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Islam and Assisted Reproductive Technologies

Sunni and Shia Perspectives

Edited by
Marcia C. Inhorn
and Soraya Tremayne

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Chapter 8

Third-Party Reproductive Assistance around the Mediterranean

Comparing Sunni Egypt, Catholic Italy, and Multisectarian Lebanon

Marcia C. Inhorn, Pasquale Patrizio, and Gamal I. Serour

Introduction: The Case for Comparisons

In 2008, the world celebrated the thirtieth anniversary of in vitro fertilization (IVF) with a conference—both scientific and celebratory—in Paris, the "City of Lights." However, the world's first IVF baby, Louise Brown, was not a Parisian. Rather, she was born in England in 1978 to a working-class father and his wife, whose fallopian tubes were blocked, thus necessitating the IVF procedure. The Anglican Church ardently opposed the creation of "test-tube babies" at the time. Hence, the two English reproductive scientists who helped to conceive Louise Brown—Patrick Steptoe and Robert Edwards—were severely criticized, and baby Louise had to be delivered in secrecy. Nearly thirty-five years later, in November 2010, Robert Edwards won the Nobel Prize for his invention of IVF. Religious opposition was still registered—this time by the Catholic Church, which criticized the Nobel Prize committee for its decision.

Religious moralities have clearly played a major role in decisions surrounding the acceptance or rejection of IVF and related practices of assisted conception. One major area of rejection has been third-party reproductive assistance. In many countries where IVF is legally practiced, third-party reproductive assistance with gamete donors and surrogates is nonetheless legally or religiously restricted. This "ban" on third parties provides the focus of our comparative study.[1]

Comparisons, we argue, are quite useful, but are relatively infrequent in the scholarly literature on assisted reproductive technologies (ARTs). Despite more than thirty years since the introduction of IVF, only three edited volumes have adopted an explicitly comparative perspective. Eric Blyth and Ruth Landau's early seminal volume, *Third Party Assisted Conception across Cultures: Social, Legal and Ethical Perspectives* (first issued in hardback in 1988 and reissued in paperback with updates in 2004), provides a thirteen-country comparison. Most of the countries represented are either in Europe (e.g., Finland, Germany, Poland, United Kingdom), North America (Canada, United States), or Southeast Asia (Australia, Hong Kong, New Zealand, Singapore). However, Argentina and South Africa are included as examples from the global south, and Israel is the topic of a chapter by Landau, who practices as a social worker there. Quite strikingly, no Muslim-majority country is included in the anthology, including in the second paperback edition. In August 2009, Blyth and Landau—both practicing social workers who are concerned with ART in clinical practice—have published a new edited volume, called *Faith and Fertility: Attitudes towards Reproductive Practices in Different Religions from Ancient to Modern Times*. Islam is included in the comparison of eight world religious traditions. However, the focus of the volume is on religious law and jurisprudence at the theological/clerical level. Thus, attitudes of patients and practitioners (including clinical social workers) engaged in the on-the-ground *practice* of IVF, as well as the local moral decision-making incumbent in this realm, are largely missing from the new volume.

Another new edited volume, *Assisting Reproduction, Testing Genes: Global Encounters with New Biotechnologies*, has recently been published by Berghahn Books (Birenbaum-Carmeli and Inhorn 2009). *Assisting Reproduction* contains ten ethnographic case studies from three Muslim countries (Iran, Lebanon, and Turkey), three Catholic countries (Argentina, Ecuador, Brazil), one Hindu country (India), one Jewish country (Israel), and two postsocialist societies where religion has been suppressed (Bulgaria, Vietnam). Unlike *Third-Party*

Assisted Conception across Cultures, which focuses on national law, or *Faith and Fertility*, which focuses on religious law, *Assisting Reproduction, Testing Genes* is ethnographic, prioritizing the *practice* of assisted reproductive and genetic technologies within local cultures, as these cultures are embedded within specific political histories and moral economies.

Such ART comparisons—based on law, religion, culture, politics, and economy—are useful for several reasons. First, they can demonstrate the timeline of ART invention, establishment, and diffusion, and the astounding rapidity with which ARTs have globalized. This global metric has been accompanied by what David Harvey (1990) has called "time-space compression": namely, the global spread of ART technologies and techniques is constantly escalating, such that the "lag period" between ART invention (usually in Euro-America, Australia, or Japan) and diffusion to the global south is diminishing. To take but one example, eight years elapsed between the birth of the first European IVF baby and the first Middle Eastern one, but only two years elapsed between the birth of the first European ICSI baby (a later variant of IVF) and the birth of the first Middle Eastern one. Such rapidly converging chronologies—facilitated by other global technologies, such as the Internet—demonstrate the importance of studying the global history of IVF, an endeavor that has yet to be systematically undertaken on a scholarly level.[2]

Second, such comparisons can help to delineate the similarities in clinical ART practice around the world. Although IVF clinics in Bogota, Colombia, and Timbuktu, Mali, may lack the glamour of IVF performed in Beverly Hills, California, they may nonetheless perform ART procedures with the exact same technologies and techniques as clinics in Euro-America. Such clinical consistencies serve to demonstrate the scientific "literacy" and "modernity" of physicians and patients living in nations on the receiving end of global ART transfers (Inhorn 2003). For example, Ecuador, a resource-poor, high-altitude Catholic country in South America, is proud of its thriving IVF industry, in which third-party donor programs are flourishing and IVF physicians, most of them Catholic, see themselves as purveyors of high-tech biomedicine in "God's laboratory" (Roberts 2009).

Third, global comparisons may also indicate the ways in which societies differ in their practice of ART, differences that are most often based on social, cultural, legal, religious, and bioethical norms. Such ART diversity is strikingly apparent in the twenty-seven member states of the European Union. Whereas "progressive" Scandinavian countries such as Norway and Sweden have enacted "restrictive"

legislation against both third-party donation and surrogacy, "traditional" Catholic Spain (with its large and growing Muslim Andalusian population) is now the European epicenter of so-called reproductive tourism, because of its "liberal" policies allowing third-party reproductive assistance, especially egg donation (Matorras 2005).[3] Denmark, on the other hand, is the hub for the global export of sperm, because of liberal guidelines and a well-regulated sperm donation industry. Indeed, the striking degree of heterogeneity across Europe has led to recent calls for international guidelines—even laws—to coordinate ART practices across the continent (Deech 2003).

Fourth, comparisons can suggest the similarities and differences in moral and legal reasoning that have led to ART heterogeneity. In "Compatible Contradictions: Religion and the Naturalization of Assisted Reproduction," a group of religious studies scholars and anthropologists (Traina et al. 2008) trace the divergent moral discourses that have led to both consensus and disharmony in ART practices among the monotheistic traditions of Christianity, Judaism, and Islam. Whereas ARTs are allowed, with some limitations, in both Islam and Judaism, the Vatican still prohibits all forms of reproductive intervention, including ART. However, Catholicism is the only branch of Christianity to disallow ART altogether; as shown in this comparative essay, Eastern Orthodox and Protestant traditions allow various forms of ART. Islam, too, has permitted IVF since its inception; however, the Sunni and Shia branches of Islam have diverged considerably in the moral discourse surrounding third-party reproductive assistance, as described in other chapters in this volume. Judaism shows similar strands of divergence, based on levels of religious orthodoxy (e.g., Orthodox Judaism versus Reform Judaism) (Weitzman 2009; Washofsky 2009). Nonetheless, as shown in Susan Kahn's *Reproducing Jews: A Cultural Account of Assisted Conception in Israel* (2000), Judaism is among the most "ART-friendly" of all the religions, encouraging assisted reproduction based on Israeli-Jewish pronatalism and the relative openness of rabbinical interpretation.

The Case for a Mediterranean Comparison

This chapter attempts to examine some of the convergences, divergences, and moral nuances occurring around the Mediterranean. Specifically, Egypt, Italy, and Lebanon have been chosen as comparative case studies. Why the Mediterranean, and why these three countries in particular? For one, the Mediterranean region is the birthplace

of the three major monotheistic traditions, Judaism, Christianity, and Islam (in chronological order). Italy is home to Rome and the Vatican, the birthplace of Catholicism. Al Azhar University, which is the world's oldest and most important religious university in the Sunni Islamic world, was built in the center of Cairo, Egypt, where it remains today. Lebanon, where much blood has been shed over religion, nonetheless is *the* most religiously diverse (and some would argue, tolerant) society in the Mediterranean region and in the Middle East more generally. As the "meeting place" of all three monotheistic religions, Lebanon currently hosts eighteen recognized religious sects, including Sunni, Shia, Druze, Catholic Maronites, Roman Catholics, Greek Orthodox, various Protestant sects, and even a remaining Lebanese Jewish population.[4]

Second, the relative geographic proximity of the Mediterranean countries has led to what has been termed "reproflows" (Inhorn 2010): namely, the cross-regional flows of people (e.g., physicians, patients, pharmaceutical representatives, embryo carriers), technologies (e.g., micromanipulators, cryopreservation tanks, 4D ultrasound machines), "body bits"[5] (e.g., donor sperm, embryos, human hormones), and ideas (e.g., implanting six IVF embryos is clinically risky, paid surrogacy is immoral), which are abundantly apparent in the actual practice of ART. Such reproflows exist within a larger "reproscape," or a complex, transnational, reproductive health landscape characterized by circulating peoples, technologies, body parts, media, finance, and ideas (Inhorn 2010). A "Mediterranean reproscape" clearly exists; for example, Moroccan physicians send patients to Southern France; the Italian company Serono (now a subsidiary of Merck) ships hormones to Egypt; Syrian IVF patients cross the checkpoint into Lebanon in order to obtain ARTs forbidden in Syria. Such Mediterranean circulations—across borders and across the sea—have existed for centuries, as in the case of Moorish Spain (Rogozen-Soltar 2007, 2010).

Here, we want to compare Mediterranean attitudes toward third-party reproductive assistance. We argue that the Mediterranean, as a region, boasts some of the most stringent "anti-third-party-ART" sentiment in the world. Namely, the Vatican holds the position that life begins at conception and bans *all* forms of reproductive assistance (including contraception, abortion, in vitro fertilization, third-party gamete donation, and surrogacy), while the Sunni world allows ART but bans third parties altogether (including egg donors, sperm donors, embryo donors, ooplasm donors, and surrogates, including family members). We want to examine these bans in Egypt

and Italy—in theory and in practice—and suggest how Italy has become more like Egypt in recent years. Furthermore, we examine the case of Lebanon to show how a multisectarian Muslim-Christian country grapples with the complexities of these bans. Namely, what is a Sunni-Hizbullah-Maronite-Greek Orthodox-Druze-Armenian-Protestant-etc. country to do? How do Lebanese Catholic Maronite IVF physicians justify their practice of ARTs, including gamete donation? Or Lebanese Shia Muslim physicians for that matter? The answers, we argue, are not easy—not only for the Lebanese, but also for Italian Catholics, Egyptian Sunni Muslims, and all those other patients who do not want to abide by religious bans, for one reason or another. In the second half of this chapter, we provide a series of ethnographic case vignettes to hear the voices and examine the reasoning of a number of "reproductive tourists," all from the Mediterranean region. We argue that reproductive bans have led to so-called reproductive tourism, which might be more accurately defined as "reproductive exile" (Inhorn and Patrizio 2009). But before we examine their experiences of travel, we compare the religious and legal situation in the three countries, spelling out the similarities, differences, and resulting moral quandaries for physicians and patients.

Sunni Egypt

By 1980, only two years after Louise Brown's birth, the Grand Shaikh of Egypt's Al Azhar University had issued the first fatwa[6] permitting IVF to be practiced by Muslims. By 1986, the first IVF center had opened in Egypt, with the first Egyptian IVF baby, Hebbatallah Mohamed, born in 1987. By 1990, Egypt's first experiment in state subsidization of IVF for the poor came to fruition with the birth of a full-fledged IVF clinic—and then the first IVF baby—in a public maternity hospital in Alexandria (Inhorn 1994). Following the 1991 Belgian invention of intracytoplasmic sperm injection (ICSI), this variant of IVF—designed to overcome male infertility—spread in 1994 across the Mediterranean to Egypt, where it was introduced in an IVF clinic in Cairo (Inhorn 2003). By 1996, Egypt already hosted ten private IVF clinics in major cities. By the year 2003, the Egyptian IVF industry had truly blossomed, with approximately fifty clinics, five of them at least partially state subsidized (Inhorn 2010). In 2003, Al Azhar University itself, through its Department of Obstetrics and Gynecology and International Islamic Center for Population Studies and Research, had opened a state-subsidized IVF clinic to serve the Cairene poor, and to provide training for physicians and embryologists.[7]

Similar stories of diffusion and expansion were found throughout Muslim countries during this period. In 1997, a global survey of ART clinics in sixty-two countries was published; eight Middle Eastern Muslim countries (Egypt, Iran, Kuwait, Jordan, Lebanon, Morocco, Qatar, and Turkey) and three South and Southeast Asian Muslim countries (Indonesia, Malaysia, and Pakistan) were represented. None of these Muslim countries practiced donor insemination (or any other form of third-party reproductive assistance). As noted by the study authors, "AID [artificial insemination with donor sperm] is considered adultery and leads to confusion regarding the lines of genealogy, whose purity is of prime importance in Islam" (Meirow and Schenker 1997: 134).

This ban on sperm donation—and all other forms of third-party assistance—has been clearly spelled out multiple times in fatwas and bioethical decrees issued in the Sunni Muslim countries. Following the issuance in 1980 of the original Al Azhar fatwa, the Islamic *Fiqh* Council issued a nearly identical fatwa banning all forms of third-party assistance in its seventh meeting held in Mecca in 1984. Subsequently, fatwas supporting ART but banning third-party assistance have been issued in Kuwait, Qatar, and the United Arab Emirates (Serour 2008). In 1997, at the ninth Islamic law and medicine conference, held under the auspices of the Kuwait-based Islamic Organization for Medical Sciences (IOMS) in Casablanca, a landmark five-point bioethical declaration included recommendations to prevent human cloning and to prohibit all situations in which a third party invades a marital relationship through donation of reproductive material (Moosa 2003). As noted by Islamic legal scholar Ebrahim Moosa (2003: 23): "In terms of ethics, Muslim authorities consider the transmission of reproductive material between persons who are not legally married to be a major violation of Islamic law. This sensitivity stems from the fact that Islamic law has a strict taboo on sexual relations outside wedlock (*zina*). The taboo is designed to protect paternity (i.e., family), which is designated as one of the five goals of Islamic law, the others being the protection of religion, life, property, and reason."

Such a ban on third-party reproductive assistance of all kinds is effectively in place in the Sunni world, which represents approximately 80–90 percent of the world's more than 1.5 billion Muslims (Inhorn 2003; Meirow and Schenker 1997; Serour 1996; Serour and Dickens 2001). In Sunni Egypt, as well as the Sunni-dominant Middle Eastern nations of North Africa (Algeria, Libya, Morocco, Tunisia), the Arab Gulf (Kuwait, Oman, Qatar, Saudi Arabia, United Arab

Emirates, Yemen), and the Levant (Jordan, Palestine, Syria), third-party assisted reproduction is *not* practiced—at least knowingly—in IVF clinics. In the Sunni countries, this ban on donors and surrogacy has been instantiated through antidonation bioethical codes, antidonation professional codes for obstetricians and gynecologists, and antidonation laws that specify the punishments that will ensue if an IVF practitioner wrongfully undertakes any form of third-party assisted conception. Such punishments range from permanent clinic closing to confiscation of all profits derived from donation to physician imprisonment and even the death penalty (although this has never happened and is not bound by legislation).

Yet, the ban in the Sunni world seems to derive less from the threat of legal punishment than from the force of Islamic morality. Namely, the majority of Sunni Muslims—both physicians and their patients—ardently support the Sunni ban on third-party donation, for three important reasons: (1) the moral implications of third-party donation for marriage; (2) the potential for incest; and (3) the moral implications of donation for kinship and family life.

With regard to marriage, Islam is a religion that can be said to privilege—even mandate—heterosexual marital relations. As is made clear in the original Al Azhar fatwa, reproduction outside of marriage is considered *zina*, or adultery, which is strictly forbidden in Islam. Although third-party donation does not involve the sexual "body contact" of adulterous relations, nor presumably the desire to engage in an extramarital affair, it is nonetheless considered by Sunni Muslim religious scholars to be a form of adultery, by virtue of introducing a third party into the sacred dyad of husband and wife. It is the very fact that another man's sperm or another woman's eggs enter a place where they do not belong that makes donation of any kind inherently wrong—or *haram*, religiously forbidden—and hence threatening to the marital bond.

The second aspect of third-party donation that troubles marriage is the potential for incest among the offspring of unknown donors. Moral concerns have been raised about the potential for a single anonymous donor's offspring to meet and marry each other, thereby undertaking an incestuous union of half-siblings. In a small country such as Lebanon, with only 4 million inhabitants, such unwitting incest of the children of an anonymous donor is a real possibility, a moral concern that has also been raised in neighboring Israel (Kahn 2000).

The final moral concern voiced by Sunni Muslims, including clerics, IVF physicians, and patients themselves, is that third-party donation confuses issues of kinship, descent, and inheritance. As with marriage, Islam is a religion that can be said to privilege—even mandate—biological inheritance. Preserving the biological "origins" of each child—meaning its relationship to a known biological mother and father—is considered not only an ideal in Islam, but a moral imperative. The problem with third-party donation, therefore, is that it destroys a child's *nasab*, lineage or genealogy, which is immoral in addition to being psychologically devastating to the donor child.

It is important to emphasize that these moral concerns are taken very seriously. To our knowledge, not one single IVF clinic in a Sunni-dominant Muslim country practices third-party assisted conception. Physicians are sometimes asked about gamete donation and surrogacy by IVF patients who cannot conceive a child in any other way. Patients are told that it is "against the religion," and, therefore, not performed in the country. Or, if they are interested in pursuing this option, they are told that they must travel "outside" to Europe, North America, or Asia. Such cases of Sunni Muslim reproductive tourism are certainly beginning to occur, as we shall see in the case vignettes that follow. However, the vast majority of infertile Sunni Muslim couples abide by the religious ban on donation and surrogacy, agreeing with the moral justifications for it. For example, in ethnographic interviews undertaken by the first author with nearly six hundred infertile individuals and couples in Egypt (1988–89, 1996), Lebanon (2003), United Arab Emirates (2007), and "Arab Detroit" (2003–5, 2007–8), only a handful of Sunni Muslim couples (<10) were willing to contemplate any form of third-party donation. Of the few men and women who "approved" of the practice, their approval was most often a "last resort" when no other ART option could be expected to solve the infertility problem. Furthermore, only egg donation was approved of, because it allowed the infertile wife to experience a pregnancy and could be compared religiously to the *halal* (religiously permitted) practice of polygyny. Sperm donation, on the other hand, was not; it was said to confuse patrilineal descent and constitute a form of *zina*, or a wife's "extramarital" acceptance of another man's sperm. Most importantly, men argued that a donor child "won't be my son" (Inhorn 2006, 2012). In their view, sperm donation would be like "raising another man's child."

Catholic Italy

These Sunni Islamic moral injunctions against third-party reproductive assistance are somewhat different from those issued by the Roman Catholic Church. It is fair to state that the Roman Catholic ban

on ART is even more restrictive than the Sunni ban on third parties. Indeed, the Catholic Church's doctrine toward all forms of reproductive technology (including contraception and abortion) is *the* most restrictive in the world.

With regard to ART, the Catholic Church disapproves of IVF because it disassociates procreation from sex, both of which are intended to occur only within the holy covenant of matrimony. According to the Catholic doctrine of "natural law," no artificial barriers or aids to conception are to be used during the procreative act. Replacing loving intercourse with the masturbation and surgical procedures required in IVF will necessarily erode marital unity (Traina et al. 2008). A life that is created by medical practitioners—rather than through an act of conjugal love between two married people—"establishes the domination of technology over the origin and destiny of the human person" (Catechism 2002: 509, as cited in Richards 2009). The technology of IVF, therefore, threatens the unity of marriage; IVF physicians themselves become "third parties" to a marriage, intruding into the marital functions of sex and procreation. Similarly, all forms of third-party donation—of eggs, sperm, embryos, or uteruses, as in surrogacy—are seen as "offenses" to the conjugal unity of the couple, introducing an "emotional and spiritual wedge between husband and wife both symbolized by and enacted in sexual infidelity" (Traina et al. 2008: 38). In this regard, the association of infidelity with third-party donation is similar to one of the moral justifications undergirding the Sunni ban on this practice.

But perhaps even more important to Roman Catholic doctrine is the threat that ART poses to human life in the form of the embryo. The Catholic Church considers life to begin at the moment of conception; hence, all human embryos created through ART are considered to be sacrosanct. As a form of human life, embryos must never be forsaken. Yet, according to the Church, the processes of ART "destroy" embryos—and hence, human life—in multiple ways. For one, multiple embryos are often transferred to a woman's uterus in a single IVF cycle, without all of the embryos implanting. The high failure rates following embryo transfer are considered to be a loss of potential human life, to which the Catholic Church objects (Richards 2009). Furthermore, the Catholic Church is concerned with the overproduction of embryos in ART, leading to problems of so-called embryo disposition (Nachtigall et al. 2005). Excess or unused embryos that are produced through ART may be cryopreserved, but their "quality," clinically speaking, declines considerably during long-term storage. After five years of cryopreservation, some

IVF clinics routinely dispose of all excess embryos from cold storage. Furthermore, some unused embryos—especially those of poor clinical quality (and, hence, less likely to implant)—are routinely disposed of in IVF laboratories, while others are destined for human research.

The Catholic Church's view is that the destruction of *any* embryo is inherently wrong; such a view underlies the Church's ban on stem cell research as well. This view of the embryo as a human life from the moment of conception is not shared by any of the schools of Islamic jurisprudence. Indeed, embryo disposition is only a problem in Islam if an embryo is donated to a third party. Embryo disposal and even multifetal pregnancy reduction (i.e., a form of selective abortion) in cases of multiple-gestation IVF pregnancies (twins, triplets, etc.) are allowed by the Sunni Islamic authorities, particularly if the prospect of carrying the pregnancy to viability is markedly reduced or the health of the mother is in serious jeopardy (Serour 2008). Embryo research is similarly allowed, if the latter occurs within fourteen days of initial fertilization. This consensus on embryo research—and hence stem cell research—was reached at a conference on the "Dilemma of Stem Cell Research" held in Cairo in November 2007 (Serour 2008). In short, in Islam, the human embryo simply is not sacrosanct as it is in Roman Catholicism. Thus, the ban in place in Sunni Islam takes a somewhat different form from the ban in place in Catholicism, arising as they do from rather different moral principles.

Furthermore, in Sunni Egypt, as in other Sunni-dominant countries, the religious ban on third-party reproductive assistance is adhered to in actual clinical practice. This is not so in the Roman Catholic countries. Despite the Church's clear and forceful opposition to all forms of ART, Catholic infertility physicians and patients around the world have largely refused to abide by the ban, as seen also with the widespread use of contraception (and even abortion) among the world's Catholics. For example, by 1992, most of the Catholic countries of Latin America had begun to perform IVF and had joined a Latin American registry of IVF clinics (Nicholson and Nicholson 1994). Ahead of Egypt with its 10 IVF clinics, Argentina by that time had 16 clinics, performing 1,416 IVF cycles annually. This was followed by Brazil (7 clinics), Chile (6 clinics), Mexico (4 clinics), Venezuela and Colombia (3 clinics each), with solo clinics in Bolivia, Ecuador, Guatemala, Panama, Paraguay, and Uruguay. Because of Catholic sensitivities toward embryo preservation and disposal, Latin American IVF clinics at that time were reporting

high-order embryo transfers (five or more at a time), resulting in high levels of risky multiple-gestation pregnancies.

Just as with the Catholic countries of Latin America, Italy refused to abide by the Vatican's ban on ART (Bonaccorso 2008).[8] The first IVF clinic in Italy was established by Professor Ettore Cittadini in Palermo, Sicily, in 1982, and the first birth occurred in 1984, a baby girl named Eleonora. By the late 1980s, Italy had developed one of the most "cutting-edge" IVF industries in the world, earning Italy the moniker of "the Wild West" of Europe. Serono—one of the world's two major multinational ART pharmaceutical firms (along with Organon, now Schering-Plough)—was started and headquartered in Italy. IVF centers multiplied in all of Italy's major cities (e.g., Rome, Milan, Naples, Florence). In 1994, an Italian IVF physician helped a sixty-three-year-old postmenopausal woman conceive a child through the use of donor eggs and hormonal stimulation. Italian reproductive scientists were also at the forefront of egg freezing, which first occurred in an IVF center in Bologna. In 1999, Italian IVF researchers developed genetic screening tests of IVF embryos that could help to boost the fertility rate of older women. Together, the Italian developments in egg freezing, egg donation, and genetic testing of embryos heralded the beginning of an ART industry intended for career women who had delayed conception into their forties and beyond.

Furthermore, in 2001, teams in both the United States and Italy announced that they were working on producing the first human clone, following the cloning of Dolly the Sheep in 1997. By 2002, the "maverick" leader of the Italian team, Severino Antinori—who happened to be the same Italian physician who had helped the sixty-three-year-old postmenopausal woman to conceive—claimed that he had already cloned a small number of human infants outside of Italy, for infertile couples living in Russia and "an Islamic country." The births of these children were said to be impending.

Perhaps the announcement of human cloning was the "straw that broke the Italian camel's back." Only one year later, on 11 December 2003, the Italian senate passed a bill introducing tight restrictions on ART, which were subsequently signed into law by the prime minister of the Republic of Italy, Silvio Berlusconi, on 19 February 2004. Indeed, in 2004, the political majority in Italy was "center-right" under Berlusconi, who was, at that time at least, "pro-Vatican."[9] Thus, both politicians and the Vatican were strongly in favor of the law; it was quickly presented and approved by the branches of the Italian government without any chance for amendments (i.e., the

law was considered "sealed"). The passing of this legislation turned Italy overnight from Europe's most progressive to most restrictive ART regime—second only to the tiny Latin American country of Costa Rica, which outlawed all forms of ART in 2000, after ARTs had been deemed constitutional there in 1995 (Benagiano and Gianaroli 2004).[10] The restrictive Italian legislation emerged after ten years of heated parliamentary debate on the subject of ART, accompanied by a scientific study by the Italian Health Commission. The resulting "Medically Assisted Reproduction Law," known in Italy as "Law 40/2004," was championed by the Vatican and conservative politicians in the Italian parliament and was far more restrictive than anticipated.

The major features of the ART-restrictive Law 40 included: (1) the use of ARTs only among "stable heterosexual couples who live together and are of childbearing age" and are "clinically infertile"; (2) the prohibition of embryo cryopreservation; (3) the prohibition of third-party gamete donation (eggs, sperm, embryos) and surrogacy; (4) the prohibition of embryo research; (4) the prohibition of ART use for single women or same-sex couples; (5) the fertilization of no more than three oocytes (i.e., eggs) at any one time; (6) the simultaneous transfer to the uterus of all fertilized eggs; and (7) the prohibition of preimplantation genetic diagnosis (PGD) and prenatal screening for genetic disorders among human embryos (Benagiano and Gianaroli 2004).

The law provided absolute protection to the human embryo: no donation to research, disposal in the laboratory, or destruction of any kind. However, as pointed out by scientific critics, the embryo benefits from this "protection" only while it is in the laboratory. As soon as the embryo is transferred to a woman's uterus, this protection is lost, because the embryo may fail to implant or, even worse, the mother may still opt for a termination of pregnancy under Italy's intact abortion law (law 194/1978). Indeed, as pointed out by Italian bioethicists, the ART law does not harmonize at all with Italy's abortion law, passed in 1978, which still allows a pregnant Italian woman to request termination within ninety days of her last menstrual period (Benagiano and Gianaroli 2004). In principle, the Italian parliament should have restricted IVF altogether, as in the case of Costa Rica, or revoked its abortion law at the same time the ART legislation was passed.

Not surprisingly, Italy's "pro-life" ART law was immediately condemned by IVF scientists worldwide, and was called "medieval" by Italy's female parliamentarians. Furthermore, the "fallout" from the

Italian legislation has been well documented over the past five years. The success rates of IVF in Italy have fallen considerably, from 25 to 11 percent within the first year of the law's passage. Several Italian IVF physicians have relocated their clinics outside the country's borders, taking their Italian patients with them. Italy now has one of the highest percentages of so-called reproductive tourists, namely, infertile Italian couples who leave the country because they cannot access appropriate care in their own country. Within the first year of the law's passing, clinics in Spain, Austria, and Switzerland reported a 20 percent increase in Italian patients coming for ART treatment, particularly for egg and sperm donation.

Furthermore, the Italian law has shifted the concept of gamete donation as an altruistic "gift" to a pure act of commerce. Before Italy's restrictive law came into being, egg donations occurred as voluntary acts between patients in Italian IVF clinics, without payments to the egg donor. Once the law was passed, however, Italian women needing donor oocytes began having to "buy eggs," often for considerable fees, in foreign IVF clinics that allow egg donation.

The Church's and parliament's justifications for the new ban on gamete donation in Italy in fact tended to mirror most of the moral justifications found in Sunni Egypt and other parts of the Sunni world. According to proponents of the ban, gamete donation is said to: (1) cause the risk of future incestuous relationships among the children of anonymous donors; (2) damage the personal identity of the child, because of lack of knowledge about biological origins; (3) lead to parental rejection of the donor child, especially among infertile men who cannot claim biological paternity and who may therefore abandon the donor child; and (4) cause the risk of "positive eugenics"—i.e., creating a child with sought-after characteristics of a donor (e.g., blue eyes, blonde hair, IQ>130). In laying out these moral justifications for the ban on third-party donation, proponents of the ban—including the Vatican bishops—proved to converge with Sunni clerics in their thinking, even if there were no direct influences from across the Mediterranean.

Indeed, critics immediately charged that the moral principles of the Catholic Church were being transformed into unprecedented legal norms. As such, within the first year of the new law, the Italian reproductive science community and left-wing politicians mobilized to oppose the legislation. Italy's Radical Party, known for its anti-Catholic, anticlerical positions, collected the 500,000 necessary signatures to call for a referendum vote on the new ART law. Furthermore, a number of Italian reproductive scientists staged a

hunger strike in the hope of influencing the referendum, which was scheduled to take place through a public vote on 12–13 June 2005. Unfortunately for the Italian opposition, the clerics won. In a Vatican-approved strategy, the Church campaigned against the referendum, and the country's Catholic bishops called upon their parishioners to boycott the vote. As a result Italians "stayed home in droves": i.e., the Italian IVF referendum ended with half the required vote (25 percent rather than 50 percent), leaving the ART restrictions firmly in place.

As of this writing, the law banning most forms of ART in Italy continues. Italian IVF physicians are restricted to performing only IVF and ICSI with a married couple's gametes and without any form of third-party donation. Italian couples continue to leave the country en masse in search of third-party reproductive assistance, and the Italian birth rate continues to decline. As of now, the Italian birth rate is 1.38, well below replacement level and lower than all other Mediterranean countries except Malta (1.37), Croatia (1.35), and Greece (1.33).

Perhaps fearing the slow death of the Italian population, Italian parliamentarians have recently heeded the calls of the Italian progressive party, Italia Dei Valori, to enter into a dialogue over the ART law. In April 2009, the Italian parliament heard scientific evidence—including by one of the authors of this chapter[11]—showing that the ART law has been bad for women's health. In the period since the law's passage, rates of high-risk triplet pregnancies have almost doubled in women younger than age thirty-seven, because, according to the law, all three embryos must be transferred rather than frozen. In addition, women require more IVF cycles in order to become pregnant. As women age, the number of competent oocytes (i.e., able to produce a live birth) decreases. Since, by law, only three eggs can be chosen for in vitro fertilization, it becomes much more unlikely that the most "competent" oocytes will be chosen for fertilization. Quite paradoxically, given the Catholic objections to embryo destruction, this leads to *higher* rates of embryo wastage and the need for repeat IVF cycles. Furthermore, women aged thirty-seven and above have been significantly penalized by the new law, because their chances for an ART pregnancy are worse to begin with. Without the possibility of utilizing all of the eggs produced during normal hormonal stimulation, and without the possibility of embryo screening, egg donation, or embryo cryopreservation (all of which facilitate ART pregnancy rates in older women), their chances of IVF success are, indeed, minimal.

As a result of this evidence, the Italian constitutional court, comparable to the Supreme Court in the United States, has changed some aspects of Law 40. First, the number of ART-created embryos is no longer limited to three, and the decision remains in the hands of the IVF physician. Second, it is possible to freeze the excess embryos. Finally, it is possible to undertake PGD on these ART-created embryos. However, whether these amendments will stand is questionable. Currently, the politically governed Italian Ministry of Health is working vigorously to overturn the amendments.[12]

Italy thus provides an example of the convergence of state religion and state law—largely against the wishes of the mostly Catholic IVF practitioners and infertile Catholic patients who seek IVF. This disharmony between a religiously inspired national law and the wishes of the people is quite different from the case of Egypt, where no national law exists, but where both Muslim IVF practitioners and patients wish to follow the fatwa rulings of the religious establishment.

Multisectarian Lebanon

This brings us to the case of Lebanon, a religiously "mixed" community, with significant populations of Catholics, Sunni Muslims, Shia Muslims, and other minority Muslim and Christian religious sects. A census has not been taken in Lebanon since 1932, before the founding of the Lebanese nation-state, because so-called political demography is a highly sensitive issue in a country without a true religious majority. However, it is widely believed that the Christian population of Lebanon, once the largest single group, has declined significantly during the past thirty-five years of civil war and ongoing political violence. The Shia population during this period has meanwhile increased disproportionately, not only because of higher fertility rates, but also because relatively fewer of the poor Shia Muslims of Southern Lebanon were able to emigrate from the country. Until the Lebanese civil war (1975–1990), Sunni Muslims dominated the coastal cities of Lebanon, such as Tripoli in the north. However, large populations of Shia Muslims fleeing from the South now live in periurban slums surrounding most coastal cities (including Beirut). And the Druze, an offshoot of the Shia, continue to live in pockets in Lebanon's central mountains, as well as in Beirut, the urban hub of the country. In addition, significant refugee populations (Armenians fleeing the Turks, Palestinians fleeing the Israelis, Iraqis fleeing the current war, Syrians fleeing poverty and now war) live in Lebanon, along with minority Christian sects, the largest of

which is Greek Orthodox. Indeed, it is fair to say that Lebanon is *the* most heterogeneous Middle Eastern society, and perhaps the most religiously heterodox of all societies in the Mediterranean. Today, demographers agree that Muslims constitute a solid majority—almost 60 percent, with Shia outstripping the Sunni population by several percentage points (approximately 27 percent versus 24 percent, with Druze at 5 percent of the total population). Christians constitute the remaining 40 percent, with the largest group being Catholic Maronites,[13] followed by Greek Orthodox.

Given the multisectarian nature of Lebanese society, it is important to try to understand how the local IVF industry has developed there, and to which religious authorities it has turned for guidance surrounding ARTs and particularly third-party reproductive assistance. First, it is important to note that, compared to Egypt and Italy, Lebanon is a relative latecomer to IVF and related ARTs. The first IVF clinics did not open in Beirut until the mid-1990s, nearly a decade later than in Egypt and nearly fifteen years after Italy's IVF sector began. This relative "Lebanese delay" has everything to do with the fifteen-year civil war: it was not until the early 1990s, after the fighting stopped, that Lebanon was able to begin rebuilding its medical infrastructure, which had been severely damaged during the period of prolonged battle, including in urban centers.

Prior to the civil war, Lebanon was well known in the Middle Eastern region for "3 E's": medical Education, Entrepreneurship, and Excellence. By the mid-1990s, these aspects of Lebanese medical society had begun to return. Local gynecologists began opening their own small hospitals and private IVF clinics. Expatriate Lebanese physicians, trained in the West, returned to the country to start IVF clinics staffed by local doctors. Eventually, several of Lebanon's major private hospitals opened their own IVF centers. By 2003, when two anthropologists reached Lebanon to study ART there,[14] the country boasted between fifteen and twenty clinics, depending upon how "clinic" was defined.

Before the year 2000, it appears that all Lebanese IVF clinics abided by the Middle East regional ban on third-party reproductive assistance. Why would this be true in a "mixed" Muslim-Christian country? First, Lebanese IVF physicians, circulating through regional medical conferences, were clearly aware that the Islamic religious authorities did not approve of any form of donation or surrogacy. They knew that third-party donation was not being practiced in any Muslim country at that time, and they felt obliged, even if they were Christian, to follow the local religious norms. To do

otherwise would be to incite potential anger and resistance among Muslim clients of Lebanese IVF centers. Second, some Christian IVF physicians, particularly Catholic Maronites, felt personal moral ambivalence about practicing third-party donation and cryopreserving human embryos. Thus, they were only too happy to follow the relatively restrictive Sunni Muslim guidelines, rather than turning to Christian nations in Europe for guidance.

But the third and most important reason has to do with the Shia Muslim clergy. Namely, before the year 2000—and even today—many Shia Muslim clergy concur with the Sunni ban on third-party reproductive assistance. They do not agree with egg donation, sperm donation, or surrogacy, and they have issued fatwas to that effect, to be adhered to by their followers.[15] Such anti-third-party fatwas have been issued in Shia-dominant Iraq, Bahrain, and Lebanon itself. In Lebanon, the popular local Shia cleric, Muhammad Husayn Fadlallah, issued a fatwa decision in the late 1990s banning any form of gamete donation or surrogacy.

The year 2000, however, was a watershed in Lebanon. At a Middle East Fertility Society (MEFS) meeting held in Beirut, the audience of Middle Eastern IVF practitioners literally gasped in incredulity when an Iranian female IVF physician, dressed in a black chador, described her clinic's efforts to overcome age-related ovulatory failure through egg donation. When questioned further, this Iranian physician explained that the supreme leader of the Islamic Republic of Iran, Ayatollah Ali al-Hussein al-Khamene'i, the hand-picked successor to Iran's Ayatollah Khomeini, had recently (1999) issued a fatwa effectively permitting *both* egg and sperm donor technologies to be used (Inhorn 2006). Interestingly, the moral justification for allowing donor technologies was included in the text of Ayatollah Khamene'i's fatwa: preserving the marriage of the infertile couple through the birth of donor children would prevent the "marital and psychological disputes" that would inevitably arise from remaining childless indefinitely. In short, both preservation of lineage *and* preservation of marriage mattered to Ayatollah Khamene'i—an opinion at odds with the majority Sunni thinking on the subject.

This "millennial moment" in Iran had an almost immediate impact in Lebanon. Religiously pious Shia Muslims, including members of Lebanon's Hizbullah party, were the first to press for third-party donation, because they followed the spiritual guidance of Ayatollah Khamene'i in Iran. Some Shia IVF physicians began to respond to these requests, developing "informal" egg and sperm donation arrangements within their clinics. Sometimes infertile couples were

asked to find their own "donors" (e.g., relatives or friends), while at other times Shia female IVF clients were asked to donate their excess eggs to fellow Shia IVF patients (i.e., a kind of within-clinic "egg sharing"). Eventually some clinics were able to find "anonymous" donors—for example, medical students who agreed to donate sperm, young American women who agreed to travel to Beirut for egg donation, and poor Palestinian refugee camp women who became gestational surrogates—all for a sizable fee (Inhorn 2012).

In short, the "door to donation" was opened in Lebanon in 2000, as a direct result of the Iranian supreme leader's allowance of donor technologies. Starting with entrepreneurial Shia IVF physicians who cited the new Iranian guidelines, the local Lebanese Shia clergy soon followed, issuing formal fatwas or informal opinions to their followers about the permissibility of third-party reproductive assistance, especially egg donation, which most agreed was now *halal*, or religiously permitted (Clarke 2009).[16]

In addition, Christian IVF practitioners soon joined the pro-donation bandwagon in Lebanon, setting up informal programs in their clinics. Many Western-leaning Lebanese Christian IVF practitioners had been frustrated by the earlier Sunni-inspired ban on third-party assistance, and were hence glad that Shia clerics had offered new rulings. Being able to provide gamete donation—and even surrogacy—allowed them to offer the "full spectrum" of possible ART services to their IVF patients. Indeed, it is fair to state that Lebanese Christians—both physicians and patients—were as eager as Lebanese Shia to introduce third-party reproductive assistance to Lebanon, even if their own inspiration was European, rather than Iranian. Third-party reproductive assistance in Lebanon could showcase Lebanon's European-style "modernity," while also providing a tremendous source of profit to the local IVF industry. Furthermore, many Lebanese Christians, like their Italian counterparts, did not have any moral qualms about using donor technologies. They considered "donation" to be an act of altruism, similar to child adoption, which most of them condoned on Christian religious grounds.[17]

The lifting of the third-party ART ban in Lebanon has certainly had its detractors, however. It is very important to state that most cycles of IVF occurring in Lebanon do *not* involve gamete donation, embryo donation, or surrogacy, simply because third-party reproductive assistance is widely acknowledged to be an option of "last resort"—a kind of "necessary evil," or "act of desperation" when all else fails. Today in Lebanon, the vast majority of Sunni IVF patients do not accept third-party reproductive assistance, and there are many

Shia patients who do not as well (Inhorn 2012). Furthermore, not all IVF physicians agree with the lifting of the ban in Lebanon. One politically powerful Shia IVF physician has attempted repeatedly to introduce legislation banning all forms of third-party assistance in Lebanon. Despite significant support among Sunni political groups, the bill has never been passed, probably because of a combination of multisectarian resistance and postwar exhaustion and apathy.[18]

It is also important to state that some IVF physicians in Lebanon retain significant moral and medical ambivalence toward the way donation is being practiced in the country. First, there is no local IVF scientific registry of any sort (as in Latin America, mentioned above); thus, there are no reliable statistics on the numbers of IVF cycles with and without donation. Second, there is no reliable regulatory system in the country. As a result, third-party reproductive assistance is being carried out "behind closed doors," in the unregulated, sometimes "secretive" environment of private IVF clinics (Inhorn 2004). As a result of this lack of regulatory oversight, practices that would never occur in Euro-American settings do, in fact, take place in Lebanese IVF clinics. For example, "fresh" sperm samples are used in sperm donation, without any kind of mandatory screening for HIV virus, hepatitis virus, and other sexually transmitted infections. Similarly, no mandatory genetic testing is performed with either donors or recipients. Hence, serious genetic diseases, such as cystic fibrosis, may be perpetuated within the Lebanese IVF population (Inhorn 2012). Furthermore, forms of donation that have been ethically banned in the United States and parts of Europe have been practiced in Lebanon. One such form is ooplasm donation—where the cytoplasm of a younger woman's oocytes is injected into an older woman's oocytes to improve their quality. If these oocytes are subsequently fertilized, transferred to the older woman's uterus, and lead to a successful IVF pregnancy, the child will be born with three types of DNA—one from the reproductively "elderly" mother, one from the father, and one from the young female ooplasm donor. Finally, there is grave potential for exploitation within the Lebanese IVF industry. For example, poor refugees or maids from Africa, Southeast Asia, or war-torn parts of the Middle East may be coerced into serving as egg donors and gestational surrogates because of the lure of payment. According to some Lebanese IVF physicians—both Muslim and Christian—these types of practices should not be occurring in the country, because they jeopardize the reproductive rights of women, as well as maternal and child health.

In this "anything goes" environment, Lebanon has now taken the former place of Italy as the "Wild West" of Mediterranean fertility treatment. Even Spain—the contemporary European hub of egg donation—does not allow surrogacy, whereas Lebanon does. And Israel, always at the cutting edge of ART developments, nonetheless maintains a strict regulatory environment, which is not found in its northern neighbor. Because of travel bans between the two countries, Lebanon and Israel have little in the way of reproductive scientific or technological exchange. Furthermore, Israel does not provide any kind of regulatory model for a neighboring country that it has invaded three times within thirty years, or at a rate of once every decade.

As of this writing, Lebanon and Iran are the only two Middle Eastern Muslim countries where third-party reproductive assistance is practiced. All other Muslim countries, including Egypt, continue to ban third-party donation and surrogacy, based on a moral injunction that is, at once, very strongly felt among most Sunni Muslims and also upheld in clinical practice among the Sunni Muslim countries. Italy, too, has become quite "Sunni"—banning all manner of third-party reproductive assistance and even embryo cryopreservation techniques that are widely practiced in the Sunni world. Although Sunni clerics were certainly not the inspiration for Italy's third-party ART ban, it is noteworthy that similar moral justifications have been used in both cases. As a result, Italy, once incredibly permissive, has become more restrictive than any Muslim country where ART is practiced. Such an irony—one that defies global "East-West" stereotypes—was clearly unanticipated when IVF was born in Europe more than thirty years ago.

From ART Bans to Reproductive "Tourism": Case Vignettes

Where do reproductive bans—some old, some new—leave patients who attempt to solve their infertility problems? Reproductive bans, whether applied by moral force or by law, never produce straightforward outcomes. We would argue that the Sunni ban on third-party reproductive assistance has "held" quite successfully for more than thirty years. For the vast majority of Sunni Muslims, the ban makes moral sense, and hence they are eager to uphold it. However, the lifting of this ban in two Shia-majority countries has had a marked

effect. Namely, the strength of the Sunni ban is perceptibly weakening, as at least some Sunni Muslim IVF patients reconsider their own moral stances, especially regarding egg donation. Furthermore, Italian IVF patients—having gone from one "permissive" extreme to another "restrictive" one—have refused to abide by a law that they consider unfair and retrogressive. Italian IVF patients who have the means are traveling abroad for ART services. So are some Sunni Muslim patients who have decided to use third-party reproductive assistance "against the religion," by traveling to Lebanon, Iran, or countries beyond the Middle East.

Reproductive bans, we argue, produce "reproductive resistance." In the case of ARTs, such resistance is seen most clearly in cases of "reproductive tourism," or what is more neutrally being called "cross-border reproductive care."[19] In the final section of this chapter, we tell the stories of real people who have traveled across borders for reproductive care.[20] Through their stories, morality and pragmatism intersect, demonstrating the complexity of the "reproscape" in which infertile couples around the Mediterranean must make their reproductive decisions.

Dalia and Galal: From Egypt to the United States[21]

Dalia and Galal are an internationally sophisticated Egyptian couple who represent the upper crust of Egyptian society—wealthy elites who are able to purchase the fruits of globalization, including high-cost, high-tech medical services such as IVF. Dalia had married Galal four years before their first IVF attempt, knowing that Galal, her first cousin,[22] suffered from a surgically irreparable varicocele, or a cluster of dilated veins in his testicles causing him to have a very poor sperm count. Galal's infertility became known to his extended family when, after fathering one son in his first marriage, he was unable to impregnate his wife again. Galal eventually divorced his first wife and fell in love with his attractive cousin, Dalia. Dalia was also smitten with Galal, a kind, handsome, rich factory owner. However, Dalia's parents were deeply opposed to her marrying a man known to be infertile, even if he was her relative. Dalia recalled, "My mother got sick, crying all the time and making fights with me. She wanted to 'see my children.' My family made a lot of problems, but I loved him so I married him. When I married him, I thought maybe I won't be pregnant. This was something that made it a little easier; I accepted his infertility."

In part to escape family pressure and in part to seek medical advice, Dalia and Galal decided to immigrate to the United States,

where Galal, an ex-military man, had once received basic training, and where Dalia now had a sister living in California. Once settled in Pasadena, they sought treatment for Galal's infertility and were told that, given his poor semen profile, they should undergo artificial insemination using donor semen from a sperm bank. Incredulous, Dalia and Galal explained to the American physician, "We are Muslims and this is forbidden." So he referred them to an Egyptian Muslim physician running his own Los Angeles (LA)-based IVF clinic. This was the first time either Dalia or Galal had ever heard of IVF. But once they talked with the Egyptian doctor, they were soon convinced that IVF was allowed within Islam as long as both sperm and eggs came from husband and wife.

Following their consultation with the Muslim doctor, as well as a second opinion from another LA-based, "religious" Lebanese Christian physician, Dalia and Galal decided to go ahead with one trial of IVF, which cost them $16,300 and which they paid for in a series of four installments. When the in vitro fertilization process produced extra embryos that were not to be transferred to Dalia's uterus, the IVF clinic staff gave Dalia and Galal three choices: freezing, destroying, or donating to another couple. As Dalia explained: "We said, 'Destroy! It is our religion.' If it's from the man and his wife, yes, it is okay [in Islam]. But to donate eggs or sperm, this is *haram* [sinful]!"

Galal added,

> There is a fatwa from Al-Azhar about this. If I give someone my sperm, this baby is going to take another [man's] name, and he's going to take [from him] some money, some inheritance, although he's not "from him." Maybe I give another woman my sperm and she gets a son, and another woman and she gets a daughter, and when they grow up, he marries his [half] sister. This [i.e., potential incest] is the main thing [problem].

Although Dalia and Galal acknowledged that laboratory mistakes resulting in "accidental" donation might still be made, even under the best of circumstances, they believed that they had avoided this eventuality by relying on a religiously vigilant, scrupulous, Middle Eastern–born Muslim physician to carry out the actual IVF procedure. However, they were concerned about the general moral decline of American IVF practices, including the frequent donation of sperm, ova, and embryos from third parties. In their view as religiously observant Sunni Muslims, such donation practices would inevitably lead to an immoral and genealogically bewildering "mix-

ture of relations." Furthermore, they had heard that one American doctor made approximately twenty babies "from himself"[23]—probably in an attempt "to become successful and famous." Given the morally questionable nature of American IVF practices undertaken by American physicians, Dalia and Galal concluded that, in retrospect, it was better that their trial of IVF did not succeed in the United States. When Galal's real estate ventures in Orange County, California, also soured, they decided to return to Egypt. There, Dalia opened a successful children's clothing boutique in an affluent suburb of Cairo, where wealthy women clients could purchase the latest children's fashions imported by Dalia from the United States.

But, as expected, Dalia and Galal's return to Egypt also meant increased "family interference." Relatives on both sides of their family began urging them to go to doctors in Egypt, where "science is constantly advancing." However, Galal still maintained serious reservations about the ability of Egyptian doctors to carry out IVF with any hope of success. As Dalia explained, "My husband at first didn't want to do it in Egypt. He thought maybe some mistakes would be made. Plus, we heard a lot [of people] say that they make this in Egypt 'for commerce.'"

It wasn't until they read two news articles, one in the major daily newspaper *Al-Ahram* and the other in the news magazine *Nus id-Dunya,* that Dalia and Galal changed their opinion. The media were covering the advent of ICSI in Egypt, in which men such as Galal with serious male infertility problems could finally be helped to have a child. Dalia and Galal decided that ICSI might be the solution to their childlessness, and they proceeded to the clinics of two physicians offering this new technology. One made Dalia and Galal feel like "he was just in it for the money." So they chose another physician, who they perceived as both a good Muslim and a good doctor. Now, Dalia says,

> Galal is happy to be doing it in Egypt. After what we went through in the United States, we prefer to do it in Egypt—because they're Muslim here. And you must feel comfortable with the doctor. He must feel what you feel. He must not be doing it just for a job. He must like you to have babies. With [this doctor], he shows you his feelings. From the first time we came here, we felt this. He's not doing it just for the money. He pats you and says, "OK, it will be all right."

Dalia needed the doctor's reassurance after her first trial of ICSI was cancelled. After going to great lengths to obtain the hormonal medications necessary to stimulate her ovaries, including having

friends and relatives bring the drugs by car and plane from Alexandria and Saudi Arabia, these agents did not succeed in producing an adequate number of ova for retrieval. As Dalia explained, "It costs your body and your feelings and your money. It's not easy. But my husband always supports me. You feel like you're desperate and after that, he says, 'We will try again.'"

When Dalia told the doctor that she did not think she could go through the emotional rollercoaster of another failed trial, he told her to remain hopeful, and this time he provided her with the hormonal medications from his own clinic supply. On their second try, the hormones worked to produce a substantial number of mature ova, and Dalia and Galal were therefore able to go forward with the ICSI procedure. Although ICSI is one of the most expensive assisted reproductive technologies available in Egypt, it cost Dalia and Galal only LE 10,000 ($2,940), or less than one-fifth of what it had cost them to undertake one trial of IVF in the United States.

Luckily for Dalia, she became the mother of a test-tube baby, a beautiful little girl named Deena, and later, a second ICSI son named Muhammad. As Dalia has explained, "Even if they have all these facilities now for IVF and ICSI, after everything, if God wants me to have a child I will, and if not, I won't." Clearly, Dalia is grateful that God has granted her permission to become the mother of two beloved, test-tube babies.

Chiara and Alessandro: From Italy to Spain to the United States[24]

Chiara and Alessandro are an Italian career couple, he an officer in the Italian police force and she a research geologist. This handsome couple had been trying to make a baby throughout their ten years of marriage, eventually turning to ARTs for help. In Rome, where all of the IVF clinics are private and expensive, Chiara and Alessandro undertook two ART cycles, each time without success. As a couple with so-called unexplained infertility,[25] Chiara and Alessandro were frustrated by the absence of a diagnosis, as well as the $16,000 they had spent on two failed procedures.

Chiara and Alessandro also felt stymied by Italy's restrictive legislation. Through research they conducted on the Internet, they realized that preimplantation genetic diagnosis (PGD) might allow them to understand the cause of their infertility. However, PGD was officially prohibited under Italy's Law 40. As Alessandro explained,

> It is not permitted. When you ask the reason for your infertility problems, the doctor just says, "This is something unknown. There is not

a medical reason at the moment. The science doesn't exist to find out the real reasons." But this is not true. We tried to do some research on the Internet, and we find that it is possible, by PGD, to find some of the factors behind this problem. In Italy, "unknown infertility" problems may have a reason.

In Italy, the physicians also told Alessandro that his sperm count was low and that the solution for him would be ICSI. After two failed ICSI trials, Alessandro and Chiara turned to Spain, the European "hub" of reproductive tourism. Despite a one-year wait, the couple managed to get an appointment at an IVF clinic in Barcelona, where an Italian female IVF physician had married a Spanish IVF doctor. In Barcelona, Chiara and Alessandro underwent one more ICSI cycle, again without success, but at a total price tag of $12,000.

"When we went home from Spain, she told me that maybe she did not want to do any more [embryo] transfers," Alessandro explained. "And I tried to convince her—to say that maybe the next time, if we search, we will find the main reason for the infertility. So I tried to make some research on the Internet, and that's where we tried to find [IVF clinic] sites in New York and at the famous research centers, like Yale, Harvard, and Berkeley universities."

Delighted to find an Italian IVF doctor at Yale, Alessandro sent an e-mail, which was answered directly and immediately. Alessandro and Chiara made an appointment, after being assured that PGD could be used in the United States to make a potential diagnosis of their infertility problem.

"It's not so easy to come here [to the United States], to speak another language, especially about medical symptoms," Alessandro explained. "And this [Italian] doctor suggested that we don't try to do more ICSI [cycles] without a firm diagnosis. He told us that it is maybe possible that [Chiara] could have a problem with her oocytes, but that we would have to try PGD to confirm this hypothesis."

In order to save money, Chiara and Alessandro were instructed to undertake the preliminary hormonal stimulation in Rome, before traveling to America. Their physician in Italy e-mailed the Yale Fertility Center, so that the timing of the oocyte harvesting would be precise upon the couple's arrival in the United States.

Settling into a hotel next door to the clinic, Chiara and Alessandro waited patiently for the results of their PGD diagnosis. As the doctor had surmised, Chiara suffered from poor oocyte quality. Although only thirty-two years of age, she had the "old oocytes" of a menopausal woman.

Alessandro explained:

> [The doctor] suggested that we don't try to do any more ICSI cycles without donor eggs. Because without a donor, we were just basically wasting our money. So, for the first time, we learned that we needed to do ICSI with donor egg. So, we've been going along, at all of these different places, and we've actually been given the wrong information! This is very frustrating! If we'd had PGD in Italy, we could have discovered this a long time ago.

Chiara was particularly angry with the Italian IVF physician who told her—after her PGD diagnosis in the United States—that she should still use her own oocytes in another ICSI cycle. "After the PGD discovered my problem, in Italy, they continued to say to me, 'But you can try with your own oocytes!' Why would they say this to me? I do not know. This was very risky, because my oocytes, they have this genetic problem."

Angered by their treatment in Italy, the couple contemplated their options. They could try again in Spain, this time with donor eggs. That would have been the cheapest destination, given that clinics in Spain "import" poor women from all over South and Central America to donate their oocytes for very low fees. However, Chiara was uncomfortable with this choice. She explained:

> In Spain, they give more human support [than in Italy], but the technical level is better in Italy. However, the laws are not as strict in Spain as they are in Italy, so I could do donor and PGD in Spain. The problem is, Spain is a big center for Europe. All the Europeans are coming to Spain, and especially to Barcelona, to receive donor eggs. The problem in Barcelona is that they put you on a waiting list, and maybe you may stay for one or two years before being called, even though you have to take the medicines in the meantime, just in case. Generally, they don't work with fresh oocytes, only cryopreserved ones.[26] And, even if there are eggs, for the most part, the donors are coming from South America. The clinics are bringing and paying them very, very low amounts, like $1,000. And me, I am blonde and white, so someone from Central America is going to look a little bit different from me. For a girl like me, to get a matching donor, there is going to be a long line. And, we don't know about the health of this donor. Having a healthy and sane donor is the most important thing.

Discouraged, Chiara checked into adoption. But this, too, seemed extremely difficult. "The worst problem in Italy is wanting to adopt," Chiara said.

> There are not any Italian children to adopt, so the cost to adopt a child in Italy is very, very high. And if you want to adopt from overseas, the international procedures are very strict and it requires a very long time. They say adoption is easier than it is. In Italy, you have to be observed for twelve hours, and you have to have a room for the child. You cannot put other children in the same bedroom. You also have to stay in the same city to raise the child. But my husband changes cities every three to four years because of his work.

Using the last of their life savings and getting "a little help" from Chiara's parents, the couple made the difficult decision to undergo the $30,000 ICSI-donor egg cycle in the United States.[27] Although the costs were prohibitive and Alessandro had to ask for a special leave permit from his supervisor at work, the couple felt "forced" to pursue third-party reproductive assistance outside their home country. "Maybe if we can do this kind of treatment in Italy, it would be more comfortable for us," Alessandro suggested. "We had some logistical problems coming here. But because this is not permitted in Italy at all, we had to find another solution. We were *forced* to find a solution. So it is like forced travel."

Alessandro continued,

> The Italian constitution says that Italy is a *nonreligious state.* But in fact, this is not true. Italian citizens must follow the Italian law, and the Italian law is affected by the association of Italian bishops, who said, "We must respect life." I'm a practicing Catholic, but I wish the Italian Church had a different position so that we could obtain this kind of thing. The official position is always "no." But if you speak face-to-face with some Italian priests, they view this [ART] as "helping nature."

During their fourth and final ICSI cycle in the United States, Chiara and Alessandro remained hopeful. With donor oocytes, the Yale doctor predicted that their chance of pregnancy could be as high as 60 percent. "Yes, we're glad we're here, with an Italian doctor, at Yale, and close to New York," Chiara stated. "We can even make a little 'holiday' while we do the medical treatment, so that we can try to relax and don't think about this problem all of the time. It has been a lot of effort, but we're full of hope."

At the end of their interview with the anthropologist, Alessandro joked, "Are you sure that no names are being used? Because if I go back to Italy, maybe they will handcuff me!" As a police officer, Alessandro was especially concerned about following the law of the land—even if he felt that the restrictive Italian ART law was unfair.

Upon their return to Italy, Chiara's and Alessandro's dreams of having a test-tube baby came to a sudden and tragic end. Alessandro resumed his high-intensity job as a police offer, but was soon killed in the line of duty. Alessandro was forty years old, leaving behind the thirty-two-year-old love of his life, but no children.

Hatem and Huda: From Syria to Lebanon[28]

Hatem and Huda decided to try their luck at IVF in a hospital-based clinic in Beirut, which catered to all of the religious sects found in multisectarian Lebanon. However, Hatem and Huda were not Lebanese, having traveled from rural Syria to Beirut in order to undergo a trial of IVF. Like most Syrian reproductive tourists, Hatem was convinced that Lebanese IVF clinics were superior to the fledgling clinics in neighboring Syria, a Middle Eastern nation-state that has long been isolated from, and even sanctioned by, the West. Thus, he had been bringing his wife to Beirut for IVF since 1997. Hatem had another reason for bringing Huda to Lebanon: There, they could access donor eggs, which were unavailable in the Sunni-dominant country of Syria, where third-party gamete donation is strictly prohibited.

Double first cousins (on both paternal and maternal sides) and married for seventeen years, Hatem and Huda clearly loved each other, despite the perplexing dilemma of her premature ovarian failure. Although Huda was only thirty-six at the time, she had entered menopause in her twenties, and required hormonal stimulation followed by IVF in order to achieve a pregnancy. After five unsuccessful trials of IVF, the IVF physicians in Beirut recommended egg donation as the most likely successful option. As Sunni Muslims, Hatem and Huda knew that egg donation was forbidden in their religion. Yet, as Hatem explained, they rationalized their use of donor eggs in a previous IVF cycle in the following way:

> As long as the donor agrees, then this would reduce the *haram* [forbiddenness] based on our religion. Because she, the donor, is in need of money, she gave nine to ten eggs, and the doctor divided the eggs between that couple and us. We took five, and that couple, who were recently married, took five. And I personally entered into the lab to make sure that *my* sperm were being used. It's okay because it's *my* sperm.

Indeed, Huda became pregnant with donor twins, a male and a female, in 1999. At six months and seventeen days of pregnancy, she began to miscarry, and Hatem rushed her to a hospital in Syria. As Hatem recounts, "They opened her stomach [by cesarean], and

there were twins, who still lived for forty-eight hours. They had lung deficiency because they were little and not fully developed. The girl died twelve hours before the boy."

After this traumatic experience, Huda could no longer accept the idea of egg donation. According to Hatem, who spoke for Huda as she sat quietly in the room:

> She was tortured [during the pregnancy]. She stayed four months vomiting whatever she ate, and she lost weight—from 88 kilograms to 55 kilograms. And she was under a lot of stress because of our social environment in Syria. In our [farming] community, they stare at babies and see if they resemble the mother and father. We are not living in a city of 4–5 million. We are in a closed community of 15,000 people. And so, the first time, when we had twins, they did a blood test and everyone was surprised. Their blood group was AB, and it didn't match ours.[29] Now everyone will *really* examine the personal traits of this [donor] baby if we do it again. They will look at us suspiciously. Not the doctors; they keep everything confidential. But people in the community who might come to visit and look at us curiously.

For his part, Hatem is willing to accept donor eggs again and has already made inquiries about finding a willing Shia Muslim egg donor in Syria. On the day of our interview, we also spoke about the possibility of finding a willing donor within the Beirut IVF clinic. Hatem saw no other way to achieve parenthood, given that he loves his wife and refuses to divorce her. Although Hatem is an affluent farmer from a large family of twenty children (by one father and three co-wives), he continues to resist all forms of social pressure to divorce or marry polygynously. His commitment, he says, is based on his deep love for Huda. As he told me:

> Had I not loved her, I wouldn't have waited for seventeen years. I would have married another. By religious law, I can remarry, but I don't want to. She told me I should marry another woman, and she even offered or suggested that she would get me engaged, because we're already old. We've reached middle age without kids. We're living in a large family with six of my brothers, and they all have children. That's why she's feeling very depressed and very angry that she's alone without children, although she's always surrounded by children. But, of course, she keeps these feelings to herself.
>
> The love between us—I love her *a lot.* I was the one who considered going for IVF, for her sake. But we must keep it secret, because if my parents knew about us having an IVF child, the child would be marginalized and living a lonely life. So we keep everything secret, and we just mention to our families that she's receiving treatment.

As in so many IVF stories, Huda and Hatem were ultimately unsuccessful in their seventh attempted IVF trial. Huda's own eggs failed to mature under hormonal stimulation, and no egg donors were currently available at the clinic. Thus, Hatem and Huda returned home quietly to Syria, with little remaining hope of achieving parenthood, but with the love that had kept them together for nearly twenty years.

Conclusion

In this chapter, we have attempted to compare three Mediterranean countries, examining the evolving religious, legal, and cultural discourses surrounding ART, and particularly third-party reproductive assistance, in each country. ARTs themselves have evolved dramatically over the past three decades, and with this evolution, societies have responded in different ways. Some of these outcomes have been expected, while others have not. For example, few would have predicted that, by the new millennium, Iran and Lebanon would be on the cutting edge of ART development (and, in the case of Iran, a stem cell industry), whereas Italy, initially the Wild West of European ART, would become one of the most restrictive ART regimes in the world through pressures from the Vatican.

Sunni Egypt, meanwhile, has "held steady" over the past twenty-five years, allowing most forms of ART, with the exception of third-party reproductive assistance. This third-party reproductive ban in Egypt is upheld throughout the Sunni Muslim world, for it is based on religious discourses that are strongly felt and clinically upheld within the local moral worlds of Sunni IVF patients and practitioners. The story of the wealthy Egyptian couple, Dalia and Galal, is a case in point. Although they could have defied the reproductive ban through travel to any more "permissive" Euro-American setting, they chose to uphold the ban, even when they were given a choice to use donor sperm and to donate their embryos in the American IVF clinics they visited on their "quest for conception" (Inhorn 1994).

However, for many IVF patients faced with reproductive bans, the moral choices are not so easy. Indeed, reproductive bans have led to interesting outcomes, the main one being increased "reproflows" of IVF patients attempting to escape bans in their home countries. For couples like Chiara and Alessandro or Hatem and Huda, their so-called reproductive tourism to the United States and Lebanon, respectively, could be thought of as "reproductive exile" (Inhorn and

Patrizio 2009). In both cases, they felt severely restricted by their inability to obtain donor eggs within their home countries, and thus "forced" to travel abroad in order to attempt to conceive donor children within the context of long-term, loving marriages. In the case of Chiara and Alessandro, the outcome was truly tragic, for they were unable to bear witness to the fruits of their reproductive labor, which had involved multiple cross-border journeys and the expenditure of hundreds of thousands of dollars.

Italy—the country from which Chiara and Alessandro were escaping—is a particularly interesting example of the "strengthening" of a reproductive ban over time. Indeed, after nearly twenty-five years of open defiance by the Italian IVF community, the Vatican was finally able to assert its religious hegemony over clinical practice, through the imposition of recent anti-ART legislation. In terms of third-party reproductive assistance, Italy has become "more Sunni," justifying its third-party ban in ways very similar to Sunni Muslim discourse on the subject. However, Italy has also become much more restrictive than *any* Sunni Muslim country, in that it also bans cryopreservation, embryo disposal and research, PGD, and other ART technologies that are practiced relatively freely across the Muslim world. In this regard, Islamic attitudes toward reproductive technologies in general show greater tolerance than the Roman Catholic Church's disapproval of *all* reproductive technologies, ART included. As shown in this chapter, Italians are beginning to "fight back." Recent legislative challenges have highlighted the poor clinical outcomes among childless Italian couples, in a country where plummeting birth rates have also become a cause for national concern.

The same may be said of Lebanon, where postwar depopulation, particularly of the Christian population, has raised new concerns about politically sensitive demographic and gender imbalances in the country (Inhorn and Kobeissi 2007). The worrying decline of an already small (pop. 4 million) country has not been raised directly by the Lebanese government in its laissez-faire attitude toward ARTs. However, the resulting lack of any form of legislation or regulation of the local IVF industry may, in fact, stem from the felt need to "birth" new Lebanese citizens by any means possible. As a result, "anything goes" in Lebanese IVF clinics: Christian doctors provide Christian Lebanese sperm donors for Shia couples; Shia couples donate embryos to infertile Christian couples; Syrian egg donors are imported across the border by Lebanese Armenian infertile couples; American egg donors are flown to Beirut for egg harvesting

and "donation" to infertile members of Hizbullah; poor Palestinian women donate their uteruses to wealthy Sunni couples who need a gestational surrogate; and Syrians, Egyptians, and couples from Arab Gulf countries travel to Lebanon during "summer holidays" to obtain donor gametes in IVF clinics there. Within Lebanon, gametes and embryos are being passed across sectarian, national, and racial boundaries in ways unprecedented in the Middle East, or the rest of the Muslim world, for that matter.

The very availability of multiple forms of third-party reproductive assistance in Lebanon (and Iran) has led to a concomitant weakening of the Sunni Muslim ban, as patients such as Hatem and Huda reconsider their own moral stances toward donor technologies. However, in the Sunni Muslim world, individual challenges to the reproductive ban occur in secret, as infertile couples travel across national borders in search of gametes prohibited to them by their religion. As of this writing, more direct challenges to the Sunni clerical authorities who have written antidonation fatwas have yet to occur. In this regard, the Sunni ban is quite "Catholic": one antidonation religious opinion initially issuing from Egypt has become the hegemonic authoritative discourse across the Sunni world. Even though there is no central authority in Islam, the Sunni ban on third-party reproductive assistance is strong and binding. It has the force of moral authority that the Vatican has hoped for all along, but has certainly failed to achieve with regard to reproductive technologies.[30]

Such varying ART outcomes suggest the need for three scholarly interventions: (1) careful scrutiny of ART history, most of which has yet to be written; (2) regional comparisons, which are rarely carried out; and (3) understanding of cultural, religious, and legal debates by scholars who are steeped in the languages and cultures of particular societies. As we have shown in this chapter, it is sometimes very important to undertake unlikely comparisons, for example, between a Sunni Muslim Middle Eastern country, a Catholic European country, and a country that is a combination of religious and cultural traditions. At a time in history when the so-called Christian and Muslim worlds are seen as fundamentally different and separate, we have to realize that they are, in fact, inextricably linked, with technologies, peoples, and ideas circulating and influencing one another in various ways. The Islamic world cannot be considered in isolation from the Christian world, a trope of incommensurability that has been too prominent in post-9/11 discourses. Our chapter provides one attempt to bridge this chasm, an intervention that is desperately needed as we enter the second decade of the new millennium.

Notes

1. We are using the term "ban" to mean legal or religious "restrictions" on the practice of third-party reproductive assistance. As authors, we are not intending to pass judgment on the morality or bioethics of such "bans" and "restrictions." Our chapter is meant to be descriptive rather than prescriptive. It is an expanded version of our article by the same title in *Reproductive BioMedicine Online* 21 (2010): 848–53.
2. A comprehensive global history of IVF has yet to be undertaken, as noted by Sarah Franklin (personal communication).
3. The quotations around terms such as "liberal," "restrictive," "progressive," and "traditional" are intended to signal our own understanding of the problematics of ART discourses; namely, it is truly difficult to find the correct "vocabulary" with which to describe ART policies around the world. As with "bans" and "restrictions," our use is intended to be descriptive rather than prescriptive. We are not professional bioethicists or policy makers, although all of us necessarily engage in these global discourses through our ART scholarship. The first author is a medical anthropologist and feminist technoscience scholar who has published extensively on infertility and ARTs in the Middle East. The second author is a professor of obstetrics and gynecology and ART clinician who has dual training in bioethics. The third author is also a professor of obstetrics and gynecology and ART clinician, who is one of the cofounders of the first IVF clinic in Egypt. He publishes extensively on Islamic bioethics and ARTs.
4. There are 18 officially recognized religious sects in Lebanon. Until 1948, Lebanon was also the home of a small population of mostly Beirut-based Jews, who generally left for the nation of Israel upon its founding.
5. This term was suggested by Wendy Chavkin, editor of *The Globalization of Motherhood.*
6. As noted by Iqbal and Noble (2009: 108), "A *fatwa* is a legal pronouncement made by a *mufti*, a scholar capable of issuing judgements on Islamic law (*sharia*). These are neither binding nor legally enforceable, but provide invaluable insight when gauging Islamic opinions on a given topic. Fatwas can be published in daily newspapers and periodicals or broadcast on radio or television."
7. This IVF clinic was founded by Gamal I. Serour.
8. See Bonaccorso 2008 for an anthropological study of Italian ART in practice.
9. During his term of office, Prime Minister Berlusconi shifted from pro-Vatican to anti-Vatican because of numerous scandals, including one involving prostitution, in which he was condemned by the Catholic bishops. We thank Thomas Eich for this insight.
10. The poignant documentary film, *Beautiful Sin,* by Costa Rican-American filmmaker Gabriela Quiroz examines the plight of infertile Costa Rican couples before and after the IVF ban in that country.

11. This was Pasquale Patrizio, who is originally from Naples, Italy.
12. We thank Prof. Carlo Flamigni for the most up-to-date information on the state of the Italian legislative amendments.
13. The Lebanese Catholic Maronites have a long and continuous association with the Roman Catholic Church, but have their own Lebanese patriarch, liturgy, and customs. The president of Lebanon is always Maronite.
14. The first author, Marcia C. Inhorn, and another author in this volume, Morgan Clarke. See Clarke and Inhorn (2011).
15. Unlike Sunni Muslims, Shia Muslims are encouraged to follow particular Shia clerics, who, themselves, are hierarchically ranked according to charisma and religious knowledge.
16. Both Clarke (2009) and Inhorn (2012) provide comprehensive overviews of Lebanon's Islamic debates on this subject. See also Clarke and Inhorn (2011).
17. Christian groups in Lebanon practice adoption; thus, there are Christian-run orphanages with children available to infertile couples. With the exception of Iran, most Muslim countries do not condone adoption, because legal adoption is clearly prohibited in the Islamic scriptures, including the Qur'an. Permanent fostering and guardianship, however, are encouraged.
18. The politics of organizing the necessary sectarian subcommittees to pass the bill is so daunting that it has yet to be undertaken; the political will and organizational finesse is simply not available at this time, as pointed out by Morgan Clarke (personal communication).
19. A special issue on "Cross-border Reproductive Care: Travelling for Conception and the Global ART Market," guest-edited by Zeynep Gürtin and Marcia C. Inhorn, appeared in *Reproductive BioMedicine Online* (November 2011).
20. All names are pseudonyms.
21. This story has been published in chapter 4, "Religion," in Inhorn (2003). It is based on a series of interviews carried out by the first author in Cairo in 1996. This couple has since then permanently settled in the U.S. They remain in contact with the first author.
22. Consanguinity, or cousin marriage, is a common and even preferred form of marriage across the Muslim world. See Inhorn (1996, 2012) and Inhorn et al. (2009) for detailed discussions.
23. In a famous case reported in the American media, an infertility doctor was discovered to have used his own sperm to impregnate patients whose husbands suffered from male infertility. His patients began to suspect this when many of their offspring resembled the physician rather than their own husbands. The doctor was eventually questioned by police authorities and admitted what he had done. He was tried and imprisoned for his medically unethical practices.
24. This story is based on an interview carried out by the first author in New Haven, CT, in 2008. The sad ending to the story was reported to the second author in summer 2009.

25. "Unexplained infertility" is an ambiguous category that is decreasing in prevalence with improvement in diagnosis, especially the advent of preimplantation genetic diagnosis (PGD).
26. Egg freezing is a relatively new technology with uncertain results. If possible, using "fresh" oocytes is preferable in a donor egg cycle.
27. U.S. prices, especially for donor oocytes and surrogates, are the highest in the world.
28. This story has been published in Inhorn (2007, 2012). It is based on an interview carried out by the first author in Beirut in 2003.
29. The premature infants required blood transfusions, which is why the parents' nonmatching blood types became a point of contention.
30. We thank Morgan Clarke for this important insight.

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Chapter 9

Islamic Bioethics and Religious Politics in Lebanon

On Hizbullah and ARTs

Morgan Clarke

Introduction

The supreme leader of the Islamic Republic of Iran, Ayatollah 'Ali al-Khamene'i, is politically a conservative, and indeed in the eyes of many, a highly repressive figure.[1] He is, however, most unwilling to restrict the use of advanced fertility treatments. Like a number of other Shia clerics, he does not prohibit the use of donor eggs or donor embryos, nor that of surrogacy arrangements; more unusually, he also finds no reason to prohibit the use of donor sperm (see this volume passim; Clarke 2007a). Secondly, within the wider Middle East it is only in predominantly Shia Iran and in Lebanon, which has a sizeable (Twelver) Shia community in which Iran has an important stake through the Lebanese Hizbullah, that donor gamete procedures and surrogacy arrangements can be undertaken (Inhorn et al., this volume). It has proved tempting to understand these seemingly related, but in fact distinct phenomena in terms of a contrast between "Sunni" and "Shia" religious opinion (see, e.g., Clarke 2009). Here I want to reinsert these instances—and "Islamic bioethics"[2] more generally—into their larger context, focusing on the example of Lebanon, where I carried out field research on