Jewish Law, Jewish Ethics and Quebec's Culture: Potential Influences on the Experience of Infertility for Hasidic Women in Quebec

Rebecca Diane Guttman

Faculty of Medicine

Division of Experimental Medicine

Biomedical Ethics Unit

McGill University

Montreal, Quebec, Canada

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TABLE OF CONTENTS

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Abstract

The aim of this thesis is to examine reproductive technologies and infertility from the perspective of Orthodox Jewish ethics, law and culture. Treating infertility is a complex process; individuals vary in their course of treatment, taking into account their medical situation, religious beliefs, prevailing cultural norms, reproductive policy in their jurisdiction, financial constraints, and their community context. For Orthodox and ultra-Orthodox Jews, this context includes a religious and cultural imperative to procreate, as well as religious law and social preference dictating the most preferred types of family. Judaism is a particularly pronatalist religion, and has a large body of halakhic text on reproductive technologies. Jewish people living in North America may also be influenced in their infertility experience by the policies and cultural norms of the society in which they live. This thesis examines the aspects of halakha (Jewish law), Quebec policy, Orthodox Jewish ethics, and ultra-Orthodox and Hasidic Jewish culture that are likely to influence the experience of infertility for Hasidic Jewish women in Quebec. Orthodox Judaism has a strong legacy of opinion defining the nature of family and the importance of genetics. This paper examines the aspects of Judaism and Hasidic culture that might strongly influence this experience, and also examines aspects of Quebec's history and current policy that may also influence this experience, albeit from a different angle.

Résumé

L'objectif de cette thèse est d'examiner les technologies de reproduction et de traitement de l'infertilité au point de vue de l'éthique, du droit et de la culture juive orthodoxe. Le traitement de l'infertilité est un processus complexe; les individus changent en cours de traitement. On doit tenir compte de leur dossier médical, de leur croyance religieuse, des normes culturelles en vigueur, de la politique de la reproduction dans leur juridiction, des contraintes financières et du contexte de leur communauté. Pour les juifs orthodoxes et ultraorthodoxes, ce contexte comprend un impératif religieux et culturel de procréer. Aussi, la loi religieuse et la préférence sociale dictent les types de familles les plus privilégiées. Le judaïsme est une religion prônant la natalité, et qui possède un grand corps de texte halakhique sur les technologies de reproduction. Les Juifs vivant en Amérique du Nord peuvent également être influencés dans leur expérience de l'infertilité par les politiques et les normes culturelles de la société dans laquelle ils vivent. Cette thèse examine les aspects de la Halakha (loi juive), la politique du Québec, l'éthique juive orthodoxe, et les cultures juives ultraorthodoxes et hassidiques qui sont susceptibles d'avoir une influence sur l'expérience de l'infertilité pour les femmes juives hassidiques au Québec. Le judaïsme orthodoxe possède un fort héritage quant à l'opinion qui définit la nature de la famille et l'importance de la génétique. Ce document examine les aspects du judaïsme hassidique et la culture qui pourraient influencer fortement cette expérience, et étudie également les aspects de l'histoire du Québec et de la politique actuelle qui peuvent aussi influer sur cette expérience, mais à partir d'un angle différent.

Introduction

This paper will use comparisons between reproductive policy and culture in Orthodox Judaism, Israel and Quebec as a framework in which to examine the potential experience of ultra-Orthodox Jewish people living in the province of Quebec. As technology allows for more ways to circumvent infertility thereby increasing the means by which one can become a parent, the ethical issues relating to reproductive technology increase commensurately. Ultra-Orthodox Jews, in particular Hasidic Jews living in Quebec who have infertility may be influenced in their experience and decision-making by a varied set of religious and cultural norms. Orthodox Jewish ethics, law and culture provides one set of perspectives on the myriad ethical issue related to reproductive technology. Quebec's own policies and the provincial government's attitude towards procreation and reproductive technology offer their own perspective. In this thesis, I will make the case that Quebec's reproductive policies, and Judaism's reproductive values work together to form a unique set of influences on the procreative decisions and infertility experiences of Quebec's ultra-Orthodox Hasidic Jews. Yet, this is ultimately an empirical question that will need further research to answer.

Members of Orthodox Jewish communities are influenced not only by Judaism's religious doctrine but also by the community's standards and norms of childbearing and family structure. Orthodox Jewish law and culture are extremely pronatalist, and profess deeply-held preferences for genetically-related offspring and natural families. Hasidic women in Quebec, who are infertile, may be highly influenced by the religious and cultural norms of their community, and this may have a great effect on their treatment choices and their emotional state. Women belonging to Quebec's Hasidic communities may also be influenced by Quebec's own policies on reproduction. Despite differing cultural practices and social norms, Quebec and Orthodox Judaism share many laws and policies on reproductive technology. The similarities of these two legal systems in the realm of reproductive technology may serve to reinforce each other and have a cumulative effect on the treatment choices of infertile Hasidic women in Quebec.

However the exact effects of Jewish law, ethics and culture on the individual choices and experiences of Hasidic women is not known for certain; nor is it possible to determine exactly what effect, if any, Quebec's laws government's attitudes have on this population either. Understanding the internal and external pressures and influences affecting Hasidic women undergoing infertility is a crucial aspect of sensitively and effectively treating this population; therefore, in the future it will be necessary to perform empirical research with these goals in mind.

The first chapter of this paper will focus on the history and science of reproductive technology. The second chapter will provide a background on Jewish history, Jewish law (halakha) and Orthodox Jewish ethics. This chapter, and indeed this whole paper will focus on Orthodox, ultra-Orthodox and Hasidic Jewish culture, ethics and religious practice.

The third chapter will discuss the Orthodox Jewish cultural, ethical and legal issues pertinent to fertility, infertility and reproductive technologies. The Conservative, Reform and Reconstructionist movements in Judaism each has its own body of scholarly work on these topics, however, this chapter will focus solely on the mainstream responsa and opinions found in the Orthodox movement. This section will not provide an exhaustive discourse on the halakhic debates surrounding each and every technology, but rather will focus on the most common issues and technological innovations, and the most pertinent halakhic and ethical principles.

The fourth chapter will describe Israel's social and legal culture relating to ART, infertility and procreative values. This will provide a salient example of how Jewish religion, combined with a western legal tradition, viewed in light of specific historical and cultural influences unique to the Jewish people and to Israel, will in practice result in a particular set of reproductive values in the state. The paper will then demonstrate that these unique reproductive values will have a significant effect on the infertility experience and reproductive choices of Jewish Israeli people. The fifth chapter will provide historical background on the province of Quebec in order to give context to the province's current laws on

assisted reproductive technology (ART) and other methods of procreative assistance. Quebec's history will also provide a framework for understanding the province's unique pressures and cultural values which may influence the attitude of the government surrounding assisted procreation and fertility in Quebec.

The analysis section will examine three ethical issues relating to infertility and assisted reproduction: medicalization, pronatalism and genetic preference. The relationship of these issues to Orthodox Jewish values and halakha on procreation and reproductive technology will be explored. Orthodox Judaism's and Quebec's political attitude towards these issues in reproductive technology will be used to project how Hasidic Jews living in Quebec might be influenced in their infertility experience and treatment choice by these issues. Last, the analysis will suggest that further research into the infertility experiences and procreative choices of Quebec's Hasidic Jews is necessary in order to fully understand the combined effects of Jewish values and Quebec values on infertility and reproductive decision-making.

The main sources used in this thesis are greatly varied in nature. The scientific background relies on basic science articles from academic, peer-reviewed publications and from textbooks designed for advanced levels of study, written by leaders in the field of assisted reproduction. The chapters on Judaism rely on both primary and secondary works; the primary works consist of biblical, Talmudic and halakhic codex sources and the secondary works consist of amalgamations and analyses of Jewish primary sources, written by Jewish scholars who are well-regarded in their area of scholarship. Sections on Quebec and Israel rely on peer-reviewed, academic articles, ethnographic studies of these populations, and primary legal sources from the State of Israel, the Federal Government of Canada and the Provincial Government of Quebec. This work is by no means exhaustive or conclusive, but rather attempts to suggest specific issues in reproductive ethics which may post particular difficulty to individuals identifying with a non-liberal culture but who live in a wider society adhering to western liberal tradition.

Chapter One
Historical and Medical Background of Infertility

Human Reproduction and Infertility

Human conception involves the joining of genetic material from egg and sperm. Maturation of the spermatocytes and oocytes is the first process that must occur. A female fetus's ovary contains several millions of immature oocytes, but by menarche, only 200,000-400,000 remain of which less than 500 will ever be available for fertilization. Oocytes are surrounded by the zona pellucida and a layer of granulosa cells, together which form the follicle. After puberty, a group of 5-20 follicles are stimulated during each menstrual cycle. Only one follicle per group will be selected as the dominant follicle to continue to grow and secrete estrogen, stimulating a leutinizing hormone (LH) surge and ovulation, completing meiosis and giving rise to the mature oocyte. The mature oocyte is surrounded by the zona pellucida and a mass of cumulus cells. Spermatogenesis begins just before puberty and occurs throughout the life course. The spermatid has its nucleus encased in the acrosome. Each haploid spermatid has a flagellum allowing it to move during reproduction but only gains motility when it passes through the epididymis on the way out of the testicle. Motility enhances the sperm's ability to bind to the oocyte during fertilization. In order for fertilization to occur, spermatozoa must also be capacitated, a process which gives the sperm the receptors it needs to bind to the zona pellucida [1].

Fertilization occurs when a mature oocyte and an ejaculated spermatid meet in the ampulla of the Fallopian tube. This is most likely to occur within 24 hours of ovulation. The ejaculated sperm is capacitated in the female genital tract, and then enters the cumulus cell layer of the oocyte. Once the sperm has passed through the cumulus cells, it then binds to the zona pellucida. The act of binding to the zona pellucida induces the sperm-acrosome reaction, allowing the sperm to cross the zona pellucida and bind with the oocyte's plasma membrane. This induces the oocyte to undergo the egg cortical reaction which both prevents more sperm from entering the egg and stimulates the completion of the oocyte's

meiosis. The spermatid's nucleus then then de-condenses. The female and male haploid nuclei move to the center of the egg and fuse, combining their chromosomes and completing fertilization [1]. The first embryonic mitotic division usually occurs 24-36 hours after nuclear fusion. This 2-cell embryo travels down the fallopian tube encased in the protective zona pellucida. Defects of any kind, at any point in the fertilization pathway cause periods of infertility at some point in the reproductive lives of 25-30% of couples [1].

Infertility is defined as the failure to conceive after having unprotected intercourse at least 2-3 times per week, each week for 12 consecutive months. 80% of couples will conceive within this time frame. Of the 20% of couples who do not conceive within 12 months, the majority will conceive on their own within another year of having regular, unprotected intercourse [2]. Canadian statistics on infertility are concordant with this definition; 80% of Canadian couples do conceive within one year of having regular, unprotected intercourse [3]. Two fertile sexual partners have a 20-30% chance of conceiving in a given ovulatory cycle. Approximately 20-25% of couples will conceive within the first month of having unprotected intercourse, 55% within three months and 60% within six months [4].

In 2011, there were approximately 70 million people with infertility worldwide [5]. The Center for Disease Control and Prevention (CDC) in the United States reports that "impaired fecundity" affects 10.9% of American women, amounting to approximately 6.7 million women aged 15-44 years in 2002 [6]. In that same year, 7.4 million American women aged 15-44 years sought the help of fertility treatments (the reason for this gap of 700,000 women is unclear) [7]. Assisted Human Reproduction Canada (AHRC) reported that 8.5% of Canadian women were affected by infertility in 2001 [8]. AHRC also reports that secondary infertility, which is the experience of infertility after having already conceived, affects closer to 35% of the population. While there is no exact explanation for this significant discrepancy, much of the difference may be related to the fact that people trying to conceive their second child are older and therefore less fertile than people trying to conceive their first child. The incidence of

infertility rises with maternal and paternal age and infertility has become increasingly common in western societies due to the rising age of childbearing in in these areas [4, 9]. There are many causes of infertility that are unrelated to age. Female infertility may be attributed to hormonal imbalances such as hyperandrogenism, ovulatory disorders such as polycystic ovarian syndrome (PCOS), tubal factors such as tubal occlusion, uterine factors, cervical factors such as hostile cervical mucus, and endometriosis. Male infertility may be attributed to primary testicular failure, oligozoospermia (semen with decreased sperm concentration), teratozoospermia (sperm with abnormal morphology), asthenozoospermia (reduced sperm motility) and tubal blockage. Disease and infection may contribute to infertility in both males and females. Infertility that is not attributable to any specific underlying diagnosis contributes to a significant amount of infertility in couples [4].

Reproductive Technology, Historically and Presently

Presently, there are many treatments for infertility that have as of today resulted in the birth of thousands of healthy babies. Both the World Health Organization (WHO) and the Centers for Disease Control and Prevention in the United States use the term Assisted Reproductive Technology (ART) to define any fertility treatment that involves the out of body (in vitro) handling of both sperm and egg. This includes in vitro fertilization (IVF) and intra-cytoplasmic sperm-injection (ICSI) [2]. There are other reproductive therapies that are common but do not fall under the umbrella of ART, as they do not involve the in vitro handling of both sets of gametes. Intrauterine insemination (IUI), also known as artificial insemination (AI), which involves inserting semen directly into the uterus or cervix, is one example [2]. Hormonal therapy to induce ovulation, when not used in conjunction with other treatments would also be considered a reproductive therapy that is not ART. To encompass all possible treatments that assist reproduction, Health Canada uses the term Assisted Human Reproduction (AHR) to classify any treatment used to aid fertilization. This term encompasses IVF, IUI, hormone treatments and all other fertility promoting

treatments [3]. Any reproductive treatment that involves the in vitro handling of ova or sperm can be performed using the gametes (spermatozoa and oocytes) and uterus of the intended parents, or can be performed using donor gametes or a gestational surrogate.

The desire to mimic reproduction has existed for centuries [10]. Artificial insemination was developed in the seventeenth century and has since then been a tool for dealing with male infertility [10]. In artificial insemination, the semen sample is washed and concentrated, then inserted directly into the uterus using a small catheter. It is always timed so that the insemination occurs during natural or hormonally-stimulated ovulation. Today, intrauterine insemination (IUI) is often used to circumvent infertility arising from low sperm count [11].

The scientific achievements that led to the development of IVF were discovered over the course of many years. Since human conception involves two separate gamete maturation processes, the molecular processes of fertilization, early embryonic development, and implantation into the uterus, each of these processes had to be separately understood and replicated in the laboratory before they could be combined to achieve the birth of a baby after the replacement of an embryo fertilized in vitro. Scientists were not able to replicate each of these steps until the 1970's. Robert Edwards and Patrick Steptoe studied, perfected and timed each of these steps, succeeding in achieving the first live birth following replacement of an embryo after in vitro fertilization in Great Britain in July, 1978 [10, 12]. Australia followed with the world's second "test-tube baby" in 1980, and the next several years saw successes in France, Israel and the United States. In the ensuing decades several reproductive technologies based on IVF developed, and several innovations made the practice of assisted reproductive technology (ART) more successful [10]. Ovarian stimulation was developed and perfected by the early 1980's and is now considered the best way to obtain many, high-quality oocytes for a cycle [13]. This technology also paved the way for the use of donor oocytes and in 1983, the first IVF cycle using a donor egg was successfully completed [5]. Today egg donation is used regularly as an option for women who cannot ovulate or do not have high-quality oocytes. The success of embryo

cryopreservation allows physicians to hyper-stimulate a woman's ovaries to produce many oocytes in one cycle, fertilize as many as possible, and replace only one or two embryos at a time. The remaining embryos can be frozen and used at a later date [5].

IVF has become a standard option for dealing with infertility. As of 2011, there have been approximately 4 million babies born from IVF [5]. IVF currently has a respectable live birth rate of 40% in women <35 years of age, and a positive cumulative birth rate for women of the same age group, meaning that if a woman is under 35 years of age, she has a greater chance of having a baby with each additional IVF cycle. However, the same does not seem to be true for older women; in 2007 the live birth rate for women >41 years was 5-11% [5].

Similar reproductive techniques followed the success of IVF; for years scientists had attempted to replace oocytes and spermatozoa into the fallopian tubes to allow a form of assisted in vivo fertilization, as this would circumvent certain types of infertility by placing the two sets of gametes in close proximity for fertilization. This method was achieved and perfected soon after the first IVF baby was born, and is now called gamete intra-fallopian fertilization (GIFT) [10].

In the late 1980's gamete micro-manipulation technologies were developed. Using these technologies a method of fertilization was developed in 1992 called intra-cytoplasmic sperm injection (ICSI). ICSI is performed by taking a single spermatozoon that has been isolated from a semen sample, and injecting it directly into the cytoplasm of an oocyte that has been aspirated and matured in vitro [5]. ICSI completely bypasses all cellular and biochemical mechanisms normally required for the sperm to penetrate the egg [5]. Combined with the technology developed in the mid-1980's which allows sperm to be aspirated from the epididymis, men with low sperm concentration, low sperm motility, low sperm quality or the inability to ejaculate can now father children. All of these options minimize, although do not eliminate, the need for donor semen. Increasingly, ICSI is being chosen over IVF simply due to ICSI's high rate of success (>70%) compared to IVF's (anywhere from 5-40% depending on the woman's age).

Gestational surrogacy was perfected soon after IVF was a success. The practice of having a gestational surrogate or surrogate host, carry a baby intended to be the child of other people has existed since ancient times [14]. However, prior to the reproductive technology era, this arrangement required the intended father to engage in sexual intercourse with the surrogate. Using IVF technology, intercourse is no longer a pre-requisite for conception; a surrogate can receive an embryo transplant that was fertilized in vitro using the gametes of another couple. In 1989, the first was baby born from such an arrangement. Although the technology has met much ethical controversy, there have been many babies carried by gestational surrogates since then. Today, it is considered standard practice to ensure that the surrogate host is healthy, relatively young (< 37 years), and has already conceived and birthed at least one child of her own [14]. Today, it is also possible for the intended parents to use an oocyte donor and/or a sperm donor, as well as a gestational surrogate, with the understanding that this will result in a child who is not genetically related to one or both intended social parents.

Adoption is another legal and not uncommon option for having a family in most countries. Prior to the recent successes of reproductive medicine, adoption was truly the only way for infertile people to have children. Currently, adoption can be explored instead of or in conjunction with procreation and reproductive technologies, leading to families with children who are adopted and who were conceived with or without various reproductive technologies [15]. While there is nothing wrong with choice to pursue reproductive treatment before pursuing adoption, some critics of reproductive technologies question why adoption is so rarely part of the discussion when deciding how to have a family until other methods have failed [16]. One reason for which some people may prefer reproductive technology to adoption, is the innate, very human desire to pass on one's genes to offspring. It is possible for one or both parent to do so through many reproductive technologies methods, and entirely impossible through adoption. Without societal and personal preferences for genetically-related children, adoption might be considered equivalent in all ways to childbearing,

thus giving infertile couples or individual one additional option to consider alongside all potential ART treatments [16].

Personal, Cultural and Religious Values Affecting Reproductive Choices

Along with the increase in use of this technology, ethical discussions and controversies have moved to the forefront of global discourse. Reproductive values have varying degrees of importance to different cultures, as each religion has its own opinion about acceptable and unacceptable types of fertility treatments. However, fertility and procreation are pertinent issues to every culture. Using technology to aid in reproduction is viewed as a blessing in some cultures, yet is morally and spiritually repugnant to others [17-19]. A patient's reproductive preferences are an important component in any discussion related to the patient's infertility and chosen treatments since any preference relating to the type of children, or type of treatment wanted by a patient, will in turn effect the experience of infertility, the emotions caused by the experience, and choices made to deal with it [20]. Because of this, individual and community beliefs and values must be included as part of global discourse on the ethics of reproductive technology. Particular, culturally-situated beliefs about procreation and the ethics of reproductive technology are especially interesting when these communitarian values are juxtaposed against backdrop of liberally-minded society, creating an interesting contrast.

Understanding individual and communal reproductive values is important on a societal level and on an individual level as well. Infertility is intense and very personal, and the beliefs each person has about fertility, procreation and treatments will likely affect his/her experience. Infertility is far more than just a medical issue that needs a medical treatment; it is an issue which impairs a person's ability to perform what is often seen as a basic, human function. Therefore, it is no surprise that infertility is known to be correlated with increased levels of emotional distress in sufferers [20, 21]. There are two main reasons for this causation. The first is that the desire for impending parenthood, and the thought of impending parenthood, is stressful. The second reason is that treatment

for infertility is stressful in and of itself. The emotional distress and high levels of stress caused by infertility are similar to the high levels of depression reported by cancer patients. Treating a cancer patient's depression is an important aspect of treating the patient, and treating the infertility patient's stress is an important part of treating this patient as well [20, 21].

Research has demonstrated a correlation between stress levels and attitude towards treatment. The more ambiguous or negative a person feels about the treatment they could have, or are having, the higher the stress levels reported [20]. Infertility has been shown to be more stressful for women than for men. Infertility has also causes high levels of stress in women belonging to cultures in which women are not taught to desire roles other than motherhood; therefore infertility represents for these women an inability to perform the only role available to them. Additionally, infertility engenders stigma in a way that other medical conditions do not; this is partly because infertility is still sometimes seen as a "failing" of normal biology, while other medical conditions do not bear the same sense of failure. The more difficulties that a person experiences, the greater overall emotional distress they tend to report as well. The details of a person's medical history, their internal beliefs and desires about parenthood, the influences they are subject to through media outlets and political discussions about reproductive technology and parenthood, and their own culture or religion's beliefs about treatments and infertility will all play a role in the amount of stress felt by a person, and in the decisions that this person will make about their course of treatment [20]. Treating a patient's infertility-associated stress therefore involves taking into account many aspects of the patient's individual situation.

Generally speaking, religious and cultural values add a layer of complexity to decision-making in the context of infertility treatment, as religious values are sometimes at odds with mainstream cultural values and with medicine. For example, the Catholic Church prohibits the use of IVF and other assisted reproductive therapies, regardless of the fact that these technologies may be the only way for some people to conceive [22]. Japanese culture places profound moral significance and cultural ritual on embryos [23]. Cultural sensitivity in

shared decision-making is therefore important, but is extremely complex to apply due to the many cultural specifics that impact this issue [24]. However, it may also be difficult to determine exactly which values are important to which individual patient, and consequently, difficult to provide sensitive and appropriate support for each individual.

Chapter Two
Jewish History, Ethics and Law

Judaic History and the Foundations of the Jewish Religion

Since the Roman Exile in 70 CE, the Jewish people have been migratory, moving from country to country in search of acceptance and freedom of religion [10]. Wherever Jewish people settled, the tenets of Judaism weathered persecution, pogroms, wars, natural disasters and poverty. Jewish communities today can be found all over North America, South America, Europe, Africa, the Middle East and parts of Asia. Many of these communities date back hundreds or even thousands of years, meaning that Judaism was a global presence long before the concept of cultural globalization was even developed [4].

Orthodox Jewish ethical theory is derived from the Jewish Bible, also called the Torah. The Jewish Bible is a historical narrative of the Jewish people as well as the legal and ethical guide to living a Jewish life. It is a fundamental Orthodox Jewish belief that the Torah was given directly to Moses, by God, in a divine revelation on Mount Sinai that was witnessed by the entire Jewish nation. It is therefore believed that everything contained within the Torah is divine in origin. The word "Torah" may refer to the Old Testament or the Hebrew Bible, but also refers to the Jewish canon as a whole. The written Torah is referred to as the TaNaKh, which is an acronym for "Torah, Nevi'im, Ketuvim," which are the three different sections that comprise the written Torah. The Torah section (or "instructions") is divided into five volumes containing historical narratives of the Jewish people, ethical guidance, and lists of some of the commandments, or mitzvoth [25]. The Nevi-im (or "Prophets") section is a compilation of the narratives and writings of the Jewish prophets. The Ketuvim (or "Writings") section is a compilation of various volumes of prose, documents, narratives and literature, including the Book of Psalms and the Book of Proverbs. There are thirty-nine books contained within these three sections [26].

Stated repeatedly throughout the Torah is the belief that the Jewish people are the chosen nation. This belief is derived from covenants between man and

God which establish and reaffirm the "chosen" status of the Jewish people. There are two understandings of the nature of these covenants. The first is that the bond between God and the Jewish nation is unconditional and everlasting. The second is that the covenant's continuity is contingent on the Jewish nation's adherence to God's laws and commandments as outlined in the written Torah and oral Torah [27]. Today, the two understandings of the Jewish covenant coexist, with the former, more utopian understanding shaping the greater spiritual purpose and beliefs of Orthodox Judaism, and the latter, conditional understanding shaping the continued adherence of Orthodox Jews to the commandments and traditions understood from the texts of the Bible [27].

A second fundamental Orthodox Jewish belief is that the divine revelation at Sinai was given in two parts. The first part is the "written Torah" or the TaNaKh, which consists of the components described above, which are believed to have been given to Moses verbatim. The second part is much larger and existed only as oral teachings for thousands of years [28]. These oral teachings were passed down through the generations, and with each subsequent generation who was taught the content the size and complexity of the Oral Torah grew, as each generation who studied it expounded upon the revelations, adding interpretations and modern applications of their own [29]. The Oral Torah was not written down until the generation of the Great Assembly of Jewish scholars, who developed the schools of study which produced the rabbis who wrote the Mishnah, or the first compendium of Jewish laws, in the second century. The Oral Torah has been a compiled text since the Babylonian exile [29]. The generation of scholars who came after the compilation of the Mishnah developed volumes of ethical and legal discussion about the laws listed in the Mishnah. This compilation of discourse is called the Talmud [30]. The Oral Torah is crucial to living life as an Orthodox Jew, as the written Torah alone is not clear enough about the practice of commandments; the Oral Torah is required in order to understand the intent and practicalities of the laws of the Torah [28].

Jewish Law (Halakha)

The mitzvoth, or commandments and laws that make up the Orthodox Jewish system of belief and practice, encompasses every aspect of life, including business, inter- and intra-personal matters and spirituality [31]. Neither the Mishnah nor the Talmud is considered a code of Jewish law, but rather function as the legal discussions upon which future codes of law have been based. These legal codes include Maimonides' Mishnah Torah, the Tur, and the Shulkhan Arukh, and are concise listings and explanations of the laws and commandments (known in Hebrew as halakha) that make up the Jewish codex [29].

Halakha is derived from the written and oral Torahs, and thus Orthodox Jews believe it to be divinely given. It is also believed that the rabbis and Torah scholars of each generation have the ability to interpret the laws of the Torah exactly as God intended them to be [25]. The rabbis who developed the Mishnah, the Talmud and later commentaries and legal codes are revered as scholars. Their opinions and interpretations of halakha, as well as those of the rabbinic leaders of the present generation, are respected as divine interpretation. This belief allows the diverse Jewish nation to continue to share a system of ritual practice [31, 32]. Thus, while Orthodox Jewish people believe that the final religious authority is God Himself, they also believe that humans are the agents of God, and are responsible for the ongoing study and implementation of God's laws [32].

The practices followed by Orthodox Jewish communities today were developed by rabbis who studied the Talmud and legal codex and based on them, interpreted the discussions to apply to daily life [31]. In each generation, there are local and regional rabbinic leaders who deal with the halakhic questions of their community members, and answer these questions in what is known as *responsa.* These responsa are formed by drawing on Talmudic sources, legal codex and past rabbinic responsa dealing with the halakhic topic in question [31].

There is an accepted procedure for dealing with novel halakhic questions. A rabbi who is respected in his community for his understanding of halakha, must identify the issue, generalize the relevant existing principles, and apply these principles to the situation at hand. Identifying the issue involves isolating the

exact novel content of the question in order to clarify the technicalities of the halakhic issue. The rabbi then examines the body of existing primary data including Torah, Talmud and halakhic codes which relate in different ways to the question. The rabbi then formulates a hypothesis that explains the meaning and connection of these sources under one, general halakhic principle. This halakhic principle will be used to create a means of applying the general hypothesis that was formulated to new situations which are similar in principle but novel in detail, so that new situations that can be understood by the principle he developed [29].

Questions often arise as a result of new technology that had not yet been developed or even conceived of at the time that the accepted halakhic codex were written and compiled. The technical nuances of most novel halakhic questions underscores the need for a rabbi to completely understand the factual details of the question, prior to identifying the halakhic issue or generalizing the principle needed to answer it [29, 33]. In this sense, it is said that Jewish law takes a casuist approach to solving novel dilemmas, eschewing absolute moral principles in favor of responding to individual circumstances and the principles that best define the circumstances [33].

Jewish Ethics

Jewish ethics comprises an important component of Judaism. Central principles of Jewish ethics include beneficence, non-maleficence and healing. Orthodox Judaism admonishes its followers to "bear the yoke of heaven," meaning individual decisions are characterized by their moral value and not simply by one's entitlement to said decision. One's personal freedoms are therefore limited by the constraints of halakhically or communally accepted moral values. Limited autonomy and responsibility for acting in the best interest of God and the Jewish people is a key aspect of Orthodox Jewish ethics [33].

In contrast to some religions which proscribe pleasurable or mundane activities as a means of achieving holiness, Judaism mandates that one must seek to raise everyday actions and activities to a higher spiritual level by performing them under the guidance of halakha [1, 34]. While secular life makes a distinction

between interpersonal laws of conduct, and intrapersonal morals and values, Judaism makes no such distinction. Every law or ethical statute constitutes one aspect of proper conduct and personal sanctification, thereby constituting great ethical and halakhic importance [1, 34]. For this reason, observant Jews seek halakhic and spiritual guidance for all facets of life, including intimacy, relationships, and procreation.

Today there are several streams of Judaism, each with its own philosophy and level of halakhic observance. Orthodox Judaism is a stream in which adherents believe in the strict interpretation and application of the laws and ethics of the Torah and in which the practice of these laws is incorporated into daily life. Orthodox Judaism generally refers to Modern Orthodoxy, Haredi Orthodoxy, and Hasidic Judaism, but can include a wide range of beliefs [35]. For the most part, rabbis decide on halakhic and ethical matters for their own, local congregants; the result is that different communities and streams of Orthodoxy may have varying interpretations of different matters in halakha. The halakha and ethics put forth in this chapter are derived from mainstream Orthodox and ultra-Orthodox sources.

Orthodox Jews maintain a very text-based belief in God and the commandments, believing in the divine nature of the Torah (both written and oral), and in the divine tradition that gave the scholarly leaders of each generation the ability to expound upon the Oral Torah. The daily life and life cycles of observant Jewish people is founded strongly upon adherence to commandments about each event, habit, or holiday. Every milestone in life – birth, adulthood, marriage, procreation, death – is marked with prayers, rituals or blessings which have their roots in allusions or direct text in the Torah, and were expounded upon by later scholars in the Mishnah, the Talmud, or legal codes. It is because of this textual and spiritual connection to the divinely given Torah, that Orthodox Jewish communities today still live their daily lives according to the written and oral Torah [31, 32]. Orthodox Jewish communities must grapple with philosophical issues and choices in maintaining specific cultural identities versus assimilating into the larger culture surrounding them.

The Origins of Hasidism

Hasidism originated in Poland in the eighteenth century. It is a form of observant Judaism based upon the notion that that through piety and prayer, the common man could forge an individual connection with God. Early Hasidic communities in Europe were based on allegiance to a "rebbe", or spiritual leader, and association with the religious customs of this leader [36]. A rebbe handed his community down to his son or another close male who acted as a successor. Through successive passing down of community leadership, strongly self-identified courts, or sects were formed. These courts have names today that are based on their city of origin in Eastern Europe [37]. Modern-day Hasidic communities are defined by fervent religious practice and stringent codes of conduct. Hasidic courts work to prevent the perceived harmful forces of the secular world from infiltrating the Hasidic community. Hasidic Judaism is a type of Orthodox Judaism. The main philosophical distinction between "modern" Orthodox Judaism and Hasidic Judaism is Hasidism's total eschewing of "modern" values such as secular education and culture [38]. While Hasidim are a small minority of Orthodox Jews (who are a minority among all Jews), they have been able to maintain their population through resistance to assimilation and intense adherence to a particular lifestyle [36].

Every Hasidic community, in any geographic location, is defined by its visibly unique traditions. Hasidic people distinguish themselves from non-Hasidic people by speaking Yiddish amongst themselves at home, in school and in synagogue. Yiddish is a uniquely Jewish language composed of the fusion of Jewish holy languages of Hebrew and Aramaic with secular Germanic and Slavic languages. Ayala Fader, in her 2009 ethnography on Hasidic girls in Brooklyn, notes that of all the Hasidic women in Brooklyn, those of Hungarian descent speak the most fluent Yiddish [37]. Given that a large proportion of Montreal's Hasidim originate from Hungary [39], it is likely that most of the Montreal Hasidic population is very fluent in Yiddish, perhaps more so than the Brooklyn Hasidic population.

In every Hasidic community, the synagogue is a place of prayer, worship and study, and forms the backbone of the community [37]. In the Hasidic community, the interaction between males and females is restricted. Education is segregated by sex. Men and women pray in separate sections of the synagogue. These restrictions on interaction with the opposite sex allow the community to uphold stringent standards of modesty, and also function to restrict the Hasidic individual's ability to participate in "western" styles of social interaction [40]. Hasidic Jews socialize primarily with fellow Hasidim.

Hasidic masculine identity is formed both through dress and education. Hasidic boys study in private, parochial, separate-sex schools. The primary role of men in the Hasidic community is to be pious and learned, and to marry and fulfill their personal commandment to have children [37]. Women's role as adults is to run their home and to raise their children to be pious Hasidic Jews. Hasidic women, unlike Hasidic men, must learn secular subjects such as English fluency, reading, writing and mathematics. Hasidic women function as the mediators of the secular world for the men and children in their family and community, since men's primary role is to study Torah [37]. Women perform nearly all childcare related responsibilities, as well as most housework [37]. Hasidic men and Hasidic women each have distinctive modes of dress. For both genders, modes of dress are defined by both extreme modesty and by formal, almost antiquated style [37, 40].

Marriage is a defining aspect of Hasidic adulthood. Hasidic girls are often married between the ages of seventeen and nineteen; boys between the ages of eighteen and twenty [37]. Marriage takes place by way of arranged matches, in which the parents of the boy and girl thoroughly research prospective partners before allowing the couple to meet. All sorts of familial and personal facts, both good and bad, are brought to light and considered material to assessing a person's marriageability. A bride and groom often meet only once before agreeing to be engaged [37]. Having known diseases – mental or physical – in one's family will harm a person in the matchmaking process. In fact, illness is so dreaded that the Hasidic (as well as the non-Hasidic ultra-Orthodox Jewish) community developed

a double-blinded genetic screening program called Dor Yesharim. The purpose of this program is to allow the community to prevent the match and marriage of two people who both carry the same genetic disease, while simultaneously keeping the identity of carriers and their particular diseases a secret, as public knowledge of which families carries which genetic diseases could potentially harm the marriageability and reputation of all members of a family [37].

Sex and sexuality exist only within marriage in the Hasidic community and are not discussed at all – even scientifically - prior to pre-marital education classes [37]. In general, intimate facts of life related to sexual relationships, the laws of family purity and a woman's menstrual cycle are not openly discussed within families or between friends. This places a layer of stigma on any issue relating to marriage or sexual intimacy. It is important to note that there is no shame or stigma in sexual intimacy itself, provided that this intimacy is obtained in the proper context of a marital relationship following the laws of family purity [37].

The main purpose of marriage in the Hasidic community is to bear new Hasidic children and contribute to the continuation of the community. The Hasidic community states its population numbers in the amount of families in a given Hasidic sect; this points to the centrality of the family unit to the Hasidic communities. In addition, family size in these communities is extremely large, averaging nine children per family [41]. At this time, the average secular Canadian family has 1-2 children [42]. Thus, there is likely an acute stigma in the Hasidic community to being infertile as it is rarely, if ever, a lifestyle choice to remain in a childless marriage.

History of Hasidim in Quebec

There has been a Jewish presence in Montreal since the early part of the twentieth century. However, Hasidic Jews did not begin to emigrate outside of Eastern Europe in significant numbers until the Holocaust wiped out the majority of Eastern European Jewry and destroyed much of the Jewish infrastructure there [38]. Most surviving Hasidim who immigrated to North America came to New

York. However, for a variety of reasons, some Hasidim settled in other cities, including Montreal [43]. Today, one of the largest Hasidic populations in the diaspora is the number of communities residing in Quebec, Canada [43]. In 2000, about 4,000 Hasidim lived in Montreal, mostly in Outremont and Mile-End, but some in the Notre Dame des Graces neighborhood of Montreal [39]. Given the high birth rate of Hasidic families [41], this number has likely grown since then. In fact, the Hasidic population of Outremont increases at a rate of about 5% annually, and by 2003 Hasidic people constituted 20% of the population of Outremont [40]. Hasidic Jews by and large live in the Mile End neighborhood, just north of downtown Montreal [40], but have also expanded westward towards the tonier neighborhood of Outremont [41]. Most Hasidic Montreal residents have fairly limited knowledge of French [40].

There are currently ten Hasidic sects residing in Montreal and the surrounding metro area [40]. Larger Hasidic sects have each set up its own community infrastructure, complete with synagogues, businesses and separate sex schools [15, 40]. While the different Hasidic groups look monolithic to outsiders, in reality there are many aspects of language, dress, education and religious observance that set each group apart. However, they are similar to each other in their general commitment to religious observance and to shutting their community off from the secular world [37]. Hasidic communities in Montreal are known to be extremely *haymish*, literally "homey," as compared to Hasidic communities in other cities. This means that they strictly adhere to Hasidic religious customs and traditions, sometimes vehemently objecting to western or modernizing influences [37].

It is likely that the chosen isolationism and strong resistance to assimilation displayed by the Hasidic communities prevented the political climate from having a measurable effect on Hasidic life in Quebec [40]. Yet in recent decades there has been a slow but noticeable shift in the degree to which Montreal's Hasidic communities have chosen to engage with the outside world. The older generations of Hasidim who settled in Montreal were deeply distrusting of government agencies and did their best to avoid interacting with them,

choosing passivity and avoiding any request or potential confrontation. In contrast, today's Montreal Hasidim have become quite adept at engaging with agencies and officials that can help the Hasidim obtain things that they need or want. While this does not relate to a willingness on the part of the Hasidim to assimilate, it does indicate a sort of tacit trust in the provincial and municipal governments of Quebec [40], and a definite willingness to engage when there is a desired goal in mind.

Many Hasidim living in Quebec might agree that Hasidic religious values are odds with other "Montrealais", or Quebecois values [40]. Indeed, many Hasidim will readily admit that many Hasidic social and cultural practices are done to create social separation between them and their outside, secular neighbors [40]. However, it is likely that at least some aspects of culture have slipped their way into aspects of life. Given that Hasidic women are comfortable with, and skilled at filtering through the secular world to take what they find valuable and leave what they find to be harmful, it is possible that some uniquely Quebecois values and aspects of life have slipped into their community. In addition, many Hasidic Jews take advantage of fertility treatments in order to help them conceive [33, 37]. It is possible that some attitudes about fertility treatments have infiltrated the Hasidic community along with the treatments themselves.

Chapter Three

The Jewish Perspective on Fertility and Reproductive Treatment

Procreation, Fertility, and Infertility in Judaism

Family, childbearing, and procreation are central tenets of Jewish tradition, making Judaism an unequivocally pronatalist religion. The religiously-based imperative to procreate stems from the Torah in the book of Genesis, in which God blesses the Jewish people to "Be fruitful and multiply and fill the earth (Genesis 1:28)" [44]. The theme of this blessing, which is that the Jews as a nation should procreate and to become a populous nation, is repeated numerous times in different settings throughout the Bible, underscoring the importance of childbearing in the Orthodox Jewish tradition [44]. While these words were first uttered as a blessing, the practical meaning of the blessing was codified into Jewish law during the Talmudic era. It is to be noted that this commandment falls solely on the shoulders of men; women have a rabbinic obligation to "populate the world" but do not have the obligation to "be fruitful and multiply" [15, 45-47].The Talmud stipulates that to fulfill the minimum requirement of this commandment, a man must father two children who survive to adulthood. Today it is accepted by most Orthodox rabbinic authorities that having one child of each sex fulfills the commandment as long as both children survive to adulthood and procreate [48]. Given that until quite recently in modern history, many children died before reaching adulthood, it became common practice for people to have many children in order to have a better chance that at least two would survive. The Talmud also stipulates a continuing obligation to procreate [49] and it is therefore common for very observant Jewish people to have many children; often as many children as they are able to have [11, 50].

The obligation to procreate is seen as so important in Judaism that historically, married couples who were barren were compelled to divorce in order so that the man may remarry and procreate. While this custom is no longer practiced, its former existence demonstrates the utmost importance of the commandment to procreate [51, 52]. However, it is still common for Orthodox

Jews to marry young and have children soon after [41, 53]. Having children is also seen as a commitment to the future of the Jewish people, and a commitment to faith in God [15]. Orthodox communities are concerned with maintaining the population size of their community and about maintaining their religious and cultural traditions. Childlessness by choice is very uncommon among Orthodox Jews, and contraception is not used by all observant Jews. It is thus very difficult for a married couple in an Orthodox community to be secretive about infertility [11], and it is difficult for infertile couples to fully mesh into the fabric of a community whose social life is based so completely on the family unit.

In the Torah, barrenness is considered a curse, and fertility a blessing [50]. The Torah contains several narratives of female barrenness and the emotions in them may give character to the experience of infertility as a Jewish woman. The language in the narratives indicates that infertility is agonizing, even humiliating. The stories also demonstrate that prayer and piousness can circumvent infertility, as they end happily with the women conceiving children. The Babylonian Talmud likens childless people to dead people [54], and says that the divine spirit of God will not dwell among married people who have no children [44, 55]. These narratives and themes lend strength to the idea that infertility is a failure of Jewish character and faith that should be mourned.

In addition to being pronatalist, Judaism places a high value on the principles of beneficence and healing. The Torah and the Talmud contain various passages outlining a physician`s obligation to heal a sick person from which we infer that a sick person is obliged to seek healing. Maimonides considered caring for one's body to be a religious obligation [56]. From this, one can deduce that genetic or reproductive interventions are permitted in order to prevent a poor outcome from a disease [56]. Thus, we see that biomedical therapies – perhaps such as those used in ART - can be used not just as a lifesaving or curative intervention [57]. The strong beliefs in these principles encourage many Jewish authorities, including Orthodox and ultra-Orthodox rabbis, to rule favorably on reproductive technologies to heal infertility and to help couples struggling with infertility.

Infertility in Halakha

One potential and not uncommon cause of infertility in Orthodox Jewish couples arises from a halakhic technicality occurring when there is a conflict between a woman's menstrual cycle and the halakhot of ritual impurity and sexual abstinence. The Torah (Leviticus 15: 19-28) describes two types of uterine bleeding which render a woman ritually impure: niddah and zavah. Niddah is menstrual bleeding and zavah is unexpected uterine bleeding from any cause. If experiencing either type of bleeding a woman must abstain from physical contact with her husband for a requisite period of time, before she may re-purify by immersing in the ritual bath (mikvah) and resume physical contact with her husband. The Torah also specifies that a woman must wait seven days following the cessation of zavah bleeding, prior to immersing in the ritual bath. It is not always possible to determine which type of bleeding one experiences so in order to simplify the practice of these laws, the rabbis of the Talmudic era deemed that all bleeding is considered zavah. Thus a woman must always count seven clean days *following* the cessation of bleeding, before she may immerse in the mikvah and resume physical intimacy [58, 59]. Later rabbis ruled that regardless of the actual duration of bleeding, a woman must count at least four to five days of bleeding *before* counting her seven clean days; meaning, if a woman experiences two days of mid-cycle spotting she must count an additional 2-3 days as "bleeding" to amount to 4-5 days, and then begin counting seven clean days [60]. She may then immerse in the ritual bath and be physically intimate with her husband [5].

Strict family purity laws may be halakhically practical for Orthodox Jews, but may also complicate procreation. Counting at least 4-5 days of bleeding followed by another seven bloodless days, amounts to about half a woman's menstrual cycle in which she is forbidden from engaging in sexual intercourse. Women with twenty-eight day cycles will usually ovulate right around the date they immerse in the mikvah; this makes family purity laws almost conducive to procreation. However if a woman has a short cycle, she might ovulate during the

seven clean days following the cessation of menstruation. Once she is allowed to immerse in the ritual bath her ovulation will have come and gone, so although she is allowed to have intercourse in the days thereafter, she will not conceive from it. A woman in this situation has what is considered "halakhic infertility" – she is infertile because the schedule of family purity laws does not coincide with the timing of her menstrual cycle. Intra-cycle bleeding may also interfere with conception, as it would cut into the time during which a woman would normally be allowed to be intimate with her husband. This would be especially problematic if a woman experiences bleeding due to ovulation; ovulation bleeding would forbid intercourse at the very moment that she is fertile [14].

While these laws can be inconvenient when they are preventing conception, they are a pillar of Orthodox Jewish life. The seven clean days prior to ritual immersion is rarely, if ever waived, even when doing so would be an easy solution to infertility. However, these laws are balanced with pronatalism and the sincere desire of rabbis to aid their followers in fulfilling the obligation to procreate. Some Orthodox rabbis permit a woman with intra-cycle bleeding to begin to count seven clean days immediately after the cessation of brief intra-cycle bleeding, even if the duration was less than 4-5 days, to allow her to be ritually pure during ovulation [61]. For women who have short menstrual cycles other leniencies are allowed. In these cases, hormonal treatments are often used to delay ovulation until after ritual immersion. Some Orthodox rabbis allow a woman who is ritually impure to be artificially inseminated with her husband's semen. This would allow the couple to procreate during the wife's fertile period, without transgressing the prohibition against physical intimacy during niddah [62, 63]. That this method of treating halakhic infertility causes women to undergo treatments that are perhaps medically unnecessary is rarely discussed. This is the simplest solution for halakhic infertility, as it avoids halakhic transgression and avoids a difficult conversation about the utility and stringency of the laws of ritual purity. However, advising religious women to take exogenous hormones or to undergo AIH in order to evade a halakhic complexity turns this religious matter

into a medical one, and perhaps causes women to believe that they are pathological, or abnormal.

Assisted Reproductive Technologies and Jewish Tradition

Many reproductive technologies are considered in many cases to be halakhically acceptable according to most religious authorities [15]. According to the Jewish bible, mankind was given the ability to reason, which allows humans to experiment with their own nature for a beneficial end. This belief guides the majority of opinions permitting assisted reproductive therapies and related technologies [56]. The permissibility of these technologies is generally considered on a case-by-case basis [44]. It is important to remember that while the halakhic discussions below indicate generally the Orthodox viewpoints on the halakhic issues pertinent to each reproductive technology, they are not "final" opinions accepted by all Orthodox Jews. A religious Jew who finds him/herself in need of fertility treatment, whether diagnostic or curative must go to a rabbinic authority who is both respected in the individual's religious community and who is known to be knowledgeable about fertility and related technologies. While many treatments are today considered standard in that they are frequently recommended and performed, this does not translate into standard halakhic approval for any particular treatment. The particular circumstances of each individual case – including, but not limited to the ages of the couple, the amount of time they have been trying unsuccessfully to conceive, whether they already have children, and the relevant aspects of their medical histories – are material to halakhic decisions; because of this, no case is like the one before, and each one is addressed and deliberated on anew [33].

Artificial Insemination and In Vitro Fertilization in Halakha

Artificial insemination is accepted by many halakhic authorities in many cases, but some Orthodox rabbis have halakhic and ethical concerns about the technology. Artificial insemination can be performed using the sperm of the husband of the woman whose egg is being fertilized, wherein the husband and

wife are the intended parents. This is called artificial insemination by the husband (AIH). Artificial insemination can also be performed using donor sperm (AID) however this comes with additional halakhic and ethical complications in addition to those issues relating to AIH.

Artificial insemination is one of the few reproductive technologies about which there are direct textual sources, as there are Talmudic discussions [64], legends and halakhic responsa [65] based on the belief that it is theoretically possible for a woman to become impregnated without engaging in sexual intercourse [15]. One concern stemming from these discussions is that a semen sample must be obtained in order to perform AIH; this is problematic as the Torah expressly forbids ejaculation in any context other than during sexual intercourse, for the possibility of procreation [66, 67]. To skirt around this prohibition, many Orthodox rabbis rule that since AIH and sexual intercourse are performed for the same purpose, neither are considered wasteful emissions of semen and it is therefore permissible to collect a semen sample for AIH [44]. This does not give blanket permission to all Jewish childless couples to use AIH; some Orthodox rabbis impose a minimum time for a couple to be childless, and most couples requests are considered on a case-by-case basis. When AIH is permitted it is often specified that thorough testing is needed to determine that the wife herself is fertile, in order so that AIH is not performed for naught [68]. When semen analysis or AIH is permitted, there is a hierarchy of permitted methods of semen collection, the preferred methods being collection from the wife's vaginal canal post-coitus [69], through coitus interruptus [70], or by collection in a perforated condom during intercourse [71]. Masturbation is never permitted, although a man is permitted as a last resort to use erotic thoughts to bring himself to ejaculation [72, 73].

The process of AIH involves manipulating genetic material outside of the human body and there are halakhic concerns related to this. The Orthodox halakhic definition of adultery is sexual intercourse between a married woman and a man who is not her husband [74]. The marital status of the man is immaterial. If gamete samples are mislabeled or otherwise switched in the

laboratory, an embryo could be fertilized using the ovum of a married woman and the semen of a man who is not her husband, which may be considered an adulterous union according to halakha. A woman's punishment for adultery is severe. A child born of an adulterous union is considered a bastard, or *mamzer* according to halakha, and has many restrictions imposed on him throughout his life and the life of his descendants [75]. Therefore, most Orthodox halakhic authorities have deemed it necessary to employ the use of "observers" (*shomer)* whose sole responsibility is to guard sperm samples through all steps of AIH from sample collection through re-implantation, in order to ensure that the correct sperm sample fertilizes the correct woman. In this way, the parentage of the child is known with certainty [76].

The biblical passage from which the commandment to procreate is derived may be narrowly interpreted to mean that a man may fulfill this obligation only through procreation stemming from sexual intercourse [77, 78]. However, the majority Orthodox rabbinic opinion is that this commandment is predicated on the birth of a live infant and therefore AIH does fulfill a man's obligation to "be fruitful and multiply" and to "populate the world" [79-81].

In-vitro fertilization (IVF), although newer than AIH, is considered by many rabbis to be a positive technological development. Ova, sperm and embryos are considered sacred materials designated for procreative purposes. However, Judaism does not confer *personhood* to these materials and it is thus not normally problematic to manipulate them with good intent [57]. Therefore, many mainstream Orthodox authorities permit IVF on a case-by-case basis, as it is performed for the purpose of allowing a Jewish couple to achieve the goal of conceiving and bearing a Jewish child [44].

When IVF is performed using the gametes of a married couple, the involved halakhic concerns are similar to those involved in AIH: the prohibition against wasting semen, the potential to switch samples in the laboratory, and whether a man may fulfill his obligation to procreate using this technology. IVF raises additional dilemmas, as it is one step further from "natural" conception in that the fertilization does not occur inside the woman. Some Orthodox rabbis

therefore wonder whether IVF removes sanctity from procreation by divorcing procreation from intimacy.

IVF involves manipulating genetic material outside the human body and includes the additional step of fertilization outside the human body. Because of this there are many potential instances in which gamete or embryonic samples can be switched, leading to situations of potential adultery or questionable parentage. It is therefore necessary to use observers throughout every step of the IVF process, from gamete collection, through fertilization, to re-implantation. This level of observation allows one to be sure of the parentages of a baby [76].

Many Orthodox rabbis consider IVF, AIH, and intercourse to be analogous in purpose and therefore permit semen collection for the use of IVF, with the same considerations and restrictions placed on this step that are present for AIH. There are, however a few Orthodox rabbis who do not believe the two technologies are comparable since in IVF, fertilization occurs outside of the human body. Thus they feel that the exception to the prohibition against wasting semen that is applied to AIH cannot be applied to producing a semen sample for IVF [82, 83]. However, this is a minority opinion. Rabbi Moshe Feinstein and other leading Orthodox halakhic authorities believe that the prohibition against wasting semen may be lifted to fulfill a man's obligation to procreate; therefore, a sample may be procured from man who is doing IVF to procreate, but not from a man who has already fulfilled his biblical obligation to reproduce [84].

According to some Orthodox authorities, a third halakhic concern related to IVF is that the technology may not technically fulfill one's halakhic obligation to procreate, as the act of fertilization is not performed by the parents. IVF thus does not necessarily lead to a fulfillment of one's obligation to procreate; nor does it necessarily lead to parenthood in the halakhic sense of conceiving and bearing a child. However fetal development occurs in utero and the entire process of IVF occurs for the purpose of procreation. Because of these two facts, most Orthodox rabbis agree that IVF does allow a man to fulfill his commandment to procreate. And, once it is accepted that fertilization without intercourse can allow a man to

fulfill this commandment, it follows that the resulting embryos are completely related to the genetic parents [84].

Genetics in Jewish Law and Ethics

Reproductive technology involves an additional set of issues when donor gametes are used, as genetics and biological lineage relate to many halakhic and spiritual matters in Orthodox Judaism. Some rabbinic authorities question whether using donor gametes to conceive a child truly allows the social parent to fulfill his obligation to "be fruitful and multiply." The purpose of the law is to raise a child in the Jewish faith, and this purpose is certainly filled whether one uses his/her own gametes or uses donor gametes. However, the strict interpretation of the law is that one must extend his own genetic line in order to fulfill the commandment; using donor gametes does not necessarily fulfill this obligation [15]. Therefore, while many mainstream religious authorities permit IVF and AIH to be used with donor gametes, their use adds additional halakhic complexities [44].

Genetic lineage is an integral component of Orthodox Jewish identity, important in daily ritual life, and considered an immutable, physical trait which cannot be changed by the circumstances of an individual's upbringing. Genealogy and inheritance are repeated themes in the Torah and Talmud, which are filled with narratives of men desiring heirs to inherit their land and legacy. This desire for heirs still exists in observant Jewish circles today. There are many laws in Orthodox Judaism pertaining to who constitutes a family member, and laws pertaining to familial responsibilities. Being part of a culture with an emphasis on defined familial responsibilities sends a message, if implicitly, that certain types of families fall within the accepted community definition, and other types of families do not. It also creates a pre-defined set of criteria for being a family, making it hard for members of such a community to expand this definition to include families that are not considered in the Torah or Talmudic definitions.

In Orthodox Judaism, "Jewishness" is passed through matrilineal descent; one is Jewish if one's mother is Jewish. A child conceived using ovum donation and/or a gestational surrogate, or who is adopted and raised by Jews, does not

necessarily know whether his/her genetic or gestational mother is Jewish. This complicates the life of the social or adoptive parents considerably should they want to raise the child as an observant Jew. If it is known with certainty that the genetic/gestational mother is not Jewish, then the parents can arrange for their child to be formally converted to Judaism. This is not difficult, but there are strictures regarding who a convert may marry; while these stringencies do not tend to affect a person's life on a frequent basis, they still exist and can serve as a reminder to both parents and child that there is a difference in their respective identities as Jews [15].

One's paternal lineage dictates aspects of identity relating to Orthodox ritual practices. Jewish people belong to one of three groups; (1) Priests (Kohen*)*, (2) Levites (Levi), and (3) Israelites (Yisrael*)*. One belongs to the same group his/her genetic father belongs to; a convert to Judaism is considered by default to be an Israelite. Today, there are rituals performed in Orthodox synagogues during daily prayer services and holiday services which mimic some of the responsibilities held by Priests and Levites in the times of the temple. Only a man who is a *Kohen* may participate in the rituals designated for people in the Priestly class; only a man who is a *Levi* may participate in the rituals designated for people in the Levite class. A child whose social father and genetic father are different people will not be able to participate in the same aspects of these rituals as his social father, unless it is known with certainty that the genetic and social fathers are Jewish and belong to the same group. The fact that this aspect of paternal genetic identity relates to regular ritual occurrences removes any possibility of keeping such a situation private; the family's community will likely know of the child's circumstances. The lack of privacy is not necessarily problematic but families may find it to be emotionally taxing to have a constant reminder that their family is different from other families in the community [15].

An additional issue raised by non-genetic parenthood is that of Judaism's strict prohibition against incest. The Torah strictly forbids marriage and relations between biological siblings or half-siblings (Leviticus 18:6-18). The prohibition extends even to biological siblings who were not raised together as siblings.

Given that many jurisdictions do not have comprehensive records on adoption or sperm donation, it is somewhat difficult for a Jewish parent to ensure that their non-genetic child does not unwittingly marry a biological sibling. Many Orthodox rabbinic authorities recommend adopting a child from a non-Jewish mother (and father if possible to determine), and receiving sperm from a non-Jewish donor. If the genetic parents are not Jewish, it is considered halakhically as if the child's prior genetic lineage is erased, and the concern about unintentional incest is negated. Conversion has its own complications albeit ones less severe than incest. Since ensuring that the donor is not Jewish is not always possible, Rabbi Moshe Feinstein rules that using the sperm from an unknown donor in a large, non-Israeli metropolitan area will also negate the potential for incest as one can safely assume that the donor was most likely (statistically speaking) not a Jew [15].

Additionally, there are halakhic stringencies regarding appropriate conduct with the opposite sex; these stringencies include avoiding situations in which one is alone with an unrelated member of the opposite sex. Some very observant Orthodox opinions extend this stringency to include parents and non-genetic children of the opposite sex [15]. Some families may choose not to follow the stringent interpretation of this law. However, this does not change the fact that many people, possibly even members of their own community or extended family, believe that their conduct with their children is inappropriate.

Donor sperm is halakhically complex in particular. Talmudic discussions and commentary on the subject of hypothetical virgin birth indicate that a child conceived by insemination without intercourse is a kosher, legitimate Jewish child, as long as the child's mother is Jewish [85]. Despite this, some Orthodox rabbis have spiritual and ethical concerns relating to the nature of the technology and what it stands for. Bringing a third party into the act of procreation separates the formerly contiguous steps of procreation and fatherhood, and between procreation and marriage. Some feel that this represents a breakdown of the family unit and will undermine the stability of a family [86].

The paternity of a child who was conceived with donor sperm is considered an "unknown entity." In Judaism, there is a strong spiritual attachment

to genetic lineage. A child with "missing" lineage is considered by some to be spiritually incomplete [15]. In addition to these ritual and spiritual complications, some stringently observant religious authorities feel that the practice of artificial insemination from a donor is spiritually repugnant, as it severs the link between marriage and procreation, and weakens the parent-child connection [15]. These opinions are marginal, but there are segments of the Orthodox Jewish community who agree with, or follow these sentiments. Orthodox rabbis who are less severe in their condemnation will usually recommend intra-cytoplasmic sperm injection (ICSI) wherever possible, only allowing donor sperm as a very last resort, in order to try to maintain the link between couples and their children [87-90]. In some instances when donor sperm is recommended, some Orthodox rabbinic authorities will recommend mixing the donor sperm with some of the husband's sperm. This odd practice introduces a small but reasonable doubt which affords the husband the illusion that he may be related to the child, and since we can use this reasonable doubt to establish the husband's halakhic paternity, mixing also solves the halakhic complications arising from donor sperm [33].

Ovum donation and gestational surrogacy raise their own sets of issues in halakha. Traditional surrogacy, in which the surrogate is inseminated by engaging in intercourse with the father of the child, occurred in the Bible as a way for the barren matriarchs to ensure the continuation of their husband's genetic lineage. Today, a gestational surrogate who also donates the egg is *artificially* inseminated. Halakhically, this woman is considered the mother of the child, even if she is not intended as the social mother. More common today is partial surrogacy, in which the surrogate is impregnated with an embryo fertilized with the ovum of the social mother, or with a donor egg. Most contemporary scholars permit surrogacy as a means of procreation for a Jewish couple [44]. Most Orthodox religious authorities prefer that the gestational surrogate is not married (in order so that there is no confusion as to whether her husband or the social father is the genetic father), but if she is married it is preferred that the surrogate and her husband clearly announce that the child does not belong to the surrogate's husband [15].

Gestational surrogacy and ovum donation in Orthodox Judaism are complicated by the law of Jewish matrilineal descent. The development of this halakha preceded the reproductive revolution, and the possibility that two different women can be involved in the conception and birth of a child. Ovum donation, IVF and gestational surrogacy give rise to situations in which the genetic mother is not Jewish but the gestational mother is, and vice-versa. In these situations, there are disagreements between Orthodox rabbinic authorities over which "mother" confers Jewishness. The genetic mother passes her genes to the baby, but the gestational mother provides the environment for the baby's fetal development; either or both of these might the crucial aspect which makes one "Jewish," and a child conceived using donor eggs or a gestational surrogate, or both, might need an official conversion to Judaism involving despite the fact that at least one contributing maternal party is Jewish [15, 91]. Because of the varying opinions on the issue, Orthodox couples must go to their community's accepted halakhic authority in order to receive guidance; no one answer is sufficient for every couple on this matter [33].

Many concerns which apply to children conceived using donor sperm do not apply to those conceived using donor eggs. We are not concerned that a child conceived using an egg donor will unwittingly marry a genetic half sibling as ovum donors are far less prolific than sperm donors; it is highly unlikely to encounter another child conceived from another egg donated by the same woman [91]. However, ovum donation still brings in outside genetics, and prevents a mother from passing on her genes to the next generation. Additionally, according to some Orthodox rabbis, bringing any third-party involvement into procreation might weaken the link between marriage and procreation. With respect to the relationship between intact genetic lineage and spiritual wholeness, ovum donation without gestational surrogacy is possibly less concerning than sperm donation as gestation is considered to contribute to the child's identity as well, so the mother would still have the opportunity to organically contribute to her baby's identity.

It is no surprise given the many halakhic, ethical and social complications with gamete donation that most Orthodox couples, regardless of their age or the number of years they have tried unsuccessfully to conceive, do not want to have to resort to non-genetic procreative options. When it is determined that a donor is needed, couples often need assistance in learning how to accept this fact and to live with it. There are couples who decide not to accept donation and simply choose other paths such as not having children, or adopting children. Other people walk away from the prospect of donation for a time, and return to the idea a bit later once they have come to terms with the issue idea and accept its necessity [33]. Interestingly, it seems that most reservations expressed by observant couples are based more in social biases against gamete donation than they are based in halakhic complexities; this seems to be true across levels of religious observance [33]. This is perhaps because once donation is recommended for a couple, it is already clear that this is the most halakhically and medically sound option in this particular case, but these reassurances do little to remove the Jewish community's embedded biases towards genetic preference. Genetics is a serious issue socially and halakhically, and gamete donation is therefore a long journey with social consequences [33].

Adoption in Halakha and Jewish Culture

Adoption it is dealt with extensively in the Torah and Talmud. However the type of adoption discussed in these texts is not completely analogous to the type of adoption performed in modern times. Adoption in the Torah serves as a financial relationship, providing the adoptive parent with an heir, or as a fostering relationship, in which the child receives education or mentorship from the adoptive family but does not take on the identity of the family. The child's familial lineage and identity did not change according to the fact of his/her upbringing; nor did the family identity of the adoptive family change by raising an unrelated child. Additionally, if the biological parents still existed, contact was not closed off. This understanding of adoption is not surprising given the importance of genealogy in Jewish law as discussed above. Family lineage was

always considered important and immutable, just as it is when using donor gamete to conceive a child [15]. The Talmud developed a more parental and loving understanding of adoption, without contradicting the biblical understanding. In the Talmud, adopted children are called "son of [adoptive parent]" [92] because although the child's genealogy is not erased, the child's name and identity come from the person who raises the child. The Talmud recognized that a type of adoption occurred by being involved in a child's moral upbringing, although this was still a social and not legally recognized form of adoption [15].

The importance of genetics and genealogy in Orthodox Judaism, which complicates gamete donation, complicates adoption as well. As previously discussed, paternal genetic identity determines one's ritual obligations in synagogue rituals on a regular basis. An adoptive child will likely have a different status than his social father, making them unable to participate in these rituals together. Maternal lineage determines Jewish identity, and adoptive children may require conversion to Judaism, which brings with it some halakhic complications [15].

There is a disconnect between adoption as described in the Torah and Talmud, and that practiced in western societies today. While the former is a social institution which maintains the genetic identity of the adoptive child, the latter is legal and threatens to erase or distort family lineage which is so important in Orthodox Jewish law and culture. This distinction also means that the concept of legal adoption is somewhat foreign to Judaism. According to the Lubavitch Hasidim, the adoptive child is not part of the adoptive family in the same way that a genetically related child is part of the family [15]. Civilly adopting a child within an ultra-Orthodox Jewish community might cause one to be in a constant state of cognitive dissonance wherein the wider western culture will be constantly reassuring the parents and child that they are family in every sense of the word, while the family's Jewish community and religious beliefs might suggest that this is not true.

Given the importance of genetics in Judaism, it is no surprise that many Orthodox Jewish couples seem to want to have their "own" children in whatever combination this can be. Couples seem to desire to maintain any aspect of natural conception that they possibly can. Using the genes of only one parent or the experience of carrying a child seems to be preferable to adoption. While this is interesting given that in some cases, adoption can be halakhically more straightforward than sperm donation, it is perhaps important socially and emotionally for observant couples to preserve the illusion of having a natural family as much as possible, both for themselves and for their image within their community [33].

There is no clear statistic available for the exact number of Jewish people who have infertility, but it is likely similar to the percentage of people in the general population. While the problem within the Jewish community is no greater in quantity, the pronatalist nature of Jewish religion and of Orthodox Jewish culture quite possibly make infertility acutely painful for people in the Jewish community. The intricate halakhic rulings about the technicalities of IVF, AIH and other reproductive technologies means that engaging in any type of assisted procreation requires discussing the details of one's sexual and reproductive health with rabbis. The importance of genetics perhaps makes reproductive options such as donor gametes or adoption less attractive options. These factors could make Orthodox Jewish people with infertility at a greater risk for emotional distress than are others with infertility. Social and emotional support are crucial for any couple undergoing fertility treatments [20], but even these resources may not provide adequate support if the counseling provided is not religiously and culturally sensitive and aware. Orthodox Jewish people perhaps require a unique support system that is fluent in counseling, medical knowledge and religious doctrine; without such a support system it is possible that infertility and its treatments will be especially taxing.

Chapter Four

Reproductive Ethics and Technology in the State of Israel

Israel and its Legal Foundations

Israel is in some sense a modern-day amalgamation of Jewish culture, politics and observance. Although the nation may see itself as western and somewhat liberal, Israel bases much of its politics and laws on Biblical and Talmudic law and tradition; the Israeli rabbinate exerts a large amount of influence on jurisprudence in the state, and Orthodox Judaism has deeply influenced the development of the state since its founding [93]. While the majority of Jews living in Israel are not religiously observant, Israel is still a country that largely shuts down for the Jewish Sabbath, where marriage and other lifecycle events are governed by halakha, and in which rabbis and politicians have similar public clout. Regardless of their religious beliefs and levels of observance, Israeli citizens often do not have a choice about living under Jewish law. It is therefore possible to view Israel as an example of how Jewish tradition might function when applied to a modern society [93]. Examining Israeli policies and values about reproduction may shed light on the cultural and religious influences of Judaism in a modern context.

The manner in which Israel practices medicine and relates to medical technology exemplifies the way that Israel balances its western ideals with very traditional values. Israel welcomes modern technology, but imbues technological innovation with Jewish and Israeli values and traditions. Israeli medicine is western in its science, but decidedly non-western in its attitude, application and bioethical values [88]. It is no surprise that although Israel's policies on ART, adoption and reproduction seem liberal and progressive they attempt to serve traditional Jewish values such as pronatalism and Jewish nationalism.

The Centrality of Procreation to Israeli Life

Israel's government is strongly pronatalist and believes in populating the land of Israel with Jewish people. This has been a major goal of Israeli public

policy since the time of the British Mandate and the War of Independence [53]. In the aftermath of the Holocaust, the surviving Jewish community felt a strong desire to procreate and create more Jewish lives. This was a practical and symbolic response to the atrocities that were experienced during the War. Many survivors of the Holocaust also felt they had a personal responsibility to replenish their diminished family lines and carry on their lineage. [53, 93]. In a sense, this predicated the survival of the Jewish people as a whole on the survival and procreation of individual Jews [94].

Following the establishment of the State of Israel, procreation became a Zionist ideal as well. In order to maintain a demographic advantage in the state, the Jewish population must continuously replenish itself through procreation [93]. In this sense, maintaining a steady birth rate is one quiet answer to Israel's security concerns [95]. More figuratively, Zionism is itself the belief in Jewish nation building, and there is no more effective way to build a Jewish nation than to make Jewish babies. This goal in itself requires consistent monitoring of fertility rates and population size, as Muslims in Israel have higher birth rates than do Jews in Israel [93, 96]. This perhaps concerns the Israeli government, motivating it to incentivize procreation for Israel's Jewish citizens. In the early days of the state, women were encouraged to reproduce in order to make "new" Jews. This was considered a legitimate part of the nation-building effort, and was taken very seriously by fervent Zionists [53].

Jewish Israeli culture is both traditional and pronatalist, exemplified by the fact that Israelis marry younger and have more children than their North American and European counterparts [94]. Family is central to Israeli and Jewish-Israeli culture [95]. Traditional Jewish narratives of barren biblical matriarchs yearning for children still inform Israeli ideologies today [93]. Israel's pervasive pronatalism likely contributes to the fact that Israeli Jews view infertility among fellow Israeli Jews as a tragic burden on women. Those with infertility are viewed as being struck with agony, living empty lives and unable to contribute to national collectivity [53, 94]. There are high social stakes for being infertile. It is thus perhaps no surprise that infertile Israeli-Jewish women feel marginalized [93].

The centrality of the family unit to Israeli social life, as well as pervasive pronatalism perhaps motivates a sincere desire on the part of the Israeli government to help people create families [93]. Prior to the success of reproductive technologies, Israel relied on other policies to further its pronatalist goals. These policies include free maternity care for pregnant women, paid maternity leave and tax reductions to families with children. One of the very first financial benefits handed out by Israel in the 1950's was maternity benefits to working mothers [95].

Israel's Laws on Assisted Reproductive Technology

Israel has always loved technology, especially reproductive technology; and its religious leaders especially have welcomed reproductive innovations [87]. Israel has arguably the most expansive and inclusive ART policy in the world [95]. The state is home to an unparalleled number of fertility clinics per capita [87], and Israelis consume more IVF per capita than any other population [95]. This is less a reflection of extreme liberalism than it is a reflection of the state's obsessive pronatalism [53, 94]. Israel has been promoting ART as a means of improving the country's fertility rate since the very beginning of the reproductive revolution in the early 1980's [94]. This same pronatalism likely also motivates Israel's nearly unlimited funding of ART.

Israel uses its public healthcare budget to provide generous coverage for fertility services. Nearly any woman of any marital status or sexual orientation may be considered a candidate for reproductive treatment, until age 44 years (if using her own eggs) or 54 years (if using donor eggs). A woman is eligible for fully-funded, unlimited IVF cycles until she has two live babies with her current partner, regardless of how many children she or her partner have from prior relationships [87, 93]. A woman may undergo as many as four fully-covered cycles annually [87]. Nearly any combination of reproductive options (i.e., using donor gametes, intra-cytoplasmic sperm injection (ICSI) or hormonal stimulation) is similarly covered. There is some out of pocket cost for co-pays and fertility drugs not included under public healthcare. The cost of donor gamete samples

must be paid for out of pocket, though their use in a cycle is covered. Even so, the total out-of-pocket cost for an IVF cycle is around $100 USD [53].

There are significant drawbacks to Israel's assisted reproductive policies. IVF alone consumes 1.8% of Israel's national health budget. Other reproductive treatments cost the Israeli government additional funding. This amounts to a huge sum of money that for other uses would be hotly disputed [53]. Any objections to this generous funding are usually countered with arguments about the importance of women's health issues, implying that anyone opposing the ART budget is marginalizing women's health [87]. This simplistic argumentation allows the government to excuse their obsession for IVF by claiming that they care about women's health issues and the anguish of childless women, and provides an environment in which women feel personally pressured into attempting ART to overcome their deficiency [94].

Israeli public debate on ART noticeably lacks any rational discussion on when to stop treatment. IVF may contribute to high levels of stress in women, and after many unsuccessful cycles the chance of success in future cycles is slim. Individuals undergoing IVF often have unrealistically optimistic beliefs about their chances for success [87]. IVF and other reproductive technologies also bear health risks, but these are seldom discussed [53]. Many Israeli women undergoing treatment for infertility simply assume that IVF will eventually succeed for them, and focus little attention on potential side effects, or when they might discontinue treatment [95].

In contrast to Israel's favorable attitude towards ART, there is a noticeable absence of dialogue about other reproductive options [95]. In particular, there is little discussion of alternatives that result in non-genetic families, such as donor gametes or adoption. Gamete donation and adoption are not funded as generously as ART is [53], which is unsurprising given that the goal of ART is to establish genetic parenthood, which is a desirable goal for Israel [87]. Having a "natural" family that provides continuation for Jewish-Israeli lineage is an integral component to the meaning of family and to the type of family that Israelis want to have [53]. Israel seems to understand that while it might have religious and

political reasons for promoting genetically related parenthood, it would be poor public relations to admit this overtly [94], and the state therefore promotes non-donor IVF as the panacea to infertility.

The desire for genetic families extends beyond the government. When Jewish Israeli women are interviewed about fertility options, they express a clear preference for genetically-related children. ART is perceived as the expected path for those with infertility; when alternative treatments are referred to, it is usually in reference to treatments preserving some genetic connection. Adoption is thought of by many as an inferior option to achieving parenthood [87]. The definition of "kin" does not necessarily correlate to genetic relatedness to both parents, but constitutes some form of biological connection between child and parents [53]. Procreative options are preferred based on the degree of biological kinship they provide.

Israel's Policies on Donor Gametes

Israel's policies on donor insemination (DI) indicate a clear preference at the state level for genetically related families. The nature of DI as a last resort is present in some of Israel's earliest DI regulations, which mandated that a woman must be tested and cleared of her own fertility issues before she may be inseminated with donor sperm. The regulations also excluded DI from insurance coverage, meaning a couple must pay out of pocket for the sperm sample [53]. As recently as 1993, regulations gave doctors sole discretion to match donors with recipients. Sperm donors' identities were never disclosed to the family receiving the sperm or to the donor-conceived children; nor could a sperm donor obtain information about the families who received his sperm, or the children conceived from it [53, 88]. Israel's DI recommendations also stated that when possible, a woman should be inseminated with a mixture of her husband's sperm and donor sperm. This bizarre regulation was intended to mask the result of DI, which is that the child is unrelated to his/her social father. When the sperm is mixed, the parents can convince themselves, however much evidence there might be to the

contrary that it was the husband's sperm that fertilized the egg and the child is related to his/her social father.

In the mid-1990's, intra-cytoplasmic sperm injection (ICSI) was introduced as a method of overcoming most causes of male-factor infertility. The success of this practice eliminated most need for DI; as long as a male has some sperm, ICSI can be performed. This is now the recommended intervention for couples with suspected male-factor infertility, largely because it maintains the family's genetic lineage and negates the need to introduce a third-party into reproduction [53].

Policy in Israel has shifted with DI's increased social acceptance. New policies recommend against sperm mixing, although it still may be practiced covertly among observant Israeli Jews [33]. The past existence of this policy can be seen as a clear indication of national discomfort with genetic interlopers in the act of reproduction [53, 88]. Couples seeking DI are now involved in the conversation about choosing donors, and physicians consult with the family about the different possible donors. However, the donor's identity still remains anonymous. As late as 2009, some Israeli doctors reported discomfort with DI, preferring to exhaust all other reproductive options before resorting to it. When DI is deemed to be the best option, doctors will engage in unilateral and deliberate decision-making processes in order to choose donors that will give the recipient family the appearance of relatedness. Sometimes doctors will secretly attempt to preserve genetic relatedness among the siblings of a recipient family [53]. However, the doctors do this without consulting with the family, and it is not difficult to imagine that some parents may be uncomfortable with this. Most physicians advise their patients to conceal that they had used DI. All of these covert practices are done in the name of preserving the illusion of natural families [53]. Despite discomfort with DI, there are still couples who choose this method of conception. This is perhaps because in Israel, DI is only recommended as a last resort; rejecting DI means rejecting any degree of genetic parenthood [88].

Egg donation and gestational surrogacy in Israel are both legal at this time, although surrogacy has only been permitted in Israel for less than 20 years. There

tends to be far less social and cultural stigma against these third party involvements than there is against DI [33, 53, 96]. This is likely due to the fact that the mother's "contribution" to the child – Jewishness – may be contributed through either genetics or through gestation, depending on halakhic opinion. Using donor eggs or a gestational surrogate does not entirely negate the involvement of the intended social mother in the formation of the child's identity. Despite its relative acceptance, Israelis view children conceived with ovum donation as being fundamentally "different" than children conceived without. This is merely a reflection on the fact that the materials from which the children were derived are different from those from which their parents were derived [96]. Interestingly, some Israeli women who use donor eggs report feeling coerced into exploring this route as Israel's culture so aggressively promotes salvaging any degree of genetic children possible [96]. Therefore, despite increasing social acceptance of gamete donation and despite laws that gradually become more liberal and accepting, Israel is still home to a fair degree of national genetic preference. This preference is so strong as to likely have sincere effect on individual reproductive choice.

Israel's Policies on Adoption

Adopting a child in Israel is far more difficult than undergoing reproductive treatments [53]. The earliest citizens of Israel desired a way to make adoption a legally recognized act of family-formation. The state attempted a compromise between biblical morals valuing bloodlines, and western morals valuing the legalization of social kinship. Israeli adoption policy legally includes the adoptive child as completely part of the adoptive family. However, the policy forbids adopted children from marrying genetic siblings (even if they were not raised as siblings) while marriage between adoptive siblings is permitted, even between siblings who were raised together. An adoptive child thus remains genetically part of his/her birth family. Perhaps because of this, adoptions records in Israel are open to children who have reached the age of majority [15].

Domestic adoption is free of charge, but the Israeli Ministry of Welfare mandates a rigorous screening process for families wishing to adopt a healthy, Israeli infant. Families must open themselves up to invasive inspection of all aspects of their life. There are many restrictions on who may adopt domestically, far beyond the restrictions on who may access ART [87]. There is a 5-7 year wait to adopt a healthy Israeli infant, and a 1-2 year wait to adopt an older or disabled child. Waits such as these are common in many countries, but in Israel, infertile couples on adoption waiting lists are explicitly encouraged to continue pursuing fertility treatments and to hope for success from this route rather than from adoption [87].

International adoption was not legal in Israel until 1998. Prior to this, the Israeli government did not want children who were not genetically Jewish to be brought into Israel and raised as Jews as they feared that this practice would compromise the connected Jewish identity of the state. By the late 1990's, the state's Jewish identity was already destabilizing due to the great influx of immigrants whose Jewish lineage was contested. International adoption was therefore accepted as long as the children received a strictly Orthodox conversion upon adoption [87]. The international adoption process takes two years and prospective parents are subject to the adoption requirements of the foreign country, not those of Israel. Israel provides neither financial nor bureaucratic assistance in the costly and difficult process [95].

Adoptive parents of internationally and domestically adopted children are entitled to all of the state's maternity-related benefits as soon as they receive their child. However, the rights of the prospective parents are not protected during the adoption process. This stands in contrast to pregnant women and women undergoing fertility treatments, who have rights to job security as well as medical and personal leave as needed [87].

Adopting a child is often a difficult undertaking in any country. In Israel, the extreme ease of undergoing ART places the difficulty of adoption in contrasting relief and reveals Israel's discomfort with non-genetic parenthood [87]. Given the difficulties that Israel poses to domestic adoption, it seems that

Israel is less interested in children who already exist, contribute to the national census, and will grow to be Israeli citizens, than they are in creating new children who will grow to achieve these goals, and in doing so, contribute to Israel's Jewish population growth. The state's reluctant and belated approval of international adoption belies its concern with the integrity of Jewish bloodlines and Jewish identity [87]. Even donor insemination, although far from a preferred practice, has the benefit of preserving some naturalness within a family, and allows a family to pretend to be genetically related [89]. By marginalizing non-genetic parenthood from both adoption and gamete donation, the state implicitly promotes the genetically-related family as the best – or perhaps only – type of family. In addition, by clinging to the notion that Jewish identity is purely genetic, the state is devaluing legal and social identification with the Jewish people or State [87].

The Effects of Pervasive Cultural Values on Reproductive Choice in Israel

Birenbaum-Carmeli (2009) believes that existing pronatalism stemming from Jewish tradition makes legislation on reproduction an extremely effective way to exert control to shape accepted conduct and individual preferences [53]. That Israelis indeed value motherhood as important societal contributions, and also value genetic over non-genetic parenthood, indicates that the government's Jewish-nationalist political discourse is very effective on the individual level [94]. It is sound political policy for a Jewish state wanting population growth to find a way to ensure this goal. Funding copious IVF is cheaper than funding immigration to Israel, and this fact has been used as an argument to justify generous budgetary allotment to ART [53]. Immigration and adoption help Israel achieve its goal of winning the demographic war but neither one extends Jewish genetic lineage [96]. This is perhaps why ART is so encouraged and portrayed as something worth fighting for by the Israeli government and media, and why non-genetic options are less supported and therefore less popular [95].

Israeli pronatalism and genetic preference seems to be derived from both nationalism and religion beliefs. It is difficult to discern how much can be

attributed to religious beliefs that have informed Judaism for the last 3000 years and how much is due to more recent political attitudes. However, much of the nationalistic attitude is, or was at one time, informed by religious belief and Jewish national identity likely bases itself, at least in part, on Biblical family ideologies [89]. Jewish and non-Jewish Israeli women differ in their reproductive decision-making [95], and the family patterns of Israeli women differ from those of their western counterparts [94]. In addition, many of Israel's reproductive policies are regulated through ministerial regulations and not through ordinary laws, opening them to rabbinic but not public scrutiny before passage [53]. It therefore seems that "Israeli" reproductive values are really "Jewish" reproductive values, applied to a modern society. It is likely that absent the political pressure to have genetically related children, there is still a certain amount of pressure to procreate stemming from longstanding traditions and religious beliefs. This latter type of pressure, stemming not from Zionism but from the Jewish religion itself, is perhaps felt among observant Jews who live outside of Israel, in Orthodox Jewish, but perhaps not Zionistic communities [90]. Jewish communities of the diaspora face many pressures that are similar to those faced by the Jewish majority in Israel. They must grapple with philosophical issues and choices in maintaining specific cultural identities versus assimilating into the larger culture surrounding them. Like Israeli Jews, Orthodox Jewish communities in the diaspora are concerned with maintaining the population size of their community and many also care deeply about maintaining their religious and cultural traditions. Orthodox Jews both in Israel and in the diaspora have similar family and reproductive patterns [41, 53]. It is therefore plausible that they are affected by similar cultural pressures about procreation.

Chapter Five

Reproductive Ethics and Technology in the Province of Quebec

Fertility in Quebec – Historically and Presently

Since the founding of Quebec in 1608, until the Quiet Revolution in 1960 Quebec benefited from a high fertility rate. During this extended fertility peak, fertility rates in Quebec exceeded those in the rest of Canada and those in Europe at the time. However, since 1960, Quebec's fertility rate has dropped precipitously, such that it is now below the population replacement level, and below the fertility rate of the rest of Canada [42]. A complex set of political and social factors unique to Quebec's history and culture led to this dramatic decrease. The province's sustained low birth rate understandably concerns provincial officials [97] and has motivated the government to take several varied steps to promote a higher birthrate [42].

For much of Quebec's history, the Catholic Church had a strong hold on societal values as well as daily life in the province. The French Canadian population was religiously observant [42]. In the 1950's, 88% of Quebecers attended church on a regular basis [98]. The Church promoted a rural lifestyle, early marriage, high fertility and collective success, and these ideals dominated the province's culture. The Catholic Church controlled schools, hospitals and social services; this allowed the Church to insulate the population from outside influences such as urbanization, liberalism, individualism and feminism. While the rest of Canada modernized its economy during the Industrial Revolution, the Church shielded Quebec from the same modernizing influences, and staved off the modernization of Quebec's economy until after World War II [42].

The Church as well as the province's Conservative government held the philosophy that the Quebecois population would overcome Anglophone Canadian subordination by outnumbering the English speaking population. In this vein, childbirth was promoted as a means of politically and philosophically supporting Quebec. To support this, the Church promoted marriage at a young age and reinforced traditional gender roles for men and women, which dictated that men

should work outside of the home, and women should raise the children and keep house. At the time, French Canadians supported these values in practice, and marriage rates and fertility rates remained very high [42].

In 1960, a liberal government led by Jean Lesage was elected to the province. Lesage's political strategy represented a complete reversal of long-standing provincial policy. The new, liberal policies encouraged Quebecers to believe that through education, liberalization and modernization – not through isolation from these influences – they could extricate themselves from Anglophone subordination. Many responsibilities previously held by the church became secular offices run by the province; these included educational and health services [42]. Without the strong influences of the Church, education became progressive, secular, and a means of indoctrinating youth with liberal ideals. Young Quebecers, especially women, were encouraged to seek higher education, and women began to join the workplace in large numbers [42].

Quebec's population became drastically more secular as a result of these changes; by 1975, only 42% of Quebecers regularly attended church, and by 1990, only 28% did so. While all of Canada experienced some degree of secularization in this time frame, the Quiet Revolution brought a much more extreme degree of secularization to Quebec [98].

As the church's influence declined, Quebecers began to publicly criticize the policies and practices of the church [98], and began to promote decidedly un-Catholic values such as the right to abortion, birth control, family planning and childlessness by choice. This marked a key shift in the value system of many French Canadians, and was strongly supported by a similar shift in the government's attitude towards these same values. French Canadian youth began to care more about their careers and personal successes than their parents' generation had cared. With the decline in religious observance and an increase in economic stability came a decline in marriage rates as well as a concurrent increase in rates of divorce, common law unions, voluntary childlessness and number of children born out of wedlock [42].

Women's economic and career gains and the rising rates of both common law unions and divorces led to a decline in marriage. Without an economic or social need to be wed, there was no reason to make that level of commitment to a partner. Common law relationships are often less stable than marriages and thus less conducive to large family sizes. Having many children also came to be viewed as a detriment to career success, and also tended to make divorce proceedings complicated. People began to plan their procreation much more carefully. Couples or individuals who desired a family began to avail themselves of birth control and their newfound ability to plan their family size and timing; this also contributed to a decline in average family size [42]. For women, peak fertility years and peak professional years coincide, the result being that many women began to choose to delay childbearing until they were established in their careers [97]. Once they did decide to have children some women may have found that they had difficulty doing so and either had fewer children then they may have wanted, or could not have children at all [99]. A combination of these factors contributed to a precipitous decline in the province's fertility rates.

Pronatalist Policy in Quebec

To counteract the extreme drop in fertility rates following the Quiet Revolution, the provincial government instituted several financial incentives for families with children. The goal of these programs was to encourage adults to have more children, to hopefully stimulate a province-wide rise in fertility rate. In 1988, the government instituted a cash allowance for each baby born to a family. A higher allowance was allotted for higher birth order babies. A second program gave a cash allowance for families with children under age 18, and an additional allowance to families with children under age 6. A third program gave families with two or more children under age 18 a one-time interest-free loan to assist with the first-time purchase of a house [42].

Despite these policies, there was no significant increase in fertility by the mid 1990's. The provincial government then shifted its strategy from blatant pronatalism to the general promotion of family life and child development. Newer

policies encouraged people to have children by making Quebec a family-friendly place. In this vein, the province began a subsidized daycare program which allows lower- and middle-income parents with very young children to return to work without spending a significant portion of their income on childcare [42]. Quebec also provided extended parental leave policies for parents of new babies [100, 101].These later incentives had moderate success. In the year 2000 births in Quebec were at an all-time low of 72,007. There was not a sustained increase in births from 2001-2002, either. However, beginning in 2003 and lasting until 2009, there was a significant increase in births each year as compared to the previous year, such that by 2009, the births had steadily increased to 88,891 which was the highest recorded number of annual births since 1994. However, this positive result was short-lived. Annual births dropped off in 2010, to 88,436 for the year, making 2010 the first year since 2002 for which the number of recorded births in Quebec did not exceed that of the prior year. The plateau in birth rate concerned public officials who generally prefer to see a steady increase in the population of the province, and who worried that the recent increase of the prior decade would soon reverse itself if further incentives to have children were not provided [97].

It is entirely possible that low fertility rates in Quebec have been so persistent despite financial incentives from the government, because the population of Quebec has chosen to hold tightly to their newer, more liberal values. These values include individualism, feminism, education and financial success. Modest financial incentives to make choices that could threaten those values – as having many children, or having children early in life could be construed as doing - are not enough to encourage people to abandon these values. While the government has its own incentives for desiring continuous population growth, the people of Quebec have their own incentives for choosing to reproduce at a more modest rate, and are perhaps reluctant to return to a lifestyle even remotely resembling one had under the Catholic Church's influence. Therefore, despite the government's pronatalism and its recent attempts to encourage people to have children, it is possible that these desires and incentives are simply falling

on deaf ears, as the population of Quebec does not seem interested in pronatalism to the degree to which the government is.

Règlement modifiant le Règlement d'application de la Loi sur l'assurance maladie

Since Quebec's past attempts at encouraging its' residents to reproduce did not appear to generate long-term gains in population growth, the government seems to have shifted its pronatalist strategy. Instead of encouraging the population as a whole to want to reproduce, it has more recently implemented policy whose goal is to help those who already want to procreate, but need assistance to do so. This is perhaps a more straightforward pronatalist strategy, as the goal is not to change values, but simply to help people attain a goal they already desire.

In July 2010, the province of Quebec passed a law insuring services required for assisted reproductive therapies (ART) under the Regie de l'Assurance Maladie du Quebec (RAMQ), through the province's Health Insurance Act. The law came into effect on August 5th, 2010 [102]. The extent and limitations of treatments covered is outlined in detail in the *Règlement modifiant le Règlement d'application de la Loi sur l'assurance maladie* (the regulation modifying the regulation of the application of the law on health insurance) [103].

Publicly funding ART was made possible through the Canada Health Act, which is the Canadian law pertaining to the criteria and conditions of federally insured health services. The Act outlines the basic requirements that each province must follow in order to receive federal funds to help finance its own provincial health plan. The federal government assists each province in financing health services because the government believes that public insurance systems are crucial to the prevention and treatment of disease, and to the equitable distribution of health improvements [104]. Under Quebec's provincial health care act which is regulated and funded according to these federal regulations, any fees that are incurred by treating the medical condition of a provincial resident are paid for by the government, for all residents of Quebec.

Under R.S.Q. A-29, Health Insurance Act, Division I, Section 3, paragraph 1, subparagraph e [105], the new regulation publicly insuring ART a woman may choose to have one of four combinations of in vitro fertilization (IVF) cycles:(1) One IVF cycle using hormonally-stimulated ovulation and four natural or modified-natural cycles; (2) two stimulated IVF cycles and two natural or modified-natural cycles; (3) three stimulated IVF cycles; (4) six natural or modified-natural IVF cycles. These options are insured until a live birth is obtained, or until the ceiling is reached on one of these options. Other services related to reproduction that are covered under the same regulation include those required for the medical analysis of sperm, those required for the removal of eggs or ovarian tissue (for the intended mother receiving the IVF treatment or for obtaining an egg from an egg donor), preimplantation genetic diagnosis for single gene disorders or chromosomal anomalies, and services required for the transfer of an in-vitro embryo into the uterus of a woman [103].

The law also restricts the practice of ART. A physician may transfer no more than two fresh embryos at one time (that were fertilized in vitro) to a woman aged 36 years and under, and no more than three fresh embryos or two blastocysts at one time to a woman aged 37 years or older. There is no age limit for eligibility for these services, and it is up to the discretion of the treating physician or clinic to decide if a patient is a good candidate for treatment [102, 103]. If a woman conceived naturally and had a live birth, and later has a stimulated cycle of IVF after which there are fertilized embryos to freeze, she may have these embryos transferred and she is insured for as many cycles as there are embryos to transfer. But after a live birth following one of the IVF combinations described above, each transferred frozen embryo is considered equivalent to one natural or modified-natural cycle and thus subject to the limitations mentioned above [103].

The Federal Government of Canada has come down on the side of ethical caution with respect to buying and selling gametes. Therefore, in Quebec, sperm donation and egg donation are legal if they are altruistic transactions that are not mediated by financial means [106]. Quebec residents may use altruistically donated gametes in conjunction with publicly-funded ART.

Social and Political Context for Public Insurance of Assisted Reproductive Technology

While pronatalism likely contributed significantly to Quebec's decision to provide public insurance for ART, there may have been other contributing factors as well. In recent years there has been increasing social consciousness about several moral issues in the province and concern for these issues may have contributed to the move to publicly finance ART. Quebec's discomfort with the encroachment of market values into the sphere of healthcare applies to the rest of Canada as well. By 2009, Canada's federal government had already enacted legislation outlawing the buying and selling of reproductive materials, attempting to ensure that finances do not mediate the reproductive process [107]. In addition, the Federal government finds that it is criminal to commercialize any human reproductive material [108]. Quebec's more recent move to publicly finance ART could be seen as an extension of a similarly-minded desire to completely remove finances from the sphere of assisted reproduction. Quebec's longstanding belief in the equitable distribution of healthcare makes this a fitting explanation for the province's 2010 decision to insure ART [105], although perhaps not the sole motivator.

Quebec may also have chosen to insure ART as a way to closely regulate the practice of reproductive technologies and to reduce some of its costly complications. IVF and other ARTs are extremely costly. When individuals must pay for the cost out of pocket or are only partially reimbursed through private insurance, the result is that many people will prefer to have multiple embryos transferred in each cycle [109]. This is done in order to increase the chance that a given cycle will result in a viable pregnancy and a live birth. However, pregnancies of multiples tend to have higher percentages of complications for both mothers and babies than singleton pregnancies. The resultant complications of multiples for both mothers and babies place an enormous financial burden on healthcare institutions [110]. At the same time that discussions were beginning about public financing for reproductive treatments, Quebec was experiencing high

rates of maternal and neonatal complications arising from births of multiples. The government calculated one year of financing ART would cost the province $32 million CAD. The province also calculated that it would save a commensurate amount annually by restricting IVF to single embryo transfers in most cases, thereby decreasing the rate of multiple births and their complications [102].

With the new law in place, people no longer had a financially motivated reason to request multiple embryo transfer, *and* the new legal limit for embryo transfer prevented this from occurring for other reasons [102]. An audit of the finances of the first years of the public ART program indicate that these calculations were not far from reality; the rate of multiple births has since sharply declined and this has saved the province millions of dollars. It is also beneficial for the babies themselves [107]. However, this calculation implicitly assumes that there is no other way to reduce the cost of treating the complications of multiple births. Quebec could simply mandate that it is illegal to transfer more than one or two embryos per cycle, and physicians who do so will be fined. The province did not have to legislate this as an addendum to publicly insured ART. This legislation beneficially reduces the number of pregnancy and childbirth complication arising from inadvisable IVF practices, and this fact perhaps constituted a small portion of the motivation to publicly insure ART. However, given that the millions of dollars saved from the very simple prohibition against multiple embryo transfer could have been allocated to a myriad of other deserving healthcare needs, there must be additional motivations for passing this law and allocating the saved money specifically for this purpose.

Quebec's commitment to social progress and equal rights may also have contributed to the province's desire to provide funding for assisted reproduction. Marriage rates in Quebec are among the lowest in Canada, and it is extremely common and completely acceptable for unmarried couples, for single men and women, and for lesbian and gay couples to raise children [76, 111, 112]. Prior to the passing of the 2010 legislation, there was nothing prohibiting any group of people from having children naturally, through adoption or using ART. However, the fact that some had to pay out of pocket or through private insurance for

reproductive assistance meant that such treatment was only available to those who were financially privileged. This meant that fertile heterosexual couples who desired to have a child could do so without paying for medical assistance, but fertile lesbians, gays and people desiring to be single parents had to pay to achieve the same goal. Quebec opened equalized access to parenthood and furthered its path of social progress by ensuring that finances would not act as a barrier to parenthood for any group of people. However, considering that the province's Health Care Act insures services related to the cure and prevention of illness, social equality could not have been the sole motivating factor for insuring ART [105].

Similarly, Quebec may have been motivated to provide public insurance for ART in order to provide a relatively easy reproductive solution for women who delay childbearing until late in life. The small downtrend in births in Quebec in 2010 was coupled with a continuously rising age of parity in Quebec and in the rest of North America. Women often delay childbearing until they are established in their careers. These two facts are likely correlated, as a woman`s fertility declines steadily after the age of 25 [113]. Thus, many women who wait until their late 30`s or early 40`s to try to conceive may trouble doing so [99]. Reproductive treatments can be seen as a way to solve this problem; a woman may focus on her career until she wants to start a family, and may take advantage of ART in order to assist her if she then experiences age-related infertility.

Of course, there are more nuanced ways to deal with the fact that women may find career and family to be incompatible. Quebec's generous maternity leave is one way to allow women the opportunity to take time for both family and career in the same time frame. In addition, comprehensive legislation on job-protection during family leave would be another way to ensure this same goal. It would be fairly presumptive of the province to assume that advanced medical technology is an automatic panacea to such a complex and deeply fraught socially- and economically-situated issue. Similar to Orthodox Judaism, Quebec is understandably somewhat reluctant to address the underlying issues, and instead chooses to offer a simpler solution. However, it is presumptive to assume

that every woman will necessarily appreciate the "opportunity" to advance her career that insured ART supposedly gives her; this technology is not physically possible, and not the right choice for some people. It sets a dangerous precedence to indicate that inconvenient biological facts can be subverted by technology for the benefit of economic progress. Additionally, by recognizing socially and economically-derived age-related infertility as a medical issue, the medical definition of infertility expands in order to incorporate what is in reality a normal part of aging. Despite these criticisms, public insurance for ART can be lauded as one way for women to "have it all" and perhaps constituted part of the motivation to pass this particular legislation.

Public Insurance of Assisted Reproductive Technology and Preference for Particular Types of Family Growth

The unique cultural makeup of Quebec combined with persistent low fertility rates, are likely two main factors in leading the provincial government to move to include ART as an insured service under the provincial public health plan. Quebec has a rich history of remarkably high birthrates, followed by a current period of extremely low birthrates, and the provincial government has a solid record of instituting explicitly and implicitly pronatalist policies to reverse the latter trend. Additionally, Quebec has a unique social history in which its ethnic founding population has been subject to discrimination and social disenfranchisement by a larger and more powerful cultural group. Quebec, like any country or province needs to have continuous population growth in order to ensure its future success. But Quebec needs a particular type of population growth; its continued identity as a French province largely depends on the growth and existence of the province's founding population who is ethnically Quebecois and culturally and linguistically francophone. If the growth of this population slows or stops, Quebec risks losing its' Quebecois identity. This is not because the population of the province itself would decline; quite the opposite is true – the population of the province would continue to grow, but in ways that would likely move the province away from being culturally Quebecois. Quebec is home to a

huge influx of immigrants from all parts of the world, whose native languages and cultures differ from those of Quebec's native population. In fact, while Quebec's French Canadian population continues to decline in its religious observance, and concurrently in its fertility rates, Quebec's immigrants tend to be religiously observant [98], and likely more fecund as well. This creates a situation in which the government must actively work to maintain the Quebecois population size in order so that its culture and language will not be lost. The best possible way for any population to simultaneously increase its population size while maintaining its cultural identity, is through intrinsic population growth. This type of population growth, through high fertility rates, as opposed to extrinsic population growth through immigration, is more likely to ensure that those individuals adding to the size of the population will also contribute to the maintenance of the population's cultural identity. The crafting of a national pronatalist policy is a way for a government to privilege its own ethnic citizens by encouraging them to have children and thusly maintain the population size of the ethnic group, even though the policy will help non-ethnic citizens as well [114].

In Quebec, sperm donation and egg donation are legal if they are altruistic transactions that are not mediated by financial means [106]. Thus, it is possible for Quebec residents to use donor gametes in conjunction with publicly-funded ART. A myriad of combinations of novel technologies can be used to create a baby from genetic material, and all of this can be performed under the auspices of provincial health insurance. Adoption in Quebec is an entirely different story. Adoption is not covered under the province's healthcare budget, nor is it publicly funded by any means. To adopt a child, either domestically or internationally, one must bear the brunt of the high cost out of pocket [97]. With this distinction, the Quebec government is making a statement, if implicitly, about the value of biological children and an individual's duty to conceive one. If the province indeed valued adoption as a method to building a family that is equal in every way to conceiving and bearing a child, it would have to insure adoption in the same way it insures ART – but it does not do this. While Quebec's intention may not have been to give adoption second-class status, in allowing people to try ART

but not adoption for free, the province is necessarily ensuring that ART is more accessible to more people than adoption is. The availability of public insurance for ART may further the choice to use this technology to conceive a child, over the choice to adopt a child. This worries proponents of adoption, who believe that adoption has so many positive attributes which may be ignored if ART is more accessible.

In addition, one could argue that insuring fees for ART but not for adoption is antithetical to the province's attempt to expand the definition of family. By insuring ART, Quebec's government is reaffirming the many ways that family can be defined in today's society, and is opening the doors for people of different social inclinations to achieve the dream of raising a family in the way the best suits them. However, by effectively leaving adoption out of this equation, Quebec's government could be seen as valuing biological family over any other type of family. There are scholars with vitriolic reactions to such policies in other countries. Birenbaum-Carmeli (2004) discusses with disdain Israel's pro-IVF policy and the state`s concurrent bureaucratic roadblocks to adoption [94]. In comparison to Quebec's government, the Israeli government's pronatalism and preference for natural families is far more entrenched into the belief system and traditions of its constituents, and likely to have far more of a practical effect on the reproductive choices, preferences and practices of its citizens [53, 94]. Still, it is interesting to note that Quebec is a place in which a founding ethnic population is struggling to maintain its own influence and cultural identity, a goal strongly supported by many in the provincial government [98]. The government does have a strong desire to maintain population size and identity, and this desire could be considered an important outcome of reproduction. This can be compared to the Jewish majority of the Israeli government who struggles to maintain its political influence by increasing the Jewish population size in Israel through policies that explicitly encourage intrinsic population growth [53]. It is not a stretch to imagine that some would feel similar disdain towards Quebec's policy as they do towards Israel's policy that encourages (if only implicitly) technological means to biological children above any other method of creating a family. Quebec's policy

does not necessarily indicate a sincere, institutionalized preference for genetically-related children. Indeed, the province has a much more positive view towards gamete donation than Israel does [88, 89], indicating that a much looser definition of family is acceptable in Quebec than in Israel. In addition, while Israelis by and large seem to agree with the goal of promoting ART as a means of promoting intrinsic Jewish population growth, there seems to be less broad cultural support for Quebec's pronatalist policies. The Quebecois population, while indeed proud of its heritage and interested in maintaining it, is perhaps less enthusiastic about pursuing ART and genetic children at all costs than their Israeli counterparts. The population of Quebec has many other values that they hold dear, values which perhaps conflict with the mentality of "children at all costs." Despite this, the government of Quebec is pronatalist in attitude and policy. The mere existence of these policies may influence the reproductive choices of some people in the province, simply by creating financial incentives to choose one method of having a family, over another.

Chapter Six: Analysis and Conclusions

Similarities in Reproductive Values in Judaism, Israel, and Quebec

Historically, Judaism has welcomed technological innovation with cautious optimism. Due to the Jewish commitment to procreation, technologies that assist procreation are perhaps looked upon with even greater enthusiasm than many other technologies [115]. Yet, along with their openness to technology, Orthodox Jews must also grapple with the halakhic and moral acceptability of innovations before putting these tools to use. A similar struggle occurs in any society when a new technology is developed that pushes the limits of moral acceptability, and Quebec and Israel face some of these same ethical issues.

Both Quebec and Israel are western societies with liberal legal and political traditions. Both places have a unique cultural and political history. Because of these similar histories, despite divergent cultures, Quebec and Israel have several reproductive policies in common. Quebec's Orthodox and ultra-Orthodox Jews are in a unique position, influenced in their reproductive decision making by Jewish values and law, and perhaps as well by Quebec's laws and policies which ultimately encourage the use of reproductive technologies in the face of infertility.

It is important to note that while the governments of Israel and of Quebec have some similar pronatalist policies their populations are not similarly pronatalist in attitude or practice. Israelis seem to by and large espouse the same values that their government does in terms of the importance of maintaining a steady birthrate in the country, and thus seem to support their government's pronatalist and pro-ART policies for the same reasons, their government does. On the other hand, the population of Quebec does not seem to share its government's pronatalist values with the uniformity that Israelis do, and while many in Quebec may support the government's ART policies they do not necessarily do so for the same reasons their government promotes or creates these policies. Despite this, the existing laws on reproductive technology in Israel and Quebec are similar, and based on their similarities, this chapter will examine how the reproductive experiences of highly observant Jewish people living in Quebec are likely to be

influenced by Quebec's laws similarly to the way that Israeli Jews are by Israel's laws. This chapter will describe three ethical issues relating to reproductive treatments for ultra-Orthodox Jewish people in Quebec: medicalization, pronatalism, and genetic preference, and will offer insights into the ramifications of these varying influences on ultra-Orthodox Jews in Quebec. Finally, I will suggest that further empirical research is necessary to determine how these ethical issues influence the procreative preferences and infertility experiences of ultra-Orthodox and Hasidic Jews in Quebec.

Orthodox Jewish reproductive ethics are similar in nature and values to Israeli cultural, political and ethical opinion on the same [53]. This is not surprising, as Israel's legal structure and mainstream culture are founded heavily in Jewish law and tradition. Israeli policy and culture can therefore been seen as an indication of how Orthodox Jewish religion and tradition will function on the level of a large, modern-day society. Orthodox Jewish people in Israel and Orthodox Jewish communities in the diaspora both work to maintain their traditions and beliefs and feel pressure from the outside world to assimilate and adopt new values. Orthodox Jewish communities in both places desire to pass traditions onto their children and believe in the importance of population growth for the maintenance of their communities.

Israel has been at the forefront of technological innovation in the past century and Jewish people all over the world have similarly embraced technology [93]. When adopting new technology, Orthodox Jewish communities in the diaspora and in Israel imbue technologies with traditional Jewish values. For example, recent discussions in the ultra-Orthodox community about the utility of the Internet and its concomitant dangers has led to a proliferation of "Kosher" internet providers offering email service and religious firewalls [116]. The existence of infertility liaison organizations such as Puah, which offer psychosocial, religious and medical counseling to infertile religious Jews demonstrates that reproductive technology is accepted in Orthodox Jewish communities both in Israel and in the diaspora, but can only be used in ways that encourage Jewish religious observance and spiritual belief [33]. Given these

similar cultural pressures, Israeli Jewish cultural preferences and values about reproduction are likely an indication of which values matter to, and which reproductive choices are made by Orthodox diaspora Jews. Pronatalism is valued in Orthodox Jewish communities outside of Israel as well as inside of Israel, stemming from traditional Jewish values that may not be connected to Jewish nationalism but are connected to Jewish religious values [90]. Given that their similarities in procreative habits are seemingly based on tradition and religion, rather than solely nationalism or political desire, there are similar pronatalist forces at play inside and outside of Israel, affecting the procreative values and decisions of Orthodox Jewish people, and similarly influencing the experience of infertility for people in these communities. Genetics and family lineage are important themes in Jewish tradition and important factors in the preferences and procreative decision making of Israeli Jews as well as Orthodox Jews elsewhere [33, 53, 87].

Orthodox Jewish reproductive values share much in common with Quebec's reproductive laws and the government's goals for reproduction. Both legal systems share some degree of pronatalism, although the source of this value differs. Quebec and Orthodox Judaism do differ in the degree to which their constituents adhere to their cultural values. Orthodox Jews as a whole tend to rigorously follow the laws, statutes and the cultural edicts of Orthodox Jewish law and lifestyle. Although some common practices in Orthodox Judaism, such as the custom of having many children, are truly custom and not law, these practices are nearly uniformly followed within Orthodox Jewish communities. In addition, there is often relative uniformity in the shared value system within Orthodox communities, such that customs and practices are followed for reasons that most in a community will agree upon. This uniformity of value and practice does not exist to that degree in multicultural and individualistic Quebec, and definitely not with regard to pronatalism. The government does promote pronatalism by passing laws to promote family growth and to help individuals reproduce, and many individuals do support these laws. However, the population as a whole does not necessarily uniformly support these laws for purely pronatalist reasons.

Regardless of these cultural differences, Orthodox Jewish communities and Quebec both rely on intrinsic population growth in order to maintain their culture and traditions; this need has led to a degree of pronatalism and genetic preference apparent in Orthodox Jewish religious doctrine and in Quebec's reproductive policies. In addition, both Quebec policy and Orthodox Judaism tend to medicalize complex, multi-factorial and socially-derived causes of infertility, in order to be able to apply ART as a simple "cure" for causes that are otherwise extremely resistant to change. In doing so, both organizations transform normal but inconvenient situations into pathological problems requiring medical cures.

Quebec and Israel have several similarities in terms of how each place relates to reproductive ethics and how each government forms reproductive policy. Israel's pronatalism is reflective not only of its founding in Jewish tradition, but stems in a large part from the state's political history and the nationalistic identity of its population. It is also reflective of the state's acute need to maintain a Jewish majority within its borders. In order for the Israeli government to maintain political control, they must maintain a population majority composed of people who support the state's existence as a Jewish homeland [53]. The best possible way for Israel to ensure that its Jewish population continues to grow and continues to outnumber other ethnic and religious groups is to facilitate procreation. While immigration and adoption are both means by which Israel's Jewish population can and does increase in number, both of these means have their drawbacks, making them less certain in their ability to facilitate Jewish population growth.

The government of Quebec also displays clearly pronatalist tendencies, as well as preference for intrinsic population growth; albeit not nearly as ingrained or as overt as those tendencies displayed by the government of Israel, nor as those seen in Orthodox Judaism. The population of Quebec seems to also be far less uniformly pronatalist as compared to the Israeli Jewish population. Nonetheless, the Quebec government is itself pronatalist in ways that are resonant of the pronatalism of the Israeli government. By including funding for reproductive technologies under the umbrella of the provincial public health insurance plan, the

Quebec government is making an implied statement about the degree to which it values procreation and childbearing. Similar to Israel, Quebec has a history of passing legislation with pronatalist goals, the ultimate goal of which is to stimulate the province's slow population growth rate. Desire for population growth stemming specifically from a high fertility rate speaks to the unique cultural and political position in which Quebec finds itself. In order to maintain its culture, the provincial government depends on a growing French-Canadian population. If the founding population begins to be outnumbered by an influx of immigrants from other cultures, or from a growing Anglophone population, it risks losing its identity as a French province. One of the best ways for the province to ensure that the population continues to grow is to enact policy encouraging procreation. One could even go so far as to say that adoption, especially international – or even Canadian out of province adoption – does not further this goal either, as the child may adopt a long, rich family history of French-Canadian culture but will also arrive with his/her own personal history, that the adoptive parents may be interested in maintaining. It is therefore crucial for Quebec to ensure that its fertility rates are maintained, or increased, and for the government to encourage this in any way possible. This is the best way to ensure that those individuals adding to the size of the population will also contribute to the maintenance of the population's cultural identity [114].

Historically, both Israel and Quebec lauded families with many children as tools to helping their nations thrive; Quebec's Catholic Church used to encourage high birth rates as a means of francophone nationalist empowerment, and Israel used to praise women with many children as cherished contributors to the national cause [94]. However, in more recent times the governments of both places have changed their tunes. While each is still pronatalist and nationalist, they now promote both the value of having children alongside the value of family planning. In Israel, this is perhaps due to the idea that procreation is a shared responsibility [94] and cannot be accomplished by a few multiparous women alone. In Quebec, the exact motivations perhaps come from the Quebecois people themselves who realized that economic and political empowerment could more easily be attained

if each person only had as many children as s/he wanted. However, the outcome is still similar in both places. Part of the national identity of both Quebec and Israel rests on the idea that procreation is a shared responsibility. Therefore, the governments of both places have instituted carefully planned and executed pronatalist policy that encourages procreation, of the type they desire, and to the degree that they see fit.

Another major difference in reproductive policy between Quebec and Israel is that in Israel, one can pay for donor gametes [53], while in Quebec, donor gametes are available only through altruistic transactions as their buying and selling is prohibited [106]. In prohibiting the development of a market for gametes, Quebec displays ethical caution and concern for the potential for disadvantaged people to be financially exploited for their gametes. Israel chooses instead to legalize a market for a commodity in high demand, and in doing so is able to monitor and restrict the practices of gamete donors and recipients. In Israel, finances may act as a barrier to obtaining donor gametes, but there are few administrative barriers, as access to donor banks is legal, and the desire to seek a donor sample can be discussed with one's healthcare provider who can help to obtain a suitable donor. In Quebec, finances do not act as a barrier preventing people from obtaining donor gametes; however, it may be difficult to find a willing, altruistic donor. While this is a significant difference in policy regarding donor gametes, it is not clear that this is indicative of a commensurate difference in attitude towards the use of donor gametes. In both places, it is legal to use donor gametes in conjunction with government-funded ART services, and even in Israel, while the sperm or egg sample must be paid for out-of-pocket the use of the sample is covered [53].

It is therefore apparent that both Israel and Quebec have similar historical, political, and cultural factors motivating each government's decision to use public funding for reproductive technologies. Given the similarities in reproductive policy between Quebec and Israel, it is possible that the reproductive choices and preferences of Israeli Jews can predict how these choices and preferences will be developed among people who live in Quebec, who do or do not identify as

French-Canadian. The similarities of Quebec's reproductive policies to Orthodox Jewish reproductive ethics indicate as well that Jewish reproductive preferences may be similar to the reproductive preferences promoted by the Quebec government. It is therefore very plausible that Orthodox Jews in Quebec experience infertility and make choices about their infertility treatments in ways that are influenced both by their own personal and community beliefs, as well as influenced by the legal policies of their place of living. In particular, it would be most interesting to examine the experiences of observant Jews in Quebec, and the extent to which Quebec's political, cultural and ethical views on reproductive treatments can predict this experience.

The Hasidic Jewish communities residing in Quebec may be one example of an ultra-Orthodox Jewish community who is influenced by both Jewish and Quebec influences on their reproductive preferences. These communities observe Judaism stringently and strongly identify as Jews. Infertility in the Hasidic community is perhaps complicated by some unique aspects of Hasidic tradition and belief. There has been a sizeable Hasidic community in Quebec for more than five decades, indicating a distinct possibility that some tendencies or practices native to Quebec may have infiltrated the community. With respect to religious people who are struggling with infertility, it is crucial to appreciate the specific values that their religious community places on reproduction and family values. It is also important to understand what religious and cultural constraints exist with respect to specific infertility treatment options. Hasidic women in Quebec are situated in a unique position. They are influenced largely by the traditional, religious way of life and religious values of their community, and it is likely that this religious and cultural context strongly influences their experience of being infertile as well as the choices they make as part of their infertility treatment. It is also important to remember that Hasidic Jews in Quebec do not live in a total vacuum; they are perhaps influenced as well by the fact that they live in a province that is currently struggling to maintain a specific cultural identity – one that is francophone and Quebecois.

Ethical Values of Reproduction and their Potential Effects on Hasidic Jews

Medicalization

Medicalization is an important component of the ethics of reproductive technology. It is important to assess whether the problem which ART sets out to treat – infertility – is itself a medical issue best treated with a medical solution, or whether reproductive technology is in some cases being used as a crutch to solve a problem whose true cause is social or cultural in nature. Many proponents of increasing access to fertility treatments argue that fertility is a women's health issue and thus cannot be marginalized [3]. However, there are some causes of infertility that are not universally agreed upon as strictly medical issues [117]. And yet, these social causes can be treated with the same medical treatments as any organic causes of disease, often with a great chance of success. Broadly speaking, treating a social issue as a medical issue is a form of medicalization. Medicalization occurs when the field of medicine expands by redefining a previously non-medical condition in medical terms. This redefinition usually involves classifying a condition as a disease, using medical terminology to define it, and ascribing medical treatment for that condition [118, 119].

One example of a social cause of infertility is halakhic infertility. This problem occurs when a woman's menstrual cycle or reproductive system causes her to be ritually impure and thus unable to have intercourse with her husband at the time of ovulation. Common causes for halakhic infertility are short menstrual cycles, which often cause a woman to ovulate during the seven bloodless days that must be counted after a menstrual period and prior to immersion in the ritual bath. Other women experience non-menstrual uterine bleeding in the middle their cycles, forcing them to separate from their husbands for the duration of the bleeding and several days after, and often results in these women being ritually impure at the time of ovulation [14]. Religious permission and willingness to take advantage of (halakhically permissible) medical assistance can lead to situations, such as "halakhic" infertility, in which medical technologies are coopted to provide an easy solution for a halakhically very complex and distressing problem.

To an outsider, the most obvious solution for halakhic infertility is to advise a woman to wait fewer than seven days following the cessation of uterine bleeding to immerse in the ritual bath so that she does not miss her ovulation date before resuming intercourse with her husband. However, this is rarely advised in Orthodox or ultra-Orthodox circles. Rather, women are advised to be artificially inseminated at the time of ovulation, or to take hormones to control the timing of ovulation to coincide with the set mikvah schedule. Willingness to prescribe medical treatment for this halakhic issue effectively expanded the definition of infertility for observant Jewish women, such that it can now mean the inability to conceive within the framework of mainstream Orthodox halakha.

It is important to note that social conditions often define the parameters of good health and poor health [120]. Hyperactive children used to be admonished to sit still and work harder, whereas now a child with similar behavior is often diagnosed with Attention-Deficit Hyperactivity Disorder (ADHD) and medicated for this disease [118]. Some of this shift is related to better understanding of child development and brain function, and there are undoubtedly children who do benefit from receiving appropriate treatment for this condition [121]. However, medicalization is not without risk. When a condition is classified as a medical condition, the risks involved are sometimes overshadowed by the immediate and future benefits of treatment [122].

Hormonal stimulation and control of ovulation are relatively non-invasive, but not free of side effects. In halakhic infertility, hormones are being used to solve an issue that is not at all pathological. It is completely within the spectrum of normal, and not uncommon for the menstrual cycle to last anywhere between 21-45 days; twenty-eight days is simply the average cycle length, and happens to be the ideal length for closely following the laws of family purity. It is also often normal for women to experience mid-cycle bleeding for a variety of reasons, and does not on its own signify a fertility problem [10]. The practice of advising Orthodox women to take exogenous hormones for the purpose of halakhic convenience is both medically and ethically questionable; for one thing, it exposes women to unpleasant side effects such as weight gain and emotional instability. It

also makes women's bodies the site of intervention when the "problem" of not getting pregnant lies with the religious strictures. In this case, it is clear the expansion of the medical definition of infertility to include halakhic infertility requires those involved to overlook or merely accept the very real and often unpleasant risks associated with medical treatment. This halakhic recommendation also transforms normal variations of the menstrual cycle and female reproductive function into pathology; essentially, medicalizing a halakhic inconvenience.

Continued willingness on the part of physicians, Orthodox rabbis and individuals to prescribe or accept hormonal or insemination therapies for halakhic infertility serves to reinforce the expanded medicalization of this problem. Reinforcing the idea that a lack of pregnancy is itself a problematic medical condition, which must be treated at any cost, this may serve only to heighten the pressure a woman may feel to achieve pregnancy and therefore feel greater pressure to accept any form of medical treatment on offer. Women may also be fearful of the consequences of failing to follow the prescribed treatment; not only will they fail to conceive, but they are also allowing a "medical" condition to fester untreated. In addition, medicalizing halakhic infertility allows Orthodox Judaism to exert a large measure of control over the lives and religious observance of Orthodox women. By reassuring women that there are straightforward medical cures for their issue, rabbis may be causing women to believe that they are indeed suffering from a medical ailment, whose sole prescribed "treatment" is medical in nature. Persisting with this belief perhaps prevents women from questioning the accepted halakhic practices at the root cause of the infertility, and prevents the religious status quo from being disturbed.

Most problematic, Orthodox Jewish women may be caused to feel that there is something medically wrong with them when in reality they are healthy and within the range of physiologically normal. Hasidic women are compelled by cultural and religious pressures to follow halakhic advice. Therefore, they would not necessarily question their perceived pathology, but would more likely be prone to internalize it. In addition, the reluctance to address the halakhic issue at

the root of the problem causes many women whose reproductive systems are functioning normally to have to enter into the realm of reproductive treatment. This itself brings unnecessary stress to the procreative process, as infertility treatments themselves are stressful [20]. What could be simple, and even joyous, is made into an ordeal, riddled with monitoring, airing of private matters, and uncomfortable medical treatments. Every woman does not necessarily feel this way; some women may be grateful that simple technological innovations exist which allow for halakha to be followed to the strictest letter, and procreation to be achieved, without compromising either. Other women may feel frustrated that the root issue – complex, rabbinic halakha with several layers of cautionary measures that bases its calculations on a biological ideal that many normal women do not fit – is not being addressed when rabbis can simply point to hormones and IUI to solve the issue, instead of raising contentious, controversial and fraught issues within the framework of Orthodoxy.

Quebec's medicalization of infertility is slightly different in detail; for example, the province promotes funded ART as a simple solution for age-related infertility. However, Quebec's government displays willingness to promote invasive medical treatments instead of dealing with the real, albeit very complex, economic and social issues which cause many women to choose to delay childbearing. In doing so, Quebec medicalizes what is at its root a socially-mediated cause of age-related infertility. The reasons for Quebec's decision to do so are not identical to Orthodox Judaism's decision to medicalized halakhic infertility. Indeed, for observant women experiencing halakhic infertility, there are non-medical means by which they can conceive, albeit outside the framework of halakha. For women in Quebec experiencing age-related infertility, the time during which non-medical solutions would have helped has already passed, and there is little these women can do other than turn to fertility treatments to help them conceive. However in both cases, would the appropriate authorities, whether political or religious, put in the hard work required to change the status quo, then the social and institutional factors leading to halakhic or age-related infertility would no longer exist at any point in time. In both cases, the results of

medicalization are strikingly similar: many women with functionally normal reproductive systems feel encouraged to pursue invasive and potentially risky reproductive treatment. The Hasidic community in Quebec may feel that their decision to medicalized infertility among the women in their community is reinforced by the Quebec government's own willingness to do the same to women in the province. While the two practices may occur discretely, without direct influence on each other, knowing that one's practices are tacitly accepted by the surrounding society may serve to perpetuate the practice in the Hasidic community.

Pronatalism and Genetic Preference

Pronatalism and genetic preference are two intertwined ethical values strongly related to ART, and are present in the reproductive cultures of Orthodox Judaism, Israel, and Quebec. Because of the pervasive presence of these values in those cultures, it is possible that pronatalism and genetic preference greatly influence the infertility experience of Hasidic Jews in Quebec. Pronatalism is the policy, attitude, or practice of encouraging childbearing. The desire to have children may be internally-derived, but this desire may be compounded and encouraged by external sources of pronatalism. For a person belonging to a pronatalist culture, the impetus to conceive and bear children may stem from more than an internal or biological desire: the cultural pressure to conceive and high value placed on doing so amounts to strong external pressure as well. Pervasive societal pressure to procreate will likely influence personal feelings and choices about fertility, infertility and reproductive treatment. In a pronatalist culture, childbearing also becomes a way to adhere to societal norms and to "fit in" with those around you. When pronatalism is further situated within a system of religious beliefs and practices, or encoded as part of a religious doctrine, then the desire to have children is part of a desire to fulfill a religious or spiritual obligation. Likewise, the failure to conceive would not be just a personal failure but also a religious failure. A pronatalist society almost implicitly accepts procreation as a norm. For married Orthodox Jews, it would rarely be a choice to

remain childless without the conscious decision to deliberately resist social norms and religious doctrine. Therefore, extreme pronatalism may also contribute negatively to the ability to cope with infertility.

A related reproductive value is genetic preference - the preference for children genetically related to oneself. Genetic preference means deciding that genes, and not social circumstance, are preferable for defining one's familial relationships [123]. Social parenthood—parenthood defined by the social practice of parenting a child - indeed matters and has an impact on the life of the child [124], but those who adhere to a belief in the primacy of genetic relatedness may feel that these contributions are not sufficient to define parenthood as they do not acknowledge the irreplaceable connection that occurs between genetic parent and child [123]. This is not a universal opinion, and there are many who believe that in order to raise a happy and secure child, it is more important to act as a loving, affectionate parent than it is to be biologically related to one's child [125]. However, the issue of genetic relatedness is a crucial aspect of the ethics of reproductive technology, as valuing this particular definition of family will likely have an effect on one's procreative preferences and choices.

Legally, the genetic or gestational parent has an automatic first claim to the rights and the responsibilities of parenting his/her child [124]. These rights can be granted to other social or adoptive parents, but only when the biological parents give up their automatic parental rights [124]. A genetic parent is involved in the creation of a child in a way that a social or adoptive parent is not, even if the social parent was the "intended" parent who underwent ART or asked others to undergo ART in order to create the child [126]. Those who privilege genetic connection to one's children believe that without a genetic contribution, there is no way to have a meaningful, lasting impression on the creation of a child [126]. Additionally, one of the main arguments put forth by proponents of genetic preference is that genetic progeny act as a link of continuity between past and future [126].

Israelis have a high total fertility rate in comparison to their Canadian counterparts [127, 128], perhaps due in part to pervasive cultural pronatalism in

Israel. Some Israeli Jews are willing to attempt multiple rounds of various ARTs in order to conceive, and have stated preferences for genetic offspring over adoptive or donor gamete conceived offspring [95]. Research has suggested that a large component of this is due to deeply-seeded Jewish values and traditions which promote childbearing and the maintenance of genetic lineages [53]. This suggests that Orthodox diaspora Jews may have the same procreative preferences, which likely stems from multiple sources, but at least some of which might stem from Jewish religious and social norms. In the context of infertility, having external pressures to conceive, and to conceive in a certain way, can make an already stressful experience even more stressful.

A person belonging to a very pronatalist society in which procreation is seen as an obligation may feel considerable pressure to pursue aggressive reproductive treatment. Hasidic Jews marry especially young, and most have children almost immediately. Hasidic families often have many children, and communities state their population size in terms of numbers of families [41]. It is clear that family is paramount in these communities, and that it is a social norm and almost a social obligation to bear a large number of children. It is perhaps difficult for those without children or struggling to have children to fit into a community whose social structure is so deeply based on the family unit. Without children, one does not live up to the social norm set by the community and this may be especially problematic for infertile Hasidic Jews. Individuals who do not have children may feel a sense of stigma, and find that they have a difficult time socially, due to the fact that their condition is highly visible; those couples without children may find it hard to blend into a community in which all other married couples have children. In Hasidic Judaism, having children is a crucial component of taking part in one's community as a full-fledged adult; those with infertility may find themselves without a defined role in their community.

It is also important to consider that pronatalism is built into Jewish religious doctrine. Orthodox and ultra-Orthodox Jews, including Hasidic Jews have a personal and religious obligation to procreate in order to make their nation populous. Failing to meet this standard is not just a personal failing, but a spiritual

failing as well. Despite conforming to all other areas of observance of religious commandments, without children, an observant Jew is still failing to complete one important and fundamental obligation. In Hasidic Judaism in particular, in which daily, routine life tightly adheres to halakha and ultra-Orthodox Jewish cultural norms, this may feel like an even greater personal failure, as Hasidic Jews are extremely committed on a personal and communal level to upholding the highest standard of religious observance.

For many people, but perhaps for Orthodox Jewish people in particular, the perceived pressure of cultural pronatalism is heightened by the fact that the desire is not simply the opportunity to raise children. They also prefer to have children who are genetically related to themselves, so much so that non-genetic procreative options are seen as last resorts and far from an ideal situation [33]. In Hasidic and other ultra-Orthodox communities, genetic preference stems from both religious doctrine and from social norms. Even if individual Orthodox Jews who are infertile are comfortable using third-party gametes, their community may still find these reproductive options to be problematic in various ways. Even if information about their child's conception or adoption is not public, it may be difficult to go about life knowing that one's community does not fully accept your child based on the circumstances of his/her conception and birth.

Genetic preference is highlighted by Orthodox Jewish attitudes towards reproduction and the Orthodox Jewish concept of family. One possible benefit of genetic parenthood for those who believe that genetic parenthood is an important value, is that creating genetic progeny can contribute to marital intimacy and act as a confirmation of the love and mutual affection a couple has for each other [126]. In Orthodox Judaism, particularly in ultra-Orthodox Judaism, marriage is a holy union whose primary purpose is to bear children as an expression of mutual connection. The perceived absence of this particular benefit if adoption or gamete donation is chosen may cause couples to feel as though their childbearing and parenting experience is incomplete.

The belief that genes and not social circumstances define a family is seen in the reproductive preferences of Israeli Jews, who use donor gametes as a last

resort and who try at nearly any cost to have genetic children, in order to maintain the genetic heritage of the Jewish people in Israel [53, 94]. Hasidic Jews who are having trouble conceiving may extreme feel pressure to maintain this accepted definition of family. The Hasidic community relies on high fertility rates to maintain not only its population size, but also its heritage and values; this is best ensured through intrinsic, fertility-based growth. Hasidic culture also does not seem to leave room for newer, expanded definitions of family, which allow more comfortable inclusion of situations involving adoption and donor gametes. Knowing that one's community has such strong needs to maintain its genetic and cultural heritage, and that the community has a sincere preference for natural families, may cause infertile Hasidic Jews to feel increased external pressure to pursue fertility treatments. A genetic as opposed to social definition of family is also built into the Orthodox Jewish religious doctrine, in the form of several halakhic statutes defining genetic lineage as the determinant of various aspects of Jewish identity. Hasidic Jews are fully aware of this when exploring non-genetic procreative options out of necessity. Not only do non-genetic children not allow one to fulfill the strict nature of one's obligation to procreate, but having adoptive or donor-gamete-conceived children also complicates several different ritual practices. This may be stressful to consider, and also may make the idea of having non-genetic children even more unattractive.

Pronatalism and genetic preference in Quebec are less acute and stem from different sources than these values in the Orthodox Jewish community. However, they still exist to some extent due to Quebec's history of oppression and its need for sustained fertility rates in order to maintain its culture and identity. This aspect of pronatalism and genetic preference in Quebec – that the provincial government must rely on fertility to maintain the province's French identity and heritage – is similar to cultural Jewish pronatalism and genetic preference, which have the similar goal of maintaining Jewish identity and heritage through sustained fertility. Hasidic communities in Quebec live in a place in which these values are enacted into policy which implicitly encourages fertility and natural families by paying for people to undergo fertility treatments but not adoption. The

existence of these values in and of themselves, despite the fact that the surrounding culture in Quebec may not reiterate these same pronatalist and pro-genetic preference values, may serve to reinforce the presence of these familiar values in their own communities.

Conclusions

Despite the many potential obstacles to or cultural biases against fertility treatment, many Orthodox, ultra-Orthodox and Hasidic Jewish people do take advantage of fertility treatments. Therefore there must be perceived benefits to utilizing these treatments, at least for some Hasidic Jews. In addition, although there are many reasons for which Hasidic Jews may feel heightened stress or external pressure when facing infertility and reproductive treatment, it is also possible that religion can offer a protective value or a measure of comfort for some individuals. It is possible that experience of infertility is very culturally specific as well as individually specific. It varies based on the degree of acceptance that a specific culture has with the global nature of assisted reproduction. Each person or couple struggling with infertility brings to it their own moral, ethical, emotional and medical complexities, each of which must be considered in light of available and possible treatments. With respect to religious people who are struggling with infertility, it will be crucial to appreciate the specific values that their religious community places on reproduction and family values. It will also be important to understand what religious and cultural constraints exist with respect to specific infertility treatment options. Hasidic women in Quebec are uniquely situated. They are influenced largely by the traditional, religious way of life and religious values of their community, and it is likely that this religious and cultural context strongly influences their experience of being infertile as well as the choices they make as part of their infertility treatment. Hasidic Jews in Quebec are perhaps influenced as well by the fact that they live in a province whose government is working to maintain a specific provincial identity and whose laws governing public funding for assisted

reproduction are perhaps influenced by these provincial cultural values on reproduction.

Surveys have indicated that some observant Jewish women hold their Jewish values to be very important to them in the decision-making process in infertility treatment. Other studies have indicated that there are differing opinions among observant Jewish infertility patients about the inclusion of religious authorities on the decision making team [129]. Some Orthodox Jewish patients feel empowered by the reaffirmation of their religious beliefs that comes with the inclusion of rabbinic authority and religious viewpoints in the healthcare team. These patients seem to give priority to their religious beliefs when making decisions, and want support in adhering to these values. For other patients, the addition of this viewpoint can be disempowering as the Jewish ethical opinions presented may be in disagreement with the medical opinions. Such a situation may make the patient feel more vulnerable, as they would feel the need to "choose" between their faith and their fertility. These patients seem to give equal priority to religious beliefs and medical facts, and feel a sense of conflict when the two value sets are in disagreement [129]. In addition, with respect to preference for genetic relatedness to children, while it appears that the general preference among Israeli Jews is for genetic relatedness, surveys have shown some reluctance towards some aspects of ART and general openness towards adoption. This indicates that there is certainly individual and societal variation on this issue [87].

Based on the existing literature, there is reason to believe that despite overwhelming cultural and religious influence on procreative practices and beliefs, individual Orthodox Jewish women or individual Orthodox Jewish communities may have differing perspectives on the influence of Jewish values on the sphere of infertility. Understanding the particular perspectives of Hasidic women who are infertile will be crucial in order to appropriately service their needs within the infertility clinic setting, as well as to understand one significant perspective on pronatalism and the importance of genetic relatedness. Further studies will be crucial for answering the questions of how Hasidic Jewish women

struggling with infertility are influenced by their religious values of pronatalism and genetic preference, and whether these values affect the emotional experience of being infertile.

Because of the disparities between individuals and communities within Orthodox Judaism, and even within Hasidic Judaism, it is necessary to engage in further study of the individual attitudes of highly observant Jewish people in Quebec, in order to understand the influences of community, religion and government on the experiences of Hasidic women. It may also shed light on the extent to which Jewish pronatalism and genetic preference influence religious individuals, as well as the extent to which Quebec's policies influence religious Jewish people.

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