

Cultural Perspectives on Reproductive Health

Edited by

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OXFORD
UNIVERSITY PRESS

Money, Marriage, and Morality: Constraints on IVF Treatment- Seeking among Infertile Egyptian Couples

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INTRODUCTION

Consider two births: one of Louise Brown, the world's first 'test-tube baby', conceived and born in England in 1978, and the other of Heba Mohammed, Egypt's first test-tube baby, born less than a decade later in 1987. The lives of these two girls, one Western and one Middle Eastern, are connected by a modern technology, in vitro fertilization (IVF), that allowed their parents to overcome otherwise intractable infertility. It is their global connection and the ways in which Western-generated technologies such as IVF are received in places like Egypt that provides the major focus of this chapter.

Since Louise's birth more than two decades ago, the new reproductive technologies (NRTs) including IVF have become widely available in the West for couples with once hopeless infertility problems. As this technology has proliferated, so have its critics, particularly bioethicists, technology assessment specialists, and feminist theorists and activists. They worry about issues ranging from future 'genealogical bewilderment' (Humphrey and Humphrey 1986) to 'technopatriarchal' control over women's reproductive bodies (Mies 1987; Rowland 1987), which are being used increasingly as 'test-sites' for new drugs and surgeries (Klein and Rowland 1989). Yet, a clear Western bias is evident in such reproductive technology discussions, focusing as they do either explicitly or implicitly on the Western, white, socio-economically advantaged couples who are able to afford high-tech reproductive medicine and who thus provide the material and data for commercial and academic exchange (Sandelowski and de Lacey, forthcoming). In such discussions, the issue of the global spread of NRTs to the so-called 'developing world' is rarely acknowledged—a scholarly erasure that may be due to unexamined, Eurocentric, even neo-Malthusian prejudices surrounding the 'hyperfertility' of non-Western subjects and their inherent unworthiness as candidates for these technologies.

Nonetheless, significant infertility problems exist in the developing world—particularly on the African continent, which is considered to have an ‘infertility belt’ wrapped around its centre (Collet *et al.* 1988; Ericksen and Brunette 1996; World Health Organization 1987). Thus, it should come as no surprise—despite the lack of Western concern and commentary—that ‘high-tech’ reproductive technologies *are* being marketed to and consumed by those in the developing world on a massive scale. For example, limited reports indicate that these technologies have spread to several parts of Latin America, Asia, and Africa. But perhaps nowhere is this globalization process more evident than in the Muslim Middle East, where IVF centres have opened in countries as small as Bahrain and Qatar to those as large as Saudi Arabia and Egypt.

Egypt provides a particularly fascinating locus for investigation of this global transfer of new reproductive technologies because of its ironic position as one of the poor, purportedly ‘overpopulated’ Arab nations. Egypt was among the first Middle Eastern Muslim countries to establish a national population programme (through family planning) in the 1960s; as in the vast majority of the world’s societies, infertility was not included in this programme as either a population problem, a more general public health concern, or an issue of human suffering for Egyptian citizens, especially women. Nonetheless, a recent World Health Organization-sponsored community-based prevalence study of infertility, based on a random sample of married women aged 18–49 in 20,000 rural and urban Egyptian households, placed the total infertility prevalence rate among married couples at 12 per cent (Egyptian Fertility Care Society 1995). Of this total, 4.3 per cent of cases suffered from so-called ‘primary infertility’, or the inability to conceive in the absence of a prior history of pregnancy. The remaining 7.7 per cent of the infertile study population suffered from ‘secondary infertility’, or the inability to conceive following a prior pregnancy (whether or not it resulted in a live birth).

Given this considerable infertile population and the strong culturally embedded desire for children expressed by virtually all Egyptian men and women, it is not surprising that Egypt provides a ready market for the new reproductive technologies. Indeed, with its long history of colonially inspired Western medicine (Inhorn 1994), Egypt has been on the forefront of IVF development in the Middle East, now hosting more than 35 IVF centres in full operation or development, more than any other Muslim or non-Muslim country in the region.¹

In other words, less than 10 years after the birth of Louise Brown in England, IVF had already spread to Egypt, and in the decade following Heba Mohammed’s IVF conception and birth, the new reproductive technologies have come to flourish in the country. However, these technologies are not transferred into cultural voids when they reach places like Egypt. Local considerations, be they cultural, social, economic, or political, shape and sometimes curtail the way in which these Western-generated technologies are both offered to and received by non-Western subjects. In the case of Egypt, infertile women and men willing to consider the use of new reproductive technologies face a series of culturally specific considerations and constraints—making it a remarkable fact that Egyptian *atfal l-anābīb*, or

literally ‘babies of the tubes’, are born on an almost daily basis in some IVF centres there. As will be highlighted in this chapter, these ‘arenas of constraint’ range from class-based barriers to access, to gender dynamics within marriage, to local versions of Islam, which legislate upon the appropriate use of these technologies and thus restrict how ‘babies of the tubes’ are to be made. Such culturally specific considerations speak to the need for greater historical and cross-cultural expansion of Western-based bioethical, feminist, and technological debates surrounding the various impacts of new reproductive technologies. For, as the ethnographic research presented in this chapter suggests, the use of new reproductive technologies in Egypt involves not only a unique history, but different understandings of the role of money, marriage, and morality, all of which profoundly influence Egyptian women’s and men’s decisions about whether or not to utilize these technologies.

THE ETHNOGRAPHIC SETTING AND STUDY POPULATION

The research upon which this chapter is based encompasses two distinct time frames. The first period is the late 1980s, or what may be called the ‘early IVF period’ in Egypt. The first Egyptian IVF centre had just opened in an elite suburb of Cairo in 1986, and hence the new reproductive technologies were neither widely available nor widely understood in the country. In these early days, I conducted 15 months of anthropological fieldwork on the problem of infertility in Egypt, basing my research in Alexandria, Egypt’s second largest city. Working through the University of Alexandria’s large, public, ob/gyn hospital, popularly known as ‘Shatby’, I conducted in-depth, semi-structured interviews with 100 infertile women and a comparison group of 90 fertile ones. Eventually, I made my way into the communities and homes of these women, where I conducted less formal interviewing and participant observation. With few exceptions, these women were poor, uneducated, illiterate or only semi-literate housewives, who were not employed in wage labour and were economically dependent upon their unskilled, labouring husbands. It is extremely critical to note here that many of these urban poor women were seeking treatment at Shatby Hospital not only because the infertility services there were free, but specifically because of the hospital’s widely publicized claims to a ‘free’, government-sponsored IVF programme. Yet, by the end of the 1980s, when I completed this initial fieldwork, it had become apparent to all of my poor, IVF-seeking informants that an IVF programme at this public hospital had yet to arrive. Furthermore, it appeared likely that IVF was not going to be the promised government ‘freebie’ for poor infertile women lacking the resources to seek IVF in the private sector.

Moving ahead, the second period of research is the mid-1990s, or what may be characterized as the ‘IVF boom period’ in Egypt. To wit, Egypt is now in the midst of massive reproductive technology transfer, with new urban IVF centres cropping up in private hospitals and clinics on a regular basis. In the midst of this IVF explosion, I spent the summer of 1996 in Cairo conducting participant observation and in-depth, semi-structured interviewing with 66 middle- to upper-class women

and their husbands; all of them were undergoing IVF or related technologies at two of the major IVF centres in this city of nearly 20 million inhabitants. Both of these IVF centres were situated in private hospitals in Heliopolis and Maadi, elite neighbourhoods on the outskirts of Cairo. These two clinics were among the three most established and respected clinics in the city, and received a daily influx of new patients, especially during the summer months, which were the busiest and were therefore ideal for my research. The patients presenting to these IVF clinics were generally well educated, professional, comparatively affluent women, who were often accompanied by their husbands. Indeed, in 40 per cent of the interviews conducted in these IVF clinics, husbands were present and participated, often enthusiastically, in discussions. Moreover, whereas interviews in my first study were conducted entirely in the Egyptian colloquial dialect of Arabic, many of the women and men who participated in the second study spoke fluent, even flawless, English as a result of their advanced educations, and they chose to conduct the interview in their second language.

Thus, my work on this subject incorporates both a diachronic perspective and a class-based comparison of infertile women seeking treatment in the two largest cities of Egypt. It reveals how the treatment experiences of poor and elite infertile women differ dramatically by virtue of education, economic resources, and power within their marriages, and how a time span of less than a decade has dramatically altered the infertility treatment landscape in Egypt. Let me illustrate these points by first telling two contrasting stories, one of Fadia and Osman, a poor infertile couple who I met in the late 1980s, and the other of Amira and Galal, a wealthy couple seeking IVF in the summer of 1996.²

THE STORY OF FADIA AND OSMAN

Like so many of the poor migrants to Egypt's northern cities, Fadia was born and raised in the south of Egypt, home of the major monuments of Egypt's pharaonic past and a place of renowned cultural conservatism. A divorcee from an early arranged marriage to her first cousin, Fadia fled to the home of her dissolute father living in Alexandria, only to find that he physically and verbally abused her. Needing a way out of another intolerable situation, Fadia sought refuge in a marriage proposal from Osman, a neighbour who had spotted the raven-haired beauty as she walked home from the market. Although Fadia found the balding, chain-smoking Osman unattractive and too old (he was 10 years her senior), she sensed that he might be kind to her. Yet, Osman's marital track record was not good. He had already wed five women, including one who turned out to be a true hermaphrodite, and all of these serial marriages had ended quickly and inauspiciously without children resulting from the unions. With the young, lovely Fadia, Osman hoped that his marital and procreative luck would improve.

Within her first 2 years of marriage to Osman, Fadia became pregnant three times, but she miscarried each time in the first trimester. Following the third miscarriage, Fadia did not become pregnant again. Osman, vexed over Fadia's

failure to bear his children, became increasingly short-tempered—smoking as many as four packs of cigarettes a day, suffering severe impotence problems, and insulting, threatening, and beating his wife from time to time out of frustration over yet another ill-fated marriage.

Yet, Fadia convinced Osman to let her seek treatment for her infertility, which Fadia helped Osman to finance by joining neighbourhood savings clubs and selling off all her bridal gold. Like most other women of her class background, Fadia tried many traditional remedies, including, among other things, stepping over the gravedigger's tools in a local cemetery; sitting on a freshly delivered placenta; wearing glycerin-imbued vaginal suppositories; placing Qur'anic amulets under her pillow; and visiting spiritist healers who prescribed elaborate animal sacrifices. However, when none of these remedies worked to make her pregnant, Fadia stopped them altogether and started going from one doctor to another. Several of them requested a semen analysis from Osman, which he grudgingly underwent three times. The semen analyses revealed a chronic prostate infection and poor sperm motility, for which Osman was prescribed expensive drug therapy. Fadia, meanwhile, underwent both drug therapy and invasive procedures, such as cervical electrocautery, in which her cervix was thermocauterized by a heated instrument. Eventually finding her way to the university's Shatby Hospital, Fadia was diagnosed as having a large ovarian cyst, a severe pelvic infection, and blockage of both fallopian tubes. She underwent surgery to remove the cyst and 'clean out' the fallopian tubes, but a young physician, being uncharacteristically straightforward, told Fadia that her chances of conceiving normally without the help of IVF were minimal.

When Fadia broached the subject of IVF with Osman, he was adamantly opposed—not only because of the extraordinary expense, which was well beyond the means of a poor carpenter, but also because Osman considered IVF to be *ḥarām*, or forbidden by Islam. According to Osman, who reinterpreted for Fadia the message of a popular televised cleric, the sinfulness of this procedure certainly derived from the fact that 'another man's sperm' might be introduced during the IVF procedure. Thus, 'a man would be raising someone other than his own child.'

Although Fadia herself was willing to try IVF, which she believed was imported from America, she realized her chances of undergoing this treatment were remote, given the delays in the public IVF programme at Shatby, her husband's moral opposition to the procedure, and their relentless poverty. With few treatment options left open to her, Fadia hoped that Osman's own male infertility problems and lack of children from his previous marriages would 'keep him silent' on the subject of divorce. For, if Osman divorced her, as was his right under Islamic personal status law, she would truly have nowhere else to go.

In the fall of 1992, I received a letter from Fadia, which she had dictated to one of the physicians at Shatby Hospital, who sent it on to me. Because of Fadia's failure to bear his children, Osman did, in fact, divorce her in August 1991. But, fortunately for Fadia, now a two-time divorcee, she was remarried in November of the same year, to a city bus driver who she described as a 'beautiful and decent man'. Best of

all, Fadia reported that they loved each other, with the great affection that she had missed in both of her previous marriages. Unfortunately for me, I have since then lost touch with my friend and informant Fadia, as my letters to her have never been answered. But I can only hope that Fadia's newfound happiness has continued, and that, with or without the help of test tubes, she becomes an Egyptian mother of the children she so desires.

THE STORY OF AMIRA AND GALAL

Amira and Galal represent the other face of Egypt—one in which wealthy elites are able to purchase the fruits of globalization, including high-cost, high-tech medical services such as IVF. I met Amira and Galal on a hot July morning in the IVF clinic of an ex-movie star turned distinguished university ob/gyn professor named Mohamed Yehia.³ Dr. Yehia was unusually supportive of my anthropological research—more than any of the Egyptian physicians I have worked with over the years. He not only read both of my books on Egyptian infertility (Inhorn 1994, 1996), but he also enjoyed discussing and debating my research, including the issues that were emerging through my work in his centre. He also arranged for me to have a private hospital room where I was able to conduct confidential interviews, as confidentiality turned out to be a major issue of concern for many IVF patients. And he introduced me to couples like Amira and Galal, encouraging them to participate in my study.

As it turned out, Amira and Galal were relatively new to Dr. Yehia's clinic, but as a transnationally sophisticated couple, they were already 'old pros' at IVF, which they had tried 2 years earlier in Los Angeles. Amira had married Galal 4 years before their first IVF attempt, knowing that Galal, her first cousin, suffered from a surgically irreparable varicocele, or a cluster of dilated veins in his testicles causing him to have a very poor sperm count. Although Amira's parents were deeply opposed to her marrying a man known to be infertile, even if he was her cousin, Amira loved Galal, a kind man who was also a handsome, rich factory owner. In part to escape family pressure and in part to seek medical advice, Amira and Galal decided to emigrate to the United States in 1992, where Amira had a sister living in Los Angeles. Once settled, they sought treatment for Galal's infertility and were told that they should undergo artificial insemination using donor semen from a sperm bank. Incredulous, Amira and Galal explained to the American physician that 'we are Muslims and this is forbidden.' So he referred them to an Egyptian Muslim physician running his own LA-based IVF clinic. This was the first time either Amira or Galal had heard of IVF, but, once they talked with the Egyptian doctor, they were soon convinced that IVF was allowed by Islam as long as both sperm and eggs came from husband and wife. Furthermore, they felt fairly certain that a good Muslim doctor would never allow any laboratory mix-ups to occur—even in LA. So Amira and Galal went ahead with one trial of IVF, which cost them \$16,300. When the

in vitro fertilization process produced extra embryos that were not to be transferred to Amira's uterus, she was given three choices: freezing, destroying, or donating to another couple. As Amira explained: 'We said, "destroy". It is our religion. We do not believe in a mixture of relations.'

Unfortunately for Amira and Galal, the trial of IVF was unsuccessful, as were Galal's real estate ventures in LA. So they decided to return to Egypt in 1995, where Amira proceeded to open a children's fashion boutique. Upon their return to Egypt, relatives on both sides of their family began urging them to go to doctors in Egypt, where 'science is constantly advancing'. But Galal had his doubts that doctors in Egypt were competent to carry out IVF without making major errors. It was not until they read two news articles—one in the major daily newspaper, *Al-Ahram*, and the other in a news magazine, *Nus id-Dunya*—that Amira and Galal changed their opinion about their potential to undergo successful IVF in their home country. Namely, the media were covering the successful introduction in Egypt of intracytoplasmic sperm injection (ICSI), a new variant of IVF in which the sperm of men with very poor fertility profiles are actually injected directly into the ovum, thereby 'helping along' the in vitro fertilization process. Amira and Galal decided that ICSI—or 'the microscopic injection' as it is called in Egypt—might be the solution to their childlessness, and they proceeded to the clinics of two physicians offering this newest technology. One, a notorious curmudgeon with exceptionally poor bedside manner, made Amira and Galal feel like 'he was just in it for the money'. So they chose Dr. Yehia, who, as Amira put it, 'pats you and says, "OK, it will be all right."'

Indeed, Amira needed Dr. Yehia's reassurance after her first trial of ICSI was cancelled. After going to great lengths to obtain the hormonal agents necessary to stimulate her ovaries—including having friends and relatives bring the drugs from Alexandria and Saudi Arabia—these agents did not succeed in producing an adequate number of ova for retrieval. As Amira explained, 'It costs your body and your feelings and your money. It's not easy. But my husband always supports me; it's very, very helpful for me. You feel like you're desperate and after that, he says, "We will try again."' When Amira told the doctor that she did not think she could go through the emotional roller coaster of another failed trial, he told her to remain hopeful, and this time he provided her with the hormonal drugs from his own clinic supply. On their second try, the drugs worked, and Amira and Galal were able to go forward with the ICSI procedure. Although ICSI is the most expensive new reproductive technology available in Egypt, it cost Amira and Galal only \$2,700—or less than one-fifth of what it had cost them to undertake one trial of IVF in the United States.

Luckily for Amira, she became an Egyptian mother of a test-tube baby, a beautiful little girl named Dalia, in the spring of 1997. Amira explained, 'Even if they have all these facilities now for IVF and ICSI in Egypt, after everything, if God wants me to have a child I will, and if not, I won't.' Clearly, God has decided in favour of Amira's motherhood—with the help of test tubes.

'ARENAS OF CONSTRAINT': CLASS, GENDER, RELIGION

Class

The contrasting stories of Fadia, Amira, and their husbands point to many issues. But what is especially clear from these two stories is the importance of structural constraints: namely, that one's class position in Egyptian society is often the major determinant of who receives IVF treatment services.

As seen in Fadia's story, the new reproductive technologies are absolutely unaffordable for most poor and even many middle-class Egyptian patients, even though they are often aware and highly desirous of such treatments. With only one exception, all Egyptian IVF centres today are *private* concerns, charging comparatively high prices for the procedures and drugs that patients pay for out-of-pocket—since health insurance in Egypt is new and not widespread. The one exception to this rule is the University of Alexandria's Shatby Hospital, where I conducted my initial research on infertility in the late 1980s. Shortly after I left Egypt, Shatby Hospital did open its own IVF centre, and the first Alexandrian 'baby of the tubes' was born and heralded in the Egyptian media in early 1992. However, since those early publicity-driven days of 'free', government-sponsored IVF, fewer and fewer test-tube babies have been born to poor Egyptian women such as Fadia. As Egypt's one and only *public* IVF programme, the Shatby Hospital IVF clinic continues to run, but on such a low volume that very few patients receive treatment and success rates are compromised. For the most part, the physicians charged with running this public clinic put their energies into their private IVF practices—which, as is typical for Egyptian physicians working in the public sector, they run 'on the side'.

As with Dr. Yehia, the Egyptian doctors who own and operate private IVF clinics comprise a small, elite corps of highly educated and biomedically sophisticated reproductive medicine specialists. Most of them have utilized their own economic resources to seek training in IVF in either Europe or the US. And, although many of these physicians have some sympathy for less affluent patients, occasionally taking on IVF charity cases, they generally feel justified in charging high prices for their services and subsequently purchasing the lifestyles—including, in some cases, BMWs and Mercedes-Benzes—that the profit from these services brings to them.

Not surprisingly, their patients also tend to be educated elites such as Amira and Galal, who are sophisticated about their medical options and can afford to pay for high-tech therapies. In a society where the majority of women remain illiterate and do not work in the formal sector, the women patients who present to IVF clinics today tend to be highly educated professionals, who are employed as doctors, lawyers, architects, engineers, accountants, businesswomen, professors, tourism officials, and even movie stars. Furthermore, many of these women and their husbands are members of the Egyptian 'brain drain' generation; namely, they increase their wealth by working in the petro-rich Arab Gulf countries, returning

home annually on month-long summer vacations in order to undertake a trial of IVF. Some, like Amira and Galal, are true globe-hopping migrants, moving temporarily to Western countries in order to try IVF, often before they become convinced to seek IVF at home.

In other words, over a relatively short time span of a decade, the IVF scene in Egypt—once touted as being open to even the poorest public-hospital patients such as Fadia—has become extremely class based and exclusionary, the arena of a handful of elite doctors and their high-class patients. This does not mean that elites—both doctors and patients—are without feeling for the poor and even middle-class women who cannot afford IVF therapy. For example, Dr. Yehia described his futile, 10-year campaign to introduce IVF at Cairo's largest public, ob/gyn teaching hospital, bemoaning the lack of political will that had frustrated his efforts. Furthermore, affluent women themselves lamented the high cost of IVF therapy and the need to repeat the therapy if it did not succeed. They agreed that such therapy is exceedingly expensive, especially in light of what they view as a poor salary structure in Egypt and a generally low standard of living in this developing country. Yet, most of these patients also admitted that they and their husbands could afford repeated trials of IVF. And many stated bluntly during interviews that these therapies are 'not for everyone'—the 'everyone' in this case tacitly meaning poor women such as Fadia, who are often known to wealthy women only in their capacity as domestic servants.

Indeed, echoed in this exclusionary discourse is the same kind of Eurocentric prejudice which, as noted earlier, seems to underlie much Western discourse on infertility and the new reproductive technologies, and which is certainly rife in the Western-generated population discourse on Egypt. Namely, the new reproductive technologies to combat infertility *should not* be 'for everyone', because, as the equation goes, those who cannot afford these technologies certainly cannot 'afford children'. To wit, poor women do not deserve to be mothers—and especially not 'test-tube mothers'. And any reproductive technology directed at them should be to inhibit—not facilitate—their fertility.

So where does this leave infertile women such as Fadia? As her story highlights, most poor Egyptian women *do* seek treatment for their infertility, but not at IVF centres in Cairo or Alexandria. Rather, most poor women obtain help from both traditional 'ethnogynaecologists' and 'biogynaecologists' not specializing in IVF (Inhorn 1994), and they may employ their services simultaneously. Indeed, given Egypt's 5,000-year history of shifting medical traditions (Millar and Lane 1988; Inhorn 1994), numerous healing philosophies are still present in Egypt, leading to a multifaceted array of etiological, diagnostic, and therapeutic beliefs and practices regarding the nature and treatment of infertility.

Throughout urban poor neighbourhoods and rural communities in Egypt, healers such as lay midwives and herbalists treat the infertile with the *materia medica* and power of beliefs derived from these earlier traditions. As seen in the case of Fadia and her pursuit of a variety of traditional remedies, the vast majority of lower-class women continue to rely on these popular, indigenous practitioners at

least as a first line of resort; for it is these healers, and not doctors, who recognize, diagnose, and treat ethnogynaecological causes of infertility (Inhorn 1994). These include, inter alia, reproductive 'binding' via ritual pollution; utero-ovarian humidity; an 'open back'; a severe shock or fright; sorcery; and the spirit-sister under the ground, who renders women infertile when angered. Although poor women are variable in the degree and extent to which they accept these ethnoetiologies and act upon them in their treatment quests, suffice it to say that ethnogynaecological beliefs, treatments, and practitioners are alive and well in Egypt among the urban underclass, providing an 'alternative' therapeutic realm for poor infertile women that is rich and varied in its content.

For many poor women such as Fadia, ethnogynaecology remains an especially appealing avenue for therapy, because of the considerable constraints to proper infertility care posed by Egyptian biomedicine. To wit, in Egypt today, those women who cannot afford IVF and the other new reproductive technologies are typically subjected to an array of outdated, inefficacious, and even iatrogenic, or disease-producing, therapies that are widely practised by Egyptian biogynaecologists. In many cases, the subjects of these iatrogenic practices are poor, minimally educated women, who, having been convinced of the superiority of biomedicine or simply desperate to be cured, may sell virtually everything they own in order to finance their biomedical quests to doctors who can only be described as 'second-rate'. Typically, these physicians engage in the blatant abuse of fertility drugs—overprescribing them to patients and failing to monitor sometimes serious side effects which may lead to additional infertility problems. Furthermore, as seen in Fadia's story, infertile Egyptian women typically undergo multiple, often painful invasive procedures—such as tubal insufflation, to purportedly 'blow open' blocked fallopian tubes; dilatation and curettage (D&C), to purportedly 'clean' the uterine cavity; and cervical electrocautery, to purportedly treat an 'eroded' cervix—that are not indicated in the modern treatment of infertility and are potentially dangerous.

Although a detailed cultural critique of Egyptian biogynaecological practice is beyond the scope of this chapter and is presented elsewhere (Inhorn 1994), suffice it to say here that an indigenous critique is beginning to emerge from within the Egyptian biogynaecological community itself. It involves the subversive discourse of younger, often university-based physicians, who rail against the irrational, inefficacious, and harmful practices of many of their community-based colleagues. According to these critics, most Egyptian biogynaecologists continue to perform these procedures for two reasons: (1) because of their outdated medical knowledge, which derives from an antiquated, colonially produced system of medical education in Egypt (El-Mehairy 1984; Sonbol 1991) and which is accompanied by a blatant lack of physician accountability through any form of systematic continuing medical education or malpractice; and (2) because of physicians' frank greed for money in a climate of economic uncertainty and stiff competition for paying clientele. Poor infertile women, who are uneducated and often too easily impressed by male physicians' authority, constitute easy prey for unscrupulous physicians, who may justify their largely inefficacious treatments as a harmless form of hope for their

desperate female patients. As physicians practising in a developing country, they realize all too well that it is such poor patients who will never be able to afford IVF and other NRTs. Thus, the 'old' reproductive technologies, which are applied in a cavalier and harmful fashion, are even justified as a form of 'mercy' treatment by physicians who are incapable of offering the newer reproductive technologies to their poor patients.

Gender

Whereas most poor patients such as Fadia typically undergo these deleterious therapies, elite patients such as Amira rarely encounter them, as they tend to make their ways directly or through referral to infertility specialists. However, even Egyptian elites may find themselves limited in their avenues to IVF family formation for reasons having little to do with social class and subsequent access to high-quality medical care. In addition to class-based constraints, gender relations and conjugal dynamics come into play when Egyptian wives and husbands, together or alone, seek IVF services.

Indeed, gender politics can be an arena of great contestation, for infertility is highly threatening to both men and women and is often destabilizing of otherwise comfortable, companionate marriages. Generally speaking, however, women experience the threat of infertility more keenly. To wit, women who are unable to achieve entrance into the 'cult of motherhood' (Bouhdiba 1985) in Egypt are seen as being less than other women, as depriving their husbands and husbands' families of offspring, and as even endangering other people's children through their uncontrollably envy. Typically, they are also blamed for the infertility, and they are expected to seek treatment. Thus, in Egypt, infertile women of all backgrounds tend to face tremendous social pressures, ranging from marital duress and dissolution, to stigmatization within the extended family network, to outright ostracism within the larger community of fertile women. Indeed, of all the types of persons that one could be, there are very few less desirable social identities than that of the infertile woman, or *Umm Il-Ghayyib*, 'Mother of the Missing One', as Egyptians sometimes call her, giving this particular identity all of the classic features of a stigma (Goffman 1963).

Paradoxically, whereas infertility always mars a woman's social and gender identity, male infertility does not typically redound in the same way on a man's masculinity or personhood. Although male infertility is profoundly emasculating, given its conflation with problems of virility or sexual potency, having a child does not 'complete a man like it does a woman'. Whereas a woman's full adult personhood can only be achieved through attainment of married motherhood, a man's sense of achievement as an adult human being has other potential outlets, including employment, education, religious attainment, leisure activities, and the like.

Furthermore, men such as Osman and Galal who are infertile need not fear much for their masculine reputations, for male infertility is rarely 'exposed' to others in Egyptian communities. Why? For one, the diagnostic enterprise of semen analysis is

fraught with difficulty in Egypt; some men refuse to undergo semen analysis, others disbelieve their negative results, others hide their bad results from their wives and families, and some are even known to bribe laboratory technicians for highly inflated, false reports. Furthermore, infertility specialists in Egypt bemoan the technical quality of semen analysis in their country, which varies considerably from lab to lab and thus may be highly unreliable. In other words, even though male infertility contributes to at least half of all infertility cases globally, diagnosing it in Egypt remains highly problematic and is exacerbated by men's abilities to hide the problem from others.

'Hiding' male infertility is abetted by wives such as Amira, who typically 'cover' for their husbands and publicly accept the 'blame'. Why? For one, many women continue to assume that there must be something wrong with them, too, and the degree of internalization of self-blame, even when it is not merited, is often quite remarkable in women's discourse about their reproductively fragile and malfunctioning bodies (Inhorn 1994). Furthermore, wives such as Amira who know of their husbands' infertility typically express profound sympathy and care for their husbands—rarely deeming the infertility to be a striking blow to their marriages. In fact, marriages such as Amira and Galal's that are affected by male infertility are often some of the best. This is because infertile husbands usually feel profound guilt over 'depriving' their wives of children; therefore, they treat their wives exceptionally kindly. Women, for their part, often feel great relief in knowing that their childless marriages are nonetheless secure by virtue of a male reproductive failing. Thus, they generally (although not always)⁴ reciprocate their husbands' kindnesses with mutual affection and even public acceptance of the 'blame' for the infertility.

Infertility stemming from a wife, on the other hand, typically affects marital dynamics and outcomes in deleterious ways, sometimes leading to polygynous remarriage or outright divorce, as in the case of Fadia and Osman. Although many men are reluctant or totally unwilling to replace their infertile wives with a fertile woman, their extended family members are usually vociferous about the need to perpetuate the patrilineage (Inhorn 1996). Thus, a wife's infertility tends to lead to marital turmoil at some point in her marriage, usually through pressure exerted by in-laws. As a result, infertile women live in fear that their marriages will 'collapse', for Islamic personal status laws consider a wife's barrenness to be a major ground for divorce. Although Islam also allows women to divorce if male infertility can be proven, a woman's initiation of a divorce continues to be so stigmatizing in Egypt that women rarely choose this option unless their marriages are truly unbearable (Inhorn 1996).

Although most husbands of infertile Egyptian women do *not* divorce their wives, thereby resisting tremendous family pressure, divorces over childlessness do occur, as seen in the case of Fadia and Osman. Indeed, even among the presumably 'enlightened' upper classes, some men would rather divorce their infertile wives than undergo the trials, tribulations, moral uncertainties, and expenses surrounding IVF. Furthermore, during the IVF treatment process, marriages sometimes come unglued under the intense physical and psychological pressure that this therapy typically exacts on couples.

But perhaps the saddest new twist in marital politics in Egypt has occurred as a result of the recent introduction of ICSI, the 'newest' new reproductive technology that allowed Amira and Galal to have their baby. Namely, with ICSI, cases of seemingly intractable male infertility can now be overcome. Thus, ICSI heralds a revolution in the treatment of male infertility, and its arrival in Egypt has led to the flooding of IVF clinics with male-infertility cases—for example, 70 per cent of those couples I interviewed in the summer of 1996.

But, unfortunately, many of the wives of these Egyptian men, who have 'stood by' their infertile husbands for years, even decades in some cases, have grown too old to produce viable ova for the ICSI procedure. Because Islamic law forbids any kind of ova donation or surrogacy, couples with a 'reproductively elderly' wife face four difficult options: (1) to remain together permanently without children; (2) to foster an orphan, since adoption per se is not allowed by Islam; (3) to partake in a polygynous union with a younger, more 'fertile' woman;⁵ or (4) to divorce outright so that the husband can remarry such a woman. Unfortunately, more and more highly educated, upper-class Egyptian men are choosing the latter option—believing that their own reproductive destinies may lie with younger 'replacement' wives, who are allowed to men under Islam's personal status laws.

Although it is arguable whether Islam is more or less patriarchal than any other world religion, many Middle Eastern feminist scholars have nonetheless pointed to Islam's personal status laws governing divorce and polygyny as glaring examples of the nexus between patriarchal ideology and practice in the Middle East (e.g. Badran 1993; Coulson and Hinchcliffe 1978; Hatem 1986; Smock and Youssef 1977; White 1978). Certainly, these laws—coupled with the Islamic position on the need for biological parenthood in the practice of IVF and ICSI—place infertile Egyptian women and the 'old' wives of infertile Egyptian men in an extremely precarious position *vis-à-vis* their reproductive and marital futures.

Religion

Indeed, Islam, along with the class-based constraints to IVF already described, poses perhaps the other most serious constraint on the practice of IVF in Egypt, both in terms of its restrictive legislation and in the anxieties over religious matters that it creates. Egypt is a decidedly Muslim country, with more than 90 per cent of its citizens Sunni Muslims and with public expressions of religiosity increasing under a two-decade long wave of Islamic revivalism. Although Egyptian Muslims are certainly heterogeneous in terms of religiosity and degree of religious expression, it is also true that Islam provides a source of guidance for many, if not most, Egyptian Muslims in a variety of arenas of human activity, including beliefs and practices regarding health and medicine. Instruction which informs or regulates the everyday activities of Muslims can be found in a number of theological documents which make up the body of Islamic jurisprudence. Those issues, such as the introduction of new reproductive technologies, which are not discussed in the legal texts are regularly

legislated upon by the most venerable Islamic legal authorities in the form of written religious proclamations called *fatwas* (Lane and Rubinstein 1991).

Even before IVF emerged on the scene in Egypt, the Grand Sheikh of Egypt's world-renowned Al-Azhar University issued a *fatwa* on the religious permissibility of IVF. Namely, he declared that IVF and similar therapies were an acceptable line of treatment—as long as they were carried out by expert scientists with sperm from a husband and ova from a wife with 'no mixing with other cells from other couples or other species, and that the conceptus [the embryo] is implanted in the uterus of the same wife from whom the ova were taken' (Aboulghar *et al.* 1990). In other words, this *fatwa*, which is widely viewed as authoritative by physicians and patients in Egyptian (and other Middle Eastern) IVF centres today, clearly spells out which individuals undergoing reproductive therapies have the right to claim the status of 'mother' and 'father'—namely, only the *biological* mother and father, who thereby maintain 'blood ties' to their IVF offspring. Sperm, ova, and embryo donation are strictly prohibited, as is surrogacy.

Although this *fatwa* on IVF was issued as early as 1980, uncertainty about the Islamic position on IVF reigned throughout the rest of the decade in Egypt, as evident in Fadia's husband Osman's belief that IVF was *ḥarām*, or religiously prohibited. By the mid-1990s, however, some of this moral uncertainty had given way to a kind of moral clarity among the Egyptian women and men undergoing IVF and ICSI. Stating that the religious aspect of IVF is its 'most important' element, Egyptian IVF patients interviewed in my 1996 study were relative experts on the religious dimensions of IVF. As they explained, sperm, egg, or embryo donation leads to a 'mixture of relations'. Such mixing severs blood ties between parents and their offspring; confuses issues of paternity, descent, and inheritance; and leads to potentially incestuous marriages of the children of unknown egg or sperm donors. Thus, for Egyptian women like Amira with infertile husbands, the thought of using donor sperm from a 'bank' was simply reprehensible and was tantamount in their minds to committing *zina*, or adultery. Surrogacy, in addition, was believed to tamper with the 'natural maternal bond', which is meant to be an exclusive link between one mother and her biological children.

Furthermore, much of this righteous discourse is now constructed in relation to discourses about the moral corruption occurring in the Christian West. In Egypt, news stories and television movies imported from America and Europe show women who 'rent their wombs', only to struggle over the custody of the children they bear; or infertility doctors who impregnate hundreds of women with their own sperm, only to be sent to prison; or IVF mothers who bear black and white twins by two fathers because of careless sperm admixtures in Western IVF laboratories. Proclaiming that this would never happen in Egypt—where patients can trust that their IVF doctors are good, religious Muslims—patients in Egyptian IVF centres described these stories, all of which happen to be true, with a kind of righteous incredulity. They concluded, often apologizing to the American anthropologist researcher, that 'each society has its own traditions and customs'.

But such claims of moral superiority belie the fact that many Egyptians who are either contemplating or actually undertaking IVF in Egyptian IVF centres spend long hours worrying about 'accidental donation'—namely, unintentional laboratory 'mix-ups' of semen, ova, or embryos. In some cases, these fears and suspicions may prevent couples from undertaking IVF altogether, for once the products of conception leave one's body, it is virtually impossible to know for sure whether these products will be returned untainted.

Given these anxieties, the paramount concern for patients such as Amira and Galal is the trustworthiness of the physicians who provide the new reproductive technologies. Are they in it for the money? Are they technically competent? Are they good Muslims? Do they care about their patients? Some IVF providers, such as Dr. Yehia, realize the importance of good doctor–patient relations and spend considerable time in patient counselling, including on the religious aspects of IVF. In Dr. Yehia's case, furthermore, he and his laboratory counterpart have attempted to quash fears about laboratory accidents by providing each patient couple with a tailor-made videotape of the laboratory aspects of their own in vitro fertilization procedure. Other IVF physicians attempt to accentuate their own Muslim religiosity, peppering their speech with religious idioms, holding prayer beads, and reading passages from the Qur'an as their patients are wheeled into the embryo transfer room. Such physicians tend to develop saint-like reputations and, not surprisingly, attract large patient followings. Thus, physicians themselves must negotiate their multiple and sometimes conflicting roles as both providers of lucrative, high-tech global technologies and upholders of local religious and cultural traditions that restrict how these technologies are utilized.

As an American anthropologist interested in understanding the 'local moral worlds' (Kleinman 1992) of Egyptian IVF patients and their physicians, I would suggest that there may be a paradoxical 'down side' to Islam's restrictive moral code—one that affects women in particular, but which few infertile Egyptian Muslim women are willing to contemplate or discuss. On the one hand, Islam glorifies motherhood and all it entails (Schleifer 1986), insisting that women are endowed with a 'natural maternal instinct' and that children are the 'decorations of worldly life'. Yet, infertile women who attempt to achieve glorious motherhood through resort to reproductive technologies are narrowly limited in their technological options by virtue of a religion that prohibits any form of ova donation or surrogacy. Moreover, these constraints seem even greater when one considers that Islam also prohibits adoption for the same reasons it disallows IVF donation practices—thereby further restricting how families are to be formed and motherhood realized.

CONCLUSION

It seems appropriate to conclude this chapter with a particularly trenchant comment from a recent essay on 'Anthropology and the New Reproductive

Technologies' (Shore 1992, p. 301), which states, 'The lesson from anthropology is that every society has a vested interest in controlling reproduction, and in each, we tend to find dominant institutions—the church, the state, the medical profession, or whatever—competing to monopolize the discourses through which legitimate reproduction is conceptualized.'

Through my own anthropological work in Egypt, I hope to have shed some light on the ways in which the reproductive destinies of infertile Egyptian women are being constrained, if not always directly controlled, by deeply entrenched class divisions and gender hierarchies and by the state religion, which, in the case of the new reproductive technologies, directly informs the practices of the medical profession. Clearly, much is at stake here, 'not only traditional definitions of family, disability, parenting, kin connection, and inheritance, but the conventional understandings of nature, life, humanity, morality, and the future' (Franklin and Ragone 1998, p. 9). For some infertile Egyptian women such as Fadia, their futures remain uncertain and their chances of becoming Egyptian mothers of test-tube babies remain slim, given the myriad constraints that confront them. For others, such as Amira, they are only too happy to be living in a society in which the global has become the local, and the fruits of globalization are literally the test-tube children they bear.

Notes

1. Israel, the only non-Muslim country in the Middle East, now hosts 24 IVF centres, the greatest number per capita in the world, according to anthropologist Susan Kahn (personal communication).
2. These names are pseudonyms.
3. This name is not a pseudonym, as neither the author nor the doctor wish that he remain anonymous.
4. From his long-term experience as an Egyptian infertility specialist, Dr. Yehia warns that not all elite women are so kind to their infertile husbands and may, in fact, exert considerable power over them by reminding them of their threatened masculinity.
5. Polygynous remarriage is rarely practised, as few Egyptian women today wish to remain as an elder infertile co-wife in a polygynous union.

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