes, so we decided to stay on the safe side*" (interview 26/07/2013 Tel Aviv).

Ironically, most Israeli women in need of an egg donation continued to make use of transnational egg programs with countries such as the Ukraine, Romania and the Czech Republic, where oocyte vendors are rarely Jewish. In these cases of transnational ova donation, the State of Israel solved the alleged kinship problem by encouraging the gestational Israeli mothers to convert the children born from this procedure to Judaism in order for them to be recognised as full-fledged Jews (Nahman, 2013). In the latter case, the genetic possibility of a so-called cross-religious zygote did not motivate Israeli policymakers to outlaw the practice. This raises the suspicion that these religious legitimations hide more than they actually reveal, as is often the case in Palestine/Israel.

Indeed, religious categorisations of Jews, Muslims and Christians often tend to obscure underlying racial and ethnic classifications of Arabs/Palestinians versus Jews. As Patrick Wolfe (2016:260) has phrased it: "*In Israel, religion operates as a racial amnesty*". When asked about his opinion on the inclusion of the religious clause in the Egg Donation Law, Adrian Ellenbogen, a fertility specialist from Hadera, stated:

"*The consensus was that we didn't want to mingle between populations and to put, let's say, a Jewish egg in an* **Arab** *woman*" (interview 21/08/2012, Hadera, emphasis added by S.V.).

Nahman's research on practices of ova extraction and exchange demonstrated how, before the creation of the 2010 Egg Donation Law, Jewish-Israeli women rejected, or at least considered rejecting ova from Palestinian-Israeli women. She quoted a Mizrahi couple:

"*Regarding the religion of the donor, we didn't talk about it, so I guess it's not relevant. Of course it's important that she shouldn't be an Arab, ya'ni*" (Nahman, 2006:205)[122].

She also observed how, in general, Israeli egg recipients preferred egg donors with a 'light skin', compelling her to view egg donations in Israel as a technology of racism through which Zionist imaginaries of Ashkenaziness and whiteness are reinforced[123]. Some egg recipients indicated, though, that the skin of the donor should be white, "*but not a strong white, pointing out that she should not look too Middle Eastern, but neither too un-Middle Eastern*" (Nahman, 2006:203).

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[122] "ya'ni" is a typical Arabic stop gap meaning "I mean". It is also been appropriated in daily spoken Hebrew.

[123] Similar conclusions have been drawn by Daphna Birenbaum-Carmeli (2000) on sperm donation and Elly Teman (2010) on surrogacy in Israel.

Andrea Smith (2010) already explicated how the rationalities behind settler colonialism and white supremacy do not always coincide, and how settler advantages revolve around more complex issues than mere biological whiteness.

Haifa, 01/07/2013

My first day back in the Holy Land. At the end of my meeting with geo-demographer Arnon Soffer at Haifa University, we shake hands and he tells me good bye, saying: "You're staying in Israel for the summer, right? I hope you have brought your swimming suit. You have to take care of your skin, though, because you're very pale". "Here it's okay", he said while pointing at my shoulders that are slightly more tanned than my very white legs, "here you have the right Israeli colour".

Kiryat Ono, 25/08/2014

I am sitting in a trendy coffee shop in the Kiryat Ono Shopping Mall with Mina Yolzari, egg and surrogacy broker and co-founder of the Israeli Parenting Center. At one point during our conversation, her daughter Gal walks into the coffee shop to hand over the key to the office.

M.Y. *This is my daughter Gal, she doesn't look Israeli, does she?*
S.V. *I think so?*
M.Y. *Yes? I think she looks like a European, blonde and so.*
S.V. *Maybe she looks a bit Eastern European.*
M.Y. *Yes, Eastern Europe. My parents come from Eastern Europe. I'm looking Israeli, yes.*
S.V. *Are you happy with that?*
M.Y. *Yes. (Laughs)*
S.V. *So you don't like how your daughter looks?*
M.Y. *Of course, she is my daughter and she is beautiful. But I like the way Israelis look like. My son looks Israeli.*
S.V. *How does an Israeli look like?*
M.Y. *He is more Israeli than me. He has darker skin, very dark skin. He's tall and strong. My daughters look more European. He is darker. I like the Israelis, they are good looking.*

Egg cell donations are not the only intimate matters in which cross-religious mixing between Muslims, Christians, Druze and Jews are problematized (See Figure 9). The Surrogacy Law, for instance, stipulates that the gestational mother and the contracting mother are required to have the same religion and, also the Adoption Law requires religious matching (Kahn, 2000; Teman, 2003; Birenbaum-Carmeli & Carmeli, 2010; Karayanni, 2010) [124]. Also Lorenzo Veracini (2010:31-31) already suggested that settler entities have developed the sovereign capacity to govern and supervise indigenous/exogenous reproductive mixing "*by suppressing its very possibility*".

At an even more foundational level, cross-religious marriage is not possible in Israel since marriage falls under the sole jurisdiction of the religious courts. There is no civil alternative

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[124] In 2014 a bill was proposed in Knesset by Yesh Atid to allow interreligious adoption, but it has not been voted yet.

available[125]. The State of Israel has created strict boundaries between the country's different religious population groups. The Egg Donation Bill can be viewed as yet another illustration of Israel's determination to safeguard these boundaries (Kanaaneh, 2002).

As earlier discussed in the first chapter on "*Unsettling Israel's ART policies*", I argue that in Israel these religious categorisations serve to mask Zionism's structural reluctance to bioculturally assimilate the indigenous Palestinian population (Wolfe, 2007; Hirsch, 2009). In some cases, however, Jewish religion actually prefers cross-religious mixing. In case of sperm donation, for instance, ultra-orthodox Jews would rather obtain sperm from a non-Jew or '*goy*' than from a Jewish donor out of fear of birthing a '*mamze*r', a child born of incest. Similarly, the Law on Egg Donation contains an amendment postulating that when an additional sperm donation is needed, the sperm of an overseas (read: non-Jewish) donor will be used, compelling many of my research participants to conclude that there is no racism at play (Knesset, Law on Egg Cell Donation, 2010)[126]. David Heyd, bioethicist and former member of the National Bio-Ethics Committee, called the religious clause "*a strictly symbolic measure without any discriminatory or racist side-effects*" (interview 08/08/2012, Jerusalem). Yali Hashash, a feminist scholar/activist termed this concern a "*theoretical non-issue*".

> "*Jewish women hardly donate in the new framework of the law and Palestinian women never donate because of religious reasons, so it's not really an issue in practice*" (interview Haifa, 10/01/2012)[127].

However, since Palestinian women indeed rarely donate egg cells in Israel, this amendment ensured that they will also never benefit from an egg cell donation, unless it is approved by the Exceptions Committee. As such, I have argued that Zionist settler nationhood is performed through practices of and imaginaries on egg donations, by empowering Jewish procreation,

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[125] Orthodox Judaism has been given the monopoly over key aspects of civil life, such as birth, marriage, divorce, burial, etc. It has also introduced Jewish dietary rules (kashrut) in all governmental and army institutions, and established the Jewish holidays as official state holidays. The decision on what/who constitutes a Jew was handed over to the religious authorities (Ben-Porat, 2000).

[126] Until now, there is no special law on sperm donations in Israel, only regulations from the Health Ministry. Unlike the Egg Donation Law, these regulations do not mention any restrictions on cross-religious donations. Shahar Kol, head of the sperm bank unit at Rambam Medical Centre in Haifa clarified how ultra-orthodox Jews would prefer the sperm of non-Jews, while both Christian and Muslim Palestinian Israeli women would accept the sperm donation of Israeli Jews; mostly out of necessity seen that there are hardly any Palestinian sperm donors (interview Shahar Kol, Haifa, 02/09/2014). Apart from the Haredim, however, most Jews specifically request a sperm donor who is Jewish, or rather not Palestinian, despite the absence of explicit cross-religious restrictions in the sperm donation regulations. As described in the previous chapter, the preference for a sperm donor with a military background as a combat soldier could be viewed as guarantee for not receiving Palestinian sperm, since Palestinians usually do not serve in the IDF.

[127] According to Sunni interpretations of Islam, third party gamete donations are indeed forbidden. For Palestinian Christians there are no religious restrictions regarding egg donation.

disempowering Palestinian fertility and rendering so called cross-religious fertilisation more difficult.

ISRAEL'S BABY MARKET: BE FRUITFUL AND MULTIPLY MY PROFITS

Israeli Egg Donation as a Failed Practice

Since the voting of the Egg Donation Law in 2010, only six of Israel's 25 IVF clinics have initiated local egg donation programs, which have failed to attract many egg donors. According to the Israeli Health Ministry (2014), between 2010 and 2014 only 43 Israeli women registered as egg cell donors, the large majority of them being Jewish Israelis[128]. Some have attributed the poor turnout to the relatively low compensation fee offered to egg donors. Fertility organisations such as Chen Lapyrion and Parenthood Centre argued that the financial incentives were not strong enough to motivate women to donate in Israel. While the Ministry of Health agreed to increase the allowance from NIS 10.000 in 2010 to NIS 19.000 in 2013 and to NIS 20.000 in 2014, this attempt still failed to attract more egg donors. The same egg donation done in the United States could easily yield Jewish Israeli women the fivefold amount. Adrian Ellenbogen, the first doctor who conducted an egg donation in the context of the new law, blamed the bureaucratic complexity of the procedure for the disappointing number of donors.

> "*Just to explain to you; first I have to recruit a donor by interviews, by publicity, by radio. When a potential donor is coming, I have to interview her and provide her all the explanation with a very, very, very thorough discussion about all the potential medical problems. Then she has to pass medical examinations: general medical examinations, gynaecological examinations, laboratory examinations, pop smear, breast check. She has to bring a letter from her private gynaecologist that she is indeed healthy, and a letter from her general doctor that she's a healthy lady. She has to bring a certificate from the police that she is an honest person signed by an attorney. When I have all this data ready, she has to come for a psychological consult. If she passes the psychological consult she has to appear before a hospital committee that again is asking questions about why she's doing a donation. Only then she can proceed. Finally, I have to put her data in a computer with all the details of her and her parents. Someone at the Ministry of Health has to check if there are no relationships between her and the recipient. The process takes a lot of time, resources and manpower.*"

All of the fertility doctors interviewed in the framework of the Egg Donation Law lamented how complicated, time-consuming and/or bureaucratic the new law was. The majority of them were in favour of the principle ideas behind the Egg Donation Law, but claimed it was close to

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[128] Personal communication Etti Samama, 19/05/2014 and Atias, Ada, e.a. 2013. "We Need to Raise Awareness of Egg Donation in Israel". *Ha'aretz* 19/03/2014. www.haaretz.com/opinion/.premium-1.580728, last entry 16/06/2016.

impossible to put the law into practice. Hedva Eyal, former coordinator of Isha L'Isha, who strongly lobbied against the law, confessed:

> "*Every time I hear doctors complain that the law is very problematic, that they can hardly implement it, then I think to myself: 'Yes, we did a good job, I'm very happy*!' *(laughs)*" (interview Haifa, 28/01/2012).

Another factor at play in the failing of the Law is the lack of profitability it bears for fertility doctors. According to the Law an egg donation procedure has to take place in a public hospital at the fixed rate of NIS 20.432[129]. This entire amount is destined for the egg donor, limiting the potential profit margin for the doctors, to their great dismay. As Daniel Seidmann, fertility specialist at Sheba Medical Centre, phrased it (interview Tel Aviv, 05/05/2014):

> "*They [the Ministry of Health, S.V.] made sure that doctors should not benefit from this [egg donation in Israel, S.V.]. You know, it's kind of a communist thing saying 'oh they should not make money and they should all be philanthropic. Doctors should spend a lot of hours on this project without making money'…so this is great if you're living in the 1920s in communist Russia and you believe that people do things without being paid. Ok, but unfortunately why should we"?*

Moreover, for those Israeli fertility doctors who are involved in transnational egg donation programs, a local egg donation program does not open any financial horizons. Hedva Eyal clarified:

> "*Many doctors have their private IVF clinic abroad, making a lot of money with egg cell donations, and they don't have any reason to stop with their business, because when the law on egg cell donations would be implemented in Israel they would not make money with it*" (interview Haifa, 28/01/2012).

Ira Nissel, CEO of Embryon, reiterated:

> "*The egg donation programs overseas have been going on now for twelve years, and are controlled by the same doctors who are the department heads in all of the major hospitals in Israel. From a financial point of view, it's not in their benefit to have local egg donations*" (interview Tel Aviv, 22/07/2014).

Hadassah Medical Centre, which houses one of the most established and popular IVF units in the country, continued its successful egg donation program with Reprofit International, a Czech proxy IVF clinic, without developing a local egg donation program. Their website mentions that:

> "*In Israel, it is difficult to obtain oocytes for donation. Currently, the egg donation law has been approved by the Knesset but its complex implementation has not yet begun. To meet the*

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[129] According to the guidelines of the Health Ministry: "*the reimbursement of expenses and overall monetary compensation to a volunteer donor for the egg retrieval procedure performed on her for the purpose of implantation shall be a uniform amount for all donors, to the sum of NIS 20.432 (as of 2015) per retrieval cycle. The monetary compensation to a treated donor shall be one half of the payment given to a volunteer donor*". http://www.health.gov.il/English/Topics/fertility/Pages/ovum_donation.aspx (last entry, 14/07/2016).

> *demand, Hadassah has created a partnership with a clinic abroad that offers this treatment*"[130].

Depending on the chosen treatment package, the costs for the transnational procedure vary between NIS 31.000 and NIS 41.000, which is double the amount a local egg donation would cost.

Medicalised Pronatalism: Israel's Baby Industry

In the preface of her foundational study on America's fertility market (2006:xv-xvii), Deborah Spar aptly remarked: "*Despite the heartfelt sentiments of parents and providers, there is a flourishing market for both children and their component markets. It may be cloaked in different language, it may be fragmented and skating in the edge of illegitimacy, but it is a market nevertheless*" (See Figure 10). In 2015, the turnover of the global fertility market was estimated between \$30 and 40 billion. The biggest players in the market are pharmaceutical giants such as Merck Sereno, Auxillum and Ferring and biotech companies including Origio, Vitrolife AB, Andology Solutions, Auxogyn and Ovascience (Fortune, 2015).

Additionally, reproduction has been "*enterprised up"* in Israel over the last three decades, resulting into a thriving and profitable baby business (Strathern, 1992). Since 1982, when fertility 'pioneers' Edwina Rudak, Joshua Dor and Shlomo Mashiach established Israel's first IVF laboratory, the country has developed a flourishing ART industry, consisting of scientists, medical professionals, pharmaceutical industries, start-up fertility companies, sperm banks, surrogacy agencies and egg brokers who have all managed to capitalise on Israel's institutionalised pronatalism (Spar, 2006; Birenbaum-Carmeli & Carmeli, 2010). In both the areas of assisted reproduction (IVF, egg donation, surrogacy, fertility drugs) and reproductive genetics (PGD, diagnostic tests, genetic counselling) a multitude of entrepreneurial doctors, professional organisations and private ventures have proliferated over the last thirty years, often taking up crucial positions in the global reproductive market too. Dyn Diagnostics, for instance, an Israeli start-up company specialised in developing diagnostic tools and kits for the analysis of semen and IVF success predictions, was recently taken over by the diagnostic division of the pharma mogul Roche. In the next chapter "*From the Pergonal Project to Kadimastem*", I will elucidate in greater detail the reproductive foundations of Israel's globalised bioeconomy by making a genealogy of its 'reproductive-industrial complex'. For now it suffices to discuss a few general features of Israel's regime of medicalised pronatalism (Denes, 2011).

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[130] http://www.hadassah-med.com/medical-care/departments/obstetrics-and-gynecology-ein-karem/egg-donation (last entry 28/01/2015)

Within Israel's fertility regime, medical specialists have emerged as a powerful professional group. Israel's 25 fertility clinics employ more than one thousand doctors and other medical staff. They often combine a professional career in a public medical institution with a private fertility practice, with the latter offering higher profit rates. In Israel, a cycle of private treatment usually costs between €5.000 and €6.000[131].

As most fertility services are part of the national health basket, regardless of whether they are performed in public or private clinics, the fertility sector is basically a state-funded health business. As such, the demand for reproductive services, which in other parts of the world are expensive and thus unaffordable for a large part of the population, is stable and guaranteed in Israel. When asking one fertility specialist from Haifa why anyone would opt for a private treatment if the National Health Insurance covers all IVF treatments, she replied (interview Haifa, 22/02/2012):

> *If you do it in a public hospital, you cannot choose your doctor. In a private clinic, you can choose the doctor who aspirates and retrieves the embryos. It costs you something like 3.000 shekel, which is not a lot, but you can get a refund of at least half of the costs from the National Insurance. So it's only about 1.500 shekel, which is not much. So some people prefer to go to a private clinic where everything is much nicer and there are more personal choices. So the private IVF industry here is quite booming[132].*

It would go too far to claim that fertility doctors are responsible for Israel's generous reproductive policies. As Daniel Seidmann asserted:

> "*I mean, nobody ever had a baby because the fertility doctors pushed for it. It's like saying plastic surgeons are the reason women want big breasts*" (interview Tel Aviv, 05/05/2014).

There is no doubt, however, that as a professional group physicians are greatly benefitting from Israel's pronatalist regime, and are keen to safeguard this privileged position.

Recent studies reveal that Israeli fertility doctors are increasingly opposing the existing IVF policies that permit women up to the age of 45 to receive unlimited IVF treatment since the chances of a successful pregnancy after three consecutive failed IVF treatments after the age of 43 are near zero (Simonstein and Revel, e.a., 2014; Gooldin and Lunenfeld, forthcoming). Yet, the majority of Israel's biomedical establishment has proven supportive of the country's permissive ART regulation. It is a recurring scenario in Israel that every time the public discussion on cutting back on the generous IVF reimbursements resurfaces in the Knesset, a medical expert appears on stage to hold a strong plea in favour of refunding fertility treatments. In 2003, for instance, when

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[131] In comparison, in Belgium fertility treatment costs around €4.000, while in the U.S. it can run anywhere from €10.000 to €30.000 (Klein, Amy. Doing Fertility Treatments in Israel: Pros and Cons, Ha'aretz, 09/03/2015 http://www.haaretz.com/israel-news/culture/health/1.631674 last entry 11/07/2016).

[132] According to one source, about 70 per cent of Israel's fertility treatments are performed in private hospitals. (personal communication, 30/07/2016).

discussions were held in the Committee for the Advancement of Women's Status to lower public funding for IVF, Professor Shlomo Maschiach, one of Israel's most prominent fertility doctors, testified:

> *"We are talking about at least 2.000 children that [will not] be brought into this world because of this decree... It is almost impossible to achieve pregnancies with five treatment cycles... [If the de-insuring policy is approved], 50 per cent of the parents who would have been able to bear children will not be able to do so under the present conditions, not to mention the second child, whom you have cancelled altogether. Do you know what you are doing here and what kind of a proposal this is? It is like sitting down and shooting around 1.000 or 1.500 children* (quoted in Shalev & Gooldin, 2006: 165).

The biggest profits in Israel's fertility business are made when the national borders are crossed. As I will discuss with more detail in the fourth chapter on "*Transnational Gay Surrogacy",* Israel's prosperous cross-border reproductive commerce flows in two directions. On the one hand, outgoing trips are organised to Eastern Europe, Mexico, India, Thailand, South Africa or Nepal for Israelis in search of cheap egg cells and surrogate mothers. On the other hand, the widely regarded world-class reputation of Israeli fertility specialists has turned the country into a global hub for infertility treatment, attracting reproductive tourists from all over the world, in particular from Russia, the United States and Europe (Inhorn and Birenbaum-Carmeli, 2008).

Every year hospitals and medical institutions in Israel attract thousands of fertility patients in search of the still relatively cheap and high-quality IVF treatment, genetic tests and counselling. Fertility units are keen to attract foreign patients since these can be charged up to 50 per cent more than regular Israelis for the same treatment. In the area of medical tourism, which has become an important source of income and financial survival for Israel's medical institutions, 'Jewish' repro-genetics has transformed into a particularly lucrative niche. The Shaare Zedek Medical Center in Jerusalem, for instance, has launched marketing campaigns inviting American Jews to combine religious holidays in 'Eretz Israel' with '*kosher*' genetic screening procedures that are illegal or restricted in the US, such as elective and medical sex selection (Denes, 2011; Leiter, 2014)[133]. Another repro-tourism hub is Rabin Medical Center's genetic screening clinic in Petah Tikva, where Mordechai Shohat has developed the Genometer, a program that provides pregnant couples with a list of recommended prenatal genetic tests "*based on their family background and*

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[133] In Israel, sex selection for medical reasons is allowed and included in the basic benefits package of the National Health Insurance. In principal, sex selection for non-medical reasons is prohibited, but exceptions can be made. Couples and single women can apply for an elective sex selection if they feel it would prevent significant damage to the family's mental and emotional health. In addition, specific and "idiosyncratic" religious reasons were considered, as in cases of priestly Jewish families (the Cohanim) requiring a sperm donor where a son who is not of genetic lineage could not publicly bless the congregation, and thus girls would be preferred. As a rule, the applicants should be married and have four children of the same sex and none of the other. Research on sex selections in Israel has indicated that most of the applicants requested male children (100 per cent of Arab families, 2/3 of Jewish applicants), and the primary reason for request was parent's intense emotional desire (Leiter, 2014).

the couple's ethnic origins"[134]. The centre also provides screenings for carriers of common so called 'Jewish' genetic diseases such as Cystic Fibrosis and Tay-Sachs disease. Dr Shohat has patented the software, which is used across Israel's health system to generate testing protocols for couples planning or beginning pregnancies (Denes, 2011).

Moreover, there has been a remarkable spillover of these overtly 'Jewish' reproductive services to other countries with a large Jewish community, such as the United States. Jewish eggs, for example, have turned into a hot commodity in America's IVF marketplace worth between 8.000 and US$ 50.000 (Weidman Schneider, 2001; Spar, 2006). An increasing number of egg donor companies in the United States deal primarily with Jewish Israeli donors. NY Lifespring, for instance, is a fertility company launched by Ruth Tavor, an Israeli egg broker, who specialises in finding a match between Jewish Israeli donors and couples in the United States. Operating in a legal grey zone, she has by now attracted some 250 Israeli donors on file, who according to the website share the following 'typically Jewish' traits:

> "*Most of our Jewish donors are compassionate young women who grew up in Israel and have recently completed their military service, which is mandatory in Israel. Some have entered the University or completed their studies, and some are about to begin their undergraduate degrees. Before entering the University, many take a grand trip to the Far East, South America or some other distant and exotic destination. A good number of them travel first to the U.S., and New York City in particular, visiting family and friends. These women are normally outgoing, confident and open minded, as evidenced by their adventurous spirits. They are generally healthy, both mentally and physically, with active social networks and a sense of warmth and ease around strangers. Doing a good deed, or mitzvah, is among their most frequently listed reasons for donating. There is a spectrum of Jewish heritage in Israel, from Sephardic to Ashkenazi, from observant to secular. For Jewish recipients who desire to find a Jewish egg donor with physical and cultural characteristics similar to their own, this spectrum allows matching across a wide range*"[135].

About the egg recipients Tavor claims that they prefer NY Lifespring not so much out of religious considerations as out of a "*deep sense of connectedness with Jewish heritage*". As one egg recipient testified on the website:

> "*Having a Jewish donor gave me an added connection, physically, emotionally and spiritually, with my future child. When you choose [a Jewish donor, S.V.], you can imagine that 3.000 years ago you were part of the same tribe, you share the same gene pool*".

Judy Weiss, founder of A Jewish Blessing, a New Jersey-based agency that deals exclusively with Jewish donors and recipients, agreed that this Jewish reproductive niche is not so much about religion.

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[134] http://www.afrmc.org/newsarticle/12 (last entry, 12/02/2015).
[135] http://www.nylifespring.com (last entry 29/01/2015)

> *"It's about a genetic group, a family. We have a shared history of suffering, a bond. We are part of the same club"*[136].

For now, we can conclude that Israel's stance on egg donations within the reproductive realm is exemplary of Zionism's scientific management and enterprising of Jewish procreative life. Imaginaries and practices of egg donations in Israel are co-producing the Zionist settler nation by facilitating Jewish natality and hampering Palestinian reproduction while biologically essentialising notions of Jewish genetic purity and relatedness. It has also privileged the emergence of a powerful repro-medical establishment consisting of fertility doctors, embryologists, fertility start-ups and fertility brokers that has capitalised on Israel's institutionalised pronatalism concerning egg donations and has proven keen to maintain and further consolidate its privileged position.

Putting Eggs in the Research Basket: The Emergence of Israel's Stem Cell Market

The Egg Cell Donation Law has rightly been evaluated as yet another example of Israel's pronatalist fertility regime (Shalev, 2010). The new law, however, did not only regulate the deployment of egg cells in the reproductive realm, it also enabled the donation of egg cells for scientific purposes, an aspect that - as Yali Hashash (2010) remarked - has been largely disregarded in the existing literature on egg donations in Israel. At the request of Israel's repro-medical establishment, which was strongly represented in the public debates preceding the voting of the law, it allowed a woman to donate maximum two eggs or fifteen per cent of the total egg harvest (whichever of both is least) for research purposes (Shalev, 2010; Hashash, 2010)[137].

Indeed, eggs cells are not only destined for reproductive markets, but can also be used for different types of biomedical research, such as fertility research or stem cell research. Oocytes, like embryos, have what Sarah Franklin (2006) called a double reproductive value. They can be provided to an infertile woman in a hospital to create a newborn baby, but they can also be biotechnically reassembled in the laboratory for the production of human embryonic stem cell lines (Waldby, 2009). Stem cell research speculatively aims to transform the treatment of

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[136] Bechar, Ayelet. 2008. "Demand for Jewish Eggs Attracts Israeli Donors". *Forward* 25/09/2008. http://forward.com/articles/14281/demand-for-jewish-eggs-attracts-israeli-donors-/ (last entry 30/01/2015)

[137] Initially the biomedical representatives suggested allowing the donation of up to 49 per cent of the egg 'harvest' for scientific use. After interventions from the Israeli feminist organization Isha L'Isha it was eventually decided that an egg provider may choose to designate only a certain number of eggs for scientific research: maximum two eggs or fifteen per cent of the total number of extracted eggs.

degenerative conditions such as Parkinson, Alzheimer, Multiple Sclerosis or organ failures through the development of regenerative therapies. These therapies offer treatment based on (tailor-made) tissue and cell renewal instead of organ transplants (Gottweis, Waldby and Salter, 2009). In the remaining part of this chapter I will argue that Israel's permissive stance on egg cell donations should also be understood in the framework of its emerging stem cell sector, as a way to strengthen its biotech-position in the global therapeutic and research market.

THE BRIGHTEST STAR IN ISRAEL'S TECHNO-SCIENTIFIC GALAXY

Since the neoliberal turn of the 1970s economizing bare life and capturing the so-called surplus vitality or biovalue in biological and reproductive processes has become a very globalised and lucrative business (Franklin & Locke, 2003; Waldby, 2002; Rajan, 2006; Rose, 2007). This has transformed the biomedical sciences into a profitable sector of investment for the volatile flows of surplus financial capital that are structuring the global economy (Arrighi, 1994; Harvey, 2005; Cooper, 2008; Zeller, 2008; Birch & Tyfield, 2012). Israel refers to its biotech sector as "*one of the brightest stars in Israel's technological galaxy*" (Bell & Freireich, 2006: s.p.).

While throughout its history the Zionist movement has always shown a keen interest in science and technology, this has gained momentum since the early eighties when Israel became a major player in the global arena of biomedical research and development, with a particular focus on healthcare (Filc, 2005; Prainsack and Firestine, 2006; Nahman, 2013)[138]. The financial crisis of the late 1970s paved the way to radically transform the country's macro-economic regime that until then was based on 'developmental' principles such as state-led economic growth and import substitution (Bichler and Nitzan, 2002). The New Economic Policy (NEP) was introduced to radically break with this Zionist form of developmentalism and welfarism by introducing generic neoliberal recipes, such as privatising state-led industries and services and encouraging the export of high-tech products such as electronics, military equipment and biotechnological and pharmaceutical products[139].

In this ongoing political project of neoliberalisation, Israel emerged as the self-proclaimed 'start-up nation', the country with the largest number of start-up companies in the world in proportion to its population (Senor & Singer, 2011; Vertommen, 2016b). By 2013, 662 start-up companies

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[138] The close entanglement between Zionism, capitalism and science and technology will be further explored in Chapter 3, "*From the Pergonal Project to Kadimastem*" that offers a genealogy of Israel's reproductive-industrial complex.
[139] In that same third chapter I will argue, however, that Israel's bioeconomy is not solely the product of the neoliberal reconfigurations of the world-economy since the early eighties, but is rooted in an older yet ongoing history of Zionist settler colonialism.

were registered in Israel, with a particularly high success rate in high-tech and life sciences (IVC, 2014). As Israeli cancer researcher Avi Treves aptly phrased it:

"*Israelis are mainly entrepreneurs, it's in their DNA*" (interview Tel Aviv, 26/02/2012).

The stem cell sector constitutes a promising sector within Israel's thriving bioeconomy (Vogel, 2002; Prainsack, 2006). The global stem cell market is currently estimated at around two billion dollars and is expected to grow further in the coming years when/if clinical therapies that are still under clinical evaluation receive approval from the health authorities. Israeli start-up companies such as Pluristem, Cell Cure, Gamida Cell, Brainstorm and Kamidastem are considered to be 'pioneers' in the area of cell therapy and regenerative medicine. Since the stem cell research field was established in 1998, Israeli scientists such as Benyamin Reubinoff, Joseph Itskovitz-Eldor, Michal Amit, Karl Skorecki and Nissim Benvenisty have been at its 'frontier' (Vertommen, 2016b). In March 2002 Science Magazine described Israel as one of the leading countries in stem cell research, a position it has managed to preserve until today (UKSCI, 2006). Ten of the first twelve publications on human embryonic stem cells included Israeli authors (Vogel, 2002). The first two research teams that managed to isolate human embryonic stem cell lines in the late nineties both included Israeli researchers. Jamie Thomson from the University of Wisconsin collaborated with Joseph Itskovitz-Eldor and Alan Trounson from Monash University in Melbourne got Benyamin Reubinoff on board. But how did Israel succeed in obtaining this pole position in the global stem cell sector? In the following section I will discuss the prevailing positions in the Israeli debates on stem cell science.

THE STEM CELL DEBATES: THE CHICKEN OR THE EGG?

In the existing literature and during my interviews different reasons were mentioned to explain Israel's groundbreaking role in the advancement of stem cell research, including the substantial amounts of governmental funding and a lenient regulatory framework. Indeed, the Israeli government, through the Office of Chief Scientist, has supported the establishment of a national stem cell sector by transferring multiple million dollar research funds to this field, building cutting-edge laboratories and helping to launch start-up biotech companies specialised in stem cell therapies. On a more foundational level this remarkable governmental support has been traced back to Judaism's lenient stance on techno-scientific interventions (Prainsack and Firestine, 2006; Simonstein, 2008; Ben-Or and Ravitsky, 2010; Shalev and Hashiloni-Dolev, 2011).

Jewish Perspectives on Embryos, Health and Medicine

Contrary to Christianity, Judaism does not oppose human embryonic stem cell research as Talmudic tradition presumes that life begins significantly after conception. According to the UK Stem Cell Foundation this makes Jewish teaching "*orthodox in nature, but very liberal from a medical point of view*"[140]. Before the 40th day of fertilisation, an embryo is considered to be *maya b'alma* or mere water (Halperin, 1996; Steinberg, 2003)[141]. Renowned stem cell scientist Michal Amit (interview Haifa, 22/02/2012) clarified:

> "*According to Jewish religion an embryo becomes a person with rights and a soul only after 40 days of fertilisation, that's eight weeks. So the five days old embryos that we use for hESC derivation are not human beings as far as the Jewish religion sees it. They will not see it as if we are executing living persons by using these embryos for science, so there is much less resistance of people who are against this science*".

As mentioned before, there has been a noteworthy alliance between Israel's religious and scientific community in its position towards bioscience and medical research (Simonstein, 2008; Nahman, 2013), all the more so because healing and saving lives are considered a chief priority in Jewish law, even if it implies interfering with God's divine creation. Professor Neri Laufer, chairman of the Department of Obstetrics and Gynaecology of the Hadassah Medical Hospital and pioneer in the field of reproductive biology stated (interview West-Jerusalem, 04/03/2012):

> "*In the Jewish ethos life precedes every law. There is no law that is stronger than life itself. This is an important ethos. [...] In America a person's autonomy supersedes everything else. Here in Israel life supersedes everything else. So for life, people would go a long way in order to preserve life, to give life, to help cure. So life has a different meaning here*".

The Jewish biopolitical discourse on the sacrosanctity of life and health has induced a wide plethora of permissive laws on controversial medico-scientific procedures, ranging from egg donations for research to therapeutic cloning and sex selection. Barbara Prainsack and Ofer Firestine (2006:42) referred to this "*fearless, liberal but not immoral embrace of biomedical technologies*" as a typical example of "*doing it the Israeli way*".

Israel's Maternal-Embryonic Nexus

While the aforementioned accounts on Israel's pre-eminence in stem cell research are obviously valid, they tend to overlook other important factors. When asking Rachel Eiges, Head of the Stem

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[140] http://www.ukscf.org/ (last entry 05/02/2015).

[141] Judaic law states that "*between 40 and 270 days of delivery, there are 220 days through which [the foetus] gets more and more rights*". After the 40 days, the foetus gradually develops more rights even though it is still considered "hefker" or ownerless property (Resmovits, 2011).
http://forward.com/articles/134819/two-countries-two-approaches-to-regulating-embryon/ (last entry, 13/02/2015)

Cell Research Laboratory at Shaare Zedek's Medical Genetics Institute, about the regulatory framework in which the first Israeli stem cell scientists conducted their research, she tellingly answered:

> "*At that time –when Joseph Itskovitz got involved [in stem cell research, S.V.] there was not really a strict legislation. You know, once things were working and many labs were beginning with stem cell derivation, there was a need for legislation. So science preceded the legislation*" (interview West-Jerusalem, 18/07/2012).

I would argue that regarding stem cell research, the Jewish-Israeli discourse on the sanctity of life and health is co-produced by techno-scientific practices of Israeli fertility specialists who enjoyed decades of solid and professional experience in IVF practices, that were in turn abundantly present and promoted in Israel's pronatalist fertility regime.

Four of the five cell lines that were developed in 1998 by Jami Thompson were created out of spare IVF embryos from the fertility clinic in Rambam Medical Center in Haifa, headed by Joseph Itskovitz-Eldor who does not only direct the Obstetrics and Gynaecology Department but also the Stem Cell Research Centre. Via Michal Amit, then one of Eldor's graduate students who assisted in the project, more than a dozen embryos donated by Israeli couples reached Thomson's lab in Wisconsin. Just before publication, Itskovitz-Eldor carried the cells from all five lines back to Israel (Vogel, 2002). When asking Amit about the pioneering role of Israel in stem cell research, she replied:

> "*I think it's by chance. And two reasons: first of all the good connections of Professor Itskovitz on a friendly and scientific level with Jamie Thomson, and the fact that in Israel you have a lot of surplus embryos. Israel is one of the leading countries of IVF cycles. So if you do a lot of IVF, you have a lot of surplus embryos that nobody wants*" (interview Haifa 22/02/2012, emphasis added by S.V.).

Nissim Benvenisty, another Israeli stem cell scientist posited (interview West-Jerusalem, 17/01/2012, emphasis added by S.V.):

> "*The first reason is kind of coincidence that several investigators from Israel were interested in hESC. The other reason, which was not a coincidence, was the good practice of IVF in Israel*".

Hedva Eyal from the Women and Medical Technologies Program of Isha L'Isha commented (interview Haifa, 28/01/2012):

> "*There is kind of a joke among researchers. They say that most of the eggs that are circulating in global stem cell research around the world are coming from IVF clinics in Haifa*".

Rather than referring to coincidence or chance, I attribute Israel's pre-eminence in stem cell research to what Catherine Waldby and Melinda Cooper (2009) have termed the "maternal-embryonic nexus", i.e. the productive interaction between the sphere of ART and human embryonic stem cell research. Israel's position at the vanguard of hESC research is co-produced

by its decennia-long devotion to reproductive science and practice, which, I argue, partially stems from demographic considerations and fears on how to manufacture a Jewish majority in Palestine/Israel. As Mordechai Gur, former Chief of Staff and Minister of Health commented on Israel's exceptionally generous IVF policy: "*IVF is still cheaper than a newcomer*" as a means of increasing the size of the population (quoted in Birenbaum-Carmeli 2004: 900).

Despite the intimate connections between human embryonic stem cell research and assisted reproductive technologies, they have been treated "*as two separate spheres and ontologically different activities in public law and debate*" (Ikemoto, 2009:771). In her work on IVF and hESC in the United States, Charis Thompson (2005, 2013) described how the ontological choreography of ART has been framed as a means of 'making parents', contrary to stem cell research that is promoted as a way to 'make health' by producing cures, medicine and therapies for patients. There exists, however, a very fruitful connection between the two spheres, given that female reproductive tissues such as egg cells, placentas, embryos, umbilical cord blood and even fetuses are increasingly mobilised by contemporary biomedicine as "*a generative site for scientific, medical and commercial purposes*" (Brown and Webster, 2004: 71). While Waldby and Cooper (2009) termed this close entanglement the maternal-embryonic nexus, Sarah Franklin (2006) has referred to the several flows of exchange, connection and separation between the clinical realm of IVF and the scientific context of hESC derivation as the "*IVF-stem cell interface*". In Israel, the increasing proximity between ART and hESC is not only very palpable and outspoken, but, as I will further illustrate with the Law on Egg Donations, their ongoing fusion also engenders fundamental conflicts of interest, which I categorise as academic entrepreneurialism and a bio-expert regime of decision-making.

SCIENTIFIC ENTREPRENEURIALISM

The primary objective of the 2010 Egg Cell Donation Bill was to regulate donations for the purpose of infertility treatment. At several moments during the public debates, however, high profile representatives of Israel's biomedical establishment suggested to allow donations for research purposes (Shalev, 2010). In her study on the medicalisation of reproduction in Israel, Yali Hashash (2010:273) observed how crucial the role of doctors, gynaecologists and medical researchers has been in shaping Israel's reproductive legislation and allocating public resources. In the case of egg donations, her analysis of the protocols of the governmental committees revealed how the biomedical representatives pressured politicians to approve the bill and include research donations, as to pave the way for a lenient regulatory framework on scientific and technological development. Their discursive strategies to push through the idea of research donations ranged

from minimising the health risks for donors to equating egg donations to altruistic gifts for the progress of science and humanity (Hashash, 2010).

Egg Donation and Therapeutic Cloning

At the time when the Egg Cell Donation Bill was first introduced in the early 2000s, two Israeli stem cell research teams were involved in conducting a specific type of stem cell research, called somatic cell nuclear transfer (SCNT), which required a large amount of egg cells. SCNT or therapeutic cloning is a laboratory technique that aims to create personalised stem cells for tailor-made regenerative therapies[142]. The first research team was headed by Professor Benyamin Reubinoff of the Stem Cell Research Centre of the Hadassah Medical Center in Jerusalem. The second one was Joseph Itskovitz-Eldor's Stem Cell Research Centre of the Rambam Medical Center in Haifa. It were – among others – these two fertility specialists/scientists who appeared before the governmental committee to lobby for an Egg Cell Donation Bill that would include research donations. In 2004 Benjamin Reubinoff testified before the Knesset Committee:

> "*It is clear that the availability of human oocytes for the procedure of somatic cell transplant is a crucial phase… these developments can only occur in countries that allow the donation of oocytes for research*" (quoted in Hashash, 2010:287).

Professor Itskovitz-Eldor intervened in the Knesset Committee by stressing that the Israeli legislation was killing all prospects of research. He added:

> "*We should not conceal that biotechnological developments are a national-state goal, and not only a personal goal for the researcher who will take the stash and go home*" (quoted in Hashash 2010: 287).

In this last quote Itskovitz-Eldor hinted at another conflict of interest arising from the maternal-embryonic nexus, namely Israel's increasing push toward scientific entrepreneurialism (Oliver, 2004).

Stem cell research in Israel is particularly commodified; not so much because it is conducted in the research labs of private companies – on the contrary, because of its high degree of experimentality most of Israel's stem cell research takes place in public universities – but because the universities as such have transformed into commercial enterprises. This is a global trend, and by no means unique to Israel. However, the technology transfer companies of Israeli universities

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[142] Somatic Cell Nuclear Transfer requires an unfertilised egg cell of which the nucleus is removed and replaced with the cell nucleus from an adult body cell. The cellular machinery of the egg cell 'reprograms' this adult cell nucleus back into an embryonic stage allowing it to develop into an embryo. From this embryo a stem cell line can be produced which is a genetic clone of the donor of the adult cell nucleus who could be a patient suffering from a degenerative disease or organ failure. The resulting cell line would be immunologically identical and could possibly be used as a transplant for the patient in need. (http://www.explorestemcells.co.uk/therapeuticcloning.html, last entry 06/02/2015)

and hospitals are among the most lucrative in the world. From the early stages of the research process, Israeli researchers are urged to commodify their knowledge production through patents, spin offs or other commercialisation tools. Benyamin Reubinoff started his own stem cell company called Cell Cure, a Hebrew University spin off company that develops cell therapy products based on human embryonic stem cells. Joseph Itzkovitz-Eldor and Michal Amit founded Accellta, a Technion spin off dedicated to culture masses of homogenous stem cell lines in a fast and cost-effective manner. Michel Revel, the world-famous Israeli molecular biologist, bioethicist and bio-entrepreneur, founded Kadimastem, a biotech company that develops stem cell technologies dedicated to regenerative health therapies[143].

Sarah Franklin (2010:60) observed how every country in the world that positions itself as a player in the future of regenerative medicine is adjusting its laws and regulations in order to facilitate public approval for the industrial development of stem cell technology. As already discussed earlier, this regulatory process is very obvious in Israel. In 1999, for instance, Israeli legislators introduced the Ban on Genetic Interfering, which only outlawed human cloning for the purpose of creating a person (reproductive cloning) while allowing therapeutic cloning for the purpose of generating human tissues. The Egg Cell Donation Law can be seen as another example of Israel's quest to legally entrench permissive assisted reproductive practices in order to enable the further development of its embryonic sector in the global health and research market.

Egg Cell's Speculative Value

In the early 2000s, SCNT was still a very promising technique, but it fell into discredit due to the malpractices of Hwang Woo Suk, a South Korean stem cell researcher who fraudulently claimed in 2005 to have cloned the first human embryo, a process for which he used 2.236 egg cells acquired from 122 different women, including his female research colleagues, often without obtaining proper informed consent (Dickenson, 2007). Since then, SCNT was seen as an inefficient and morally disputed procedure, requiring decadent amounts of oocytes (Dennis, 2006). SCNT also became scientifically irrelevant after 2006, when the research team of Yamanaka and Gurdon (2006) developed induced pluripotent stem cells (iPS), a technique which allowed for the production of fetal stem cells from adult cells without the controversial usage of oocytes[144].

However, when the law on Egg Cell Donations was first discussed in the Knesset, SCNT still held the speculative promise of becoming an established technique. Moreover, since 2013 the belief in the therapeutic potential of oocytes is making a comeback, and their usage in scientific research

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[143] This will be discussed at great length in the next chapter "*From the Pergonal Project to Kadimastem*".
[144] iPS cells hold great promise, but they do have a greater tendency to carry mutations and other abnormalities that might rule them out for medical therapies.

should therefore not be entirely disregarded[145]. As Michel Revel, then Chairman of Israel's Bioethics Committee tellingly stated:

> "*The scientific use of eggs for SCNT at that time [in 2000, when the discussions on egg donation for research started in Knesset, S.V.] looked very important and we were concerned that it should be included. If it was not in the law, you make it almost impossible for Israeli scientists to work with those eggs. Today it's not so important anymore, but maybe tomorrow a discovery will happen that makes the use of unfertilized eggs important again*" (Interview Nes Ziona, 16/07/2012).

Contemporary bioscience is very much structured around the concept of future 'potential' and profit. The life sciences and the resulting biotech industries are particularly captivated by the speculative promise of creating new therapies from existing forms of bare life (Thrift, 2006; Waldby, 2002; Cooper, 2006, 2008). Charis Thompson meticulously described how the biotech industry operates with "promissory capital", *"raised for speculative ventures on the strength of promised future returns"* (quoted in Franklin & Lock, 2003:6–7). Promissory capital, according to Thompson, attains its value in a speculative realm, in imaginaries of potential clinical applications in the future. According to Stefan Helmreich (2008:464) stem cells offer a good example of biotech's speculative imaginaries, as they are imbued with a double fetishism: "*They are infused with vitality because of the erasure of the labour and regulation that allow them to appear 'in themselves' in such places as laboratories and simultaneously imbued with life because of their origin in living things.* In this sense, stem cell therapies constitute a technology of hope embedded in what Carlos Novas (2006) termed a political economy of hope, nurtured by and further nurturing volatile flows of financial capital. As Michal Nahman (2013:53) succinctly summarised it: "*Extracting oocytes out of women's bodies is mining bodies for the creation of surplus value, through the development of new techniques generating more research papers for scientists and developing new pharmaceuticals associated with reprotech*".

BIO-EXPERT REGIMES

Israel's biomedical entrepreneurs such as Benyamin Reubinoff, Joseph-Itskovitz-Eldor or Michel Revel were not only overrepresented in the Knesset Committees preceding the voting of the Law on Egg Donations, but also in all other bioethics committees that serve as governmental advisory bodies on new biomedical practices and their societal implications. Israel has no national agency

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[145] On May 15th, 2013 an American research team led by Shoukhrat Mitalipov (2013) announced that they had, for the first time, derived human embryonic stem cells by somatic cell nuclear transfer. They managed to dramatically improve the efficiency of cloning and only needed two oocytes to generate one embryonic stem cell line. http://www.theguardian.com/science/2013/may/15/human-embryonic-stem-cells-adult-tissue (last entry 08/02/2015).

to centralise policy debates and recommendations on bioscience and technology. Instead, as Shalev and Hashiloni-Dolev (2011) have argued, Israel's bioethics governance is marked by "piecemeal regulation", dispersed over a broad array of committees, statutes, regulations and administrative directives. There are two principal expert committees on bioethical matters: the National Helsinki Committee for Genetic Medical Experiments on Humans and the Bioethics Advisory Committee of the Israel National Academy of Sciences and Humanities[146]. In total, these bodies comprise thirty-odd members, who are all experts in disciplines of medicine, genetics, philosophy, ethics, law and religion. Most of the members, however, are physicians and bioscientists. According to health care ethicist Frida Simonstein (2007:734) the ethical discussions about the new technologies are restricted to a handful of experts, "*since membership in one of the ethics commissions secures the next seat in a similar committee*". This has spurred Shalev and Hashiloni-Dolev (2011: 160) to term Israel's biogovernance model as a closed "*bioethical expert regime*". When asking Karl Skorecki (interview Haifa, 27/02/2012) about the consensual uniformity in Israel's bioethical committees, he replied:

> "*Radically different views are not represented. These committees are composed in that way to avoid that. However, I'm not sure I'm troubled by that. (...) You should have adequate representation, but not overdo political correctness. I think one should be inclusive, but not include people in a committee that are not interested in the facts but in driving a political agenda, such as feminism or animal rights. That's where I draw the line*".

Conclusion

The need for a Law on Egg Cell Donations was framed within a discourse of helping infertile Israeli women reproduce in a way that ethically and culturally corresponds to existential Jewish questions and without pushing them into illegal circuits of transnational ova trafficking. Among the controversial topics that were discussed in the governmental committees on egg donations were the anonymity of the donor, the desirability of allowing healthy women to donate egg cells and of paying female donors. By focusing on two supposedly minor amendments in the law, I have argued that culturalist perspectives that focus on the centrality of reproduction within Jewish law and religion do not suffice in explaining Israel's permissive stance on egg cell donations. Concordant with the work of Michal Nahman (2013) and Yali Hashash (2010), I have analysed Israeli egg cell donations as state- and global market-making practices in which processes of gift

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[146] Apart from these two bodies there are multiple ad hoc parliamentary committees such as the Fertility and Reproduction Committee, the Science and Technology Committee and of course the hospital ethical committees.

and commodity making, production and reproduction, nature and culture, biology and society become entangled with ongoing histories of biocapitalism and settler colonialism.

From a political economy perspective I have contended that Israel's policy on egg cell donations in both the reproductive and the scientific realm was co-produced within a double logic of 1) capital accumulation to benefit its emerging reproductive-embryonic market and 2) demographic elimination to safeguard the demographic balance in its settler colonial project. Michal Nahman (2013:69) argued that "*this national-global project*" has defined the State of Israel since its creation. Israel is positioned within the global economy as a biotech hub, while it has to manage its own 'national' settler colonial project to manufacture a Jewish state based on the erasure of a Palestinian collective and history.

Assisted reproductive practices such as egg donation and egg vending have enabled the (re)production of Israel's *raison d'état* on different scales and through multiple realms. In the reproductive realm, Israel's standpoint on egg donations has been infused with imaginaries and practices of Jewish pronatalism, Palestinian antinatalism and an existential fear of mixing settler and indigenous genes. In the research sphere, Israel's state-sponsored maternal-embryonic nexus has potentiated the emergence of a stem cell sector that aims to research and develop speculative regenerative therapies. The potential conflicts of interest undergirding Israel's egg donation-stem cell interface are summarised well by Yali Hashash, an Israeli scholar/activist who publicly addressed the double role of fertility physicians and stem cell researchers in their plea for research donations:

> "*We are talking about research interests, financial interests, pharmaceutical company interests, fertility clinic interests, huge interests that are about economics, prestige, professional, personal and also institutional. At this great junction of interests, the person supervising the entire process will be the head of an IVF unit*" (Knesset Committee Protocol 2008_2, per Ms. Y Hashash, Isha L'Isha Haifa Feminist Center quoted in Shalev, 2010).

In her analysis of egg cell donations Yali Hashash (2010) argued that the Israeli medical establishment should not be viewed as a sheer executive agent of a seemingly homogenous pronatalist Jewish state, but that it has often acted in its own professional interest. In similar fashion, Anat Laibler (2004:124) contended in her study of the role of Israel's Central Bureau of Statistics that its history should be told as one of "*scientists and their political patrons, as well as one of politicians and their scientific patrons".* As such, both studies reject the reification of the Israeli state as a coherent and voluntarist entity that simply deploys science and health, to describe a reality where 'science' and 'the state' have mutually constituted, used and sometimes even abused each other, albeit at different speeds or with conflicting logics. However, in my own account of Israeli egg donations as operating within a double logic of accumulation and elimination, I have opted to focus less on the 'coincidences', 'contingencies', 'accidents',

'patchwork regulations', 'ad hoc decisions' or the intra/inter-party political disagreements that are at play.

It is, nevertheless, important to take these ambivalences, particularities and inconsistencies into account as they affirm that Israel's biomedical establishment does not always operate as a homogeneous monolith. A recent article by Israeli fertility specialists and bio-ethicists (Simonstein, Revel, Younis, e.a., 2014), for instance, recommended a further adjustment of Israel's ineffective ART policy of unlimited rounds with IVF. Similarly, based on a national survey conducted with Israeli fertility experts on the public funding, Gooldin and Lunenfeld (forthcoming) noted how doctors are increasingly proposing to lower the maximum age from 45 to 43 and to reduce the amount of refunded cycles as a way to better protect the health of their patients and avoid inefficiency.[147]

Yet, despite these ambivalent contingencies, I have discerned remarkable consistencies in Israel's stance on egg donations. I argued that both the interests of a pronatalist Jewish state and its biomedical establishment have coalesced in creating a reproductive-industrial complex in which the Zionist logic of elimination and capital accumulation have converged. The bodies of Israeli women play a crucial role in this process, not only as reproducers of the settler nation, but also as providers of the raw biological materials necessary to generate surplus biovalue. In the following chapter, I will further elaborate on the historical foundations of Israel's reproductive-industrial complex.

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[147] In the international charts Israel's success rate in IVF has plummeted because of the enormous amounts of 'ineffective' IVF cycles performed on women between 43 and 45. The number of fertility treatments administered each year rose with 50 per cent from 2007 (6.369) to 2010 (9.525), while the success rate decreased from 18.8 per cent births in 2007 to 18.2 per cent in 2008, 16.2 per cent in 2009 and 14.8 per cent in 2010. Between 2007 and 2010, the success rate of IVF in the United States was 2.4 times higher than that in Israel for the same period (Even, 01/05/2013). An analysis of world data for 2006 put the average delivery rate from ART treatment at 20.5 per cent per aspiration and 25.2 per cent cumulative from a single started treatment cycle (ESHRE, 2014).

Images

Figure 9: "Families Interrupted"was a photo exhibition, organised by Adalah in 2013 that captured the reality of the many thousands of Palestinian families who were affected by the Israeli Citizenship Law through a series of anonymous portraits.

Figure 10: "Live Nude Eggs," art installation about egg donation,by Raquel Cool, 2012. As the artist explains:*"It's called 'Live Nude Eggs' for a few reasons, one of which is a reference to the feeling of bareness and exposure one undergoes as a donor. The second is the allusion to the 'live' eggs that are harvested—they're best fresh, where they're immediately inseminated in a Petri dish. 'Live Nude Eggs' explores the intersection of science, international business, and the female reproductive system by constructing an experience: an open market for human ova."**http://www.geneticsandsociety.org/article.php?id=6519*

CHAPTER THREE

CHAPTER 3 "FROM THE PERGONAL PROJECT TO KADIMASTEM": A GENEALOGY OF ISRAEL'S REPRODUCTIVE-INDUSTRIAL COMPLEX

While the previous chapter explored the fertile nexus between Israel's pronatalist stance on egg donations and the emergence of a burgeoning stem cell sector, this third chapter proposes to analyse the historical foundations of Israel's reproductive-embryonic industry from a gendered political economy perspective, by unraveling its biocapitalist and settler colonial lineages. This chapter is an extended version of the article "*From the Pergonal Project to Kadimastem: A genealogy of Israel's reproductive-industrial complex*", that was published in BioSocieties [148].

Israel's Start-Up Nation: The Promised Land of Science and Technology

> "*Falafel, high-tech and biomed may be the three best things to come out of Israel.*"
>
> - Promotion for Israel's annual Innovation Conference, 2014.

It is a widely accepted fact that Israel has one of the most innovative high-tech and biotech sectors in the world. Israel is home to the world's highest density of start-up companies[149]. With half of its exports stemming from high-tech products such as military equipment, (bio)pharmaceuticals, medical devices and information technology, Israel's industries in computer science, life science and military and defense have become powerful engines of economic growth and development (Bichler and Nitzan, 2002; Denes, 2011). Moreover, Israel's high-tech and biotech sector absorbs huge amounts of surplus capital, mostly through investments from venture capital funds and pharmaceutical companies (Rosenberg, 2015)[150].

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[148] Vertommen, Sigrid. 2016b. "From the Pergonal Project to Kadimastem. A genealogy of Israel's reproductive-industrial complex". *Biosocieties* doi:10.1057/biosoc.2015.44.

[149] According to Israel Advanced Technology Industries (IATI, 2014) there are approximately 800 companies in Israel's life science industry and some 50-60 new start-ups every year. Although Israel is celebrated for being the "start-up nation", Ruti Alon, founder of Israel Life Science Industry (ILSI), asserted that "*it's high time to call Israel an Innovations Nation and leave behind the title of start-up nation, seen that we have matured*" (Mixiii Biomed, 2014: 21).

[150] According to David Rosenberg (Haaretz, 29/01/15) Israeli start-ups raised $3.4 billion in investments in 2014, the most ever. Venture capital funds, which provide most of the investments for start-ups, brought in $910 million. Exits – money received by companies acquired or conducting initial public offerings –

Particularly the med-tech and repro-tech sector are widely regarded as world class in their ability to develop innovative therapies and medicines based on experimental biomedical research. Israel is the leader in patents on medical devices and second in bio-pharma patents per capita worldwide (USPTO, 2013). Blockbuster drugs such as Rebif, Gonal-F, Copaxone and Azilect were developed in Israel.

This bio-boom has been made possible through generous government funding. At a top rate of 4.4 per cent of its gross domestic product, Israel leads the world in expenditures on civilian research and development with biomedical research being a central sphere of investment (OECD, 2011; Messer Yaron, 2011)[151]. In his opening speech at Israel's Annual Innovation Conference in May 2014, Avi Hasson, the Chief Scientist of the Ministry of Economy stated:

> "*The Office of Chief Scientist's role in providing a fertile infrastructure for bringing new ideas to market is far more vital in medical devices, biotech and biopharmaceuticals, because there is more uncertainty in these fields of life sciences than in other high tech areas*".

Accordingly, the percentage of the budget of the Office of Chief Scientist (OCS) allocated to the life sciences rose from fourteen per cent in 2000 to 28.5 per cent in 2013 (OCS, 2014). This techno-scientific success is reflected in Israel's overall positive and fearless societal attitude towards science and technology. A national survey of the public's perception of professions in 2014 indicated doctors, engineers and scientists as the three most prestigious professions in Israel[152]. Moreover, as Prainsack and Firestine (2006: 33) have observed, there is a remarkable absence of public controversies on scientific procedures such as therapeutic cloning, genetic engineering and sex selection, resulting in a very lenient regulatory framework regarding science and technology.

Despite being so fundamental to its national prosperity and national identity, Israel's intimate relation with science and technology has not attracted much scholarly scrutiny. Tal Golan (2004: V) noted that a lot of research has been produced on everything "*from the Greeks to Quantum mechanics; on Israeli science and technology, very little*". He called the result somewhat ambiguous. "*A prosperous intellectual community that is detached from its larger milieu, a community interested in science and technology but not within its own highly technocratic backyard*".

There are a few notable exceptions. In their patriotic bestseller "*The start-up nation: The story of Israel's economic miracle*" Dan Senor and Saul Singer (2011:15) addressed the question why Israel – a young country of 7.1 million people, with no natural resources, surrounded by enemies and in

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reached $6.9 billion in 2014, making it one of the best years ever. http://www.haaretz.com/blogs/david-s-harp/.premium-1.639703 (last entry 01/03/15).

[151] In 2008 the OECD average expenditure on R&D was 1.9 per cent (OECD, 2008). In 2008, Israel was the highest of all OECD countries, with an expenditure on civilian R&D of 4.7 per cent of its GDP.

[152] Weinreb, Gali. "Doctors perceived as most respected profession". *Globes,* 25/03/2013. http://www.globes.co.il/en/article-doctors-perceived-as-most-respected-profession-1000927018 (last entry 24/02/2015).

a perpetual state of war since its creation – has succeeded in emerging as the high tech miracle of the world. Unfortunately, their explanations mostly emphasised the unique character of Jewish-Israeli idiosyncrasies, such as *chutzpah* or *bitzu'ism,* which they explain as "*a kind of audacity and pragmatism that is at the heart of the pioneering ethos and Israel's entrepreneurial drive*" (Id: 106)[153]. Similarly, Noah Efron (2011) points out the historic achievements of generations of Jewish scientists with their *Yiddischer Kupf* or Jewish genius. Other, more critical scholars have considered Israel's techno-scientific strengths to be co-produced by the political and socio-economic circumstances in which they were anchored. Prainsack and Firestine (2006), for instance, argued that Israel has always emphasised the role of research and technology as an indispensable tool for national survival in a hostile environment. Dani Filc (2005) has attributed the astronomic growth of Israel's life science industry to the post-Fordist/neoliberal turn of the late seventies when Israel started to position itself as significant player in the global health market.

Indeed, since the transition from a Fordist to a neoliberal world economy, the capitalisation of bare biological life has become a very lucrative business (Waldby, 2002, 2006, 2008; Rose, 2007; Cooper, 2006, 2008). However, in this chapter I contend that, even though the neoliberal turn certainly has intensified the growth of Israel's bioeconomy, there is a much older, but still ongoing history of Zionist settler colonialism and biocapitalism in Palestine/Israel that has enabled the emergence of Israel's innovation-based biotech industry, particularly its reproductive-embryonic industry which will be the subject of this chapter (Nahman, 2013). From a 'gendered political economy' perspective, I will argue that from the late 19th century onwards a Zionist demographic logic aiming to consolidate a Jewish majority in a Jewish state has been creating favourable conditions for the development of an experimental reproductive industry. Before moving on to the actual analysis, I will briefly explain how the proposed gendered political economy analysis will be conceptualised and operationalised throughout this chapter.

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[153] To explain why Israel emerged as the start-up nation Singer and Senor (2011) also refer to the Israeli government's generous funding of research and development programs, to the country's military and defense industry that has not only produced various successful spinoffs but also generations of battlefield entrepreneurs and lastly, to the availability of state-backed private venture capital funds that invest in start-up companies.

Accumulation and Elimination: a Fertile Double Logic in the Political Economy of Zionism

Drawing on the work of Helmreich (2007), Löfgren and Benner (2007) and Goven and Pavone (2014), I will not conceptualise Israel's reproductive-industrial complex as a mere techno-scientific or economic formation, but rather as a political project driven by state –and global market-making practices and shaped by ongoing histories of settler colonialism and bio-capitalism. As already thoroughly explained in the theoretical chapter, the underlying logic of settler colonialism is one of demographic replacement of the native Palestinians with the Jewish settler population. Through stratified politics of migration and (assisted) reproduction, the State of Israel attempts to safeguard the demographic balance in the Jewish State. Next to being a settler colonial project, Zionism was (and still is) also a capitalist enterprise in Palestine/Israel.

The underlying structure of capitalism is one of endless capital accumulation and the ongoing commodification of everything (Wallerstein, 2003). Biocapitalism in particular has been defined as a new economic model built on the speculative promise of creating new commodities from existing forms of bare life (Rajan, 2007; Cooper, 2008; Waldby, 2002, 2006, 2008). Scholars such as Melinda Cooper (2008) and Benner and Löfgren have posited how epistemic turns in the field of molecular biology have coincided with global macro-economic transitions to neoliberal modes of accumulation that attempted to resolve the Fordist-Keynesian crisis of the seventies through the creation of competitive workfare states [154]. These mutually constitutive transitions have transformed biomedical research into a lucrative area of investment for 'excess' financial capital (Cooper, 2008). Waldby has termed this 'new economy' a tissue economy, Rajan (2007) refers to biocapitalism, Cooper (2008) speaks of bio-economies and Thrift (2006) opts for the term experimental economies.

In the late seventies and early eighties Israel's macro-economy experienced a radical shift from a Fordist-Keynesian hegemonic model to a post-Fordist-neoliberal one, with a strong emphasis on the privatisation of governmental industries and services, deregulation of financial markets and export of high tech commodities, with a strong emphasis on biotechnological products. There is no question that Israel's neoliberal turn has indeed bolstered the growth of a bioeconomy. I argue,

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[154] Harvey (2005) has defined neoliberalism as a new capitalist mode of accumulation by dispossession that took shape in the late seventies as a way to resolve the Fordist-Keynesian crisis. According to Peck and Tickell (2002:37) neoliberal projects consist of two phases. The roll-back phase refers to "*the active destruction of Keynesian-welfarist and social-collectivist institutions through privatisation, deregulation, cutbacks in public services*" while the roll-out phase refers to "*the consolidation of neoliberalized state forms, modes of governance and new trade and financial regulations by international governance institutions in an attempt to create a competitive workfare state*".

however, that a much older (yet still ongoing) history of Zionist settler colonialism lies behind the emergence of Israel's booming biotech industry. In their "*Global Political Economy of Israel*" (2002:17) Nitzan and Bichler point out that "*Israel's recent neoliberal phase was not at all a structural break, but rather the latest step in the long process of Israeli capitalist development which began not in the 1990s, but almost a century earlier, the initial Jewish colonisation of Palestine.*" I argue, in similar fashion, that concordant with the Zionist endeavor to create a Jewish state in Palestine, a (bio)capitalist logic of accumulation and a demographic logic of elimination have converged in the emergence of a reproductive-embryonic industrial complex in which the interests of a pronatalist Jewish state and a biomedical establishment – consisting of academic entrepreneurs, venture capitalists, biotech companies and pharmaceutical giants – have coalesced.

This argument will be gradually developed throughout this chapter. First I will elaborate on the quintessential historical role of science and technology in the creation of the Jewish nation-state and by focusing on the therapeutic importance of reproductive health technologies for the Zionist demographic enterprise in Palestine/Israel. Then, I will trace the genealogy of Israel's reproductive-embryonic industry from a gendered political economy perspective by exploring two of its techno-scientific apparatuses (Barad, 2003), both situated in a particular time-space frame in Israeli history. The first case study looks at Pergonal, a fertility drug developed in the late 1950s by the Israeli scientist Bruno Lunenfeld and the Swiss-Italian pharmaceutical company Serono. The second case study concerns Kadimastem, an Israeli biotech company founded by Israeli scientist and bio-entrepreneur Michel Revel that is currently developing stem cell technologies dedicated to regenerative health therapies.

Apart from unraveling the historical context in which these scientific developments emerged, particular attention will be paid to the three key themes that were described earlier in the *Introduction* as fundamental to this political economy analysis of reproductive medicine in Palestine/Israel: 1) the impact of settler demographies on the production of these therapies 2) the underlying labour and property regimes and the intimate collaborations between the Jewish state, Israeli academia and industry, and 3) the (re)productive role of women. In the final section, I will explore the discursive-material (dis)continuities between Serono's fertility drug and Kadimastem's stem cell therapy in the emergence of a reproductive-embryonic complex in Israel, taking into account the three aforementioned key notions.

Zionism's Techno-Scientific History: a Discursive-Material Love Story

"We are in a desert, we are fighting against Nature, we don't have resources. So what is left? Science and technology."

- Michel Revel, founder and chief scientist of Kadimastem

Science and technology have always been of vital importance to Zionism, both in the development of Zionist thought and ideology and in the practical materialisation of the Zionist project in Palestine from the end of the 19th century onwards (Golan, 2004; Efron, 2007). In his utopic novel Altneuland (1904) Theodor Herzl, the founding father of political Zionism, put forward a blueprint for the New Jewish Society, in which he explicitly related Western ideas of progress and modernism to the development of a techno-scientific culture in Eretz Israel (Davidovitch and Seidelman, 2004; Efron, 2007). Noah Efron (2007:421) asserted that Zionism's intimate relation with science has always served the idea that "*Jewish settlement of Palestine was a Western project flush with Western ideals and committed to advancing those ideals in the East*". As such, the discourse of science and technology was cleverly deployed to legitimise the Jewish colonisation of Palestine, which most Zionists erroneously described as 'terra nullius', an empty, barren and primitive land, in dire need of enlightened intervention.

Universities and research institutions, such as the Weizmann Institute of Science in Rehovot, the Hebrew University and Hadassah Medical Centre in Jerusalem and the Technion in Haifa - all established during the first half of the 20th century - served as the cornerstones of this scientific colonialism (Denes, 2011). Through many of its different disciplines these scientific institutions assisted to produce the necessary knowledge and knowhow for reinforcing Zionist ownership of the land. Efron (2007) described how cartographers began to explore and map the country, and in the process started replacing Arabic names of Palestinian villages, mountains and rivers with Hebrew names. New agricultural techniques were introduced, invigorating the newly arrived kibbutzniks to 'redeem the Land of Israel' and 'make the desert bloom' (Efron, 2007).

Similar to other settler colonial projects, Zionist discourse has often presented Palestine's indigenous peoples as backward and incapable of cultivating their lands in a productive manner. Even though Palestinians had the reputation of being skillful *fellaheen* or farmers, Zionist propaganda preferably depicted them as Bedouin nomads who harboured no strong attachments to the land and had no ambition to cultivate it properly (Wolfe, 2006, 2007). This notion of the primitive 'wandering Arab' has not disappeared from Zionism's socio-technical imaginary. In her

reconstruction of Israel's biotechnology history, Avivit Mishmari (2004) recalled the following scene:

> "*Somewhere in the early 1980s, a group from SmithKline visited Israel in order to negotiate and sign an agreement with the Israeli company Biotechnology General. The talks took place in BTG's building in the Weizmann Science Park, that back then held two buildings only. At some point the hosts took their American visitors outside for a short break, and standing there they witnessed a much symbolic site – four Bedouins passing by, leading their camels behind them. Working their way* as pioneers would, learning as they go along, in the middle of what used to be a desert back then. Today the same science park holds tens of companies*".

Similarly, Erel Margalit, the famous Israeli high tech entrepreneur declared that innovation and technology are the 21st century version of redeeming the Land of Israel. In his plea for high tech as Zionism's new pioneering narrative, Margalit (quoted in Senor and Singern 2011:228) did not so much disregard the existence of the Palestinian farmer, but rather co-opted him (sic) in a process that Patrick Wolfe (2006) has termed recuperating indigeneity:

> "*When you are inventing a new drug or a new chip, you are doing something for humanity, you feel like a fellah, a farmer of high-tech*".

Besides offering a legitimising narrative for the ongoing colonisation of Palestine, scientism also had an important internal function within Zionism's socio-technical imaginary. Science and technology were of crucial therapeutic and diagnostic importance in the creation of the so called New Jew or *Sabra*, referring to a healthy, masculine and strong Israeli-born Jew who symbolised the collective rebirth of the Jews after centuries of 'diasporic' degeneration (Weiss, 2002; Massad, 2005; Wolfe, 2007). Analysing the relation between Zionism and health, Nadav Davidovitch (2004) concluded that Zionism's remedy for the psychopathology of the diasporic Jew was the return to Palestine, where a healthy and revitalised Jewish national homeland could be created.

Consequently, medicine and public health, and particularly reproductive health and fertility, were of immense importance for the successful realisation of the Zionist undertaking in Palestine. In the early 20th century, Zionist health missions founded mother and child clinics to provide basic reproductive health services in newly established settlements (Sufian, 2007; Shvarts, 2008; Filc, 2009). In her historical overview of Israeli researchers' contribution to the field of reproductive medicine, Daphna Birenbaum-Carmeli (2010:57-59) aptly described how fertility emerged as an important field of research in Israel. Particularly in the 1940s and 1960s Israeli researchers emerged as distinguished figures in the field of reproductive medicine, contributing significantly to global fertility research, which "*has generated a generalised feeling of national pride in Israel".* Bernhard Zondek, for instance, has been called the greatest gynaecologist of his times by many of his peers in the international expert community (Birenbaum-Carmeli, 2010; Lunenfeld, 2013). Zondek, one of the thousands of German Jewish physicians and scientists who reached Palestine in the 1930s, has been celebrated for his discovery of gonadotropins, protein hormones that

stimulate estrogenic hormones and thereby ovulation[155]. Zondek has been construed as the prototype of the Zionist medical pioneer, combining scientific excellence with settler nation-building, and as such galvanising many generations of Israeli fertility specialists such as David Serr, Rabau, Halbrecht, Joseph Asherman, Bruno Lunenfeld, Neri Laufer, Shlomo Maschiach and Joshua Dor to follow in his revolutionary footsteps (Denes, 2011).

Israel's scientific pre-eminence in fertility research has often been explained in culturalist terms, focusing on the importance of reproduction in Jewish culture, religion and tradition. These cultural narratives of Jewishness are obviously crucial to understand Israel's particular position in the field of reproductive biomedicine, yet, they often tend to reproduce hegemonic accounts of reproduction that disregard the Zionist state's inherent exclusionary reproductive practices, especially towards Palestinians. Building further on the work of Jacqueline Portuguese (1998), Rhoda Kanaaneh (2002), Yali Hashash (2010) and particularly Michal Nahman (2006, 2008a, 2008b, 2013), this chapter focuses on the ongoing histories of Zionist settler colonialism and (bio)capitalism in Palestine/Israel as a way to further understand the emergence of an academic-industrial fertility complex. In what follows, I will trace the genealogy of Israel's reproductive-embryonic industry by exploring the (dis)continuities between Serono's Pergonal and the stem cell therapies that are currently being developed by the Israeli biotech company Kadimastem, with a strong focus on three key notions, i.e. settler colonial demographies, property and labour regimes and the (re)productive role of women.

The Pergonal Project: Turning Urine into Babies and Gold

> *"We are devoted to the improvement, promotion and nurturing of life"*
> - Website Merck-Serono.

In the introduction to a Special Issue on "*50 years of Gonadotropin Therapy*" in the *Journal of Reproductive Medicine and Endocrinology* (2013: 5), the editorial board wrote:

> *"Without the pioneering work of Professor Bruno Lunenfeld the development of the first urinary human menopausal gonadotropins would not have been possible. He gave the impetus for the development of further preparations (…) and procedures in hormonal stimulation treatments such as IVF and ICSI"*.

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[155] Bernard Zondek mapped three human varieties of gonadotropins, one produced in the placenta during pregnancy and two extractable from the pituitary (Birenbaum-Carmeli, 2011).

Therefore the Special Issue was entirely dedicated to the world famous Israeli scientist Bruno Lunenfeld and his foundational research on human reproduction, which led to the development of the fertility drug Pergonal (Figure 11).

Born in Vienna in 1927 to a wealthy family of Jewish lawyers who managed the properties of the Habsburg Family, Lunenfeld escaped Austria's surging anti-Semitism in 1938 with the help of the Jewish Agency. In 1940 Lunenfeld first set foot in Mandatory Palestine, but soon after he left for Geneva to study Medicine (interview Lunenfeld, Tel Aviv 27/08/2013). During his postdoctoral research, Bruno Lunenfeld - together with his supervisor Hubert De Watteville- discovered that menopausal urine contains high amounts of gonadotropins, the ovulation-enabling hormones discovered by Bernhard Zondek[156]. In 1954 Lunenfeld and De Watteville demonstrated that it was possible to extract gonadotropins from menopausal urine through the kaolin-acetone method[157]. This groundbreaking scientific discovery could enable infertile women to ovulate, but for this to ever happen a pharmaceutical partner was needed. According to Lunenfeld, this is when the first problems occurred (interview Tel Aviv 27/08/2013):

> "*We very quickly published the research results in the Swiss journal Experiencia, for the simple reason that at that time we had the idea that medicine should be public for everybody, that it was still something ethical, for humanity and not for profit. Then we discovered that the problem was that no industry was interested in doing this, because the information was public and there was no possibility to have a patent*".

Moreover, pharmaceutical companies were reluctant to logistically engage in such an experimental project that depended on enormous amounts of urine donations and thus required safety precautions (Lunenfeld, 2013:2). Serono, an Italian pharmaceutical company founded in 1906 by Cesare Serono, was the third company - after Organon and Ciba Geigy - that was approached by Lunenfeld. In 1958 Lunenfeld was invited by Serono's research director Piero Donini to give a presentation to Serono's board of directors in Italy. Lunenfeld (interview Tel Aviv, 27/08/2013) recalled:

> "*Everybody applauded after my presentation, but then the director Fabio Bertarelli said that Serono was a pharmaceutical firm and not a pissoir. I'm not sure if I started crying or not, but I knew that my dream was finished*".

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[156] In 1953 Lunenfeld and De Watteville founded the "G Club", an international informal research network of renowned endocrinologists and fertility scientists who shared and exchanged information, research results and expertise on gonadotropins before publishing it in scientific journals. The spiritual father of the G Club was Bernhard Zondek who discovered gonadotropins in 1926. The symbol of the G Club was a needle with a gun (see Figure 12, personal archive Bruno Lunenfeld, "G Club met in Tel Hashomer Hospital Hospital 11-21/3/1963", s.n. 12/03/1963).

[157] To extract gonadotropins the menopausal urine has to pass through a kaolin cake, which absorbs the gonadotropins after which the crude gonadotropins can be extracted from the kaolin batch (Lunenfeld, 2013).

Yet, on his way out Lunenfeld was approached by a man who introduced himself as Prince Giulio Pacelli. Prince Pacelli was a nephew of Pope Pius XII whom he represented on Serono's board. Since 1952 the Vatican's Banco de Santo Spirito had been an important shareholder in Serono. Pacelli invited Lunenfeld for a short stay in Rome to discuss the logistics of massive urine collection, such as finding post-menopausal women willing to donate, constructing toilets for urine collections and transporting the urine to the Serono factories. Finally, Pacelli gave the same lecture to Serono's board as Lunenfeld did eleven days earlier, but he added one crucial sentence:

> "*My uncle, the pope, is ready to collect urine in old age homes of nuns, and will give it to you for free*". *After that it became kosher and the board of directors agreed to start the production of what became Pergonal*" (interview Bruno Lunenfeld, Tel Aviv, 27/08/2013).

The large scale production of Pergonal relied on the provision of millions of liters of urine donated by overall more than 110.000 post-menopausal women who were not only found in Pope Pius XII's old age homes for nuns, but also in Argentina, Brazil and Israel[158]. Lunenfeld managed to arrange urine collections from three *Mal Ben* homes, Jewish nursing homes for the elderly and the disabled in Israel. Even though their contribution to the development of Pergonal was crucial, these elderly women were not reimbursed for their donation, and often approached and depicted in a rather patronising way. As Lunenfeld (interview Tel Aviv, 27/08/2013) stated:

> "*If you pay the women for the urine they may add water to increase the volume and to get more money, so you can't pay for the urine. But the women donated with pleasure, they became very happy doing this. They were so interested that they could help making babies, that they made clothes for babies and gave presents*".

An Israeli newspaper article on "*Pergonal, the magical drug*" (Weinstock, 01/02/1965) from 1965 mentioned how the old women even requested to be given watermelon every day as a way to increase urination[159]. This article also provided a telling account of the gendered division of labour in the Pergonal Project in which the urine donations of the old women were taken for granted as free gifts for the progress of science and demography in the Land of Israel. It emphasised how the old women were gratified with "*the mere moral satisfaction of being part of something great*" (Id.). Doctor Schtedler (quoted in Weinstock, 01/02/1965), the medical director of the Mal Ben home in Netanya who in the interview compared the logistics of the urine collections with a military operation claimed in the interview:

> "*The clever women understood more about the process, but the simple ones were more disciplined in providing the urine*".

One of the participants described how they once organised a humoristic theater play on Pergonal, joking that – despite their old age - they were still able to help in increasing the size of the

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[158] http://www.emdserono.com, last entry 02/03/15.
[159] Weinstock. 1965. "Pergonal, the magical drug". *Maariv* 01/02/1965.

population. One doctor even proposed to organise the circumcision ceremonies of the 'Pergonal Babies' at the Mal Ben homes that provided the urine (Id.).

The Pergonal Project was met with great interest by David Ben-Gurion, then Israel's Prime Minister and a notorious proponent of maintaining a Jewish majority in Israel by encouraging Jewish natality or 'inner' immigration/aliyah. As he once famously stated "*Any Jewish women who (…) does not bring into the world at least four healthy children is shirking her duty to the nation, like a soldier who evades military service*" (quoted in Ben-Gurion, 1971:839). This settler colonial demographic arithmetic constituted the solid underpinning of the State of Israel's involvement in the development of Pergonal and a local reproductive market in general (Birenbaum-Carmeli, 2010). Ben-Gurion got involved in the Pergonal Project through Carmi, the founding director of the pharmaceutical company Ikapharm, at that time Israel's second largest drug manufacturer after Teva. Carmi was a mutual friend of both Bruno Lunenfeld and David Ben-Gurion. He played an important role during Israel's War of Independence (or Nakba/Catastrophe as it is called in Palestinian discourse) as he was closely connected to high ranking army officials. Bruno Lunenfeld (interview, Tel Aviv, 27/08/2013) remembered how Carmi became interested in Pergonal as "*a demographic project of national priority*". The proposed deal was that Israel would provide Serono with the post-menopausal urine from female residents of old age homes collected by Ikapharm. In exchange, Israel would receive Pergonal free of charge, at least until 1966 (Birenbaum-Carmeli, 2010). From then on Pergonal was commercialised and Israel started importing it from Serono through Ikapharm, albeit at a very low price[160]. In Lunenfeld's (interview Tel Aviv, 27/08/2013) words:

> "*The workers of Ikapharm collected the urine from the Mal Ben homes and we sent it to Serono. In return we got free ampules of Pergonal to conduct the clinical trials in Israel. In 1966 Serono started charging Israel for Pergonal. So Carmi went to Ben-Gurion, who was always interested in internal immigration, and Ben-Gurion arranged Pergonal to be free for infertile women and men who wanted to be treated for infertility*".

In 1968 Ben-Gurion promoted the establishment of a Center for Demographic Problems, which was funded from the Prime Minister's Office budget. The goal of the Demographic Centre was to "*systematically create a psychologically favorable climate, such that natality will be encouraged and stimulated, an increase in natality in Israel being crucial for the whole future of the Jewish people*" (Portuguese, 1998; Birenbaum-Carmeli, 2011). Beside designing public education campaigns to promote an increase in Jewish fertility and offering low-interest loan schemes for young couples who planned to have another child, the Centre for Demographic Problems was also charged with

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[160] Israel State Archive, File 2, 40/15.

the task of distributing Pergonal freely to infertile couples[161]. Lunenfeld (interview, Tel Aviv, 27/08/2013) recalled how this unusual arrangement lasted for several years.

> "*The interesting thing was that until 1970 the money for the Pergonal came from the Prime Minister's Office. Only after quite a number of years, someone started wondering why a fertility medicine was paid through the Prime Minister's Office and then they transferred it to the Ministry of Health*".

Advertisements in Israeli newspapers and commercials on the radio promoted Pergonal as a magic medicine solving all types of fertility problems, even though it was not yet clinically proven which types of infertility Pergonal actually tackled[162]. Many infertile women presented themselves at Tel Hashomer Hospital in Tel Aviv, where between 1959 and 1963 Bruno Lunenfeld had started conducting clinical experiments with Pergonal. Serono had offered and paid him a fully equipped laboratory at Tel Hashomer to perform these clinical trials. As Lunenfeld proudly said:

> "*I never had one single share of Serono, and I never got one cent for Pergonal, but I got my laboratory*".

During that time there were no ethical committees or institutional review boards to approve the clinical trials of medicine. Lunenfeld had asked Chaim Sheba, then director of Tel Hashomer Hospital, how to proceed with Pergonal:

> "*Chaim Sheba told me test it on myself first; to inject it to myself, take my temperature, if it rises then it needs further purification. We did this until we got something that was pure enough and didn't increase my temperature. Then he permitted me to use it on three female patients. The treatment was a success, they all ovulated after stimulation with Pergonal*" (interview, Tel Aviv, 27/08/2013).

Israeli women did not only contribute to the development of Pergonal by providing post-menopausal urine, but also by serving as experimental trial subjects. The first infertile woman in the world to become pregnant after being clinically treated with Pergonal was a 27-year-old Israeli woman (Lunenfeld, Sulimovici and Rabau, 1962). The media referred to her in heroic terms as "*a brave and courageous Jewish ola*" or migrant from Latin America (Livneh, 2002). Doctor Rabau, the head of Tel Hashomer's Gynaecology Department that worked closely together with Lunenfeld's Endocrinology Department, was impressed by the patient's obedience:

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[161] Some members of the Centre for Demographic Problems opposed the idea of distributing Pergonal freely to all infertile women. A few doctors raised concerns about spending a big part of the Demographic Centre's limited budget on an experimental drug such as Pergonal, as its efficiency had not been tested properly (Israel State Archive, File 2, GAL 2091/6, Centre for Demographic Problems, Letter from Professor Halpert 03/11/1969).

[162] Israel State Archive, File 2: 40/15.

"*It took many tests to find the right protocol, but the patient showed a lot of endurance and did everything that she was told to do. Every day for two years she had to bring her urine to Tel Hashomer labs*" (quoted in Aviam, 19/3/1963)[163].

After twelve series of treatments she got pregnant and eventually gave birth to a daughter. However, not all women who participated in the Pergonal experiments were so fortunate. The first woman to die of ovarian hyperstimulation was also an Israeli. After her death it quickly became evident that ovulation induction with gonadotropins has an increased risk of multiple pregnancies and ovarian hyperstimulation syndrome[164]. In 1963, after the clinical experiments were concluded in Tel Hashomer Hospital, Pergonal was registered as a certified drug (See Figure 13). Initially, the drug was not a big commercial success. Lunenfeld remembered a hysteric telephone call from Serono's director Fabio Bertarelli asking for his help in boosting the sales. Bertarelli had not sold one gram of Pergonal, so he convinced Lunenfeld to travel to Italy for a promotion tour at Italian universities, which illustrated the crucial role that research institutions played in the development of Pergonal.

"*In ten days we gave 25 lectures at 25 different universities. People became interested in Pergonal based on the lectures we gave. Finally, in Rome I got the honour membership of the Italian Gynecology Society - I was the youngest ever - and Fabio Bertarelli made his first million (laughs). Serono made the money, but I made my name and international fame. (…) I remember lively when I told my father that I wanted to become a doctor, he advised me to become a chemist and make gold out of shit. In the end I became a doctor and I extracted gold from urine*".

In 1978 Louise Brown, the world's first test tube baby, was conceived with the help of Pergonal. Because of the introduction of gonadotropin protocols in IVF and ICSI the sales of Pergonal began to skyrocket. This also significantly increased the world demand for menopausal urine, which could never be covered by the existing supplies. However, the development of recombinant DNA technology allowed for the production of pure, synthetically manufactured gonadotropins in unlimited quantities with a reduced risk of disease transmission via biological contamination (Lunenfeld, 2013:16). This genetically engineered gonadotropin, known as Gonal-F, was developed at the Weizmann Institute in Israel and Serono acquired the patent[165]. This allowed the company to consolidate its position as global leader in the infertility market with an estimated

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[163] Personal archive Bruno Lunenfeld, Consulted on 28/8/2013 in Tel Aviv. Translated with the kind help of Tamar Novick and Bilal Dirbas.

[164] This was not the first time in Israel's history that experimental fertility research caused unforeseen side effects, as was the case with the synthetic hormone diethylstilbestrol known as DES. This hormone was distributed to thousands of Israeli women between 1949 and 1975 in the erroneous belief that it would minimise the risk of pregnancy complications. However, investigative journalist Avi Valentine discovered that the drug manufacturers Teva and Assia, the Ministry of Health and the Health Fund were negligent in marketing a drug that was supposed to sustain pregnancies, contrary to the warnings in professional literature that it actually caused infertility and increased risk of cancer (Interview Avi Valentin, Herzliyya, 15/07/2013).

[165] http://www.bertarelli.com, last entry 03/03/15.

market share of 60 per cent, making it the third largest biotechnology company in the world (Spar, 2006: 40). Even though Serono has a diverse drug portfolio in the field of reproductive health, multiple sclerosis and oncology, Pergonal and Gonal-F remain their flagship products, accounting for 32 per cent of the company's sales in 2004 (Spar, 2006)[166].

After the Pergonal Project, Serono continued its cooperation with Israel through research collaborations and drug development projects. As such, it contributed significantly in laying the foundations of Israel's biotech industry. In 1981 Serono created Israeli daughter company InterPharm as a way to intensify its relations with the Israeli Academia, notably with the Weizmann Institute. This close cooperation between Serono and InterPharm led to the development of several blockbuster drugs such as Gonal-F and Rebif, the latter being developed by the famous Israeli microbiologist Michel Revel, who was the founder and Chief Scientist of InterPharm. For more than a decade Interpharm was, together with BTG, a key player in Israel's biotech sector (Prainsack and Firestine, 2006). There were high expectations that these two companies would catalyse the growth and development of biotechnology in Israel, but in 2004 - against all odds and despite the privileged relation between Israel and Serono - InterPharm was downsized to Inter-Lab, a smaller research and development center that specialises in cell therapy. The rest of the enterprise was transferred to Geneva where Serono received a tax-free offer the Israeli government was unable to compete with.

Broadly speaking, however, Israel - through the Office of Chief Scientist of the Ministry of Economy [167] - has provided a broad spectrum of risk-sharing programs to stimulate technological innovation in Israel. These provisions range from generous tax benefits and research grants to state backing of venture capital funds and the development of technological incubators for the biomed and high-tech sector, with a special focus on those dozens of start-ups that mushroomed during the nineties (Oliver, 2004)[168]. Magnet, for instance, was a framework created by the Israeli government bringing together academics with already existing companies to work on research that could lead to eventual commercialisation. It also provided an incubator program for very

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[166] Deborah Spar (2006:40) calculated that in 1991 Serono sold $260 million worth of fertility drugs and between 1992 and 2003 it doubled its sales. In 2003 the company's sales rose by 31 per cent to $519 million, with a profit rate of 75 per cent, an astounding $390 million.

[167] The Office of Chief Scientist in the Ministry of Economy is empowered by the Law for the Encouragement of Industrial Research and Development of 1984 to oversee all government-sponsored support of R&D within Israeli industry (www.economy.gov.il/madan, last entry 07/02/2014).

[168] Israeli Biotech was given a boost by the establishment of a $222 million venture capital Life Sciences Fund, which is being managed by OrbiMed Advisors, the largest healthcare investment fund in the world. The fund was initiated by an Israeli government tender and investment of $50 million. Thirteen companies are enjoying financial input from this venture capital fund (www.economy.gov.il/madan, last entry 02/04/2014).

early stage projects (Prainsack and Firestine, 2006; Messer-Yaron, 2011; IATI, 2012; Walker, 2012).

Here as well, Serono – that in 2007 merged with the German pharma giant Merck – played a crucial role. In 2011 Merck-Serono launched Israel's Bioincubator Fund, a strategic initiative designed to stimulate innovation by bridging the gap between academic research and the biotechnology industry. The Bioincubator offers both seed financing and access to Inter-Lab's state-of-the-art laboratory facilities to a number of Israeli biotech start-ups that are developing innovative technologies aligned with Merck Serono's strategic focus[169]. One of the start-ups that Serono selected for its incubator program is Kadimastem, a regenerative medicine company that focuses on the industrial development and commercialisation of stem cell-based therapeutics to create medical solutions for diabetes and neurodegenerative diseases and to screen drugs. In November 2013 Merck-Serono and Kadimastem signed a joint development agreement on the screening and discovery of stem cell-based drugs that could lead to the next generation therapeutics for Multiple Sclerosis (Kadimastem, 2013)[170].

Reproductive-Embryonic Economies in Post-Fordist Israel: The Case of Kadimastem

Kadimastem at the Stem Cell Frontier

The stem cell industry is one of Israel's most burgeoning life science sectors, as already discussed at great length in the previous chapter. Israeli scientists such as Benjamin Reubinoff, Joseph Itzkovitz-Eldor, Karl Skorecki, Michal Amit, Shulamit Levenberg, Dalit Ben-Yosef and Nissim Benvenisty helped significantly in laying the scientific foundations of stem cell research in the late nineties. Science correspondent Gretchen Vogel (2002) noted that scientists from all over the world "*made pilgrimages to the stem cell labs in Jerusalem or Haifa to learn from the masters*". Although nowadays Israel's stem cell research is considered to be slightly less advanced and influential as before, Israel is still an internationally celebrated leader in stem cell research and development.

Israel's pre-eminence in human embryonic stem cell research has been partially explained by Judaism's tolerance towards and even insistence on techno-scientific interventions in 'God's creation' (Barilan and Siegel, 2004; Prainsack, 2006; Simonstein, 2008; Birenbaum-Carmeli, 2010). As Judaic tradition considers life to start significantly after conception, it puts less moral

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[169] www.merckserono.com, last entry 05/02/2015.
[170] http://www.kadimastem.com/sab/, last entry 01/02/2015.

constraints on human embryonic stem cell research. Moreover, Jewish religion puts a strong emphasis on saving and healing lives. The religious compliance with the scientific foundations of stem cell research has enabled the issuance of a permissive regulatory framework concerning stem cell research (Simonstein, 2008; Prainsack, 2006). Adding to that, the Israeli government has helped considerably in establishing a national stem cell sector by directing massive research funds to this field. Even though most of the stem cell research is conducted at public universities and medical research centres such as Weizmann Institute for Science, Technion, Rappaport Institute, Hebrew University of Jerusalem, Hadassah Medical Hospital and Tel Aviv University, the principal aim of the generous governmental funds was to enhance and accommodate public-private cooperation. One example of public-private networking in the stem cell sector is IsraStem, the annual international meeting of translational research on stem cells, cell therapy and regenerative medicine in industry and academia, organised by scientific entrepreneurs such as Avi Treves, Joseph Itskovitz-Eldor and Arik Hasson [171]. Another example is Bereshit, a twenty million dollar Consortium for Cell Therapy that brought together stem cell researchers from the academic and industrial scene for the development of clinical grade human embryonic stem cell lines that could serve as a base for the development and commercialisation of stem cell therapies. This helped the launch of several startups - mostly university spin off companies - such as Pluristem, Accellta, Cell Cure, Gamida Cell, BrainStorm and Kamidastem, which are considered to be "*pioneers at the stem cell frontier*" (Vogel, 2002), especially in the area of cell therapy and regenerative medicine. As Charles Irving, CEO of Cell Cure, mentioned during an interview (West-Jerusalem, 20/02/2012):

> "*Without Bereshit there would be no clinical grade, very high quality human embryonic stem cell lines to form us a basis of a stem cell industry in Israel*".

Kadimastem was founded by Michel Revel, an internationally acclaimed molecular geneticist from the Weizmann Institute of Science who previously had been the chief scientist at InterPharm (See Figure 14). For many years Revel was also Chairman of the National Biotechnology Committee and the Chairman of the National Bioethics Committee. He was among the first Israeli academics in the late 1970s to start commercialising his biological research and as such he helped launch Israel's biotech industry. Revel (quoted in Daguesh, 29/03/2006) perceived the close interaction between Israeli universities and the industrial world to be a key characteristic of the Israeli model.

> "*[As an Israeli researcher, S.V.] there is great freedom to work for industry, and to spend a decent amount of time working on private activities. Moreover, the state has located industrial parks around universities, making it possible to easily go from university to industry".* [172]

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[171] http://bioforumconf.com/stem14-organizing-committee, last entry 13/03/2015.

[172] S.N. 2006."*Entretien avec le Pr Michel Revel, de l'Insitut Weizmann des Sciences",* Daguesh, 29/03/2006. http://www.israelvalley.com/articles/980-entretien-avec-le-pr-michel-revel-de-l-insitut-weizmann-des-sciences, last entry 13/03/2015.

The Israel Tech Transfer Organization (ITTN), which is the umbrella organisation for Israel's twelve technology transfer units owned by universities, research institutes and medical organisations, features nearly 1.700 patented projects including 800 projects in biotech and life sciences, pharmaceuticals, medical devices and diagnostics [173]. Benny Soffer, CEO from T3, Technion's tech transfer company clarified (interview Haifa, 20/08/2012):

> "*Most universities in Israel make their money commercialisation-wise from the life sciences, not from IT. There is a reason for this. IT is extremely fast, it moves extremely rapidly and in many areas the IT that is done in industries is more advanced than the IT work that is done in Academia. While in the life sciences, the nature of the research you do in an academic setting and in industry is very similar. So I would say that on top of the list of tech transfer is life sciences: molecules, medical devices then clean tech".*

This intimate relation between Israeli Academy, the state and industry is not new. Israeli research institutions were among the first in the world to commercialise their academic discoveries through the successful creation of technology transfer companies, prompting Messer-Yaron (2011:17) to term Israel "*by all measures- a best practice example*" in matters of technology transfer. In 1959 - 21 years before the voting of the Bayh-Doyle Act in the United States - the Weizmann Institute of Science had already established its technology transfer unit Yeda Research and Development Ltd. In 2006, Yeda – Hebrew for knowledge - was ranked first in income royalties among world academic institutes. Together with Yissum[174], the technology transfer company of the Hebrew University, Yeda is rated among the top ten technology transfer companies worldwide in terms of revenues (AUTM, 2010; Messer-Yaron, 2011)[175]. Kadimastem is a product of this close entanglement between academia, industry and the state in Israel. When Michel Revel retired from the Weizmann Institute and founded Kadimastem in 2004, Yeda provided the company with the exclusive licenses on all the intellectual property he gathered over the years. Moreover, Yeda is on the Board of Directors of Kadimastem as well as on that of Hadassit, the technology transfer unit of Hadassah Hospital.

> "*And if we have success, of course the universities will have income as well*" (interview Michel Revel, Nes Ziona, 16/07/2013).

In contrast to Bruno Lunenfeld's position towards intellectual property monopolies in medicine, Michel Revel's (interview Nes Ziona, 16/07/2012) stance is more lenient:

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[173] http://www.ittn.org.il/, last entry 11/03/2015.

[174] Since its establishment in 1967, Yissum has created 72 spin-off companies, issued over 7.000 patents, granted more than 530 technology licenses and commercialised an array of products that generate over two billion dollars in worldwide sales every year (Yissum 2014).

[175] Yeda was rated first in the world in technology transfer revenues in 2006. In 2003 it has reported a yearly royalties income of $93.000 000. In 2003, it sold licensed products with a total value of more than three biollion dollars worldwide, and at least twenty new companies were established in connection with technologies transferred from the Weizmann Institute (Messer-Yaron, 2011).

> *"There is nothing dishonorable in writing patents. One should teach these young students, because if you don't write your patents before you publish your paper, you might cause your university to lose a lot of opportunities to make money. Money for universities is always good for new research".*

Christian Zeller (2008:101) calculated that between 1990 and 2000 the number of patents granted in biotechnology rose fifteen per cent a year at the US Patent and Trademark Office and 10.5 per cent at the European Patent Office, as compared to a five per cent a year increase in overall patents. He attributed this astronomic expansion of intellectual property monopolies not so much to techno-scientific discoveries but rather to the far-reaching political-economical connected to the rise of a finance-dominated biotechnology innovation system[176].

Female Reproductive Labour in the Repro-Embryonic Market

As mentioned earlier, the development of experimental biotherapies in Israel would not have been possible without the continuous availability of women's biological tissues. Just like post-menopausal women's urine was required for the development of Pergonal, so are many kinds of stem cell therapies derived from female reproductive tissues such as egg cells, embryos, placentas, umbilical cord blood and cadaveric fetuses. Brown and Webster (2004) have noted that these reproductive materials are increasingly appropriated by contemporary biomedicine as a productive site for scientific, medical and commercial purposes. This has created a very intimate relation between the assisted reproductive sector and human embryonic stem cell research. As discussed in great detail in the previous chapter on egg donations and SCNT research, in Israel the maternal-embryonic nexus between pronatalist ART policies and the emergence of a national stem cell sector is very outspoken. Benjamin Reubinoff and Joseph Itskovits-Eldor, two of Israel's most famous stem cell researchers/fertility doctors who pushed forward the idea of including research donations in the new Law on Egg Donations, are both well-known academic entrepreneurs who recently joined the scientific advisory board of Kadimastem.

At present, Israel's stem cell companies are not so much directly dependant anymore on unfertilised eggs for the development of experimental stem cell therapies. Pluristem is using placental cells, Gamida Cell umbilical cord blood cells. Accellta uses the I3, I4 and I6 stem cell lines developed at the Technion, while Cell Cure relies on existing stem cell lines developed by Reubinoff under the Bereshit Program. Kadimastem uses the same existing stem cell lines, as well as genetic mutation-carrying embryos from the pre-implantation genetic diagnosis (PGD) unit

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[176] These institutional changes include the Bayh-Doyle Act, the groundbreaking case of Diamond versus Chakrabarty and TRIPS.

from the Shaare Zedek Hospital in West-Jerusalem[177]. Spare embryos from IVF treatment, fetal tissues and cord blood are often discursively constructed as wasted forms of vitality unless they are donated to stem cell research (Waldby and Cooper, 2014). This is particularly true for so called 'sick' or 'diseased' PGD/PGS embryos that are not considered suitable for reproductive donations and are usually discarded unless used for experimental research[178]. Michel Revel (interview Nes Ziona, 16/07/2013) clarified:

> "*Whenever there is a pre-implantation genetic diagnosis, you have embryos that are carrying the genetic mutations and embryos that are healthy. The embryos that are carrying the mutation and that are generally thrown away, are very often used today to make embryonic stem cells which one day could be the model of the disease or the mutation*".

This makes 'diseased' PGD-embryos highly desirable bio-objects for current stem cell research seen that their usage is less morallyt disputed than the deployment of 'healthy' spare embryos from IVF treatments (Waldby and Cooper, 2014). As Nissim Benvenisty, stem cell researcher from the Hebrew University, stated about his usage of PGD embryos (interview West-Jerusalem, 17/01/2012):

> "*This research is moral. What's not moral is to have cell types and to prefer to throw them away than to use them for research in order to find new drugs... for me it is clear what is more moral. The PGD, the sick embryos, either you throw them away or you use them for research. I think we must use them for research*".

Similar to the urine donors in the Pergonal Project, the Israeli donors of spare or PGD embryos are not remunerated for their donation. Within the existing legal framework, women are often confined to donate their reproductive tissues as gifts -for altruistic reasons such as the progress of science and humanity, without receiving any financial compensation. This is justified as a way to avoid the exploitation of underprivileged tissue donors who could otherwise be induced to sell their bodily materials out of financial considerations[179]. Israeli law follows a similar logic. As Michal Amit (interview Haifa, 22/02/2012) clarified:

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[177] Pre-implantation genetic testing is a technique used to identify genetic defects in embryos created through IVF before pregnancy. Pre-implantation genetic diagnosis (PGD) refers specifically to when one or both genetic parents have a known genetic abnormality and testing is performed on an embryo to determine if it also carries a genetic abnormality. (http://emedicine.medscape.com/ last entry 02/06/2014)

[178] As explained by Pavone and Arias (2012: 252) in their research on the political economy of PGD/PGS in Spain, embryos discarded from PGD carry a broad range of different 'defects', varying from either recessive monogenic disorders to predispositions to multi-genetic, complex disorders. This has radically altered the definition of 'life threatening', 'early-onset' and 'serious' diseases and has lucratively broadened the actual scope of the technology.

[179] The European Union Tissue Directive from 2004 states that "*as a matter of principle, tissue and cell application programmes should be founded on the philosophy of voluntary and unpaid donation, anonymity of both donor and recipient, altruism of the donor and solidarity between donor and recipient*".
 http://eur-lex.europa.eu/LexUriServ/site/en/oj/2004/l_102/l_10220040407en00480058.pdf (last entry 07/02/2013)

> "*The logic behind is that you do not want to encourage couples to donate, it should be a donation, not a way to make money. Couples should be aware of the possibility of commercialisation and just give their informed consent*".

In the aforementioned PGD research project at the Shaare Zedek Hospital, the informed consent form explicitly states that:

> "*Participation in the study is voluntary and you will not receive any financial benefits or property rights for your consent to participate in it. It is possible that the stem cell lines derived from your donated embryos, the cell derivatives or the results of the research carried on the stem cell lines will have commercial potential. It is possible that such potential will lead to commercial associations. Note that in such a case you will not be eligible for financial or other benefits*"[180].

In their analysis of neoliberal reproductive economies, feminist scholars such as Michal Nahman (2008), Catherine Waldby (2002, 2006, 2008, 2010, 2014), Melinda Cooper (2006, 2008, 2010, 2014) and Donna Dickenson (2002, 2007) have pointed out how the regimes of labour and intellectual property in bioeconomies are configured through a mind-body split. Due to this Cartesian division only the innovative labor of the scientist who transforms biological matter into patentable products is recognised while the embodied labour of donors is blatantly disregarded. Michel Revel (Nes Ziona, 16/07/2012) recalled the case of Interferon-beta, which he developed for the treatment of Multiple Sclerosis and which still supplies Merck Serono with hundreds of million dollars annually through the sales of Rebif.

> "*I myself made my career and my money by discovering Interferon for which we needed blood donors. I remember during our research there was a case of blood donors who claimed that they were inventors. They are not inventors, they are just blood donors. That is not an invention. The scientists made the invention. So I do not think that it would be wise to extend the intellectual property rights to people who are just donating an organ or tissue*".

In the stem cell sector, this mind-body split is often particularly gendered, as most of the donors are women who are providing reproductive tissues. In Israel's gift economy of research donations these tissues are construed as 'res nullius' or nobody's property. Similar to the 18th century settler colonial doctrine of 'terra nullius' that declared native land as "*empty of ownership, rights of sovereignty*", the principle of 'res nullius' has enabled the seizure of biological tissues from women's bodies (Yiftachel, 2006:4, Dickenson, 2002)[181]. Moreover, in Jewish religious law too,

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[180] Informed Consent Form for Genetic Research, Shaare Zedek Medical Center, dr. Gheona Altarescu and dr. Rachel Eiges (via personal communication 18/07/2012).
[181] Sarah Franklin (2006, 2007, 2014) has discerned remarkable analogies between discourses and practices of (settler)colonialism and the field of reproductive biomedicine, obvious in terms such as pioneering and the frontier. As she wrote on biological colonies, for instance: "*Significantly, the term 'colony' derives both from the Latin colonus for settler, and colere, for cultivate. Colony in its biological sense thus refers to controlled reproduction of a part from a whole, through culturing it, or, to use a closely related word that is virtually synonymous with stem cell passaging: propagation. Propagation provides the horizontal axis of stem cell growth, or culture, in that the basic idea is expansion or spreading out*" (Franklin, 2006:78).

embryos and foetuses are considered as *'hefker'* or ownerless property. According to Halacha, there are two categories of ownerless property:

> *"(1) property that has never been owned before – such as wild animals and birds, fish of the river and ocean, and wild or forest plants and (2) property that has ceased to belong to its former owner".[182]*

Embryos and foetuses are part of the first group of ownerless property that "*can therefore be legally acquired by the person who first takes possession of it*", in this case the research institution, biotech company or, in case no one else claims it, the State of Israel. This means that both religious and secular patent law in Israel enabled processes of primitive accumulation on the bodies of women who, as Waldby and Mitchell (2006: 76) aptly phrased it, are treated as "*open sources of biological material which can be readily disentangled in ways that favor the rights and profits of biotechnology companies*".

The development of Israel's reproductive-embryonic sector was highly dependent on the unrecognised reproductive labor of women, either as suppliers of raw reproductive tissues or as experimental research subjects. Even in the case of Israeli egg donation, according to the new law from 2010 egg donors are reimbursed for their expenses, not for their embodied labour. When asking Mira Hibner Harel, Legal Advisor of the Ministry of Health, about the legal status of the egg donor, she clarified:

> "*She [the egg donor] gets financial compensation which is supposed to cover expenses she had, but she's not paid for the work*".

In case some of the oocytes are donated for research purposes, however, it is not the research lab reimbursing the egg donors.

> "*We don't think researchers should be paying for this. Research is something very important. In that case the egg donor will get the reimbursement from the egg recipient, and the rest of the eggs goes to research*".

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[182] In the State of Israel, ownerless property belongs to the State, in accordance with the "State Property Law, 5711/1951 https://www.jewishvirtuallibrary.org/jsource/judaica/ejud_0002_0008_0_08649.html (last entry 20/08/2016).

Conclusion: Israel's Reproductive-Industrial Complex

"We need an army of scientists".

- Shimon Peres, former president of Israel[183]

Similar to the emergence of a prosperous military-industrial complex in Israel, Zionism's century old double logic of (bio)capital accumulation and demographic elimination has created the fertile conditions for the development of a thriving reproductive-embryonic biotech sector in which the interests of a pronatalist Jewish state and a biomedical establishment have conjoined. My genealogy of Israel's reproductive-industrial complex centered around two techno-scientific apparatuses (Barad, 2003): Serono's Pergonal and Kadimastem's stem cell therapies, each situated in a specific time-space frame of Zionist history. Following Sheila Jasanoff's (2006) notion of the co-production of the scientific and the social and Pavone and Goven's (2014) analysis of the bioeconomy as an exclusionary political project rather than a techno-scientific or economic given, I have argued that it is not possible neither desirable to comprehend the emergence of Israel's reproductive-embryonic sector without analysing its underlying political-economic power configurations (Rajan, 2007). By focusing on a broad variety of issues that characterise such a political economy approach in settler-colonial Palestine/Israel - including Zionist demographic arithmetics, intellectual property monopolies, academic-industrial cooperation and gendered labour regimes - certain continuities and discontinuities between the Keynesian-Fordist and neoliberal modes of Israel's capitalist reproductive-embryonic economy were discerned.

FERTILE DEMOGRAPHIC POLITICS

First of all, both Pergonal and regenerative stem cell therapies have been co-produced by Israel's historically pronatalist policies, oriented towards the fruitful and healthy reproduction of the Jewish settler body. In its ongoing quest for the Judaisation of Palestine/Israel, Zionist ideology has materialised through a wide range of pronatalist experiments that have stimulated innovations at the frontier of the global health and research markets. From Bruno Lunenfeld's spectacular discovery of Pergonal in 1961 to Reubinoff and Itzkovits-Eldor's contributions in establishing the first embryonic stem cell lines, Israeli fertility researchers are internationally

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[183] Quoted in Stockmarr Leila, 2014. "Seeing Is Striking: Selling Israeli Warfare". *Jadaliyya* 18/01/2014, http://www.jadaliyya.com/pages/index/16044/seeing-is-striking_selling-israeli-warfare

celebrated for being pioneers, particularly in the fields of assisted reproduction, genetic diagnostics and stem cell research (Denes, 2011).

In the case of Pergonal, the linkage with Jewish pronatalism was direct. Bruno Lunenfeld's switch from menopausal to fertility research in the mid-fifties was strongly inspired by a rabbi who had encouraged him to *"bring back the six million Jews that we lost during the Shoah"*. During our conversation (Tel Aviv, 27/08/2013) Lunenfeld proudly stated that by now he got twelve million children back, five million from IVF and seven million through ovulation induction. Moreover, the main reason why Prime Minister David Ben-Gurion was interested in supporting the Pergonal Project was demographic; in order to promote an internal aliyah in Israel. This also explains why for a long period Pergonal was freely distributed through the Centre for Demographic Problems and subsidized by the Prime Minister's Office.

Similarly, Israel's eminence in stem cell therapies can be viewed as an indirect by-product of its pronatalist stance on assisted reproductive technologies. It has been widely acknowledged how Israel's decennia long devotion to fertility research and the abundantly present 'spare' reproductive tissues have enabled the development of its stem cell sector. One powerful example of Israel's maternal-embryonic nexus (Waldby, 2009) can be detected in Israel's recently voted Law on Egg Donations, when entrepreneurial researchers who were working on therapeutic cloning (SNCT) successfully lobbied for adding research as a legitimate ground for egg donation. Today, Israel's stem cell laboratories at universities and biotech companies are closely cooperating with PGD labs of hospitals for the purpose of experimental research on genetic diseases. In general, there is an increasing proximity between the spheres of PGD, IVF and hESC in Israel, as there is in other PGD hubs such as Spain (Pavone and Arias, 2012). As Dalit Ben Yosef, director of the IVF-PGD Lab and Stem Cell Research Lab at Tel Aviv Sourasky Hospital clarified (interview Tel Aviv, 22/02/2012):

> *"It's unique in Israel, we don't have it in any other place, that we have the IVF lab, the PGD lab and the stem cell lab under one and the same lab. So we have the IVF lab, which is doing all the stuff with the embryos and the oocytes and the sperm. Then we have the PGD lab that does the pre-implantation genetic diagnosis. These are molecular biologists who are part of my lab and they are specialised in doing the diagnosis on single cells for the specific diseases. So we have another five molecular biologists who are geneticists as well and they will do the genetic analysis. Usually it's done in the Genetic Institute, but for us, we are working in collaboration with the Genetic Institute but the lab is part of the IVF lab. The biopsy of the cell is done in the IVF lab, but then the single cell is brought to the geneticists and the embryos are to be cultured for another two days in the incubator of the IVF lab, so it's all mixed. And then we have the stem cell lab, which is mine, and which is based on diseased embryos, so we take the diseased embryos, those that are considered to be affected after analysis and we isolate the embryonic stem cells from these diseased embryos, so we have diseased embryonic stem cell lines, so that's why it's all under the same roof".*

WOMEN'S PARTICIPATION IN ISRAEL'S BIOECONOMY

Secondly, from old Italian nuns to young Israeli egg donors, it is obvious that women are crucial protagonists in Israel's settler bioeconomy, both as reproducers of the nation and as (unrecognised) producers of biovalue. In her research on the creation of plentiful environments in the Land of Milk and Honey, Tamar Novick (2014: 37) identified the figure of the "*New Jewess*" who personified "*bodyscapes of plenty*" in Zionist discourse. Her body was shaped to become the main locus for the production of abundance in Israel/Palestine. This process has intensified with the introduction of and the governmental support for a broad mosaic of new reproductive technologies, such as IVF, egg donation and surrogacy. Motherhood is the chief ideological identity of Israeli women (Yuval-Davis, 1998; Remennick, 2008), while childlessness has been pathologised as "*a deviation from the natural order*" (Donath, 2014:6) and as an existential threat to Zionism, particularly in contrast to the so-called hyper-fertility of Palestinian women.

Given that processes of reproduction are located at the heart of capitalised biosciences - as Locke and Franklin (2003) have posited - women have been placed in a central - yet not so privileged - position. Ranging from the post-menopausal urine that was used for the production of Pergonal to the spare IVF/PGD embryos needed for the configuration of stem cell lines, Israeli women's biological tissues have been harvested as free raw resources for the development of experimental and (potentially) lucrative medical therapies. Through a carefully guarded Cartesian split between the active, cognitive labour of the (often male) scientist on the one hand and the passive, altruistic and often female donations on the other hand, women's participation in Israel's reproductive-industrial complex has neither been recognised nor valorised. While in the discursive realm, Israeli women's contributions are bio-ethically framed as gifts of altruism, care and kindness, this is materially underpinned by a property regime based on mechanisms such as res nullius, *hefker* and informed consent that transforms women's alleged ownerless gifts into intellectual property. Similar to the terra nullius doctrine was developed in the 18th century by European colonial powers to take control over land occupied or uncultivated by natives or people considered uncivilised, the *res nullius* principle has facilitated the conceptual and material disenfranchisement of female tissue donors over their bodies. While Silvia Federici would term this process primitive accumulation, Israeli bioethicist David Heyd (interview West, Jerusalem, 08/08/2012) construed tissue donations as a form of "*intergenerational justice*":

> *"We are currently benefitting from research done on our ancestors and we give our share by benefitting future generations in a way that cannot be identified".*

Women and their bodies were not only mobilised as the providers of raw biological resources, but also as experimental trial subjects for promissory technologies such as Pergonal, DES and stem

cell therapies. Until today, a lot of clinical research and clinical trials are conducted in Israel, which Barbara Prainsack (2006: 42) would ascribe to a typical Israeli attitude entailing a "*fearless, liberal but not immoral embrace of biomedical technologies*" and which I would attribute to an experimental logic inherent to Zionism's project of demographic governance in Palestine/Israel.

INTELLECTUAL PROPERTY MONOPOLIES

A third focus point in this political economy analysis of Israel's reproductive-industrial complex was the configuration of the regimes of accumulation through intellectual property monopolies. According to Christian Zeller (2008) knowledge and technology have become crucial engines of neoliberalism's financialised rentier-regime that heavily relies on intellectual property monopolies. Zeller (2008:92) explicitly nuances the novelty of the valorisation of knowledge in capitalist history, but he does insist that "*distinctive for the current finance-dominated accumulation regime is the highly increased importance of monopolised knowledge and information for the extraction of rent*". While in the early sixties, Bruno Lunenfeld refused to patent his discovery in order to keep medical knowledge accessible to the scientific community, this was not possible anymore for Michel Revel's generation who see patenting as a crucial flow of income for the university and for themselves. As Shlomo Oren, CEO from Haifa University Economic Corporation, the technology transfer company of Haifa University (interview Haifa, 16/01/2012) clarified:

> "*Half of the money from the IP goes back to the researcher, who can –if he [sic] wants to- reinvest it in his department, but he can also buy a BMW if he wants to. That's in order to encourage them to be involved in applicable research*".

This entrepreneurialisation of Israeli Academia has placed Israel among the world's top patent holders in the field of medical devices and biopharmaceuticals. Through their development into financial and knowledge asset values and - to a lesser extent - into commercial biocommodities, these enclosed knowledges have constituted the solid base of Israel's reproductive-embryonic industry (Tyfield & Birch, 2013)[184].

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[184] I understand Israel's reproductive-embryonic industry as both an asset-based and a commodity-based enterprise. Drawing on the work of Tyfield and Birche (2012:322), I agree that profit in the embryonic industries is mostly based on trade in intellectual property and financial investments, not yet from the production of biocommodities, as up to now many Israeli biotech companies have simply not produced any 'commodity' for sale. The fertility industry, however, is a commodity-based industry, in which wombs, oocytes, and other reproductive substances and services are commercialised on the global market.

REPRODUCTIVE-ACADEMIC-INDUSTRIAL COMPLEX

Thirdly, although closely connected to the previous point, the contribution of universities and public research centres has been so tremendous that it would be more sensible to opt for the term reproductive-academic-industrial complex. Amalya Oliver (2004: 584) argued that under impulse of neoliberal economic policies, the Israeli government set out three initiatives in the nineties to facilitate the commercialisation of academic research, i.e. the creation of incubator units for fledgling companies, the supply of high-tech resources for academic and start-up companies, and the creation of links between academia and industry. Although these interventions have certainly invigorated the commercial importance of academic powerhouses in Israel's bioeconomy, I have emphasised that Israel's public research centres have always been strongly oriented toward the market (Messer-Yaron, 2011). Its first technology transfer companies were created long before the introduction of the Bayh-Doyle Act in 1980 in the United States, which officially heralded in the new era of the entrepreneurial university.

Neither Pergonal nor Kadimastem's stem cell therapies could have been developed without the close cooperation between private companies such as Serono and Kadimastem on the one hand and public research institutions, such as the Weizmann Institute and Tel Hashomer Hospital with its highly skilled academic staff, on the other hand. Serono, which played such a central role in Israel's biotech history, decided to invest in Israel after their success story with Lunenfeld. Most of Israel's current stem cell companies arose from university spin-off companies. The crucial difference with earlier governance models of Israeli universities lies in their current role as generators of intellectual property monopolies.

FROM A KEYNESIAN TOWARDS A NEOLIBERAL BIOECONOMY IN ISRAEL

Although Israel's reproductive-embryonic sector indeed took a giant leap 'forward' in the late seventies with the introduction of neoliberal economic policies, I have argued that an older yet still present heritage of Zionist settler colonialism has enabled the emergence of this thriving industry. From its early inceptions, the Zionist project necessitated the development of advanced medical knowledge, science and technology to make the presumed barren Palestinian desert bloom and to regenerate the weak diaspora Jew into a healthy and fertile New Jew. Instead of fixating on the innovative novelty or the market-drive behind Israel's neoliberal bioeconomy, I have discerned important continuities between Zionism's Keynesian and neoliberal 'fix' in the creation of a reproductive-industrial complex in which the state, universities, national and

international pharmaceutical companies have been pivotal players. This conceptualisation of Israel's bioeconomy therefore transcends dichotomies between the state and the market, as earlier suggested by Benner and Löfgren (2007) and Pavone and Goven (2014).

While Israel has been famous – notably during the first three decades of its existence- for being strongly inspired by Labour Zionist principles such as mutualism, welfarism and kibbutzism, this has been debunked by critical scholars as mostly pseudo-socialist mobilising myths. Ella Shohat (1988:21) called the "*Zionist manipulation of socialist slogans and syndicalist language a smokescreen for the structural ethnical and class contradiction within the Zionist experiment*". Ben-Gurion, symbol *par excellence* of Labour Zionism, could only pursue his generous reproductive health policies (including the free distribution of Pergonal) thanks to a close cooperation with private companies such as Serono and Ikapharm.

Conversely, the neoliberal turn of the late seventies did not imply a retreat of the state. Israel's neoliberalising bioeconomy still depends on multifaceted state interventions. It is not so much the demand-side, as was the case during the Fordist-Keynesian bioeconomy, but rather the supply-side that makes biotech companies and the State of Israel as a whole more competitive and innovative (Benner and Löfgren, 2007)[185]. Particularly during the "roll-out neoliberal" nineties, the Israeli government continued to nurture its biomed sector via supply-side measures, such as a permissive regulatory framework on assisted reproduction, therapeutic cloning and stem cell research, tax benefits, government backed venture capital funds, generous research grants and programs such as Magnet and Bereshit, and the provision of technological incubators. In conclusion, Israel's repro-industrial complex is characterised by a compound public-private interplay between government-funded scientific research and biotech or pharmaceutical companies, a particularly strong position for professional groups such as scientists and doctors, asset –and commodity based profit models, a highly supportive role of state agencies in the capital accumulation process through the regulation of the biomarkets, intellectual property laws, and the issuance of a lenient bioethical framework, and positive public attitudes toward uncertain and controversial applications of biomedical science (Oliver, 2004).

Similar to Rajan's (2006) conclusion that 'new' genres of Indian biocapital depended on older exclusionary histories of colonialism, I argued in this chapter that processes of settler colonialism and (bio)capitalism are intricately connected in Palestine/Israel, and that Zionism's double logic of capital accumulation and demographic elimination has furthered the emergence of a thriving reproductive-industrial complex.

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[185] I wish to thank the anonymous reviewer of BioSocieties for pointing out to this important nuance between demand- and supply-side state interventions in the bioeconomy.

Images

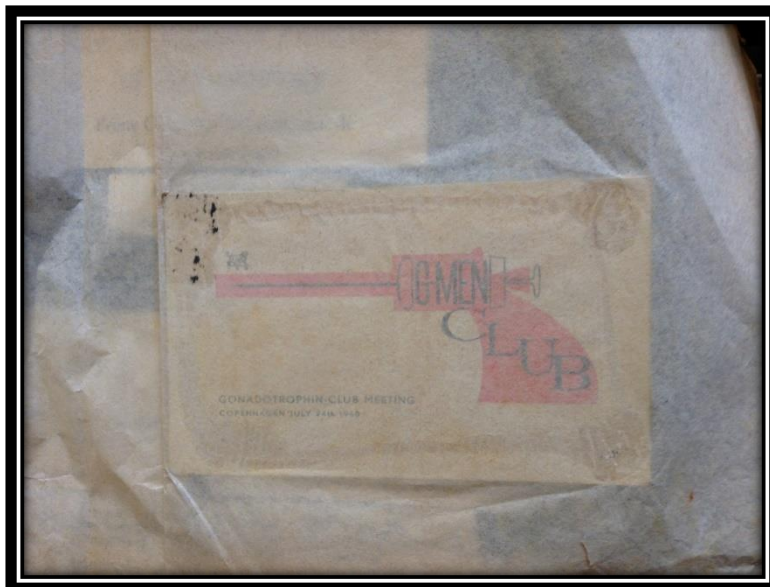**Figure 4: Bruno Lunenfeld**

Figure 5: The "G Club" was an international gonadotropins research network established in 1953 by Lunenfeld and his supervisor De Watteville.

Figure 6: Pergonal by Serono

Figure 7: Kadimastem

CHAPTER FOUR

CHAPTER 4 "HOMONORMATIVE PRONATALISM": TRANSNATIONAL GAY SURROGACY IN ISRAEL/PALESTINE

Introduction

> *"And Sarai said to Abraham, 'Behold now, the Lord has prevented me from bearing children. Go in to my servant; it may be that I shall obtain children by her'. And Abraham listened to the voice of Sarai".*
>
> - Genesis, 16:2

As should be clear by now, this dissertation examines the stratified pronatalist character of policies and practices of assisted reproduction in Palestine/Israel as co-produced by ongoing histories of settler colonialism and biocapitalism. While the first two chapters explored the biopolitical economy of IVF and egg donation in Palestine/Israel, the third chapter looked into the historical roots of the fertile double logic of capital accumulation and demographic elimination by reconstructing a genealogy of Israel's reproductive-industrial complex. In this final empirical chapter, I will scrutinise yet another remarkable niche within Israel's flourishing reproductive economy, that of the transnational surrogacy industry.

Israel is one of the few countries in the world, together with Greece, Georgia, the UK, India and (some states in) Australia and the US, that allows surrogacy and it was the first country to explicitly regulate the reproductive practice. In 1996 the Israeli Embryo Carrying Agreement was legislated, enabling a state committee to dis/approve a surrogacy agreement between an infertile commissioning couple and a surrogate woman who is paid to gestate the couple's embryo(s) and to hand over the baby to them upon delivery (Shalev, 1989; Teman, 2010; Samama, 2013). Israel's state-controlled and partially state-funded surrogacy model has been internationally lauded for providing more democratic access in contrast to the deregulated free-market system in the United States, for instance, where surrogacy has become a luxury service for the upper middle class (Winddance Twine, 2011:48). Yet, surrogacy in Israel is only allowed for married heterosexual couples, excluding same-sex couples and singles from accessing this reproductive service.

This exclusion has triggered the development of a semi-legal transnational surrogacy circuit that not only serves the procreative needs of same-sex couples and singles, but also of heterosexual couples who prefer to by-pass the lengthy bureaucratic procedures of Israel's national surrogacy

model. Since 2006 Israelis are increasingly contracting surrogate mothers abroad, in places such California, India, Thailand, Nepal, Ukraine or Georgia, where surrogacy is either allowed or not regulated at all.

Transnational surrogacy has created two noteworthy yet conflicting societal trends. On the one hand, it offers gay couples the opportunity to have genetically related children, and in this sense it is challenging heteronormative kinship patterns. On the other hand, it reinforces existing global inequalities, as transnational surrogacy agreements mostly comprise of white, relatively wealthy commissioning couples from the Global North using the cheap reproductive labour of poor women in the Global South. This chapter will examine the ambivalent tension between these two intersecting movements in the context of Israel's 'glocal' state-building project in which it positions itself in the 'global' bioeconomy as a repro-tech centre while, or rather - as I would argue - *by* sustaining its 'local' settler colonial project of manufacturing a demographically Jewish State.

I will explore the political economy behind Israel's emerging transnational gay surrogacy sector, by using the work of Marcia Inhorn (2010) and Charlotte Krolokke (2012) on globalised reproduction as a point of departure. Drawing on Appadurai's theories on globalisation as a multitude of 'scapes', Inhorn (2010) proposed to conceptualise processes of globalised reproduction and fertility travel in terms of 'reproscapes' and 'reproflows' by focusing on the ways reproductive substances, bodies, technologies and workers travel across national borders around the globe. She views reproflows as "*technologies invented in one country, which then flow to others through a variety of commercial means*", as "*embryos flowing from one country to another through the work of embryo couriers carrying their cryopreservation tanks*" and as "*men and women flowing across transnational borders in search of reproductive assistance or as reproductive assistors who flow or are flown to other countries in transnational reproductive networks*" (Inhorn, 2010:184; Krolokke, Foss and Pant, 2012; Moreno, 2016). In the particular case of Israel's cross border surrogacy network, the reproflow consists of dysfertile [186]/infertile Israeli couples who are increasingly contracting surrogacy companies to purchase egg cells from South Africa or the United States and hire surrogate carriers in Nepal, the United States, Georgia and until recently Thailand and India in their quest for genetic parenthood. Yet, as Adi Moreno (2016) noted in her research on transnational gay surrogacy, not everything and everyone is allowed to 'flow' across the global reproscape. It is restricted by borders and boundaries, which are carefully guarded by sovereign states through citizenship, nationality and kinship regimes. This chapter will examine

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[186] Singles, gays, and lesbians are sometimes labeled 'dysfertile' as opposed to 'infertile' to emphasise their social, rather than 'just' biological obstacles to reproduction.

Israel's transnational surrogacy sector while keeping a close eye on the various barriers of inclusion and exclusion the state has surrected.

Similar to the previous chapters, my political economy approach of Israel's transnational surrogacy industry will be an intrasected one, attentive to the distorted hierarchies of race, gender, class and sex that structure this market. First, I will examine how emerging practices of transnational gay surrogacy fit into Israel's settler colonial regime of fertility and population management. Based on the discussions in 2014 following a proposal of Yael German, then Minister of Health, to alter Israel's existing Surrogacy Law and include gay surrogacy, I will discuss the demands and positions of Israel's LGBTQ community concerning surrogacy and the right to genetic parenthood. I will argue that even though Israel's LGBTQ community and the State of Israel are often presented as antagonistic forces, they are mutually normalising and legitimising each other through practices of (transnational) surrogacy, in a process that I will term 'homonormative pronatalism'. Secondly, I will take a closer look at the racialised reproductive logic and the 'coloniality of power' engendering Israel's cross border surrogacy industry. By looking into a recent episode when 26 'Israeli' surrogacy babies got stuck in Nepal after the country was struck by an earthquake killing more than 8.000 people, I will discuss the porous line between life and death in Israel's fertility regime. Thirdly and lastly, I will assess how biovalue is created in Israel's surrogacy industry by looking into the material-discursive regimes of labour, property and commodification underlying this fertility chain and carefully deconstructing how these are discursively reshaped by Israel's surrogacy companies.

Queering Israel's Surrogacy Law

The true "gospel" of Baby Bloom – a promise for a family with two kids, or more!
- Slogan on the website of a gay surrogacy company in Israel

In 1996, when the Israeli Knesset approved the Embryo Carrying Agreement in a record time of nine months, Israel became the first country in the world to implement a form of state-controlled gestational surrogacy if certain conditions were met (Kelly Weisberg, 2005; Lipkin and Samama, 2010; Teman, 2010). The law stipulates, for instance, that the surrogate needs to be a single woman aged between 22 and 38 with at least one child, while the intending parents need to be a heterosexual couple with legal couple status. Similar to the Egg Donation Law, both parties are required to share the same religion. The Law prohibits altruistic models of surrogacy in which a relative or a close friend of the commissioning couple acts as the surrogate, and only allows

commercial surrogacy. As Elly Teman (2006) noted, this means that the State of Israel views the surrogacy agreement as a business transaction for which the surrogate mother is reimbursed [187].

Unlike other fertility treatments in Israel that are available and subsidised regardless of sexual orientation or marital status, the Surrogacy Law only enables heterosexual couples to enter a surrogacy agreement. The reasoning behind this decision was to ensure that surrogacy, which is viewed as a physically and emotionally invasive procedure, would not become a standard reproductive procedure, but would only be used in exceptional cases of medical necessity. As Marta Dirnfeld (interview Haifa, 13/05/2014), fertility doctor in the Carmel Hospital in Haifa and member of the Mor Yosef Committee for Fertility and Birth that formulated policy recommendations on surrogacy, explained it:

> *"I understand very well that gay couples want to have a child. I fully identify with them. However, they cán make children. They don't have a medical problem. They have a social problem. They can make children with single or divorced women who are craving to have a child. There are many new family constructions possible and websites for this. (…) Instead of making a child with a woman, they take the egg cells from one, the womb from another and as such they potentially exploit two women".*

In this sense, the existing Surrogacy Law upholds a clear distinction between biologically inflicted models of 'infertility' and socially inflicted models of 'dysfertility', making surrogacy only accessible to 'infertile' couples who – according to formal definitions - have not achieved pregnancy after one year of unprotected intercourse.

Lisa Ikemoto (1995:1027) has challenged the heterosexist assumptions of this mainstream definition of infertility, as it does not allow singles or same-sex couples to be included among the 'biologically infertile'. As she aptly phrased it: "*Since procreative technology use is primarily understood as infertility treatment, access to the technology usually hinges on the diagnostic power of the definition*". This critique was also adopted by Israeli singles and same-sex couples who perceived the existing surrogacy law to be sexually discriminatory and subsequently challenged it in Israel's Supreme Court. The Supreme Court agreed with the complainants and urged the Israeli government to take measures to adjust the existing Surrogacy Law. The State instated two public committees to discuss the matter, resulting in the draft of the Gay Surrogacy Bill by Health

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[187] The cost of surrogacy in Israel varies between NIS 150.000 and NIS 250.000 or € 35.000 and € 60.000. The reimbursement fee for the surrogate is roughly € 25.000. The surrogacy agencies that arrange the contract between the Israeli surrogate and the commissioning couple charge roughly € 9.000 (Teman, 2006; Samama, 2011).

Minister Yael German in 2013, which suggested to allow surrogacy for same-sex couples and single persons[188].

HOMONORMATIVE PRONATALISM

> *"This state is upside-down. I am an Israeli citizen, I served as a combat soldier in two intifadas and I still serve as a reserve soldier and police volunteer for several years. But when I wish to fulfil my desire to become a parent – this state throws me to the dogs".*

> - Dan, Israeli gay parent who got 'stuck' in India (quoted in Moreno, 2016:155).

Over the past decade the right to parenthood has become an important struggle in Israel's LGBTQ community. In 2014, the central theme of Israel's famous Gay Pride week was 'families' with a parade that – as Danna Harman (Ha'aretz, 10/06/2014) wrote – *"did not end at a Tel Aviv beach where in past years editions participants have partied until early mornings but at a nearby park where gay families could join in the fun and play on the seesaws and kiddie swings"*[189]. Particularly Israel's well-established and influential homosexual gay community has become a vocal supporter of the right to 'alternative' gay parenting. The Association of Israeli Gay Fathers was founded in 2013 to "*meet the need of Israeli Gay Fathers to exercise their right to parenthood in an egalitarian manner that matches other parents' rights"*[190]. As founder Udi Ledergor stated in an interview (Tel Aviv, 04/08/2014):

> "*The Association of Gay Dads proves that the LGBT community is maturing".*

In her research on lesbian motherhood Laura Mamo (2007) described how LGBTQ attitudes toward parenthood reflect generational experiences. In contrast to older LGBTQ generations who often perceived homosexuality and parenthood as mutually exclusive practices, younger gay generations are challenging taken for granted heteronormative assumptions of family, gender, kinship, reproduction and sexuality. For them, it should not only be possible and legitimate for everyone to reproduce in spite of their sexual preference, but – as I argue for the Israeli gay movement – it is also becoming a naturalised imperative. Udi Ledergor told me in an interview (Tel Aviv, 04/08/2014; emphasis added by S.V.):

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[188] The Gay Surrogacy Bill was proposed by Yael German from Yesh Atid, a center Zionist party representing Israel's middle class with the reputation of being 'gay-friendly'. Since Yael German has been replaced as Health Minister by Benyamin Netanyahu (Likud) after the parliamentary elections in March 2015, discussion of the Bill has been suspended.

[189] Harman, Danna. "Gay in Israel 2014: It's a family thing". *Ha'aretz* 10/06/2014 http://www.haaretz.com/israel-news/travel/gay-tel-aviv/tel-aviv-pride/1.597566 (last entry, 22/11/2015).

[190] http://gaydads.org.il/en/association-platform, last entry 18/06/2015.

*"I have an uncle who is in his sixties and who is gay and that is definitely an issue for him. He never publicly came out and he is single. I don't think he ever saw himself living in an all-male household, let alone having children. That was not an option 30 or 40 years ago. So I think we are sort of **beyond that stage** now and so I think that **naturally** leads us to start considering the same issues and questions, as any other couple would consider. **Normally** couples are getting married and within a few months talking about taking a mortgage and buying an apartment and having children. And that is exactly the process that I went through with my husband. That is exactly the process I see many of my friends are going through".*

When I asked Udi if Israel's gay community with its strong focus on parental right would be different from other gay communities in the world, he answered:

*"I think Israel is probably more **advanced** than most countries. I know in the US, in which gradually family becoming a big issue. There is a large community, especially on the East coast, but also in San Francisco where gay families having children. I think in Europe they are **far behind.** And of course, countries like Russia, where life is so bad for the LGBT community they not even can begin to consider having children. They have to hide their identity and with whom they are living with. It is definitely not an environment to have children in it. So I think that combination of the Israeli, or even I would say Jewish culture. So I would say it is probably the Jewish culture coupled with the maturing of the community is what causes this baby boom".*

While for many of its members, gay parenthood is perceived as the logical next step in the integration of the LGBTQ movement in Israeli society, I argue that this teleological vision on parenthood as the endpoint of a long emancipatory process is not natural neither universal, but rather co-produced by Israel's pronatalist climate in which 'sexually deviant' citizens are only accepted as part of the settler society as long as they reproduce the Jewish settler nation. Lisa Duggan (2002: 50) referred to this as homonormativity, a form of neoliberal sexual politics which "*does not contest dominant heteronormative assumptions and institutions, but upholds and sustains them, while promising the possibility of a demobilized gay constituency and a privatized, depoliticized gay culture anchored in domesticity and consumption*". Peter Drucker (2011, 2015) and Carolyn Schurr (2016) also emphasised how the consumerist logic of pink capitalism has construed gestational surrogacy as a logic next step after the political victory of gay marriage.

In Israel, in a process that I term homonormative pronatalism, the gay community is actively consolidating rather than subverting the Zionist pronatalist logic (Moreno, 2016). Guy Tatsa, Israeli gay icon and founder of Baby Bloom, one of Israel's dozens of surrogacy companies, mentioned during an interview (Tel Aviv, 07/08/2014):

"I grew up in Israel and these are the values that the society I grew up in has given me. When I go to Europe and I speak to gay people about the opportunity of becoming parents, people raise an eyebrow and tell me: 'why should we become parents?' When I meet with people in Europe who go through the surrogacy process they usually have one child. Here in Israel we all want twins and that's only the beginning".

Moreover, it is significant how an organisation as Proud/Gay Dads that defends the right to gay parenting strictly focuses on surrogacy and the right to genetic parenthood, and not on other forms of gay parenthood such as adoption and joined parenting.

According to Yussefa (interview Haifa, 09/09/14), gay activist and co-founder of a small organisation called Gays Against Surrogacy, there is a remarkable parallel between the gay community's struggle in the nineties for equal treatment in the Israeli army and the struggle for equal parenting rights.

> *"I see a continuity between the Israeli gay struggle for national belonging through the army or through having children. For me, these are the two pillars of Israel's social contract. (...) According to the Israeli discourse you only deserve your citizen rights, if you have been in the army and if you have served your country. And if you didn't serve in the army, then you are a horrible person. So I see this struggle for gay surrogacy as an attempt by the gay community to prove loyalty and belonging to the state."*

Jasbir Puar (2007) has referred to this as homonationalism, a form of LGBTQ identity politics that materialises through nationalistic, racist and oppressive practices and discourses, mostly anti-Arab and Islamophobic ones.

> *04/08/2014, day 28 of Operation Protective Edge.*
>
> *I'm sitting on a bench in a gentrified neighborhood in South Tel Aviv, the poorest area of the city. The Gaza war is everywhere, and I get more and more sick every day from experiencing it from the 'wrong' side of the Green Line. I was just approached by two young Israelis who are voluntarily collecting money to support 'their' soldiers in Gaza, so that they could buy some extra cigarettes and drinks in these difficult times. I looked at them with utter disbelief, but felt immobilised to even engage in a discussion with them.*
>
> *I just finished my interview with Udi Ledergor from the Association of Gay Fathers on gay surrogacy. It's strange to talk about life with so much death around. In the midst of our conversation he was interrupted by a call on gay fathers' obligation to reserve duty in the army. He explained to me afterwards that he is trying to settle an injustice concerning army service. "Straight mothers are never called up for reserve duty but fathers are. When there are two fathers, at least theoretically, both fathers can be called in for reserve duty, like in a situation we have now [Operation Protective Edge, S.V.]. And who is going to take care of the kids? So I am trying to change these regulations".*
>
> (Fieldwork notes 04/08/2014)

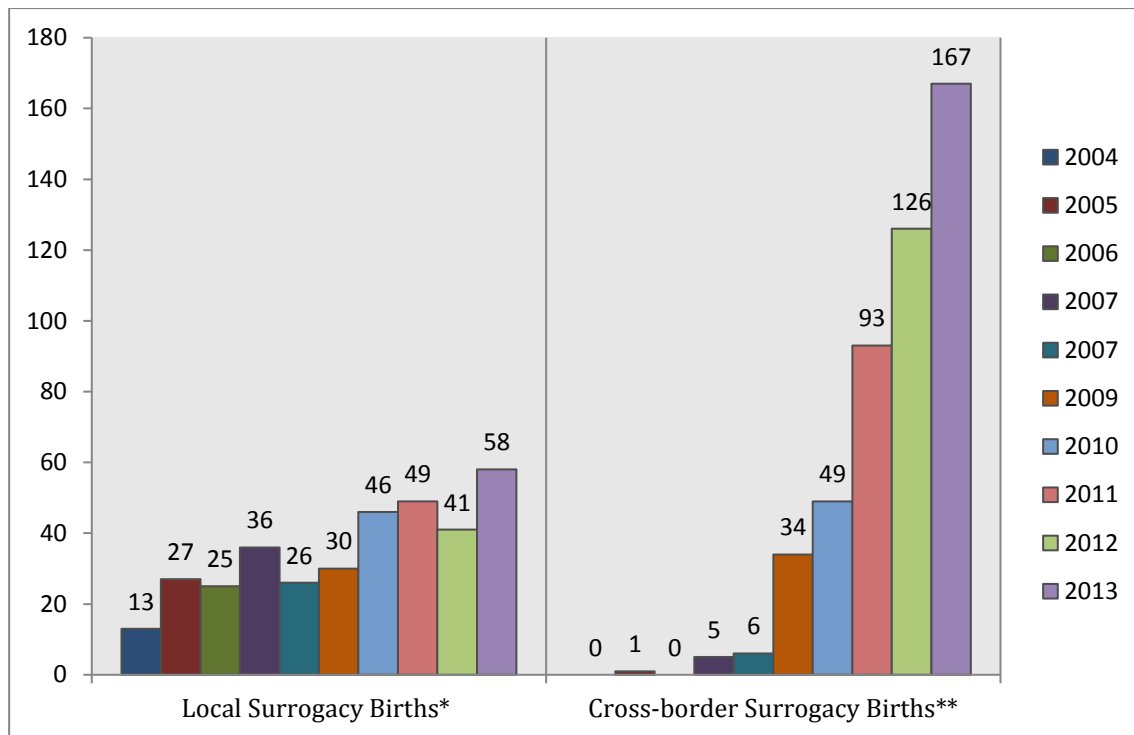## THE GAY SURROGACY BILL

The main changes that Health Minister Yael German proposed in 2014 to the existing Surrogacy Law were to make surrogacy available for singles and same-sex couples, to expand the pool of eligible surrogate carriers by allowing married women to be surrogates and to limit the payment of the surrogates to a maximum of NIS 160.000 or approximately € 40.000. These changes were

enthusiastically supported by the LGBTQ lobby as a significant process toward equality and openness. Less popular was German's proposal to regulate and therefore restrict surrogacy agreements abroad, which for over a decade had been the most secure option for gay couples and singles to have their 'own' biogenetic children.

From the mid-2000s onwards, same-sex couples and singles began traveling abroad to so-called 'surrogacy-friendly countries'. Initially, the most popular mother destination was the United States. Since the late-2000's, however, the focus has shifted to 'low cost' Eastern Asian countries such as India, Thailand and Nepal and Eastern European countries such as Georgia and Ukraine (Rudrappa, 2014). A recent report on overseas surrogacy by the Knesset Information Centre stated that between 2007 and 2011 188 Israelis recruited surrogate carriers abroad[191]. These figures remain quite modest, but as Table 1 and Table 2 show, they are quickly rising. In 2012 alone, 126 Israelis initiated a surrogacy process abroad, while only 41 did so in Israel (Moreno, 2016; Moreno and Eyal, forthcoming)[192]. While the majority of the Israelis who start an overseas surrogacy procedure are gay, heterosexual couples looking for cheaper surrogacy opportunities too are increasingly tempted to go abroad. While in Israel surrogacy costs around US$ 76.000, in India or Nepal the commissioning parents pay less than half (Teman, 2006; Rudrappa, 2012, Peled-Catz, 2014).

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[191] Adi Moreno (2016: 21) noted that Israel's transnational surrogacy numbers are impressive when taking into account the size of the population. With a population of roughly eight million Israel had a similar amount of transnational surrogacy births as the UK, which has a population eight times bigger. There were 151 cross-border surrogacy cases in the UK in the year between April 2012 and March 2013, as compared to 167 surrogacy births by Israeli citizens.

[192] Berman, Lazar. 2013 Health Minister calls for expanded surrogacy access. Times of Israel 11/12/2013. http://www.timesofisrael.com/health-minister-calls-for-expanded-surrogacy-access/ (last entry 15/08/2016).

Table 1: Local and Cross-Border Surrogacy Usage among Israeli Citizens[193]

Table 2: Overseas Surrogacy Birth for Israeli Citizens [194]

State	2005	2007	2008	2009	2010	2011
United States	1	4	5	17	10	12
India		1		14	39	59
Canada			1	1		
Russia				1		
Thailand				1		
Ukraine						6
Armenia						7
Georgia						8
South Africa						1
Total	**1**	**5**	**6**	**34**	**49**	**93**

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[193] Table designed by Adi Moreno (2016).
[194] The Knesset Information Centre. 2012. "Surrogacy in Israel and overseas surrogacy by Israelis: current state and the propositions of the public committee for changes". http://www.knesset.gov.il/mmm/data/pdf/m03065.pdf. (translated by Adi Moreno, 2016).

The State of Israel has been rather ambivalent in its legal stance towards transnational gay surrogacy. In official statements the state authorities have strongly advised against gay couples going abroad for surrogacy, particularly after this started causing serious diplomatic problems with popular surrogacy countries such as India and Thailand who blamed Israeli couples for disrespecting local laws and customs. Moreover, according to insiders, the Ministry of Interior and the Ministry of Foreign Affairs got tired of dealing with the ongoing bureaucratic requests and complaints of couples abroad who were in the process of applying for paternity rights and arranging citizenship for their children born from transnational surrogacy agreements.

In theory, Israeli law does not regulate Israeli's use of surrogate carriers in other countries – thus leaving the practice of transnational surrogacy in a legal twilight zone. In practice, however, the Israeli authorities have issued a complex series of travel and citizenship instructions- the so-called 'overseas regulation' - which commissioning parents need to comply with in order to regulate their parental rights and secure the citizenship status of the surrogacy babies (Moreno, 2016)[195]. Based on these prescriptions, over 300 transnational surrogacy babies have been granted Israeli citizenship, despite the official reluctance of the state authorities. As Dana Migdassi (interview Tel Aviv, 13/07/2014), director of Lotus Surrogacy, one of Israel's transnational surrogacy agencies, concisely summarised it:

> "*The Ministry of Interior and the Ministry of Foreign Affairs are fed up with all the issues connected to surrogacy abroad. I think we [the surrogacy agencies, S.V.] created that. Every person that is abroad for surrogacy calls twenty times to the Ministries and he [sic] even calls all the mobile phones of the district attorney's office. I can understand why these people complain. However, I don't agree with it, because they are working for these people, this is their job and it's the law*".

Indeed, the right of these transnational surrogacy babies to become Israeli citizens is anchored in Israel's Nationality Law, which allows every person born from a Jewish parent to 'return' to Israel under the Law of Return. Once genetic parenthood with one of the parents - in this case the gay father whom provided the sperm - is proven, the surrogacy baby has the right to become an Israeli

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[195] According to Adi Moreno's (2016) research on gay surrogacy in Israel, these overseas regulations are not officially published and highly volatile, depending on the legal changes in both Israel and the surrogacy country. The starting point, however, for bringing surrogacy children to Israel as Israeli citizens, is to prove genetic paternity. Moreno (Id.) explained that the paternity tests can only be performed in Tel Hashomer Hospital after a court order has been given by an Israeli family court. Once genetic paternity is proven, another court order to the Israeli authorities is required to recognise the babies as the children of their respective genetic fathers, and to issue the babies an Israeli passport to allow them to travel to their country of citizenship. In August 2016, however, the Tel Aviv Family Court ordered Israel's Interior Ministry to register a gay couples's transnational surrogacy baby as their child, without requiring tissue testing to prove the paternity of one of the parents".

citizen. As was already explained in the previous chapters, the Law of Return is one of the chief demographic cornerstones of Zionism's settler colonial project in Israel/Palestine. By providing every Jew in the world the right and privilege to acquire Israeli citizenship and simultaneously denying Palestinian refugees the Right to Return to their homeland, the Law of Return aims to safeguard a demographically Jewish state in Israel/Palestine. One episode that illustrates how easily the presumed antagonisms between the State of Israel and the gay community are transcended under a Zionist reproductive-demographic logic was when 'Israeli' surrogacy babies got stuck in Thailand in late 2013.

REPRODUCTIVE 'EXILES' IN THAILAND: AN EXERCISE IN REPLACEMENT

Since 2013 Thailand had become a popular surrogacy destination for Israeli gay couples, although back then the country had no surrogacy legislation and the birth mother was legally considered as the mother of the child. For a transnational surrogacy arrangement, this implied that the surrogate is viewed as the legitimate mother and the primary custodian of the child, a principle that surrogacy companies and commissioning parents prefer to bypass. One Israeli surrogacy company suggested that commissioning parents could circumvent this 'problem' by legally adopting the babies in Thailand prior to bringing them to Israel, a process that could last up to four months after birth.

The Thai government was displeased with the growing number of foreign gay couples entering the country for surrogacy reasons, and they drafted a bill that would outlaw commercial surrogacy. After the Israeli embassy in Thailand received an official letter from the Thai authorities concerning the illegality of commercial surrogacy, the Israeli Ministry of Foreign Affairs issued a statement on their website to dissuade Israeli couples from traveling to Thailand for surrogacy. It was explicitly mentioned that Thai law grants custody over the child to the birth mother and that commercial surrogacy might be viewed as a violation of the Thai Act Against Trafficking in Persons (Moreno, 2016).

At this stage there were already fifteen Israeli surrogacy babies born in Thailand, and reports suggested that at least fifty more were expected in the following months. LGBTQ organisations swiftly responded by sending around a letter of complaint, stating that:

> *"It is better that the Ministry of Foreign Affairs refrains from threatening Israeli citizens who are forced to resort to overseas surrogacy due to discriminatory policies by their own country, and just do its job. We expect that in any case where Israeli parents need assistance*

> *in bringing their children **back home** the Ministry of Foreign Affairs will assist them, as in any other case of Israeli citizens in need of assistance overseas"*[196].

Tammuz, Israel's biggest surrogacy company, that offered the 'Thai Route' as part of its surrogacy packages, tried to reassure its clients by posting the following response on their website and facebook page:

> *"After checking the matter with the Ministry of Foreign Affairs it is clear that nothing has changed in the legal situation in Thailand. The first few couples are now waiting for the results of paternity tests and we hope and expect that when the results arrive the children will be issued with passports and will be on their way home. At the moment there is no indication of an alternative scenario"*[197].

Tammuz was wrong. One month later, in December 2013, around 65 Israeli couples got stranded in Thailand, with no ability to return to Israel with their surrogacy babies. Although Israel's Interior Ministry quickly provided the babies with Israeli citizenship after the proof of genetic fatherhood was assured, they refused to issue their passports claiming that such an act will be viewed as child abduction as Thai law awards full parental rights to the gestational mother.

Outraged by the lack of support from their government, sections of Israel's LGBTQ community began organising a public campaign to 'bring the children home', particularly targeted at the Interior Minister, Gideon Sa'ar (Efrati, 20/01/14)[198]. The campaign consisted of writing complaint letters to Members of Knesset, organising rallies and demonstrations, and holding vigils in front of the house of Gideon Sa'ar, who had just become a father in this period. In a well-orchestrated social media action famous Israeli celebrities posted 'selfies' with the slogan "*Gideon, your baby is home, ours isn't*" on their facebook pages (Id., See Figure 15). The campaign received massive media attention and after nine days of action the Israeli authorities agreed to temporarily authorise passports for the Israeli babies in Thailand under the express condition that the Thai surrogate would sign a document, relinquishing all her rights and commitments toward the new born child (Efrati, 27/01/2014)[199].

In her innovative work on surrogacy in Israel, Elly Teman (2003, 2006) wrote that there are limits to Israel's pronatalism. She argued that the State of Israel would only promote birth if it corresponded with the core ideas of motherhood and heteronormative family. Adi Moreno's (2016) doctoral study on gay surrogacy in Israel suggested, however, that despite the gay fathers'

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[196] "LGBT association open letter to the Ministry of Foreign Affairs" 17.9.2013 (quoted in Moreno, 2016:163 emphasis added by S.V).

[197] Tammuz Facebook page. 25.12.2013 (quoted in Moreno, 2016: 164).

[198] Efrati, Ido. "Israeli parents fighting to bring babies home from Thailand". *Ha'aretz* 20/01/201. Ehttp://www.haaretz.com/news/diplomacy-defense/.premium-1.569533 , last entry 24/08/2015.

[199] Efrati, Ido. "Israel issues first passports for baby born to Thai surrogate". *Ha'aretz* 27/01/2014. http://www.haaretz.com/israel-news/.premium-1.570787 last entry, 24/08/2016.

claims of being abandoned and mistreated by their government, the State actively contributed to the regulation of the surrogacy babies in Thailand by allowing the establishment of surrogacy companies, promulgating overseas surrogacy regulations, acknowledging genetic parenthood of the father, registering the child, issuing citizenship and eventually passports for the surrogacy babies. I concur that notwithstanding the highly mediatised dispute between the Israeli authorities and the LGBTQ community, transnational gay surrogacy actually serves a conciliatory and pacifying practice through its consolidation of the Zionist reproductive-demographic logic. According to this rationale, Israeli gays are accepted as part of the settler collective as long as they agree to biogenetically reproduce it. When discussing the surrogacy controversy in Thailand with Dana Migdassi (interview Tel Aviv, 13/07/14), director of Lotus Surrogacy, she told me how little surprised she was with "*the positive outcomes*".

> S.V. *"So what happened to the Israeli babies from Thailand, they couldn't enter Israel?"*

> D.M. *" Of course they could, they entered, but it took some time. But you cannot prevent this child from coming to Israel. They [the Israeli authorities, S.V.] would need to change the Citizenship Law to restrict surrogacy babies from entering Israel. Today it says that every child from Israelis is an Israeli by birth. Unless you add a paragraph stating that it doesn't count when the baby is the product of surrogacy in a country that is not acknowledging surrogacy, the Ministry of Foreign Affair or Justice can do hula-hoops in the air, this is the law. If they don't fix it, then they don't have any argument. If the State of Israel really dislikes transnational surrogacy, then they should just change the Law of Return and add the paragraph on surrogacy, but they are not doing it. Again, because they have this demographic problem, they are afraid".*

As discussed earlier, the two main pillars of Israel's demographic regime consist of pronatalist reproductive policies on the one hand and generous immigration policies towards the world's Jewry on the other hand. In the case of transnational surrogacy, both axes have merged together to guarantee the reproduction of the settler nation, which, as I have argued, is only possible through the replacement of the indigenous population.

On the surface, Palestinians are absent from the discussions and practices of (transnational) surrogacy in Israel. Within the borders of Israel, Palestinian Israelis are excluded from accessing local surrogacy arrangements similar to the policies of egg donation. This is the case for a variety of reasons, including Sunni Islamic restrictions on third-party gamete donation and gestation, Israeli regulations that require the gestational surrogate to have the same religious identity as the commissioning mother and processes of socio-economic marginalisation which have made it difficult for Palestinian Israelis to access a costly procedure such as surrogacy. In her study of surrogacy in Israel, Elly Teman (2010:13) remarked: "*To my knowledge, most Israeli surrogacy agreements to date have been between Jews*". When asking Etti Samama (interview West-Jerusalem, 11/05/14), surrogacy expert at the Ministry of Health, what the Israeli surrogacy

committee would decide in case the surrogate and the intending parents have a different religion, she answered:

> "*They would say no. They check the religion of the surrogate woman, more than the rabbi when you come to get married. They check it really very seriously*".

In this sense, Israel's local surrogacy law reaffirms the demographic-reproductive goals of the Zionist settler state and Jewish law as well as bio-essentialist understandings of motherhood (Teman, 2010). When it comes to transnational surrogacy, some of the interviewed surrogacy companies mentioned having only a few Palestinian Israeli couples among their clients. I argue that it is precisely through this silence and absence, on both a material and discursive level, that Zionist practices of demographic replacement are taking shape in Israel/Palestine,

For instance, the Israeli media coverage of the surrogacy controversy in Thailand was remarkably sympathetic for the plight of the gay fathers and their babies. While the gay fathers were depicted as victims of homophobic intolerance, the babies were framed as 'diasporic Jewish exiles' who were refrained from 'returning home', a highly emotive leitmotif in Jewish-Israeli history. This conforms to contemporary bioethical and STS discourses on surrogacy that tend to highlight the procreative rights of infertile/dysfertile couples at the expense of other actors in the global fertility chain. For instance, some scholars have proposed to replace supposedly normative concepts such as 'fertility tourism' or 'reproductive tourism' with more neutral terms such as 'cross-border reproductive care' or 'reproductive exile' (Matorras, 2005; Inhorn and Patrizio, 2009; Van Hoof and Pennings, 2015). Matorras (2005:3571), for instance, suggested that *"the term [reproductive tourism, S.V.] could seem frivolous and offensive for couples seeking reproductive assistance abroad, and also for professionals involved in assisted reproductive techniques. I would find more accurate the term 'reproductive exile', since exile means leaving one's country, usually for political reasons".*

The particular case of fertility travel from/to Palestine/Israel illustrates how the usage of euphemistic terms actually obfuscates the multiple power hierarchies in which transnational surrogacy agreements are undeniably embedded. By portraying Israeli gay fathers or transnational surrogacy babies as 'reproductive exiles', ongoing histories of displacement and ethnic cleansing are appropriated by settler discourse and practice. It also obscures the asymmetries of power, in terms of race, class, gender and sexuality, between the intending parents and the surrogate carrier, an issue that I will discuss further in the following sections.

Racialised Procreative Logic: Saving Brown Women from White Gay Men?

> "*We believe that everyone who wishes to become a parent should be afforded the opportunity to do so and as such we do not discriminate on the basis of religion, race, gender or sexual orientation*"
> - Website "*Tammuz International*"

In the previous section I have argued that Israeli transnational surrogacy practices are undergirded by a Zionist logic of demographic replacement, aimed at accommodating Jewish-Israeli natality at the expense of Palestinian existence. I argue, however, that this is not the only colonial foundation of Israel's transnational surrogacy sector. By outsourcing pregnancy to so called surrogacy-friendly countries often located in the Global South, Israel's transnational surrogacy industry also thrives on other colonial reproductive logics.

In her innovative work on transnational commercial surrogacy in India, Amrita Pande (2010, 2014) classified cross border surrogacy as the clearest manifestation of a global reproductive hierarchy in which supposedly hyper-fertile, working class women from the Global South are putting their cheap wombs at work for infertile higher-class Western couples. In this section, I will take a closer look at the racialised hierarchies and the biopolitical forms of colonial exploitation behind Israel's transnational surrogacy flow. The work of others scholars on cross-border reproduction suggests that processes of racialisation and (post)colonial exploitation are not unique to Israel's surrogacy sector, but I will focus on their particular articulations in Israel/Palestine (Winddance Twine, 2011; Pande, 2014; Vora, 2015, Schurr, 2016).

REPRODUCING EMPIRE

Transnational gay surrogacy always requires a double reproductive intervention. First, gay couples or singles need an egg cell that must be fertilised with the sperm of one of the gay partners. Secondly, the resulting embryo needs to be gestated by a surrogate carrier. The principle behind gestational commercial surrogacy is that both practices are performed by different women, so as to avoid an emotional conflation between genetic motherhood (egg vendor) and gestational motherhood (surrogate carrier). This double reproductive movement is explicitly anchored in racialised hierarchies of power. Commissioning parents look for egg vendors who suit their

conceptions of 'good genetic motherhood' (in terms of ethnicity, intelligence, looks, etc) while surrogate carriers are employed as 'mere' cheap, brown incubators whose genetic 'essence' is not that relevant (Winndance Twine, 2011; Pande, 2014; Schurr, 2016; Moreno, 2016). Charlotte Kroløkke et al. (2012:278) summarised it concisely:

> *"Commissioning parents are comparatively wealthy, frequently white, and located in the North and the West; egg donors often are young, with lighter skin, and educated but economically less privileged; and surrogacy often is outsourced to and undertaken by poor women, usually located in the developing world".*

Although commissioning parents motivate their choice for non-white surrogates from the Global South mainly because of legal (not allowed in the home country) or financial (too expensive in the home country) restrictions, it is hard to overlook these racial intersections. Moreover, in her research on gestational surrogacy in the United States, Helena Ragoné (1994) identified a market preference for surrogates who are perceived as racially or ethnically different from the commissioning parents. For Pande (2014) the term '*stratified reproduction',* as introduced by Shellee Colen (1995) to describe the asymmetries of power in terms of race, class, gender and sexuality in one's ability to reproduce, is too benign to describe commercial surrogacy in the Global South. She preferred the term "*neo-eugenics"* when discussing how poor Indian women's procreative potential, once so feared and despised by the Indian government, has become a productive asset in the transnational surrogacy market During her ethnographic fieldwork, Pande (2014) interviewed a young Indian surrogate who had aborted her own pregnancy as a way to make space for a surrogacy pregnancy and gestate a foreign couple's baby. This anecdote is an extreme example. Yet, it does clarify how transnational surrogacy takes place in an unevenly developed, (post)colonial biopolitical order in which the reproductive bodies and capabilities of women in the Global South are extracted and sometimes even plundered for consumers in the Global North.

The racial hierarchy behind Israel's transnational gay surrogacy industry follows a pattern similar to the general one earlier described. In this global fertility chain, egg cells are extracted from white gamete sellers and wombs are recruited from surrogate carriers in the United States and various countries in the Global South. Take Tammuz, for instance, Israel's first surrogacy company that specialised in transnational gay surrogacy. It was established in 2009 by Doron Mamet, who was selected as one of the *pioneers* on the world in the book *"Überpreneur - 36 People You Must Meet"* (2013).

> *"Based on his experience in international outsourcing of technology programs, Doron Mamet saw an opportunity to enable gay Israeli couples to father children and build families. He established Tammuz International, a surrogacy service that uses specialist IVF facilities to* **unite sperm from gay Israelis** *with* **eggs from donors in the USA or other Western**

> **nations**, *couriers the fertilized eggs, frozen in liquid nitrogen, to a clinic near Mumbai, and implants them **in the wombs of Indian surrogate mothers**"[200]* (emphasis added by S.V.).

"How Would You Like Your Eggs, Sir"?

Today, infertile/dysfertile Israeli couples who are embarking on a transnational surrogacy adventure are mainly purchasing white egg cells from Georgia, Ukraine, Romania, South Africa or the United States. Although egg donation is allowed in Israel, it is strictly forbidden to export or transfer Israeli egg cells out of the country, as oocytes are framed as a scarce national resource. Moreover, as has been discussed in the second chapter on Egg Donation, there are not enough egg donations in Israel to cater for the reproductive demand of gay Israelis. This has urged them to look for suitable egg cells abroad, a process in which Israel's surrogacy companies assist them. The selection of the egg vendor is often carried out through a designated website that displays photographs of the gamete sellers and general details about them, such as education, employment, medical information, sexual and pregnancy history, family and genetic history, pursuits and hobbies. The most valorised traits of egg donors include beauty, whiteness, intelligence and alleged ethnic similarities (Moreno, 2016). Manor Medics, for instance, is an Israel surrogacy agency operating in Georgia that uses Ukrainian oocytes that are shipped to Georgia. When asking one informant who works for an Israeli fertility company why the egg cells are coming from Ukraine, he answered (interview Tel Aviv, 22/07/14): "*Have you seen Georgian women*?", hinting at the fact that Georgian women are not pretty enough for egg extraction.

Usually, an external company that closely cooperates with Israel's surrogacy agencies provides the egg-vending services. Tammuz International, however, started its own egg-vending agency in South Africa, called FertilityMate, "*offering young, intelligent, attractive egg donors from all around the world*"[201]. Doron Mamet (interview Tel Aviv, 17/07/2014), director of Tammuz, clarified:

> *"I didn't feel comfortable to do it with Israeli donors, because it's a grey zone, it's not acceptable in Israel to export eggs, in South Africa it's more easy".*

In most of the '*surrogacy plans*' that Israel's surrogacy companies offer, a remarkable distinction is made between the use of a so called 'Caucasian' egg donor or a non-white 'local' egg donor. The price difference between both types of egg vendors is significant. Lotus Surrogacy, for instance, charges US$ 40.000 for a surrogacy procedure in India with a 'local' donor, while charging almost US$ 10.000 more for the same procedure with a 'Caucasian' donor[202]. Tammuz International

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[200] http://uberpreneurs.com/uber/262/ , last entry 29/08/2015.
[201] http://www.fertilitymate.com/, last entry 01/09/2015.
[202] http://lotussurrogacy.com/, last entry 01/09/2015.

charges US$ 34.000 for surrogacy in Nepal with a 'local' donor, and US$ 46.000 for a 'Caucasian' donor [203]. The racial hierarchy in Israel's transnational surrogacy industry is thus clearly commodified. As Schurr (2016:12) suggested in her analysis of geographies of whiteness of Mexico's transnational surrogacy industry: "*Race is turned into a commodity, to be purchased from the menu of gamete banks*".

Some of Israel's surrogacy companies also offer the possibility to recruit Jewish egg donors. Baby Bloom, for instance, an Israeli company dedicated to transnational surrogacy procedures in the US, works together with the earlier discussed American egg donor agencies, such as Jewish Blessing or NY Lifespring, that specialise in Jewish donors. However, according to Guy Tatsa (interview Tel Aviv, 07/08/2014) from Baby Bloom, most of his clients - well-off, secular gay couples from the Tel Aviv area - are not interested in a Jewish egg cell. Since neither the gestational mother nor the genetic mother are Jewish, many of the commissioning parents convert the surrogacy baby to Judaism.

> "*What we usually do is to do the conversion in a reformed synagogue in Portland or New York. There the conversion is a kind of email conversion: 'okay you're Jewish give us 100 dollars' (laughs). Here in Israel it's more strict because it follows the orthodox tradition*".

Dana Migdassi (interview Tel Aviv, 13/07/2014) from Lotus Surrogacy added:

> "*They [the Israeli government, S.V.] are giving us a hard time with the 'giur' [Jewish conversion, S.V.][204]. In Israel, reformist 'giur' is not acceptable. In the Interior Office the surrogacy babies will be listed as Jewish, because they have a Jewish Israeli father. But when they want to get married they might have problems because Israel only allows religious marriage, which is controlled by orthodox rabbis. Gay couples are not allowed to do orthodox 'giur'. I always laugh and I say that today they are giving us a hard time, but in twenty years we will have an Arab majority in Israel, they will say: 'OK, who wants to be a Jew? Come, come, come, we will give you the certificate!' I'm sure of that, this is what happened with the Russians in the nineties. They didn't really check much. They said: 'Your grandmother was Jewish, OK we believe you, come'. Once they saw that it became problematic and too many people came, then they started to be more strict again, looking and checking the papers, the background. I think the main reason is demography*".

Currently, there are two prevailing medical procedures for egg donation in the context of transnational surrogacy: a fresh donation or a frozen donation. In case of a frozen donation, the oocyte extraction takes place in the egg donor's country of residence or a third country, after which the frozen eggs or embryos are flown to the surrogacy country. In case of a fresh donation, the egg vendors travel to the country where the surrogacy takes place, as is often the case for white donors. Tammuz International, for instance, arranges for its South African oocyte providers to travel to Nepal, or previously to India or Thailand, for the egg retrieval, in a journey that is often

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[203] http://www.tammuz.com/eng/, last entry 01/09/2015.
[204] Israeli commissioning parents often convert their transnational surrogacy babies through the practice of '*Giur Ketanim*', which literally translated means small children conversion (Moreno, 2016).

presented as an exotic and relaxing holiday rather than an invasive medical procedure. Doron Mamet (interview Tel Aviv, 17/07/2014) stated:

> *They [the egg vendors, S.V.] get a trip in a five star hotel, they have the best time of their lives. They like to do it, they like to travel. They come with friends and they just want to have fun, but they perfectly know what the medical dangers are."*

In the next section on labour and property I will further discuss the precarious labour conditions in which reproductive migrant workers have to work, but for now it suffices to emphasise the commodification of racialised difference in Israel's transnational egg vending market.

Outsourcing Western Pregnancy

While Israeli commissioning parents recruit egg donors from countries with a predominantly white population, they contract surrogate carriers from diverse countries such as Ukraine, Georgia, Greece, Russia and the United States. For gay Israeli couples the 'only' surrogacy destinations that are currently still available are the United States, where it is permitted in several states such as California, New Hampshire and Nevada. All the popular 'Far East' destinations, including India, Thailand and Nepal, as well as Mexico recently tightened the legal restrictions on (transnational) surrogacy, which has resulted in the closure of the market for gay surrogacy or the emergence of semi-legal 'solutions'. The current reproductive trajectories of Israeli couples might change again rapidly, as global fertility chains are highly volatile networks, with geographic nods that can change swiftly, depending on shifting regulatory frameworks[205].

Unlike the egg vendor, the surrogate carrier is not genetically related to the child. Therefore, she is not so much recruited based on her genetic and biological qualities as on her social assets as a gestational carrier or, as Pande (2010) terms it, "a perfect mother-worker": one who is altruistic, responsible, cheap, docile and dexterous. The Israeli surrogacy brokers I interviewed explicitly racialised and biologised the social qualities of what they perceived as good motherhood. Mina Yolzari (interview Kiryat Ono, 25/08/2014) from the Parenthood Centre, made the following comparison between 'her' Indian and Georgian surrogates:

> "*India is a patriarchal society and family system. So the woman is not allowed to be very strong. So, she will do the surrogacy very quiet. She is living with her husbands' family. Her mother in law owns her, you know, she is the owner, so when they are signing the surrogacy contract, the husband is signing, the surrogate signs and her mother in law is signing the*

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[205] Based on my latest talks with people in Israel's transnational surrogacy sector in July 2016, there are rumours that the gay surrogacy industry has moved to Cambodia and Laos. On the Facebook site of Tammuz International it was announced that two new gay surrogacy destinations were found, one in South-East Asia and the other in Latin America, without specifying which countries exactly. In October 2016 the Cambodian government announced plans to ban commercial surrogacy for foreigners, which means that the market will move further along the reproductive frontier. (https://www.facebook.com/tammuz.International.Surrogacy 08/08/2016).

contract as well. This is typical for India, quiet, young, not more than one or two pregnancies, no abortion, no smoking, no alcohol, no drinking, no drugs. They are healthier, you know. They are small; they are not big like the Israelis. So many times, it's very difficult for them to have big babies, because the Israelis are big, I mean, bigger than them. In Georgia some of them are drinking, smoking. The women are coming from USSR originally, so a lot of women don't take birth control pills. They are doing a lot more abortions. So it's different. It's more difficult to find good women, healthy women in Georgia. In India there are a lot of good women for surrogacy. So you cannot find it in Israel, not in Israel, and not in the US".

While the bodies of Georgian surrogates are depicted as more recalcitrant and disobedient, the Indian surrogates are casted as the perfect 'mother-workers'. Stereotypes about women in the Global South being collectively oppressed by patriarchal culture and lacking freedom and emancipation are suddenly transformed into 'healthy' reproductive assets in the context of transnational surrogacy.

This testimony also reveals how intensely the surrogate's body is disciplined and policed during the gestation, reminiscent of older moments in history when the reproductive bodies of women in the (post)colonial world were managed in the context of population control. Because the surrogate and the fetus share the same bodily functions, corporeal space and molecular biology during the course of the pregnancy, there is a grave concern over the surrogate carrier's health and well being (Laufer-Ukeles, 2013). The control that commissioning parents and the surrogacy companies assert over the daily lives, decisions and actions of surrogates is fixed in the surrogate contract. This is a contract between the surrogate and the commissioning parents, created by the surrogacy agency, that largely represents the wishes of the commissioning parents rather than the reproductive rights of the surrogate (Pande, 2014; Moreno, 2016). For instance, it often includes clauses that prevent the surrogates from smoking, drinking alcohol, traveling abroad, consuming drugs, or even having sex. In one surrogate contract between an Israeli couple an Indian surrogate from 2013 it was stipulated that:

> "*Surrogate Mother will make the necessary changes to her lifestyle to minimise risks of harm to the unborn Child in her womb, and for that purpose she will try to avoid extended travel unless authorised by the IVF Clinic. Surrogate mother will try to avoid excessively strenuous exercise or activity that would provide otherwise avoidable exposure to disease, to abstain from any high risk sexual conduct which may result in contraction of a Sexually Transmitted Disease by her or unborn Child, and to abstain from harmful use of chemicals including, but not limited to, alcohol, nicotine, excessive caffeine, prescription medication, over the counter drugs, potentially dangerous household cleaning products and health and beauty products.)*"[206].

For Israeli commissioning parents this disciplinary control materialises in specific ways, such as requiring the surrogate to eat kosher for the duration of the pregnancy. It is important to note that the bodily surveillance of the surrogate is a temporary process that only covers the period right

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[206] Tammuz International, Surrogacy Agreement between Intended Parents and Surrogate Mother, 20/03/2013, personal communication Doron Mamet, 29/07/2014.

before and during the pregnancy. After the birth of the baby, the biopolitical control over the surrogate's bodily functions and actions is of less importance to the intended parents. One clause in the aforementioned surrogacy contract stated:

> *"Surrogate Mother will take proper care of herself and the baby in her womb during the Pregnancy so as to ensure delivery of a healthy baby. During the period of her pregnancy pursuant to this agreement, Surrogate Mother will not do anything or commit any act that may be harmful and injurious to her health and the baby in her womb"[207].*

While the surrogates ideally enjoy optimised pre-natal and natal medical care and follow up during the pregnancy, they lack post-natal health services, which are often excluded from the surrogate contract. In the last section of this chapter I will further elaborate on the labour conditions in which surrogates are required to work, but for now it is enough to note how this sense of 'temporality' underlines the porousness between the biopolitical and the necropolitical logic of international surrogacy agreements. This will be further illustrated in the next section.

QUEER NECROPOLITICS OF TRANSNATIONAL SURROGACY IN NEPAL

That Israel's fertility regime of transnational surrogacy operates in an ambiguous space between biopolitics and necropolitics surfaced very clearly in the wake of the massive earthquake in Nepal in April 2015 that killed more than 9.000 people and injured more than 23.000. Israel responded to the international call for aid and humanitarian assistance by dispatching both search-and-rescue and medical teams from the Israeli Defense Forces and the Red Star of David to locate survivors and to set up a field hospital. Israel also sent planes to evacuate approximately 2.000 Israeli citizens from Nepal[208]. Most were tourists and backpackers, but among the stranded Israelis were also 26 surrogate babies and their fathers. Yonatan Yagodovsky, director of the Red Star of David's international department, commented in the newspapers that in addition to operating the field hospital and assisting local doctors, "*the evacuation of the newborn children had been his organisation's top priority*" (quoted in Kamin, 28/04/2015)[209].

After India and Thailand had closed their doors to international surrogacy, Nepal became the primary destination for gay Israelis looking to pursue surrogacy. Until 2016, when also the

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[207] Tammuz International, Surrogacy Agreement between Intended Parents and Surrogate Mother, 20/03/2013, personal communication Doron Mamet, 29/07/2014.

[208] Israeli Ministry of Foreign Affairs. "Israel responds to earthquake in Nepal". http://mfa.gov.il/MFA/PressRoom/2015/Pages/Israel-responds-to-earthquake-in-Nepal-25-Apr-2015.aspx, last entry 10/09/2015.

[209] Kamin, Debra. "Israel Evacuates Surrogate Babies From Nepal but Leaves the Mothers Behind". *Time* 28/04/2014, http://time.com/3838319/israel-nepal-surrogates/?xid=fbshare, last entry 11/09/2015.

Nepalese gay surrogacy market was closed down, at least four Israeli surrogacy agencies offered Nepal as the cheapest and most secure surrogacy option. During our interview in July 2014, Dana Migdassi (Tel Aviv, 13/07/2014) from Lotus Surrogacy claimed that Nepal was their most popular destination: "*The last six months, we had more than 20 babies delivered in Nepal itself, all births for single fathers or gay couples".* Given that the State of Nepal only permitted the procedure under the firm condition that the surrogate mother was not Nepalese, Israeli surrogacy companies began contracting Indian surrogates and moved them to Nepal for the duration of the pregnancy and/or the birth. Using its previous network of Indian surrogates, Tammuz International started its own clinic *Fertility International* in Kathmandu, while other Israeli agencies collaborated with Nepalese private fertility clinics.

At the time of the earthquake some 130 surrogacy agreements with Israeli commissioning parents were pending in Nepal. The 26 babies who were already born and awaiting their Israeli citizenship and travel documents in Kathmandu were quickly airlifted to Israel by the IDF. Their Indian gestational mothers were left in Nepal. Upon the arrival of the first three young babies in Israel, the spokesperson of the IDF sent out the following statement made by Lieutenant Colonel Ron, accompanied by a picture of an IDF soldier holding a tiny baby in his hands (see Figure16; IDF, 27/4/15)[210]:

> "*We have the knowledge and experience and especially the commitment to bring the residents of the State of Israel back home*".

Magen David Adom director general Eli Bin (quoted in Hovel, 27/04/2015) concurred:

> "*The decision about who would board the plane and who wouldn't was tough, but it was decided that the babies and children would be the first Israelis to be airlifted from Kathmandu"*[211].

Similar to the surrogacy controversy in Thailand in 2013, the Nepalese surrogacy babies were already considered as Israeli residents who enjoyed 'the right to return', this time not only by the gay fathers, but also by Israeli state and army officials. When interviewing the Ministry of Health's surrogacy expert, Etti Samama (West-Jerusalem, 03/08/14) in August 2014 about the surrogacy babies being stuck in Thailand, she jokingly stated:

> "*The homosexual couples and especially Tammuz expected that the government would do everything to pressure the Thai government, that we would send the army or so (laughs), because they were there with babies. And we didn't do it. Because Thailand is a country, an autonomous country with its own rules and we're not putting any pressure on them".*

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[210] I thank Adi Moreno for translating this quote.
[211] Hovel, Revital et al. "Heavily Pregnant Nepali Surrogate Mothers to Arrive in Israel Following Quake". *Ha'aretz* 27/04/2015. http://www.haaretz.com/israel-news/.premium-1.653829?=&ts=_1473339843095 , last entry 08/09/2015.

While in Thailand the Israeli government still had to follow the Thai rule of law to settle the disputed surrogacy agreements, the apocalyptic earthquake in Nepal legitimised a state of exception in which Interior Minister Gilad Erdan (quoted in Kamin, 28/04/2015) allowed the babies into Israel before all the citizenship issues were arranged.

> *"We have decided to hold off on all the procedures, and remove all immigration hurdles even if it causes a problem with the Nepalese or Indian governments, so as to bring over the babies as soon as possible"*[212].

As a clear instance of what I termed militarised reproduction in the first chapter, the Israeli army was sent to Nepal to retrieve the surrogacy babies. Their arrival in Israel stirred a huge public debate about the ethics of transnational surrogacy and gay parenthood. The debate mostly focused on the rights of the newborn infants and their gay fathers who were supposedly 'forced' to go abroad because they are excluded from surrogacy services in Israel. As Asaf Weiss, senior advisor to former Health Minister Yael German in amending the Surrogacy Law, wrote in an op-ed for Ha'aretz (27/04/2015):

> *"(…) those couples are there [in Nepal, S.V.] against their will, because of the discrimination inherent in Israel's Surrogacy Law"*[213].

The ones who were 'vanishing' from the public debate were the surrogate ladies (Dickenson, 2007). However, the women did become a relevant topic in the discussion, when it dawned that some 100 other Indian and Nepalese surrogates were still in Nepal carrying Israeli babies. While the gestational mothers of the 26 Israeli newborns were not allowed to travel out of Nepal in the aftermath of the earthquake, the pregnant surrogate mothers were permitted to enter Israel. Interior Minister Erdan introduced a rescue plan that was approved by Attorney General Yehuda Weinstein and the Population, Border and Immigration Authority. By the end of April 2015 they issued the following statement:

> *"Following legal consultations, the Justice Ministry expressed support for the position of Interior Minister Gilad Erdan to allow the entry into Israel of the surrogate mothers who are in advanced stages of pregnancy and who are now in Nepal. The landing of these women in Israel will provide them with a suitable medical environment and remove them from the danger zones"*[214].

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[212] Kamin, Debra. "Israel Evacuates Surrogate Babies From Nepal but Leaves the Mothers Behind", *Time* 28/04/2014, http://time.com/3838319/israel-nepal-surrogates/?xid=fbshare , last entry 11/09/2015.
[213] Weiss, Asaf. "Israel must remove the discrimination inherent in its surrogacy law". *Ha'aretz* 27/04/2015. http://www.haaretz.com/opinion/.premium-1.653667 last entry 11/09/2015.
[214] Lior, Ilan. "Israel's interior minister: We should let in pregnant surrogate Nepalese mothers". *Ha'aretz* 27/04/2015. http://www.haaretz.com/news/israel/.premium-1.653722 last entry 11/09/2015.

A few days later Interior Minister Erdan appeared on Israel's national TV, in an evening news show called *London and Kirschenbaum* to discuss the rescue plan[215]:

> *Kirschenbaum: "You made an appropriate, at least fast and really brave decision, first and foremost to bring the surrogate mothers from Katmandu, to enable them to fly to Israel to ensure the health of the fetuses".*
>
> *Erdan (interrupting): "Temporarily. We won't convert them to Judaism and let them stay here (smiles).*
>
> *Kirschenbaum: "Of course, after the birth they will obviously end up in Holot [Israel's desert detention centre for African asylum seekers, S.V.]"*
>
> *Everybody laughs.*

The Indian surrogate carriers did not end up in Israel's infamous detention centre in Holot. Most of them returned to India after giving birth and some of them never even arrived in Israel. Yet, the aforementioned conversation reveals how Israel's regulatory regime on fertility operates in highly volatile arenas of biopolitics and necropolitics. It exposes that contemporary biopolitics is not only about optimising and making live, as Nikolas Rose (2006) believes it does in so called 'advanced liberal polities', but as much about making die. Contemporary biopolitics in Israel/Palestine simultaneously operates according to the logics of vitality and mortality (Puar, 2007; Ritchie, 2008). While the Israeli authorities sent 260 army medical and military personnel to Kathmandu for humanitarian relief, it continued to block the reconstruction in Gaza by international aid agencies after the last assault in the summer of 2014. While the IDF rescued 126 Israeli surrogacy babies from a deadly earthquake, it killed 547 Palestinian children during the latest Gaza war. The only surrogate carriers who were allowed to enter Israel, were the ones carrying Israeli babies. The individual bodies of these chosen surrogate Others were only enhanced and vitalised in their temporary capacity to reproduce the Jewish-Israeli collective body. As Agamben (1995) pointed out in his work on thanatopolitics, regulating the health of the body politic inescapably requires, even presupposes the control and in some cases elimination of foreign bodies. Queer reproductivity has come to play a crucial role in contemporary biopolitics. Using Jasbir Puar's notion of queer necropolitics as a theoretical entry point to explore diverse topics including transnational adoption, same-sex marriage, and anti-blackness in queer politics, Haritaworn, Kuntsman and Possoco (2014:2) argued that LGBTQ vitalities have become "*cannibalistic on the disposing and abandonment of others*". Concurrently, I understand the biopolitics of Israel's transnational gay surrogacy to be undergirded by various necropolitical faultlines, traceable in the elimination of Palestinian life and the exploitation of cheap brown labour.

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[215] Zonszein, Mairav. "Israelis' surrogate mothers in Nepal are no laughing matter". *972Mag* 30/04/2015. http://972mag.com/israelis-surrogate-mothers-in-nepal-are-no-laughing-matter/106114/ last entry 11/09/2015.

Birthing a Market[216]: Labour, Commodity and Biovalue

"You can enrol in our VIP - Very Important Patient – Program: From the time you contact us until the time you depart, we are by your side 24/7, taking care of all your needs, both medical and personal. We also welcome your family members or traveling companions and even help with sightseeing while you are here".

- Website Embryon, Israeli fertility company[217]

While the previous two sections examined the (settler) colonial logic of replacement and racial othering in Israel's transnational surrogacy sector, this section will look into its logic of capital accumulation. I will assess how biovalue is generated in this industry by looking into the commercial strategies of Israel's surrogacy companies, and discursively analysing the underlying regimes of gendered labour. It is important to note that this analysis is based on the language, narratives, imaginaries and discourses that Israeli surrogate brokers, commissioning couples, feminist and queer activists and policy makers deploy to describe, make sense and profit of practices of transnational surrogacy. It was beyond the scope of my research to interview the surrogates in Nepal, Ukraine or the US and to analyse how they practice their 'actual' gestational labour [218]. The research data is therefore drawn from interviews with surrogacy agents, civil society activists and policy makers, from the websites of surrogacy agencies, and from Israeli surrogacy contracts between commissioning couples, egg providers and surrogates.

SURROGACY COMPANIES IN ISRAEL

Contrary to Israel's international adoption procedures that are legally required to be implemented by certified non-profit organisations, transnational surrogacy agreements are carried out by private companies. Transnational surrogacy agencies started mushrooming in Israel from the late 2000s as a way to assist intending parents in finding their way in the surrogacy maze, which involves a complex mix of medical, bureaucratic and legal procedures. Surrogacy companies broker between the reproductive demands of the intending parents and the availability of

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[216] Term borrowed from the Indian women's health NGO Sama, who wrote a policy report on comercial surrogacy: "*Birthing a Market: 'Commercial Surrogacy in India".*
http://www.samawomenshealth.org/publication/birthing-market-%E2%80%98commercial-surrogacy-india (last entry 25/08/2015).
[217] http://www.embryon.co.il/en, last entry 15/09/2015.
[218] For my Marie Curie Fellowship (2017-2019) I will be more attentive to researching the actual labour and property regimes to which the surrogate carriers and egg vendors are subjected throughout the global fertility chain between Israel/Palestine, South Africa and Nepal (or Cambodia or Laos or …).

overseas egg donors and surrogate carriers. They also follow up on the legal issues that are needed to regulate the parent-child relationship and the citizenship status of the newborns.

The Israeli public became aware of the existence and possibility of transnational gay surrogacy after Oprah Winfrey's visit to the famous Akanksha Infertility Clinic in India in 2007 was screened on Israeli television. Another documentary, called "*Google Baby*", which was released in 2009 and broadcast several times on Israel's national television, followed the reproductive trail of surrogacy broker Doron Mamet from Israel to India. Despite its critical undertone, the documentary unintendedly served as a promotional video to Doron Mamet's surrogacy agency Tammuz International, which was Israel's first agency specialised in cross-border surrogacy. Since then around ten other companies have surfaced in Israel, including New Family Organisation, Baby Bloom, Lotus Surrogacy, Parenthood Centre, Manor Medics and Viva Family. New companies are entering the market every day. All of them are based in the Dan region around Tel Aviv, attracting mostly middle class Ashkenazi Jews (Moreno and Eyal, forthcoming).

The surrogacy business is controlled by lawyers, social workers and so called 'experts through experience', who went through the transnational surrogacy procedure themselves and feel confident enough to help other couples. It is representative for an industry such as surrogacy, which revolves around commercialised intimacy that sharing personal experiences, emotions and stories plays such a prominent role (Spar, 2006; Namberger, 2016; Moreno and Eyal, forthcoming). Mina Yolzari, who co-founded the Parenthood Centre together with Ada Itias, mentioned during an interview (Kiryat Ono, 25/08/2014):

> *"During the development of our business, I wanted to have one more child. I already was a mother of two girls, and I wanted one more child. I couldn't do it. I had one miscarriage after the other, four times in one year. Suddenly I understood what women are feeling during this failure. It was a connection between the mind, to know from articles what people were going through, and to connect it with the emotional side. And I realized I could work with this kind of people. And this is why we opened the surrogacy company".*

Rather than capitalising on medical expertise - as is the case in Israel's transnational oocyte industry, which is controlled by fertility doctors - Israel's surrogacy agencies deploy the notion of a shared experience as a marketing strategy. The website of Viva Family states:

> *"Gal Sava is the founder and CEO of Viva Surrogacy. Gal has a son who was born through surrogacy in India in 2012. Having had this personal experience, Gal wanted to pursue his dream of helping other people experience the joys of parenthood"[219].*

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[219] http://viva-family.com/ last entry 15/09/2015.

While all surrogacy brokers put an effort in discursively concealing the commercial nature of surrogacy under the tropes of help, care and altruism, it is undoubtedly still depicted as a business (See Figure 17). As the website of Baby Bloom announced:

> *"We are constantly looking for the most efficient way, in a dynamic legal and medical environment, for reducing costs, optimising success rates, getting full confirmations from service providers and more"[220].*

Based on the prices listed on the agencies' websites, the cost of contracting an Israeli surrogacy agency fluctuates between NIS 35.000 and 46.000 or US$ 9.000 and 12.000. This constitutes almost one third of the total surrogacy cost. For a surrogacy procedure in India, that costs around US$ 35.000, the Parenthood Centre charges intending parents US$ 11.000 for its services, excluding the 18 per cent VAT. For the same procedure, Lotus Surrogacy charges US$ 28.400, in addition to US$ 12.000 fee and VAT. Viva Family is one of the cheapest surrogacy companies in Israel, charging US$ 9.000 in agency fees. One of the proposed changes to the new Gay Surrogacy Bill was to certify the surrogacy agencies, yet without putting any limit on the agency fees. Yussefa, co-founder of Gays Against Surrogacy, remarked during our interview (Haifa, 09/09/2014):

> "*In the new law they want to limit the salary that the surrogate mother is receiving as a way to restrict the popularity of commercial surrogacy . But they don't limit the payment that goes to the agencies. And this is sort of a paradox*".

The total cost of surrogacy depends on a broad series of variables, such as the local/non-local background of the egg donor, the surrogacy destination, the shipment of frozen sperm, the legal counseling, the inclusion of non-standard procedures such as PGD or PGS and the number of newborns (single baby, twins or triplets). While there are only two agencies dealing with local surrogacy in Israel, there are four times as many agencies specialised in cross-border surrogacy. Etti Samama (interview West-Jerusalem, 03/08/2014) explained in an interview:

> *"You can see now that the agencies are a lot more interested in working on surrogacy abroad than on local surrogacy. There is no bureaucracy, it goes faster, much more money, nobody watching you all the time and checking if everything is exactly according to the law, they can do whatever they want. So they work a lot more with surrogacy abroad than in Israel."*

Until late 2015, India and Nepal were Israel's cheapest surrogacy destinations, costing between US$ 25.000 and 50.000 depending on the selected preferences. The United States was the most expensive option, with a price tag that varies between US$ 90.000 and 150.000 while Mexico represented the intermediate option, with a total cost that fluctuated between US$ 50.000 and 68.000.

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[220] http://www.babybloom.co.il/en/gay-surrogacy/, last entry 15/09/2015.

One notable new marketing strategy that has been introduced by at least four of the surrogacy agencies is the 'guaranteed program' that offers the promise of a failsafe cross-border surrogacy procedure resulting in a take-home baby. On the website of Tammuz International it was written:

> "*Our Nepal Guarantee plan provides a financial peace of mind for the expecting parents, and is made to be a reliable, and relatively inexpensive solution for anyone wishing to be a parent including the homosexual community, couples and individuals*"[221].

The website of Baby Bloom mentioned:

> "*[…] [we are] finally able to offer a revolutionary approach to surrogacy – the '100 per cent guaranteed' process which allows you to know you will reach your destination, no matter what. Cast away your fears and doubts, as we at Baby Bloom aim to find the ideal solution for each future parent, as we've successfully done this far*"[222].

Viva Family's Guaranteed Program also announced "*unlimited IVF attempts until pregnancy is achieved*". Moreover, in case of miscarriage up until the 23rd week of pregnancy, it provided "*all needed attempts until subsequent successful pregnancy*", which meant that other surrogate carriers would be recruited to carry the fetus of the intended parents [223].

While the guaranteed programs cost on average US$ 20.000 more than the 'classic' surrogacy packages, they are discursively framed around the illusory promise to reduce the medical uncertainty and legal volatility of the procedure. For couples with a desperate parental wish who are operating in a legal grey zone, 'certainty' becomes an easily marketised asset. Yet, pregnancy never offers an assured outcome for a take-home baby, and certainly not when it has to be performed as a fragmented and medicalised practice involving egg donation, IVF and gestational surrogacy in a foreign country. While through their websites and promotional folders, surrogacy agencies do their very best to minimise and conceal the uncertainty that is an intrinsic part of a cross-border surrogacy procedure, the surrogacy contracts between the agents and the intended parents offer a more sobering and realistic account of the success rates of transnational surrogacy. Tammuz International, for instance, included the following paragraphs in its contract in order to legally cover itself against commissioning parents' unrealistic expectations of a successful pregnancy and a perfectly healthy baby:

> "*Intended Parents are aware that there are several complications involved in the process of conceiving, carrying pregnancy and giving birth to the Child and that there is great amount of uncertainty in the matter of giving birth to a healthy and normal Child and that it may be a stillborn Child for which the Surrogate Mother shall have no responsibility or liability*"[224].

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[221] http://www.tammuz.com/eng/, last entry 15/09/2015.
[222] http://www.babybloom.co.il/en/gay-surrogacy/ last entry 15/09/2015.
[223] http://viva-family.com/, last entry 15/09/2015.
[224] Tammuz International, Surrogacy Agreement between Intended Parents and surrogacy agency, 20/03/2013, personal communication Doron Mamet, 29/07/2014.

> *"There is no guarantee that any given egg will in fact lead to the conception of a child when fertilized with semen. There is no guarantee that any given CARRIER will in fact conceive a child as a result of in vitro fertilisation with the semen of the male INTENDED PARENT or SEMEN DONOR and the eggs of the female INTENDED PARENT or EGG DONOR. There is no guarantee that a child, if conceived, will be physically and mentally healthy or that it will be free of birth or congenital defects or abnormalities".*

Another market strategy that is employed by Israeli agencies consists of offering so called egg sharing deals, in which various commissioning couples agree to split the batch of an oocyte harvest in order to reduce the costs of the transnational egg donation (Moreno, 2016).

Transnational surrogacy in Israel has been commercialised by almost a dozen surrogacy companies. Despite their euphemistic language of care, these agencies have turned this global fertility chain into a lucrative and cost-effective industry. A first strategy to increase the profits consists of raising the surrogacy fees for the consumers through a multitude of marketing strategies. Another strategy consists of externalising and lowering the labour costs, as I will discuss in the next section.

IN REPRODUCTIVE LABOUR

> *"Sighed Mayzie, a lazy bird hatching an egg:*
> *'I'm tired and I'm bored*
> *And I've kinks in my leg*
> *From sitting, just sitting here day after day.*
> *It's work! How I hate it!*
> *I'd much rather play!*
> *I'd take a vacation, fly off for a rest*
> *If I could find someone to stay on my nest!'"*
>
> - In children's book "Horton Hatches The Egg" by Dr. Seuss

Since the late seventies, in what Silvia Federici (2012) termed a new international sexual division of labour, women across the globe are steadily incorporated in the world economy, not only as producers of cheap commodities for global export, but also as reproducers of the metropolitan workforce. These are the women who take care of the children of the metropolitan workforce, clean their houses, walk their dogs, prepare their meals, wax their legs, serve their latte macchiatos, fuck their husbands, and since recently, some have even begun to gestate their babies (Barbagallo and Vertommen, forthcoming). Gestational surrogacy is becoming an increasingly important gendered niche in the global (medical) market (Winddance Twine, 2011). More and more women in the Global South are renting out their wombs to fulfill the reproductive needs of dys/infertile couples in the Global North. In India, for instance, surrogacy transformed into a US$ two billion industry, centered around more than 3.000 surrogacy clinics that reproduce 2.000 children a year (Pande, 2014).

Similar to 'older' discussions on other feminised forms of 'dirty labour' such as sex work, feminist scholars have been extremely divided on how to analytically, morally and politically assess commercial surrogacy, particularly in its transnational form. Some scholars, like Elly Teman (2006, 2013), emphasise the 'comraderie' and the strong emotional ties that can be formed during the pregnancy between the intending mother and the gestational mother. For other feminist scholars such as Gene Corea (1986) and Barbara Katz Rothman (1988), surrogacy represents the ultimate materialisation of a patriarchal nightmare, leading to the reification of women's reproductive imperative and an increased medicalisation of their bodies by men.

Others focus on the socio-economic inequalities between the surrogates and the commissioning parents (Spar, 2005; Rudrappa, 2015). Vida Panitch (2013) framed commercial surrogacy as a kind of 'mutually advantageous exploitation' while Laufer-Ukeles (2013) viewed it as a 'mixed commodity' of which both the monetary and the relational/intimate aspects should be taken into consideration. Rather than viewing surrogacy as a gift or a (mixed) commodity, scholars including Pande (2014), Rudrappa (2014), Vora (2014) and Barbagallo and Vertommen (forthcoming) have opted to analyse it as a new kind of embodied labour in which women deploy their reproductive capacities to produce/reproduce for the world market in order to survive and to earn a living. In an attempt to analyse surrogacy as an objective reality rather than a moral sin, Pande (2014:6) stated: "*It is exploitative, gendered, exceptionally corporeal and highly stigmatised, but labor nonetheless*". Taking Mayzie's complaint in *Horton Hatches the Egg* to heart that pregnancy is "hard work" and following Pande's suggestion to view surrogacy as form of embodied labour, I will discuss that ways in which Israeli surrogacy agencies and organisations discursively frame the working conditions of transnational surrogates.

Surrogacy Contract

The surrogacy agreement is officialised through multiple contracts, one between the intending parents and the surrogacy company and another between the intending parents and the surrogate carrier. In case an egg donor is needed, an additional contract is designed. Although many labour practices materialise outside the realm of the surrogacy contract, they still offer insight into the legal rights of the commissioning parents, the surrogacy company and the surrogate mother, as they exemplify the intricate power relations between the different actors. Surrogate contracts are mostly designed to protect the rights and interests of the commissioning parents. Rudrappa (2012) and Panitch (2013) have noted how some surrogates in India do not know how to read or write. In these cases they depend on the goodwill of their husbands or the local surrogacy brokers

to translate the rules of the contract, putting the sanctified bioethical concept of informed consent in a different perspective.

Moreno (2016) also noted how most surrogacy clinics in India now enforce a policy in which the surrogacy contract is only signed upon achieving a successful pregnancy. This retrospective signing of the contract allows for a quick replacement of surrogates in between the different attempts, in order to reduce wait times and increase the chances of successful embryo transfer. One scene in the documentary *Google Baby* by Zippi Brand Frank (2009) portrayed Doron Mamet from Tammuz International in the midst of an ethical dilemma on whether to allow two surrogates to be simultaneously implanted with embryos of the same commissioning parents. This would guarantee or accelerate the chances of a successful pregnancy. During the telephone conversation with one of the Israeli intending parents, he is filmed while stating:

> D.M. *"Now the risk will be that there are two pregnancies. But she [the local surrogacy broker] says most couples don't mind if they have twins. With regards to the payment, it will cost the same, but it increases the chances"*
>
> I.P. *"Great, that sounds fantastic! The question is, what if one has twins and the other is a single pregnancy? Or two sets of twins??"*
>
> D.M. *"So, you will have four children (serious)".*
>
> I.P. *"Hahahahahaha. That's a good one. Serious now, we can do a selective abortion then?"*
>
> D.M. *"Yes, we discussed the possibility of reducing the embryos from the start; Even if we were to implant into one surrogate more than two embryos and more than two were implanted successfully, even then we would do a reduction".*
>
> I.P. *"The idea really appeals to me"*[225]

Medical Care

Ethnographic accounts of commercial surrogacy have described surrogacy an extreme form of embodied labour in which the surrogate worker deploys her reproductive body as a means and resource to make a living. For the duration of the pregnancy the surrogate's body is often well-monitored and medically opmitised as a site of extraction. Surrogacy agencies and clinics not only deploy disciplinary measures on the surrogate and her body, but also impose on the surrogate to self-discipline her own body, as is articulated through several clauses in Israeli surrogacy contracts[226]:

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[225] Brand Frank, Zippi. 2009. Google Baby. 117 minutes. Entire documentary can be watched online: https://www.youtube.com/watch?v=pQGlAM0iWFM

[226] Tammuz International, Surrogacy Agreement between Intended Parents and surrogacy agency, 20/03/2013, personal communication Doron Mamet, 29/07/2014.

> *"The Surrogate Mother will take proper care of herself and the baby in her womb during the pregnancy so as to ensure delivery of a healthy baby. During the period of her pregnancy pursuant to this agreement, Surrogate Mother will not do anything or commit any act that may be harmful and injurious to her health and the baby in her womb".*

> *"Surrogate Mother will make the necessary changes to her lifestyle to minimise risks of harm to the unborn Child in her womb, and for that purpose she will try to avoid extended travel unless authorised by the IVF Clinic. Surrogate mother will try to avoid excessively strenuous exercise or activity that would provide otherwise avoidable exposure to disease, to abstain from any high risk sexual conduct which may result in contraction of a Sexually Transmitted Disease by her or unborn Child, and to abstain from harmful use of chemicals including, but not limited to, alcohol, nicotine, excessive caffeine, prescription medication, over the counter drugs, potentially dangerous household cleaning products and health and beauty products".*

Yet, despite the enhanced degree of medical (self)care, surrogacy still is an invasive and potentially even dangerous bodily practice that entails various hazards for the surrogates' mental and physical health and well-being. Surrogates are required to go through intense hormonal stimulations and medical treatments for at least a year. Often, they have to agree to a C-section, which implies an invasive abdominal operation (Rudrappa, 2015). As even Doron Mamet admitted during our interview (Tel Aviv, 27/04/14):

> "*It can be dangerous, one of our surrogates in the United States who was expecting twins even died. We could save one of her babies, but she died together with the other one*".

The most dangerous health hazard for the surrogate results from multiple pregnancies. In order to raise the chances of one successful pregnancy, commissioning couples and surrogacy brokers often insist to transfer multiple embryos to the surrogate's womb. This sometimes leads to multiple pregnancies, which can jeopardise the surrogate's health. Other times it results in decisions to reduce 'surplus' embryos or even abort 'surplus' fetuses (Van Hoof and Pennings, 2015). The surrogacy contracts often hand over the right to decide about embryo reduction and abortion to the intended parents, depriving the surrogate's right to reproductive integrity and control over her body. Apart from the potential dangers to the physical wellbeing of the surrogate, research has indicated that surrogacy can also cause psychological stress. Despite the psychological guidance that is often included in the medical insurance of the surrogate, it can require a lot of emotional labour from the surrogate to detach and even alienate herself from the newborn baby who she has to hand over to the intended parents after nine months of care and gestation (Lipkin and Samama, 2010). However, as Teman (2009) and Samama (2013) noted during their research on local Israeli surrogacy, the surrogate often encounters more difficulties detaching herself from the intended couple, and especially from the intended mother with whom she often builds up an emotionally dependent and 'dyadic' relation.

In most cases – but depending on the country where the surrogacy is performed - surrogates are provided with decent medical care and also a life insurance in case she dies during the pregnancy.

What lacks, however, is high-quality postnatal medical insurance in case of health problems that occur as a result from the pregnancy. As the Tammuz surrogacy contract stipulates:

> *"Intended Parents shall not bear responsibility to any damage incurred to the surrogate as a result of pregnancy or treatments involved and shall not be liable for such damage"[227].*

Doron Mamet (interview Tel Aviv, 05/05/2014) from Tammuz International explained that it is impossible to find a private insurance company that is willing to cover these expenses.

> *"Instead we have created a mutual fund ourselves, to which we ask our intending parents to contribute in order to pay out of the pocket insurance for the surrogate".*

Yuseffa (interview Haifa, 09/09/14) from Gays Against Surrogacy aptly remarked:

> *"If something happens to the surrogate during the pregnancy, she will obviously be taken care of, because that's in the best interest of the intended parents, but the accident will not be framed as a work accident. So if something happens to her, and she is not able to work properly anymore after, she will not be compensated as such. Surrogacy is sometimes treated as work, but never when it comes to compensating the surrogate".*

Reimbursement or Salary?

Research has indicated that surrogates' primary motivation to enter a surrogacy agreement is financial. The pricelists of Israeli surrogacy agencies indicated that - depending on the country - Israel's foreign surrogates earn between US$ 4.000 and 30.000 for their reproductive labour. In the United States, surrogates work in the best labour conditions. As listed on the websites of various Israeli agencies, they receive the highest payments, ranging between US$ 25.000 and 40.000 and get additional compensation for wage loss, travel expenses, cleaning, child care and psychological guidance. They are also promised extra money in case of C-section or twin pregnancy. Most importantly, they are legally required to have a decent medical and life insurance. Israeli surrogates receive approximately $US 30.000. In her doctoral study on surrogacy in Israel, Etti Samama (2013) has calculated that in a labour process that lasts 21 months (in case birth occurs), the surrogate's fee per hour is $US 2.3, while the US surrogate earns from $US 0.50 to $ 3 per hour. In the Global South, where surrogacy is three times as cheap as in the US, surrogates earn a lot less. In India surrogate payments ranged from as low as $ 2.000 to $ 8.000, which equaled on average three annual salaries. According to Dana Migdassi (interview Tel Aviv, 22/07/2014) from Lotus Surrogacy, who worked with surrogates in India, Nepal and Ukraine :

> *"In India it's usually a fixed price, sometimes when a surrogate mother carries a pregnancy for the second time she might ask for a little bit more compensation, because she has the*

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[227] Tammuz International, Surrogacy Agreement between Intended Parents and Surrogate, 20/03/2013, personal communication Doron Mamet, 29/07/2014.

> *experience, and she can say that she did a good cycle before. In the Ukraine, it's like in the US and Israel, you negotiate directly with the surrogate mother. So it can be from $US 12.000 up to 28.000 of the total price of $ 40.000, so it can be between 25 per cent or 50 per cent of the total amount, in Ukraine depending on the negotiation between the woman and the intending parents".*

In the case of Tammuz International, the Indian surrogates in Nepal were said to have received US$ 6.500 from the $ 35.000 that the total procedure costs. On top of that, the intending parents were asked to pay $ 8.000 for the surrogate's expenses including food supplements, medications, accommodations, travel, food and tests during pregnancy.

Contrary to the US, Israel or Ukraine where the surrogates stay home to perform the pregnancy, surrogates in India and Nepal were collectively placed in so called surrogacy hotels for the duration of the pregnancy where their daily activities, eating habits and prenatal medical treatment are strictly monitored. Some surrogates prefer to stay in these surrogacy homes in order to keep the pregnancy hidden from their extended family members and/or from the local community (Laufer-Ukeles, 2013). Others find it an emotional burden to be separated from their husbands and children, as well as a financial one as it means someone else needs to be found to take perform the reproductive labour at home. The payment is usually made in a series of three installments; when the pregnancy is confirmed, after the second semester and the final and biggest amount is transferred after the delivery (Pande, 2014). Doron Mamet from Tammuz International (interview Tel Aviv, 05/05/2014) clarified:

> "*Our surrogates receive a generous payment for this service, in local terms the payment equals a number of average annual salaries. The surrogates receive most of the payment after the birth, and thus have a personal interest in maintaining a healthy and stable pregnancy*"[228].

However, when the pregnancy fails, as often happens, it occurred that the surrogate workers were paid a lot less money than promised (Moreno, 2016).

Most surrogacy contracts specify that the surrogate is being 'reimbursed' rather than 'paid' for her labour. Doron Mamet mentioned during our interview (Tel Aviv, 27/04/2014):

> "*Surrogacy is not a job, it's just a way to get income*".

Research has indicated that surrogates interiorise this identity and perception. Despite their financial motivations, they do not perceive themselves as wage-earning producers but rather 'gift-giving angels' (Ragoné, 1994). During her ethnographic research with Indian surrogates, Pande (2014) noted that as a response to the stigma and shame that is associated with surrogacy, surrogates tend to highlight their altruistic motivations for entering a surrogacy procedure. In

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[228] http://www.tammuz.com/eng/, last entry 15/09/2015.

terms of labour conditions, this puts them in an ambivalent position, given that surrogate workers who negotiate and strive for better pay and working conditions are marginalised both by the brokers and by colleague-surrogates for being greedy and heartless mothers (Pande, 2014; Rudrappa, 2015). During our interview (Tel Aviv, 17/07/14), Dana Migdassi from Lotus Surrogacy explained that many of her clients are married, heterosexual Israeli couples who are trying an international surrogacy procedure after the first local procedure had failed "*because of the Israeli surrogate carrier*":

> *"The surrogate calls the intended parents to say her refrigerator is empty and her son is sick, and she needs treatment for her son. So, you know, she is carrying your baby and her son needs some kind of operation and they need 2.000 or 3.000 dollars extra, so they are not going to say no. They know that the surrogate mother is holding a very precious thing for them so they don't want her to be stressed. There is a lot of exploitation beneath. It's funny, because people always think that the surrogate mother is exploited,, but in Israel the surrogate mother is quite strong, there are very few surrogate mothers and many people who need one, so she has the upper hand. Some of them are very manipulative".*

As discussed earlier, the surrogate is recruited and discursively framed as the perfect mother-worker (Pande, 2014). Pande noted that as a good mother she is expected to take good care of herself and of the baby inside her, without growing too attached to it, while as a good worker she has to be professional, submissive, healthy, and not too greedy when it comes to discussing wages and labour conditions. When the surrogate dares to cross these carefully constructed boundaries, she will be reprimanded. As Pande concluded (2014:167): "*The rhetoric of good motherhood is employed to restrain the surrogates as workers and the rhetoric of good workerhood to restrain them as mothers*". This makes it difficult for surrogates to negotiate for better salaries and labour conditions, particularly because surrogacy agreements are always negotiated on an individual rather than on a collective basis. There are no unions or cooperatives of reproductive workers, neither in the Global North nor in the Global South, to collectively bargain for better working conditions. Yuseffa from Gays Against Surrogacy (interview Haifa, 09/09/14) remarked during our interview:

> *"I would love it to see a union of surrogates. But the thing is that women usually don't adopt surrogacy as an identity, because it's a temporary state. Most women are surrogates only once or twice in their lives. But I think it's better to organise the producers than the consumers".*

Responsible Surrogacy

In Israel the surrogacy consumers are indeed organising through different kind of gay parenting organisations, but also through a new group called *Responsible Surrogacy*. This initiative was set up as a critical information tool to raise awareness among intending parents about the ethical

issues concerning transnational surrogacy. Having gone through the surrogacy procedure in India as a commissioning father, Eitan Schechtman came to realise how complex and potentially exploitative surrogacy can be. Together with a few other Israelis, he set up the info-initiative *Responsible Surrogacy*. This collective does not so much aim to take any normative stance on surrogacy as such, nor does it make any commercial recommendations on which surrogacy destinations or companies should be selected by intending parents. It simply aims to inform Israeli intending parents by offering a list of thirty or so issues that they should take into account when considering a surrogacy procedure abroad. Schechtman (interview Rehovot, 02/09/14) clarified:

> *"During the surrogacy process we suddenly became aware of so many issues that we did not know in advance: Where does the surrogate live and how? Does she have to drive to the clinic for weekly observations? If it's really far away, is she separated from her family? What about the legal considerations or the contract. Is it written in a language she knows? Is it explained to her in the same was as it was explained to the intending parents? All the issues concerning, life and health insurance, how long after the birth do they last? Even the issue on how much money the surrogate gets; mostly it does not appear on the contract exactly how much money she gets. Sometimes she is promised a different amount. Is she given all the health information, all the information from the doctor in a language she can understand? Are all the decisions regarding her own body left for her to decide, for example a C-section or natural birth?"*

This approach follows the 'fair trade surrogacy' perspective of medical practitioner Casey Humbyrd (2009:116) who has put together a guide applying fair trade principles to transnational surrogacy. He perceived this as the best way to guarantee that the benefits of the surrogacy are beneficial to those who are in the weakest position in the supply chain, i.e. the surrogates.

In September 2014, Eitan Schechtman was invited to Isha L'Isha, the Feminist Centre in Haifa, to discuss his views on ethical transnational surrogacy and to bridge the gap between the feminist discourse that speaks on behalf of the surrogate and the gay discourse that defends the rights of the commissioning parents. Many of the feminists who were present at the meeting were dismissive of whitewashing initiatives that tend to function as a quality control rather than an abolition of what they see as an inherently exploitative, morally despicable and women-unfriendly business (Pande, 2014). They argued, following Janice Raymond (1993:207), that it actually makes the process of surrogacy morally convenient and acceptable for the client, "*while giving surrogacy brokers a stable and 'good practice' marketing environment*". One feminist activist, Yali Hashash, said:

> "*So ethical surrogacy will probably be more expensive than normal surrogacy, so it's a bit like free range eggs that you buy in the bio shop*"[229].

Yuseffa from Gays Against Surrogacy added:

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[229] Meeting on Responsible Surrogacy at Feminist Centre Isha L'Isha, Haifa, 08/09/2014.

"It's an illusion to have ethical surrogacy. Some people, very few, would consider the issues on the website and would probably make a few choices that are less bad. They won't really address the core issues. Although Eitan says ethical surrogacy wouldn't cost a lot more, I disagree. For example, if you want to limit the amount of IVF cycles that the surrogate has to undergo, in order to avoid health risks, then you have to pay more women. And if you decide to limit the amount of implanted embryos per woman, which would lower the chances of multiple pregnancy, then there are less chances of pregnancy. All these things make it much more expensive. Also, if you want to give women the right to choose the number of eggs and then to choose to have an abortion if she wants to, then it's a financial risk for the parents involved. It would cost so much more money and I think people would not go for it"[230].

Other feminist participants emphasised how a well-intended initiative such as Responsible Surrogacy transfers the ethical responsibilities of becoming a good gay father or what Rayna Rapp (1999) termed a 'moral pioneer' to the individual consumer rather than to the surrogates or the Israeli authorities. Adi Moreno, an activist-scholar stated during the meeting:

"Surrogacy is a billion dollar sector in the developing world and it's the industry that is actually setting the standards. Promoting ethical surrogacy is the same as asking the consumers of the oil industry to set the standards, it doesn't work"[231].

Feminist scholar Kathi Weeks (2011:4) noted how contemporary political economy imaginaries of fair distribution tend to see strategies of ethical buying and consumer boycotts as the best ways to effect corporate decision-making. Laura Mamo (2007), in her book "*Queering Reproduction",* foregrounded assisted reproductive practices as a primary example of neoliberal biopolitics, in which the reproductive consumer is urged to govern and regulate herself. She suggested that purchasing power, consumer choice and the ability to pay the price tag has taken precedence over race, sexuality, or age as categories that limit access to and availability of fertility treatment. As she succinctly phrased it: "*Fertility consumption becomes framed as a legitimate practice, articulating and reinstating the rights of a self-governing consumer/citizen/entrepreneur*" (Mamo, 2007: 58).

In our interview following the group meeting on surrogacy at Isha L'Isha, Yuseffa (interview Haifa, 09/09/14) added:

"The point of view of these gay organisations is the point of view of a liberal open market consumerism, which always emphasises the consumerist choice instead of focusing on issues of labour, and organising and politicising the producers, in this case the surrogates".

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[230] Id.
[231] Id.

CONCLUSION: COMMERCIAL SURROGACY BETWEEN SETTLER COLONIAL AND NEOLIBERAL BIOPOLITICS

Over the course of a few years, transnational gay surrogacy has developed into an established, morally acceptable and lucrative practice in Israel/Palestine that follows a double movement. On the one hand it subverts heteronormative assumptions of family, gender, kinship, reproduction and sexuality, and expands heterosexist perceptions on who is deemed a legitimate parent and user of reproductive technologies. On the other hand it consolidates global relations of dependence, exploitation and uneven development.

I have argued that in Israel/Palestine the increasingly vocal demand of the gay movement to be genetic fathers is not the natural outcome of a long emancipatory process for recognition, but rather co-produced by Israel's pronatalist fertility regime. In a process that I have termed homonormative pronatalism, gay Israelis are only accepted as full-fledged members of the settler nation if they accept to reproduce it, through both local and transnational surrogacy procedures.

While analyses of global fertility chains tend to use conceptualisations such as networks and flows (Inhorn, 2010; KrDloDkke et al., 2012), I agree with Moreno (2016:33) that it is as important to focus on the multiple sovereign state borders that shape, halt and interrupt these global movements. Israel's surrogacy regime intervenes as much through, as beyond the sovereign state, deploying both settler colonial and neoliberal technologies and rationalities of power that are as much biopolitical as necropolitical. First, it operates through governmental policies and state laws that allow and subsidise commercial surrogacy in Israel for its Jewish heterosexual citizens, and tolerate and normalise transnational surrogacy for its gay subjects despite the staged antagonisms between the Israeli authorities and the LGBTQ community in matters of surrogacy. Secondly, it operates through the surrogacy market, consisting of a small dozen surrogacy companies that are enabled to capitalise on Israel's homonormative pronatalism. Thirdly, through various kinds of disciplinary institutions, NGO's or LGBTQ organisations, such as *Proud Gay Fathers* and *Responsible Surrogacy*, that help to create fertile neoliberal subjects who are capable of governing and optimising their own reproductive freedom in ways deemed appropriate by the State (Greenhalgh, 2005).

Following a biopolitical economy approach, I have argued that Israel's multiscalar surrogacy regime centers around a triple logic of demographic replacement, colonial exploitation and capital accumulation in which global asymmetries of class, gender, race, indigeneity, and sexuality intrasect. Following the settler colonial logic of demographic replacement, Israel's queer-consumer citizens are enabled to embark upon a transnational surrogacy adventure as a way to

reproduce the settler nation, at the expense of Palestinian existence (Dominus, 2004; Mamo, 2007). Israel's transnational surrogacy flow is also structured by a colonial logic of exploitation in which the reproductive capacities of marginalised and racialised women in the Global South are deployed to ensure Jewish procreation. At the time of my research, egg cells were mostly extracted from white gamete sellers in Ukraine, Romania, the US or South Africa while cheap brown wombs were recruited from surrogate carriers in India, Nepal, Thailand, US, the Ukraine or Mexico. The final logic in Israel's surrogacy regime is one of capitalist accumulation, which resulted in the creation of a lucrative transnational surrogacy market. The surplus biovalue in this market is generated through the high fees of the surrogacy agencies and the low salaries for foreign surrogates and guaranteed by the ever-increasing surrogacy demand of depoliticised gay consumers who are empowered by the state to govern their own reproductive choices.

Images

Figure 15: "Gideon, your baby is home, ours isn't", Social Media Campaign by Israeli LGBTQ organisations, January 2014.

Figure 16: Israeli soldier with surrogacy baby in Nepal, Facebook Page Israeli Airforce, April 2014.

Figure 17: Promotion Baby Bloom, Israeli surrogacy company

CONCLUSIONS

STATE OF THE //ART//OF THE STATE

In her latest book Sarah Franklin (2013) noted that IVF cannot simply be viewed as a response to a desire to have children, in the same way as the textile industry cannot be explained by a desire for clothing. In a similar attempt, this study unsettles the centrality of ART in Israel/Palestine as co-produced by ongoing histories of Zionist settler colonialism (logic of demographic elimination) and biocapitalism (logic of capital accumulation) that are (pro)creative and violently destructive at the same time. Using reproductive technologies, practices and policies as a lens to understand the Zionist project in Israel/Palestine, I have explored how ART helped to constitute a settler colonial state, nationalised bodies, racialised populations and 'pioneering' bio-markets, ánd vice versa. (Nahman, 2013; Franklin, 2013). This emphasis on the co-production of the social and the material/biological is crucial, as reproductive technologies are as much products of Zionist society as they are constitutive of forms of social life in Israel/Palestine.

Rather than adhering to hegemonic culturalist viewpoints on (assisted) reproduction in Israel, that zoom in on the particularity of fertility in Jewish culture, law, religion, history and kinship cosmologies, this dissertation advanced a gendered political economy perspective that draws attention to the socio-materialities of reproductive technologies, such as IVF, egg donation, child removals, sperm-smuggling, Pergonal and transnational surrogacy, at the *intrasection* of class, race, gender, biology, sociality, life and death. In the different empirical chapters, that each scrutinise a different assisted reproductive technology/practice, I have operationalised the proposed integrative historical materialist approach of ART by consistently looking into four key themes: 1) settler colonial demographies, 2) ART's life and death function, 3) property –and labour regimes and 4) the (re)productive role of women and their bodies.

ZIONISM'S REPRODUCTIVE-DEMOGRAPHIC NEXUS BETWEEN BIOPOLITICS AND NECROPOLITICS

Assisted reproductive technologies are privileged sites of intimacy through which to understand the racialised and gendered composition of a settler state. As Shalhoub-Kevorkian (2015:154-155) noted:"*It is the obsession of the occupiers and their bureaucracies and bureaucrats with the intimate details of who is sleeping with whom, who is marrying whom who is giving birth and whose children are to be recognized*". Yet, different forms of occupation and colonialism have brought forth different regimes of race and reproductivity (Wolfe, 2016). In a settler colonial formation such as Israel/Palestine, assisted reproduction plays a particular role as it is imagined and

structured through specific interrelations between procreation, demography, kinship, race and gender.

One of the main arguments I put foward in this dissertation is that Israel's reproductive policies cannot be understood without taking into account its Zionist settler colonial logic that aims to manufacture and maintain a Jewish majority in a Jewish state. This has created a reproductive-demographic nexus in which reproductive health policies are designed to promote an 'internal aliyah', while its migration policies are meant to encourage an 'external aliyah' (Birenbaum-Carmeli, 2004). Efrat's Committee for the Rescue of Israel's Babies, for instance, is explicitly fighting for an 'Inner Aliyah' by financially assisting Jewish Israeli women who are considering an abortion (See Figure 18). As stated on their website [232]:

> "At a cost of only $1.000 per "Oleh" [i.e. Jewish settler who makes Aliyah, S.V.] Efrat is a bargain compared to other Aliyah projects and we need not pay for housing or airfare as the potential Olim are already in Israel just waiting to be born".

My research suggested that the same conflation of a reproductive and demographic logic can be discerned in Israel assisted reproductive politics. Since its creation, the State of Israel has been institutionalising its pronatalism through permissive regulatory frameworks and generous subsidies for various fertility technologies, including Pergonal, IVF, egg donation, surrogacy and prenatal genetic testing, in order to reproduce a healthy and plentiful Jewish population. In the case of Pergonal, for instance, Bruno Lunenfeld's research was supported by Prime Minister Ben-Gurion out of demographic interest, in order to promote higher Jewish birthrates. Moreover, Pergonal was freely distributed through the Centre for Demographic Problems and directly subsidised by the Prime Minister's Office. In the case of IVF, the unstinted state support has been justified as still being cheaper than bringing Jews from abroad to Israel. Similarly for surrogacy, I argued that the increasingly vocal demand of the Israeli gay movement for genetic fatherhood should be viewed as a type of homonormative pronatalism, in which gay Israelis are only fully accepted to the settler nation if they agree to reproduce it, through both local and transnational surrogacy procedures.

However, rather than understanding Israel's pronatalist reproductive policies uniquely in 'productive' terms in relation to its Jewish citizenry, I have analysed Zionism's reproductive-demographic nexus in relation to its triangular population economy, consisting of settlers, natives and racialised Others (Veracini, 2010). This approach has exposed Israel's seeming homogeneous pronatalism as a selective or stratified pronatalism in which different population groups are subjected and racialised according to a graduated reproductive-demographic logic (Portuguese, 1998; Kanaaneh, 2002). This stratified logic tends to maximise the reproductivity of Israel's

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[232] http://www.efrat.org.il/english/ last entry 26/10/2016.

Ashkenazi Jewish population, eliminate or hinder Palestinian procreation on both sides of the Green Line, and assimilate Mizrahi Jews as a settler colonial labour force of low-paid workers (Stasiulis & Yuval-Davis, 1995; Kanaaneh, 2002; Nahman, 2013). Thus, while ART has been presented as a site of inclusion and pacification through which all Israelis - Palestinians, Jews and Arab Jews alike - have the (legal) right to be born, I have been more attentive to its suble and less subtle 'dark sides', i.e. the unequal access, stratified distribution, struggle and necropolitical violence, that also characterise ART in Israel/Palestine.

With regard to Palestinians, the late Patrick Wolfe (2016:244) reminded us that the Zionist reproductive-demographic logic is expressed with utter simplicity: *"it is one of outright exclusion"*, aiming to replace native Palestinians with the Jewish settler population. In some instances, the logic of elimination or *tihur* materialised through stratified reproductive practices, as is the case with Israel's IVF units that are based in predominantly Jewish areas. In other instances, this exclusion comes in the form of a silence, as is the case in the debates and arrangements of 'local' egg donation and surrogacy in Israel, in which Palestinians are completely absent. As alleged 'religious' restrictions require the egg donor and egg recipient, and the surrogate mother and the commissioning mother to share the same religion, these technologies have promoted Jewish natality, restrained Palestinian fertility, while rendering cross-religious kinship ties between Jews and Palestinians more difficult. In transnational egg donation and surrogacy arrangements Palestinians have been replaced through the appropriation of discourses of exile, displacement and indigenousness. Israeli couples who got stuck abroad during their fertility travels have been depicted as 'reproductive exiles' whose surrogacy babies and frozen embryos should have the 'right to return' to Israel.

Although it is important to analyse the consistencies in Israel's fertility policies towards Palestinians in terms of control and elimlination, it is as important to take into account the messiness of their actual constitution. As the late Leonard Cohen reminded us, it is through these cracks that the light gets in. The case of the sperm-smuggling prisoners and their families illustrated, for instance, how reproductive 'technologies-in-action' have been seized by Palestinians as a tool of reproductive resilience or as a tactic of anticolonial sabotage.

In the case of the reproductive governance of Mizrahim, I posited that although in many ways Arab Jews enjoy the same reproductive rights and privileges as other Jewish Israeli settlers, in other instances their fecundity has been racialised, problematised and contested, similarly to that of Palestinians. Yet, while Zionism's *mission civilisatrice* a priori excludes Palestinians with their "*inbuilt incorrigibility*", Mizrahim are still considered to have the biocultural potential to be rescued to Europeaness (Wolfe, 2016:9). The Yemenite Children Affair illustrated, for instance, how during the early days of statehood, the Israeli government removed Mizrahi children from

their families and placed them in institutional facilities or with Ashkenazi adoption families in an attempt to eradicate their Arabness. Today, the ongoing neoliberalisation of Israeli economy and society has furthered the precariousness of Mizrahi reproductive life. In 2003, Vicki Knafo, a single mother of three from the Mizrahi periphery, publicly challenged the welfare budget cuts in what became the Single Mothers' Protest. About 600 single mothers created a small tent city in Jerusalem to protest the dismantlement of the welfare state. Tellingly enough, when Palestinian Israeli women asked to join the tent camp, they were rejected (Saar, 16/06/2013) [233].

Mizrahim are not the only 'exogenous' populations whose reproducitivity has been racialised in Israel's fertility regime. Through transnational surrogacy and egg donation procedures Zionism's racialised hierarchies and imaginaries of desirability are being outsourced to the Global South. While Israeli commissioning couples tend to look for white egg cell donors in South Africa, Ukraine, or the United States, they contract cheap brown surrogates in countries such as Thailand, India, Nepal or Mexico. I argued that reproductive technologies - from child removals to cross-border egg donation or surrogacy - can be viewed as technologies of racism that reproduce geographies of Europeaness and whiteness (Nahman, 2013; Schurr, 2016).

Finally, far from being a neutral or mere 'enabling' actor, the State plays a principal role in Israel's fertility regime. Although on different scales and through different realms, the State of Israel governs the reproductivity of its subjects through both settler colonial and neoliberal technologies of power that are biopolitical and necropolitical at the same time. First, it operates through stratified state policies and laws that allow and copiously subsidise fertility technologies. Secondly, it intervenes through various kinds of disciplinary institutions and civil society organisations that help to (re)produce fertile subjects who are capable of governing and optimising their own reproductive freedom in ways it is deemed appropriate by the State (Greenhalgh, 2005). Lastly, Israel's reproductive-demographic nexus operates through the market, consisting of broad variety of fertility clinics and doctors, surrogacy agencies, stem cell start ups, technology transfer units, pharmaceutical giants etc.

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[233]Saar, Tsafi. "July 2, 2003: Vicki Knafo Marches on Jerusalem" *Ha'aretz* 16/06/2013. www.haaretz.com/jewish/history/1.530143 (last entry 01/11/2016).

THE LAND OF MILK AND MONEY: ISRAEL'S REPRODUCTIVE-INDUSTRIAL COMPLEX

Zionism's demographic aritmethic directed at manufacturing a Jewish majority in a Jewish state also enabled the development of an innovative reproductive-embryonic industry, comprised of sectors as diverse as repro-tech and medicine, the stem cell industry and fertility tourism including transnational surrogacy and egg donation. Although Israel's biotech success story has often been explained in culturalising terms referring to the exceptionality of the Jewish genius, I have located it at the crossroads of a fertile double logic of demographic elimination and (bio)capital accumulation. An integrative historical materialist approach, that aims to transcend false binaries of nature/society, production/reproduction, private/public, gift/commodity shows that Israel's bioeconomy thrives on the commodification of reproductive life and the exploitation of (waged and unwaged) reproductive labour. In turn, racial and gender hierarchies have been constructed and consolidated around these divisions of labour. In analysing how (bio)value is created in Israel's reproductive-embryonic industry, I have looked into the regimes of property and labour that structure its fertility and stem cell sector. These labour –and property regimes are reconfigured, depending on the dynamics throughout the global fertility chain, and on the shifts from Fordist to neoliberal modes of (re)production.

A first conclusion is that Israel's bioeconomy is rooted in a particular IVF–stem cell interface or maternal-embryonic nexus, referring to the productive interactions between Israel's clinical sphere of fertility treatment and its stem cell research sphere (Franklin, 2006; Waldby and Cooper, 2009). Israel's reproductive-embryonic industry is highly dependent on the procurement of female (reproductive) tissues, such as embryos, egg cells, placentas, umbilical cords, fetuses and wombs, that are framed as 'bio-available', 'spare', 'leftover', 'cheap' or 'sick' for either the reproduction of children in the fertility industry or for the development of experimental regenerative health therapies in the stem cell sector. Israel's recently voted Egg Donation Law, for exemple, allows for both reproductive donations to infertile Israeli women and research donations to Israeli stem cell scientists. Moreover, Israel's stem cell industry could only take off because of the solid experience of fertility specialists/researchers in IVF treatments that were generously promoted in Israel's pronatalist fertility regime. Alternatively, Israel's surrogacy market is not so much blossoming through a maternal-embryonic fix, but through the high fees of the surrogacy agencies, the low costs of foreign surrogates and an ever-increasing demand by homonormative gay consumers who wish to have a genetically related child.

Secondly, in the promulgation of pronatalist reproductive policies, important alliances have been forged between the state, industry and academia in the emergence of, what I have termed, Israel's

reproductive-industrial complex. Israel's bioeconomy is characterised by a close interaction between state-sponsored research institutions and biomedical and pharmaceutical companies, an authoritative position for professional groups such as scientists, researchers and clinicians and a facilitating role of state agencies in the capital accumulation process through the regulation of the reproductive-embryonic markets and the issuance of permissive bio-ethical frameworks, (Oliver, 2004; Benner and Löfgren, 2007). From early onwards, the State of Israel has promoted close ties between academia and industry. Pergonal, for instance, is the product of the close relations between the Prime Minister's Office, (inter)national pharmaceutical companies and Israeli research institutions. Many of Israel's stem cell companies arose from university start-ups that were successfully supported by the Israeli government through incubator units, high-tech resources and joint academic-industrial funding. During the parliamentary discussions on the Egg Donation Law, it were academic entrepreneurs who lobbied to include research donations as a way to establish a permissive regulatory framework for future scientific development, particularly in the field of stem cell research. The entrepreneurialisation of Israeli Academia has placed Israel among the world's top patent holders in the field of medical devices and biopharmaceuticals. As generators of intellectual property monopolies, technology transfer companies such as Yissum and Yeda are playing an essential role in Israel's neoliberalising bioeconomy.

Thirdly and finally, bioeconomies are often presented as 'emerging' economies, based on advanced technoscientific novelties and comprised of 'new' markets in life such as surrogacy tourism, egg vending or stem cell research, that have taken root since the global shifts to neoliberal modes of capital accumulation (Cooper, 2008; Goven and Pavone, 2014). Although there is no doubt that Israel's globalising bioeconomy indeed grew expansively after the country's neoliberal turn of the early eighties, I contend that Zionism's settler colonial project in Palestine/Israel has always been biocapitalist. As the Pergonal Project illustrated, the Zionist need for the collective regeneration and abundant rebirth of the Diaspora Jew in Palestine/Israel has always stirred a strong commitment to the development and marketisation of reproductive technologies and medicine. Obviously, Israel's reproductive-industrial complex has experienced significant shifts from 'Labour Zionist' to a neoliberal modes of production due to the reconfiguration of the relations between the state, market and civil society. Yet, I argue that even in 'roll-out' and 'roll-back' neoliberal times the State of Israel continues to mediate and intervene in the bioeconomy, not so much on the demand-side as was the case during its Labour Zionist 'fix', but rather on the supply-side in attempt to make biotech and fertility companies and the Israeli regime as a whole more competitive and innovative (Benner and Löfgren, 2007).

THE (RE)PRODUCTIVITY OF WOMEN AND THEIR BODIES

Women and their bodies play a vital role in Israel's fertility regime, both as reproducers of the nation and as (unrecognised) producers of biovalue. The women who reproduce Israel's imagined community stem from all segments of its triangular population economy: settlers, natives and exogenous groups.

For Jewish Israeli women, giving birth to the next generation of pioneers is part of their national biopolitical duty. In a country where large families are glorified and childlessness is pathologised, Israeli women have become the biggest consumers of reproductive technologies worldwide. The desire to reproduce 'New Jews' is further reinforced through substantial governmental funding for fertility treatments, which remains unabated even in times of neoliberal budget cuts (Kahn, 2000). Zionism's cultus of motherhood has led to life -and health-endangering scenarios in which Israeli women decide to undergo endless IVF cycles in the hope of getting pregnant. In the case of egg donations, a discursively framed 'national shortage' of oocytes resulting from egg vending scandals, had pushed forward the need for an Israeli Law on Egg Donations. Particularly for Israel's growing number of menopausal women in their forties who still wish to have a child, this law offered a legal framework through which they could receive viable egg cells.

With regard to Palestinian woman, their procreativity has been the object of conflicting policies and imaginaries. While their alleged hyper-fertility has been problematised and vilified by Zionist discours and practice as a 'biological bomb' or a 'demographic intifada' that threathens to reproduce a new generation of natives, it has been praised for the same reason by Palestinian nationalist discours. The case of the sperm-smuggling prisoners illustrated, for instance, how Palestinian women deploy ART as a last resort to comply with patriarchal socio-cultural imperatives of motherhood and family life, while at the same time resisting Israel's discriminatory prison policies in an act of reproductive disobedience.

Thirdly, the social and biological reproduction of Zionism would not be possible without the embodied labour of various 'exogenous' groups of women who have been racialised in the process. From the late 19th century domestic labour of Yemenite Jewish women to the reproductive labour of Romanian egg vendors and Indian surrogates who are participating in the global assemblage of 'Jewish' babies, Israel's pink collar reproductive labour force comes in broad variety of racial or colonial 'fixes'. While Yemenite and other Mizrahi women were imported to Israel/Palestine in the early 1950s as cheap (reproducers of the) labourers, a substantial part of Israel's contemporary reproductive labour is now outsourced from the naturalised household to the Global South, in the form of transnational egg vending and surrogacy.

Women have not only been labouring in Israel's bioeconomy as (re)producers and caretakers of babies, but also co-producers of cutting-edge biomedical technologies and medicine. From old Italian nuns to young Israeli egg donors, the creation of these experimental biotherapies was only possible through the steady supply of women's bodily tissues. While the development of Pergonal was enabled through the urine provision of Italian, Argentinian and Israeli post-menopausal women, stem cell therapies are derived from women's reproductive tissues including egg cells, embryos, placentas and umbilical cord blood. Yet although indispensable, women's contributions to Israel's bioeconomy have neither been properly acknowledged nor valorised. The labour and property regimes underpinning Israel's reproductive-industrial complex are structured by an ever-persistent mind-body binary. This Cartesian split divides the workforce into, on the one hand, researchers, scientists, lawyers and fertility brokers who perform active cognitive labour and, on the other hand, tissue donors and surrogate mothers who provide passive embodied 'gifts of life' (Dickenson, 2001; Waldby and Mitchell, 2006). Through material-discursive principles such as *res nullius*, *hefker* and informed consent women's presumed ownerless gifts are morphed into expensive babies and intellectual property monopolies. As Amrita Pande (2015) and Sharmila Rudrappa (2015) claimed, such moral frames of altruism, compassion and good worker/motherhood have also rendered it more difficult for women in the bioeconomy to identify as workers and to (collectively) negotiate for better salaries and work conditions.

Two final remarks. In a gendered political economy analysis of Israel's pronatalist fertility regime it is essential to foreground the agency of women, yet without portraying them unidimensionally as either victims or instigators. Jewish Israeli women's role as social and biological reproducers of Zionism is neither the result nor the cause of a 'false consciousness' which obliges them to be 'fruitful and multiply'. Through what I would term a pronatalist governmentality, the majority of Jewish Israeli women have interiorised and accommodated Israel's reproductive imperative, as much as they are pushing the Israeli government to continue its pronatalist policies. Similarly for surrogates and egg vendors in the Global South, it is not useful, I argue, to depict them in moralising terms as either gift givers or as victims of a dirty exploitative industry. Framing their contribution to Israel's bioeconomy as a form of reproductive labour, could provide more material and discursive tools for the organisation and politicisation of their struggle for better social conditions and recognition (Rudrappa, 2015; Barbagallo and Vertommen, forthcoming).

Finally, Israel's fertility regime has not only mobilised women and their bodies. The case of transnational gay surrogacy shows, for instance, that also men are urged to reproduce the settler nation if they want to be accepted as full-fledged citizen-pioneers. Moreover, through sperm-smuggling and sperm-freezing practices, male Palestinian political prisoners and Israeli soldiers

are safeguarding the demographic continuation of their people, and the next generation of fighters.

THE LIMITS AND HORIZONS OF THIS DISSERTATION

By looking at the state of ART and the ART of the State in Israel/Palestine from a gendered political economy perspective, I aimed to unsettle the rather myopic culturalist accounts of ART that have been trending in Israeli Academia. I have done so by unpacking the necropolitical violence, labour exploitation and social cleansing behind Zionism's reproductive frontier, and by bringing to the fore the increasing commodification and enclosure of 'pioneering' reproductive science, technology and bodies in Israel/Palestine. This approach has been transdisciplinary, in combining conceptual and/or methodological insights from STS, political economy, settler colonial studies, historical materialism, Marxist feminism, feminist techno-science and biopolitics.

On the one hand, this transdisciplinarity has helped me to resituate Palestine/Israel in global world history, and to 'save' it from the exceptionalist explanatory models that tend to haunt the Question. There is nothing unique about what is happening in Israel/Palestine. By tentatively comparing the deployment of reproductive technologies in Israel/Palestine and Australia, I aimed to explore the particularly complex ways in which reproduction is imagined and 'put to work' in settler colonial societies, in relation to its different subjected populations, i.e. settlers, natives and racialised alterities. Further comparative research should be done in other settler colonial and (post)colonial formations, as to better understand the interconnections between reproduction, demography, race, labour, gender and class. Especially for Israel/Palestine, the intricate reproductive regimes to which women in Gaza and the West Bank are subjected deserve further inquiry. To better comprehend the increasingly transnational character of ART, it is also crucial to situate 'national' or local' reproductive regimes, such as the Palestinian/Israeli one, within global economic value chains or networks of care and reproduction. In my postdoctoral research, for instance, I will analyse the changing regimes of property and labour *throughout* the global fertility chain between Israel/Palestine, South Africa (egg donation) and Nepal (or other surrogacy destinations). Also the ever-growing army of South East Asian migrant care workers who are nursing, washing, feeding and caring for Israel's elderly and children provides an interesting case study to further scrutinise the racialised and gendered divisions of labour between indigenous women and migrant women in settler colonial societies.

On the other hand, this transdisciplinary approach has also caused some friction, such as for example in the unresolved tension between structure and agency. Although I paid much attention

to analysing the converging logics behind biocapitalism and settler colonialism as socio-historical formations of oppression, elimination, accumulation and exploitation, I have been wary not to consider these structures as pregiven theoretical explanations. As Jabary-Salamanca (2014:176) noted, it is as important to emphasise the frictions, incoherences and "*open-ended unfinished nature*" of settler colonialism and biocapitalism. In that respect it would be interesting to carefully investigate more instances and histories of reproductive resistance, sabotage, disobedience and revolt against Zionism's fertility regime as a way to foreground the different forms of agency that take shape under biocapitalism and settler colonialism.

In imagining and constructing alternative and more emancipatory political horizons, the sphere of social (including biological) reproduction constitutes a fertile starting point. As Silvia Federci kindly reminded us, reproduction - because of its 'dual characteristic' - is not only part of the problem, but it is also part of the solution. As much as it produces and reproduces settlers and labour power, it also produces life and autonomous human subjects, who are capable of creating change, resistance and struggle (Barbagallo, 2015).

On October 20th 2016, Sky Bird Black Owl gave birth to a baby at Standing Rock in North Dakota, where over the past months indigenous protests have erupted against the construction of an oil pipeline that threatens the waters and the lives of the First Nations in North Dakota. Being the first Native American woman who went to Standing Rock to give birth, Sky Bird Black Owl stated:

> "*We carry life and the gateway to the world in our bodies. That's the reason why I'm here, that's the reason why I wanted to give birth here: because there is a need to hold space for our women*". [234]

A few months later, during the Women's March on Washington that was organised in protest of Donald Trump's inauguration as president of the United States, African-American singer Janelle Monáe took the stage (Figure 19). Accompanied by seven "Mothers of the Movement", a group of women whose children had died while in police custody, she spoke for a crowd of more than 500.000 people: "*We, American women, have birthed this nation and we can unbirth it if we choose.*" The hundreds of thousands of Polish women, who went on strike and took the streets of Warsaw in October 2016 to protest against the ban on abortion, demonstrated once again that seizing the means of reproduction means seizing the means to create change. The choices we make in how to conceive, (un)birth, raise and educate our children, take care of our elderly, cultivate our food, control our bodies, organise our households, families and relationships are crucial in imagining and practicing new, more emancipatory societal models. Also in Palestine/Israel, the social reproductive realm offers interesting new and old ways to understand, re-imagine and revisit the

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[234] https://vimeo.com/188091147, last entry 16/11/2016.

struggle for justice, care and liberation: in a way that – as Donna Haraway (1988: 588) phrased it

- is "*friendly to earthwide projects of finite freedom, adequate material abundance, modest meaning*

in suffering and limited happiness" .

Figure 18: "In the end, birth will determine our existence as a Jewish state", Efrat Committee

Figure 19: "Resistance is Fertile", Women's March on Washington

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ANNEX: LIST OF INTERVIEWS

1. Daphna Birenbaum Carmeli, social scientist Haifa University, 12/01/2012, Haifa.
2. Carmel Shalev, feminist researcher in Law, Haifa University, 21/02/2012, Tel Aviv.
3. Avi Treves, Deputy Director of the Cancer Research Center at the Sheba Medical Center, 26/02/2012, Tel Aviv.
4. Ariel Revel, fertility doctor and researcher at Hadassah Medical Center, 20/07/2012, West-Jerusalem.
5. Asa Kasher, bioethicist, 26/07/2012, Tel Aviv.
6. Dani Filc, political scientist Ben Gurion University of the Negev, 19/08/2013, Tel Aviv.
7. Rachel Eiges, Head of the Stem Cell Research Laboratory, Shaare Zedek Medical Center, 18/07/2012, West- Jerusalem.
8. Adrian Ellenbogen, fertility doctor Hillel Yaffe Medical Centre, 21/08/2012, Hadera.
9. Ephrad Levy Lahad, Director of the Department of Medical Genetics, Shaare Zedek Medical Center, 16/7/13, West-Jerusalem.
10. Mordechai Halperin, Chief Officer of Medical Ethics at the Ministry of Health and the director of the Dr. Falk Schlesinger Institute for Medical-Halachic Research, 18/01/2012, West-Jerusalem.
11. Jehoshua Dor, director of the Center of Reproductive Medicine and infertility at the Sheba Medical Center and Professor of Obstetrics and Gynecology at the Sacker School of Medicine at the Tel Aviv University, 30/07/2013, Tel Aviv.
12. Ronit Kochman, physician ObGyn department and IVF unit, Hadassah Hospital 12/07/2012, Jerusalem.
13. Liat Lerner Geva, Gertner Institute for Epidemiology, 06/08/2013, Tel Aviv.
14. Marta Dirnfeld, director IVF Unit Carmel Medical Hospital, 13/05/2014, Haifa
15. Mira Hibner Harel and Talia Agmon and Avital Wiener, Legal Advisor Ministry of Health, 20/02/2012, West-Jerusalem.
16. Neri Laufer, Director Obstetrics and Gynaecology Department, Hadassah Hospital, 04/03/2012, Jerusalem
17. Nissim Benvenisty, senior researcher Stem Cell Research Unit, Hebrew University Jerusalem, 17/01/2012, West-Jerusalem.
18. Ron Goldstein, stem cell researcher, Bar Ilan University (email).
19. Samer Khoury, fertility doctor, 21/08/2013, Akka.

20. Abraham Steinberg, pediatric neurologist, medical-halachic ethicist, Shaare Zedek Medical Hospital, 16/07/2013, West-Jerusalem.

21. Talia Eldar Geva, IVF and PGD specialist Shaare Zedek Medical Hospital, West-Jerusalem, 22/07/2013.

22. Tamara Traubman, journalist, 31/07/2012, Jaffa.

23. Yael Hashiloni Dolev, social scientist Tel Aviv University, 21/02/2012, Tel Aviv.

24. Yoram Lotan, director of medical licensing Ministry of Health Israel, 21/08/2014, Tel Aviv.

25. Zvi Borochowitz, Director of the Institute for Human Genetics at the Bnai-Zion Medical Center, 21/02/2012, Haifa.

26. Hedva Eyal and Nuphar Lipkin, feminist activists Isha L'Isha, 28/01/2012, Haifa.

27. Hedva Eyal, feminist activist Isha L'Isha, 18/07/2013, Haifa.

28. Daniel Seidmann, fertility doctor Sheba Medical Center, 05/05/2014, Tel Aviv.

29. Dalit Ben Yosef, stem cell researcher, director IVF/PGD Centre Assuta, 22/02/2012, Tel Aviv.

30. David Heyd, bio-ethicist and member National Bioethics Committee, 08/08/2013, Jerusalem.

31. Ira Nissel, CEO Embryon, 22/7/14, Tel Aviv.

32. Karl Skorecki, director of Nephrology and Molecular Medicine, Technion Faculty of Medicine, 27/02/2012, Haifa

33. Michal Amit, senior researcher Stem Cell Institute, Technion University, Rappaport Institute, 22/02/2012, Haifa.

34. Michal Amit, senior researcher Stem Cell Institute, Technion University, Rappaport Institute, 27/07/2016, Haifa.

35. Arnon Soffer, geo-demographer Haifa University, 01/07/2013, Haifa.

36. Sergio Dellapergola, demographer Institute of Contemporary Jewry Hebrew University, 09/07/2012, West-Jerusalem.

37. Avi Valentin, journalist-writer, 15/07/13, Herzliyya.

38. Avital Wiener, Department of Medical Technologies, Ministry of Health Israel, 03/08/2014, West-Jerusalem.

39. Benni Soffer, director T3 tech-transfer company Technion, 20/08/2012, Haifa.

40. Charles Irving, CEO Cell Cure, 20/02/2012, West-Jerusalem.

41. Dana Gavish Fridman, CEO Yissum tech transfer company Hebrew University, 17/07/2012, West-Jerusalem.

42. David Promof, CEO BioRAP, technology trasfer service from Rappaport Institute, 29/01/2012, Haifa.

43. Daniel Goldstein, patent lawyer Sanford Colb, 08/08/2013, West-Jerusalem.

44. Bruno Lunenfeld, Director Department of Endocrinology, 27/08/2013, Tel Aviv.

45. Michel Revel, Molecular biologist Weizmann Institute of Science, President National Bioethics Committee, CEO Kadimastem, 16/07/2012, Nes Ziona.

46. Nurit Kirsch, historian of science, 08/07/2013, Tel Aviv.

47. Shlomo Oren, CEO Haifa University Economic Corp. Ltd, 16/01/2012, Haifa.

48. Simone Botti, Israel's Bio-incubator Fund, 28/04/2014, Yavne.

49. Tamar Novick, historian of science, University of Pennsylvania, Tel Aviv.

50. Yael Margolin, CEO Gamida Cell, 08/08/2012, West-Jerusalem.

51. Abeer Baker, lawyer political prisoners, 23/5/2014, Haifa.

52. Ahmed Sheikh Muhammed, researcher Galil Society, 19/08/2013, Shfa'ram.

53. Dallal Ziben, wife of political prisoner, 17/09/2014, Haifa – Maisaloon.

54. Daniel Sperling, social scientist Haifa University, 22/08/2013, Haifa

55. Himmat Zo'abi, social scientist Mada al-Carmel, 23/07/2012, Haifa.

56. Janan Abdu, wife of political prisoner, 19/05/2014, Haifa.

57. Joanne Zack Pakes, director Internaional Family Planning Association, 22/07/2013, West-Jerusalem.

58. Larissa Remennick, social scientist, Bar Ilan University, 1/3/12, Ramat Gan.

59. Lydia Al Rimawi, wife political prisoner, 03/08/2013, Nablus.

60. Lydia Al Rimawi, wife political prisoner, 30/08/2014, Beit Rima.

61. Nadav Davidovitch, social scientist, 27/04/2014, Tel Aviv.

62. Ofra Balaban, director Chen Lapyrion patient's organisation, 26/2/12, Holon.

63. Oshrit Ikne, social scientist, 08/07/2013, Tel Aviv.

64. Rachel Mangoli, director Women's International Zionist Organisation Bnei Brak, 12/05/2014, Bnei Brak.

65. Raphael Falk, population geneticist, 04/05/2014, West-Jerusalem.

66. Safa Tamish, director Muntada Jensaneya, 02/07/2013, Haifa.

67. Salem Khuzeyran, fertility doctor Razan Medical Center, 03/08/2013, Nablus.

68. Sava Rueben, production assistant Uvda, 05/05/14 Tel Aviv.

69. Eli Schussheim, director Efrat, 29/07/2013, West-Jerusalem.

70. Shahar Kol, fertility doctor Rambam Medical Centre and Elisha Hospital Haifa, 02/09/2014, Haifa.

71. Shahar Kol, fertility doctor Rambam Medical Centre and Elisha Hospital Haifa,

72. Shireen, coordinator Women's Organisation Kajan, 01/08/2013, Haifa.

73. Sigal Gooldin, anthropologist Hebrew University, 27/07/2014, West-Jerusalem.

74. Sivan Wayzman, spokesperson Israel Prison Service, 28/07/2013, telephone interview.

75. Tamar El Or, anthropologist Hebrew University, 27/07/2014, West-Jerusalem.

76. Vardit Avidan, lawyer Tmura, 08/05/2014, Herzliyya.

77. Adi Moreno, feminist activist and social scientist Tel Aviv University, 13/07/2014, Tel Aviv.

78. Anat Nir, LGBTQ activist, 02/09/2014, Tel Aviv.

79. Assaf Weiss, personal advisor Minister of Health, 20/08/2014, Tel Aviv.

80. Dafna Hacker, social scientist Tel Aviv University, 04/08/2014, Tel Aviv.

81. Dana Migdassi, director Lotus Surrogacy, 16/7/14, Tel Aviv.

82. Doron Mammet, director Tammuz Surrogacy, 27/04/2014, Tel Aviv.

83. Doron Mammet, director Tammuz Surrogacy, 17/07/2014, Tel Aviv.

84. Eitan Shegman, director Responsible Surrogacy, 02/09/14, Rehovot.

85. Elly Teman, anthropologist, 20/08/14, Bet Yehoshua.

86. Etti Samama, Ministry of Health, Unit Medical Technologies Policy, 26/05/2014, West-Jerusalem.

87. Etti Samama, Ministry of Health, Unit Medical Technologies Policy, 07/08/2014, West-Jerusalem.

88. Gal Sava, director Viva Surrogacy, 15/07/2014, Yavne.

89. Guy Tatsa, director Baby Bloom, 07/08/14, Tel Aviv.

90. Meadsie De Witt, egg donation coordinator Tammuz South Africa, 30/07/2014, skype interview.

91. Mina Yolzari, director Parenthood Centre, 25/08/2014, Kiryat Ono.

92. Racheli Ben Or, director Center for Alternative Parenting, 07/08/14, Tel Aviv.

93. Udi Ledergor, director Proud/Gay Fathers, 04/08/14, Tel Aviv.

94. Yossefa Mckeiton, Gays Against Surrogacy, 09/09/15, Haifa.

95. Yulia Eitan, National Economic Council – Prime Minister's Office, 11/05/14, West Jerusalem.

96. Amer Zureik, fertility doctor, 02/08/2013, Haifa.

97. Yali Hashash, feminist activist and social scientist, 10/02/2012, Haifa.

98. Coordinator Palestinian Family Planning and Protection Association, 06/08/2010, East Jerusalem.

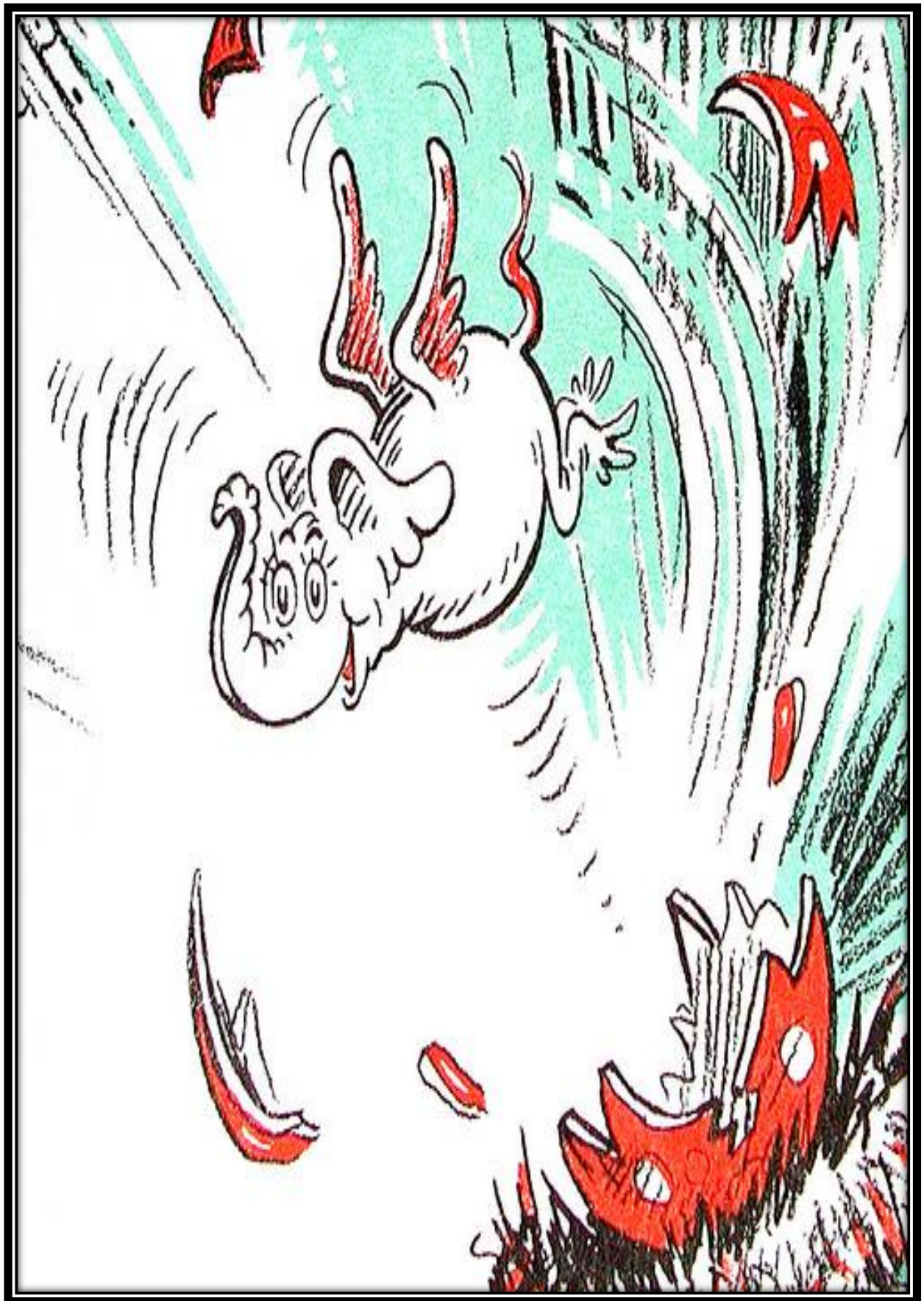99. Rita Giacaman, Professor of Public Health Birzeit University, 08/08/2010, Ramallah.

Figure 20: Elephant-Bird in Horton Hatches the Egg