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ABSTRACT

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The future of human reproduction; a 21st century phenomenon. A legal, theological and philosophical analysis.

This thesis seeks to examine various reproductive technologies whether old or new and draws conclusion from the legal, theological and philosophical perspective. My analysis starts by considering and is centred upon the Islamic perspective. The advancement of science and technology has brought many complex challenges to the modern world. I will argue that Islam is not a stagnant religion but a religion for all ages and all times. Islam has a solution to complex medical problems through the means of ‘Fatwa’s’ (Islamic legal ruling). The spirit of Islam should be the guiding force in assessing whether a certain treatment or advancement in medicine is permissible or not. It is important for medical practitioners to be religiously and culturally aware of the issues and the conundrum that many couples face when deciding whether a certain treatment is permissible within Islam or not.

English Law has seen a change in the mind set of the judiciary but still when it comes to the question of surrogacy it seems that there are numerous logistical difficulties. In a world of social media it seems that a lot more agreements are done via the Internet without the individual couple considering the legal implications but rather using raw emotion to make decisions, which may ultimately be detrimental to them and the child. In my analysis from the Legal Perspective, I argue that the Judiciary needs to react more quickly to the advancement of new reproductive technologies.

The Philosophical analysis considers the various reproductive technologies, in light of the bioethical principles. IVF is considered to be the least problematic option within my analysis, whereas surrogacy is the most problematic. It may be a matter of time as generations pass; moral attitudes may change the way we think on the question of surrogacy. The western world is coming to terms with gay marriages and a time may come where surrogacy can be a simple solution without the emotional attachment.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or any other institute of learning.

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_________________________________________________________________________ 1 February 2016

Tariq Mahmood
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The completion of this PhD would not have been possible without the support of many people.

Realisation of this thesis would not have been possible without the support and encouragement of my supervisors, Søren Holm and John Harris, who have guided me through the unfamiliar territory of undertaking a PhD.

I am thankful to my family especially to my wife and children for their unwavering support and encouragement through the highs and lows of research.

Dedication

This thesis is dedicated to all women who have struggled in their plight of infertility to become mothers.

The Author

I was fortunate to have completed a Masters in Healthcare Law and Ethics back in 2001 at the University of Manchester and this led me into pursuing a doctoral programme. I enrolled as a part-time PhD student as I was already practising as a barrister. It has been an interesting journey in trying to balance a family life with a full-time practice and trying to complete a PhD.
Table of Cases

A v C [1978] 8 Fam Law 170
A v C [1985] FLR 445
A v C [1985] FLR 543
Buck v Bell – [1927] 274 US 200
Case of P, C and S v The United Kingdom – [2002] 35 EHRR 31
Dickson and Another v United Kingdom – [2007] ECHR 17
Evans v The United Kingdom – [2007] ECHR 264
Quintavalle v Human Fertilization and Embryology Authority – [2005] UKHL 28
Re an Adoption Application (Surrogacy) [1987] 2 FLR 291
Re C (A Minor) [1985] FLR.846
Re v Collins and Ashworth Health Authority ex p Brady – [2000] Lloyds Rep Med 355
R v Ethical Advisory Committee of St. Mary’s Hospital (Manchester) ex parte H – [1998] 1FLR 512
Re G (Surrogacy: Foreign Domicile) [2007] EWHC 2814 (Fam)
R v Human Fertilization and Embryology Authority ex p Blood – [1997] 2WLR 806, CA
Re IJ (A child) [2011] EWHC 921
Re L (A minor) [2010] EWHC 3146
Re MW (Adoption: Surrogacy) [1995] 2 FLR 759
Re N (A child) [2008] FLR 177
Re P (Minors) (Wardship: Surrogacy) [1987] 2 FLR 421
Re (on the application of Bruno Quintavalle on behalf of Pro-Life Alliance) v Secretary of State for Health [2001] EWHC Admin 918
Royal College of Nursing of the United Kingdom v Department of Health and Social Security – [1981] 1 All ER 545
R (on the application of Quintavalle) v Secretary of State for Health [2003] 3 All ER (D) 178 (Mar)
R v Sheffield Health Authority, ex parte Seale – (1994) 25 BMLR 1 (QBD)
Re TT (Surrogacy) [2011] EWHC 33 (Fam)
Re W (Minors) (Surrogacy) [1991] 1 FLR 385
Re X and Y (Foreign Surrogacy) [2008] EWHC 3030

W and B v H (Child Abduction: surrogacy) [2002] 1 FLR 1008

Table of Statutes

Adoption Act 1976
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Part 1 - Introduction

“I am a childless mother.
There is an empty hole in my heart
Where my child is supposed to be.
Where there should be squeals and laughter
There is nothing but mind-numbing silence
And look, there, in the corner sitting idly,
Waiting, is a child’s rocker, my rocker-
The rocker that I used to sit in and imagine
Rocking my baby instead of just a doll.
How can emptiness feel so heavy?
The emptiness carries my broken dreams,
My disappointments, my resentment
Fluttered by kisses never shared, Laughter never heard,
Tears never brushed away
All weigh more than a child ever will.
There is an empty hole in my heart
Where my child is supposed to be.
I am a childless mother”

Infertility has been a topic of considerable discussion throughout the centuries. From prophets to royalty it has been important that individuals are able to procreate in order to leave their genetic imprint. The search for a solution to infertility has existed from the days of Adam and Eve up to this day. Law, theology and philosophy play an important role in determining what methods of reproductive technologies are considered acceptable to the diverse society that we live in.

The problem of infertility within the Muslim community in the United Kingdom has led me on an interesting journey of exploring what methods of reproductive technologies are acceptable legally, ethically and theologically to Muslims in the United Kingdom. Infertility is a subject, which is rarely discussed openly by the Muslim community and thus there is a need to educate Muslim individuals in the United Kingdom as to reproductive technologies available to them, which may allow them to procreate within the domains of it being permissible within Islam. And, further to develop a code of practice which may be used by medical practitioners in the United Kingdom which will enable them to properly cater for the needs of Muslim infertile couples.

The inter-mix of law, ethics and theology within Islamic law and English law has led me to ponder the question of which system of law is considered to be the most forward thinking in understanding the plight of infertile couples and legislating on new reproductive technologies. My Hypothesis is that Islamic jurisprudence due to its flexibility is more innovative in its legal verdicts by following the principles of 'jihđad' whereas UK law is still lagging behind with its more conservative and restrictive approach. Jihđad is an Islamic legal term that means independent reasoning. It is derived from the word 'juhd' which means employment of effort or endeavour in performing a certain activity. It is recognised as the decision-making process in Islamic law through personal effort, which is completely independent of any school of jurisprudence.

Islam presents a complete moral, ethical, legal and medical framework. It is a religion, which encompasses the secular with the spiritual, the mundane with the celestial and hence forms the basis of the ethical, moral and even judicial attitudes and law towards any problem or situation. Islamic teachings carry a great deal of instruction for health promotion and disease prevention therefore we will discuss how these teachings play an important role in legislating in respect to new reproductive technologies.

This thesis will review the various reproductive technologies from the Islamic perspective by considering the five schools of thoughts and critically analyse the various Islamic rulings. I argue that Islamic Scholars should use Jihđad in order to provide legal legitimacy to many Muslim families who are desperate in the search of having a child which would conform to their religious requirements. I advance that it is necessary for Islamic Scholars to
understand the needs of the Muslim community of today and make decisions in the national and international interest of the Muslim community.

The methodology I have used to develop arguments in Part 2 of my thesis is primarily based on the principle of *ijtihad* and specifically the tool of analogical reasoning to formulate answers to questions, which have not been tackled by the *Mujtahid’s of today* due to fear of being targeted or being considered un-orthodox. A ‘*Mujtahid*’ is somebody who possesses the necessary skills and has been certified as capable of interpreting religious law. Analogical reasoning is the knowledge by which one learns the method of deriving a ruling from the Qur’an and the Prophetic Sunnah.

I make it abundantly clear the purpose of this thesis is to show that there is flexibility within Islamic law to derive at conclusions by using analogical reasoning as a tool to achieve this objective. I do not claim that the conclusions that I make are authoritative as I am not a *Mujtahid* but simply argue that it is possible to achieve this goal by using the mechanism of analogical reasoning.

The increased isolation of Shari’ah from the realities of law and government in contemporary Muslim societies accentuates the need for new efforts to make the Shari’ah a viable proposition. There is a need in the United Kingdom for British Muslim’s and medical practioners to have at their fingertips an ‘*Islamic Protocol*’ which sets out the legitimacy to the issues of assisted reproductive technologies (ART) endorsed by a *Mujtahid* through collective *Ijtihad* and accepted by all the five schools of thought.

Many questions have arisen over the centuries for a need to have the correct methodology to ensure that a detailed study is carried with the aim of establishing a correct balance of values, and thought that relates itself to the actual problems the Muslim communities are facing anywhere in the world.

The Qur’an considered the prevalent conditions of Arabian society, which were reflected not only in the substantive laws that it introduced in the various stages of revelation but also in
the form and style of its language. The Qur’an was revealed gradually over a period of 23 years, which is reflective of its ability to adapt to change of circumstances in the life of the existing community.

It is clear that certain rules were introduced at an early stage of the advent of Islam at a time when Muslims were a minority in a dominantly non-Muslim environment. Later when they acquired power, some of the earlier laws were abrogated and replaced by new legislation. There are also instances in the precedent of Companions where the rulings of Sunnah were changed to reflect the change in circumstances. The change of circumstances was a decisive factor, which led to a change in the law. In a Hadith, the Prophet Muhammad peace be upon him (pbuh) refused to legitimize price control and declined a request by the Companions to this effect, but later Caliph Umar, and the leading Scholars of Medina, validated introduction of price control on grounds of public interest and prevention of harm to people.²

A prominent scholar of Shari’ah, Shah Wali Allah Dihlawi stands alone in his explicit recognition of the role of ‘time-space’ in the development of Islamic law. He considered the Shari’ah to be changeable in accordance with the changing needs of the community. He stated that the Prophet (pbuh) established a model for conduct, which contemplated his contemporary Arabian society and its prevailing conditions at the time. To follow the spirit of this model we too should contemplate the realities of our time and thereby introduce the necessary changes. The change that is deemed necessary is envisaged by Dihlawi to be such that ‘were the Prophet alive, he would have validated it himself.’ The propensity towards literalism, a word-for-word and an issue-for-issue comparison and analogy has led to jurists like Al-Shafi to generalisations that do not hold the test of time. In dealing with non-Muslim powers, for example, Al-Shafi advised Muslim rulers to attack the non-believers at least once a year and not to accept a truce for more than 10 years by analogy to the Sunnah of the Prophet because he was engaged in battle with enemy forces at least once a year and did not accept a truce for more than 10 years. No leader could accept this kind of analogy and understanding under the existing conditions of today or in the foreseeable future. Al Shafi’s conclusions might have ben suitable under the circumstances of early Abbasid rule, but unless this is clearly specified, its validity as a general ruling is bound to remain questionable.

² Kamali Hashim Mohammad, Methodological Issues In Islamic Jurisprudence, Arab Law Quarterly, pg 24
The move to literalism at the expense of empiricism has led many Muslims to insist on adhering to the letter of the Hadith or as they say to the letter of the law, for instance on the giving of food grains in ‘Zakat al-Fitr’ (charity given on the occasion of Eid marking the end of Ramadan). The text has admittedly not mentioned that the monetary equivalent of a staple grain may also be given on this occasion. The ruling of the Hadith was relevant for its own time, bearing in mind the uncertainty of food supplies in the market place of Medina, but this situation has evidently changed since.

Another example is the beginning of the fasting month of Ramadan, this is signified, as the Qur’an provides by the sighting of the new moon. This was the most reliable method that was used in the early days of Islam. Sighting of the new moon with the naked eye would seem to be unnecessary if the beginning and the end of Ramadan could be established with the aid of scientific methods, and therefore to insist on a literal enforcement of the text while turning a blind eye to new technological means would not only amount to hardship, under certain circumstances at least, but would also defy the essence of the Qur’anic teaching of rational enquiry and empirical truth.

To ignore subsequent developments in human sciences, modern commerce and economics is likely to result in poverty and hardship and would therefore contravene the general objectives of the Qur’an and Sunnah. Ignoring the role of time-space in the understanding of the Qur’an has also encouraged a certain tendency towards fragmentation and neglect.3

In this thesis I argue that the time has come to take a broad consensual approach towards reformulating the methodology of Shari’ah to adapt to the current needs and situations of today. Empiricism encourages openness to interaction and receptiveness to developments in other disciplines. Knowledge cannot be contained in rigid compartments and important developments science and medicine are bound to interact and influence one another. It is unlikely that a Mujtahid will be successful in the conduct of Ijtihad if he confined himself to the narrow spheres of his specialisation and remain aloof to developments in other disciplines. The theory of Ijtihad is in fact explicit on the requirement of familiarity with the custom of society and people in which the Mujtahid lives.

3 ibid p.21
The section on analogical reasoning within my thesis provides an example of *Ijtihad* being used by following the methodology of analogical reasoning in order to derive at conclusion’s that are favourable or intended by the person carrying out the process of *Ijtihad*. These examples provide the necessary foundation for future Jurists or *Mujtahids* to find solutions for British Muslims facing issues surrounding the permissibility of certain reproductive technologies. Given a receptive attitude by Islamic scholars this work will go a long way in building upon the existing heritage of Shari’ah. The Shia School of thought has already started this process and it is for the other schools of thought to unite and take that brave step. The Islamic revivalism and resurgence of recent decades has brought home the message that a reformed methodology of Shari’ah would appeal to the Muslim masses who are desirous of harmony and cohesion between their cultural heritage and the applied laws of their land.

I have considered a vast range of Islamic legal materials available in Arabic, Urdu and English, the limits of my competence. There are numerous online fatwa services, providing answers from simple question to complex conundrums. A great mass of material has been published in books and journals and one can contact authors direct, in person, by telephone, fax or email.

My own investigations took a variety of twist and turns just as those of infertile individuals seeking religious advice. As a Muslim, I had the benefit of being able to have contact with other Muslims regarding this subject matter and had endless discussions trying to formulate answers. I trawled the Internet and brought whatever books and magazines I could find covering the topic.

I interviewed religious Specialists (Shaykhs) and (Muftis) in Pakistan and in the United Kingdom. Beyond the fatwa literature, there have been a number of books in Arabic concerned with assisted reproduction and cloning, which has gripped the Islamic imagination and which I have used in my thesis. I found further, valuable secondary literature in English, including material by Muslim medical specialists with a strong interest in the Islamic perspective on reproductive technologies as well as a certain amount of non-Muslim academic commentary. In my thesis, I mostly focus on the primary and most authoritative
opinions along with secondary sources. Given the volume of material and number of Ulema\(^4\) with an opinion on such matters this thesis cannot and does not aspire to be comprehensive. As part of my efforts to understand how Islamic law worked in practice, I spent time with (Muftis) issuing fatwas in the United Kingdom and in the religious courts in Pakistan.

In my analysis of the bioethical position, I have used a number of books in the English language, and I have read various Sufi teachings by well-regarded authors such as Iqbal, Ghazali, and Rumi. In 2011 there were 2.7 million Muslims residing in the United Kingdom and their numbers are projected to increase\(^5\). Many Muslims living in the United Kingdom incorporate their religion in almost every aspect of their daily lives. The Qur’an and Sunnah play a central part in their daily lives and they believe that their actions are very much accountable and subject to the ultimate judgment. Even though patients are treated with the utmost respect, Muslims want to be treated as ‘Muslim Patients’ so that their values and beliefs are upheld. A greater understanding of Islamic bioethics would enhance the medical care of this significant segment of the UK population.

At the 9th Islamic law and medicine conference under the auspices of the Kuwait based Islamic Organization for Medical Sciences (IOMS) in Casablanca, Morocco, in 1997, a landmark five point 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. A third party gamete donation ban is effectively in place among the Sunni branch of Islam, which represents approximately 80-90 percent of the world’s more than 1.5 billion Muslims. Since the new millennium, donor gametes are now being purchased by infertile couples in IVF clinics in Shia majority Iran and Lebanon, currently the only two countries in the Muslim world to allow this practice.

Understanding this rapidly evolving moral religious climate surrounding ‘reproductive technologies’ in the Muslim world is imperative for scholars, policymakers and the public. In order to better understand the position, one needs to examine the Islamic scriptures themselves, the contemporary Fatwas that have been issued on this subject, as well as the

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\(^4\) Muslim legal scholars

subsequent bioethical and legal rulings that are being used to enforce, or in some cases, to override these fatwas.

In the Muslim world, religious leaders interpretations of the Islamic texts have not been monolithic. Differences of opinion have emerged among the four Sunni legal schools, and on basic principles, such as what constitutes lineage, or who can be considered the legitimate parent or child in a family. Likewise, Shia scholars have not been unanimous in their views and remain divided in their interpretations and verdicts on the extent to which reproductive technologies can be applied.

Certain Shia clerics hold the position that third party donation is legitimate and does not breach any religious rules. However, the majority of Sunni Scholars, IVF practioners and patients follow the original fatwas, declaring third party donation to be religiously forbidden. As a result, a gap has developed between the main Sunni and Shia interpretations of lineage, kinship and family relations. Whereas today, the majority of Shia resorts to most forms of reproductive technologies including third party donation and surrogacy, a religious ban on third party donation exists for Sunni Muslims. In short, the permission of third-party donation for Shia Muslims versus the prohibition for Sunni Muslims has divided the Muslim world into two opposing factions.

I challenge the idea that Islam is a rigid religion, which has no built in mechanisms for adjusting to modernity. The Muslim authorities are engaged in comprehensive ethical and legal debates and arguments about the importance of reproduction, the need and right to have children and the rights of the children themselves.

Having reviewed the matter from the Islamic perspective, I then examine the subject matter from a legal lens. I examine the various decisions of the Courts and the legislation surrounding this area from the English legal position. I argue that law will always be lagging behind the advancements of science and medicine but it is the duty of the judiciary and the legal draftsmen to ensure that legislation is drafted and implemented according to the needs of society today. In this part of my PhD I was able to find a plethora of material from various
academics that have written on the subject of reproductive technologies and the academic commentary surrounding this important area of law.

Three important pieces of legislation govern this area of law, the Human Fertilisation and Embryology Act (HFEA) 1990, HFEA (2008) and The Surrogacy Act 1985. From the outset I have focused my attention on certain reproductive technologies, which include IVF, Surrogacy and Genetic Engineering and I have used this format throughout each of the chapters.

After the birth of the first test tube baby in 1978, the government four years later set up the Warnock Committee which led to the first piece of legislation in this area of law. In 1990 we had ‘The Human Fertilisation and Embryology Act’ which was a revolutionary piece of law at the time, giving flexibility to the licensing authority. 18 years later we had the HFEA 2008 Act which addressed the shortfalls of the 1990 Act and with an ever changing society the law will need to keep up pace with a new generation of infertile individuals.

In this chapter I further examine the famous ‘Kim Cotton’ case from 1985, which brought the issue of surrogacy arrangements to the forefront. This then led to the enactment of the Surrogacy Act in the same year. The Surrogacy Act 1985 had limited aims, to simply prohibit the making of a surrogacy arrangement on a commercial basis, and did not consider the nature of surrogacy or the effects of recent reproductive technological developments. The legislation was more of a stopgap measure to a widely debated issue as a result of the Kim Cotton case.

However with the passage of time we see that in 1997 the Labour government set up the ‘Brazier Review’ as it identified the need for a change in the law following the adverse publicity accorded to the practice of surrogacy. A number of recommendations were made within the Brazier Report which 16 years later have still not been followed or implemented. The time is ripe to be bold and follow the recommendations within the Brazier Report and go one step further in understanding the plight of infertile couples.

\[6\text{ Re C (a minor) [1985] FLR 846}\]
As part of my remit for this thesis I also explored the arguments surrounding genetic engineering and cloning. Since the birth of ‘Dolly the lamb’ in 1997 there has been the most controversial furores to affect the subject of medical law and ethics since its beginning some 50 years ago. The developments in science and medicine in this respect raised the spectre of human cloning and it is in this regard, that much of the controversy has arisen. There is a vast array of academic literature, which deals with this subject matter, which I have extensively analysed. The reality is that Dolly provides us with an example of the truism that the law in the medico-legal field is destined to lag behind medicine and technology.

Equipped with an analysis of the legislation and case law surrounding this area from an English legal position I have been able to draw comparison with the Islamic legal position. It must follow that Islamic Law and English Law are lagging behind in terms of legislating on various reproductive technologies and are slow in their response to new and old technologies. It takes on average a minimum of 10/20 years before we see a change in Islamic or English Law this may be due to societal changes and the mass media playing a pivotal role in changing the mind set of individuals.

My thesis ends with an analysis from the ethical perspective and analyses the various bioethical principles and their applicability to the reproductive technologies. My starting point for this chapter is Beauchamp and Childress, the ‘Bible’ of Biomedical ethics. Once I was equipped with understanding the main bioethical principles of autonomy, nonmaleficence, beneficence and justice I had a framework in which to consider the various reproductive technologies. My research in the ethical domain led me to read literature from a number of philosophers, old and new. It is with this exciting mix that I was able to fully understand the various arguments put forward by the various academics and philosophers.

In chapter 4, I consider the reproductive technologies within my remit from an ethical lens and argue that the ethical principles can be used to support either side of the argument. Academics like Professor John Harris defend ‘procreative autonomy’ in which he shows human cloning to be not inconsistent with human rights and dignity. This is further endorsed by the American philosopher Ronald Dworkin who calls it ‘procreative autonomy’

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7 Beauchamp and Childress, Principle of Biomedical Ethics, (5th edn, 2001)
and has defined this right as ‘a right to control their own role in procreation unless the state has a compelling reason for denying them that control’.

Medical and technological advancement requires new choices and responsibilities. The choices generated by modern reproductive technologies have made a person’s intention a far more significant factor in procreation and parenthood.

Since the development of assisted reproductive technologies, infertile individuals have crossed borders to obtain treatments unavailable or unaffordable in their own country. Present media coverage has focused on the outsourcing of surrogacy to developing countries, where the cost of surrogacy is significantly less than the equivalent cost in a more developed country. In this thesis, I discuss the ethical arguments surrounding surrogacy, which include commodification, exploitation and the threat to family. On the other hand it is argued that women should be allowed to control their own bodies, insist that being a surrogate mother is just another reproductive choice, which ought to remain open to women.

It is clear that the four bioethical principles are very similar to the Muslim ethical principles and that they can be used interchangeably to reach the same conclusions. Islam and morality play an important part in reconstructing the ethical principles to suit the needs of the modern day society.

This thesis aims to contribute to the debate about whether certain reproductive technologies are acceptable in our society and to what degree they should be legislated. With the growing Muslim population in the United Kingdom I felt it was necessary for academics, medical practitioners and other bodies to have a better understanding of the growing need of the Muslim community to adhere to reproductive technologies, which are Shari’ah compliant.

Part 2 - Islamic Perspective

The rapid advance of science and technology has led lawyers, philosophers and theologians to re-consider their parameters in the field of human reproduction. The reproductive and genetic revolution has brought with it many complex issues and dilemmas, which face the modern Islamic world.

From the case of a Muslim family in Leeds, who won the right in the High Court to have a child for the purpose of medically assisting their existing child, to the traditional spiritual Shaykhs who promise to help infertile couples with miraculous cures and birth’s. It is evident that Muslim families are going to all ends, in pursuit of having a child.

The desire to have one’s offspring is a very strong human instinct. The Qur’an, states: ‘Wealth and progeny are the allurements of this world’. A common supplication of Muslims is, ‘And those who pray, Our Lord, grant unto us spouses and offspring who will be the comfort of our eyes.’ On the other hand, Muslims believe Allah ordained that some couples would be infertile. ‘He creates what He wills. He bestows male or female children to whom He wills. He bestows both male and female children (to some) and He leaves barren whom He wills.

Islam also acknowledges that infertility is a significant hardship. The Qur’an gives the example of two prophets, Abraham and Zacharyyyia, who were barren and described how they longed to have children of their own, even as they grew old and almost despaired of having children. The method used to achieve their goal was to ask Allah repeatedly and sincerely with humility and faith. Eventually Allah answered their prayers. ‘And the angels gave Abraham glad tidings of a son endowed with knowledge.’

This does not mean that Islam asks the infertile couple only to pray to overcome this problem. A basic Islamic principle permits persons facing hardship to use all lawful means to solve their problem, while at the same time preserving their trust in Allah that He will help them achieve their goal. The Prophet Mohammed (pbuh) stated, ‘For every disease Allah

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10 R. A. Nicholson, Rumi Poet and Mystic, (Suhail Academy), pp.187-200
13 Holy Quran 25:74
14 Holy Quran 3:38
15 Holy Quran 51:28
has created a cure except senility (meaning death). So progeny of Adam seek cure for your ailments.”

It is clear that infertile couples are instructed and encouraged to seek cure of their infertility, but within the limits of what is permissible in Shari’ah. As a result of discovery of new methods for the treatment of infertility, as well as other disease, is, in principle a perfectly legitimate pursuit, but with the caveat that harmful or illegitimate methods are not to be used.

Within the Islamic world, certain countries have adopted Islamic law as the supreme law, whereas in certain countries in the west, Muslims have resorted to Islamic law as their guidance above that of western jurisprudence. Islamic law is pivotal in the decision making of many ordinary Muslims.¹⁷

I will examine, firstly the sources of Islamic law and how legal judgments are derived. Once equipped with this, one can understand better how scholars have made legal judgments. It is my intention to focus particularly on judgments relating to reproductive technologies and see how Islam moved ahead taking on technology and medical treatments.

Secondly, it is my intention to shed light on Islamic philosophy and how that correlates with previous and current thinking on human reproductive technologies. I will look at classic Islamic philosophy and the more modern and explore whether a synthesis exists between medicine, Islam and philosophy.

Within my discussion, I intend to argue that Islam is a very liberal, forward thinking, flexible religion which moves with the developments in science and technology. Let there be no doubt, there are still the conservative corners which wish to keep Islam so called ‘Pure’ and try to live in the 14th century.

Interpretation plays a big role in understanding Islam, whether from a modern literate scholar to that of the local imam in the local village. If Islam is to survive and thrive scholars need to

¹⁶ Mishkat Al Masabih 2:945-47 (James Robson, trans, Sh. Muhammad Ashraf, Kashmir Bazar 1975)
¹⁷ Sibghat Kadri, QC, Interview (10 September 2013)
understand the real spirit of Islam and move towards modernity but keep in line with the Qur’an and Sunnah.

**2.1- The Theological Perspective – From an Islamic Angle**

Islam is a religion, which had over 1.225 billion believers worldwide in the year 1990, and with the current rate of population growth this figure is expected to increase to 2.5 billion by the year 2020.18 Islam is considered to be a way of life for Muslims. It systematically regulates the spiritual as well as the civil aspects of individuals. The teaching of Islam covers all the fields of human activity, spiritual, material, individual, social, educational, cultural, economical, political, national and international.

**2.2- Sources of Islamic Law**

Through the era of mass communication, the Muslim community is immediately made aware of the latest biomedical innovations in the West by the touch of a button. In turn Muslim scholars have to deal with the theological, legal or philosophical implications relating to these innovations according to the teachings of the Holy Qur’an (The word of God as revealed to the Prophet Muhammad (pbuh)), and Sunnah (the sayings of the Prophet Muhammad (pbuh)).19

The most fundamental teaching in Islam is the doctrine of Unity (*al-tawhid*) which is expressed in the most universal manner possible in the first testimony of the Islamic faith, ‘La ilaha illa’ Llah’, translated as “there is no God but Allah.”20

Integration is achieved through the application of the Shari ‘ah law, “the Divine law of Islam”.21 It includes not only universal moral principles but also details of the way in which

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20 O. Bakar, *The History and Philosophy of Islamic Science*, (The Islamic Text Society 1999), p.174
man should conduct every facet of his earthly life, both private and social. It is important for one to know the Islamic conception of law if we are to understand fully the nature and characteristics of the Islamic responses to bioethics.\(^\text{22}\)

The Shari ‘ah law is an integral aspect of the Islamic revelation. It is thus a religious and a sacred law, which serves as guide for Muslims on how to conduct their daily lives. It is the primary source of knowledge defining what is right and wrong. According to Shari ‘ah there is a hierarchy of values of human acts and objects in the sight of God. Every human act must fall into one of the following five categories\(^\text{23}\): (1) obligatory (\textit{wajib}), (2) meritorious or recommended (\textit{mandub}), (3) forbidden (\textit{haram}), (4) reprehensible (\textit{makruh}), and (5) indifferent (\textit{mubah}).

There are five main schools of Islamic law (\textit{Fiqh}) which, while agreeing upon the fundamental principles of the law and upon many of the obligatory acts, may differ in their views when it comes to the question of determining the precise technical/legal status of many of the other acts, or with regard to the details of those major obligatory acts and prohibitions. The Shari ‘ah law is considered to be applicable in all ages and times. It is considered to be the duty of the ‘\textit{Fuqaha}’ (Islamic Law Scholars), to interpret and apply those teachings to new problems and situations.\(^\text{24}\)

Today, we are faced with many new problems and situations in the biomedical field that never existed before, problems made possible by new discoveries and the application of new techniques. For example those relating to artificial insemination and genetic engineering are entirely new while old issues such as contraception and abortion have incorporated new dimensions into them as a result of new modern biomedical technology. It is now widely realized that all these problems are multidimensional in character. They are at once ethical and legal, medical and scientific, social and philosophical, and thus require a multi-dimensional approach in their solutions.\(^\text{25}\)

\(^{21}\) F. Rahman, \textit{Islam}, (2\textsuperscript{nd} edn., University of Chicago Press 1979), pp.115-116
\(^{22}\) Bakar (above n18) at p176
\(^{23}\) I explain this in more detail below in section 2.7
\(^{24}\) ibid p.177
\(^{25}\) ibid p.178
2.3 - The Five Schools of Islamic Fiqh

In the first and second centuries of the ‘Hijra’ (Islamic Year) several different schools of law which are important in Sunni-Islam, these include Hanifah, Maliki, Shafi and Hanbali, were born and grew. Although each of these schools compiled its own corpus of legal doctrine, there was similarity between them in broad precepts and each recognized the orthodoxy of the others.26 The difference between them on particular points of law was the result of the legitimate exercise of ijtihad by the jurist in the absence of any clear guidance from the Qur’an and Sunnah.27 Wael.B.Hallaq explains the concept of ijtihad as follows ‘As conceived by Classical Muslim Jurists, ijtihad is the extraction of mental energy in the search for a legal opinion to the extent that the faculties of the jurists become incapable of further effort.’28

Looking very briefly at the five schools of law and their founders, we see that the Hanafi school of Fiqh was the first to be founded by Nu’man bin Thabit bin Zuta bin Mah, a non-Arab scholar who is well known by the name Imam Abu Hanifah.29 Imam Malik Bin Anas founded the Maliki School.30

Professor N.J Coulson, in his book ‘A History of Islamic Law’ has said that ‘In the jurisprudence of the years 770-800 the reasoning of individual scholars, local consensus and the reported precedents (Sunnah) of Muhammad (pbuh) lay in uneasy juxtaposition. This stage of legal development is mirrored in the first written commending law produced in Islam the ‘Muwatta’ of the Medina Scholar Malik Bin Anas’.31

The Shafi’i School was founded by Imam Muhammad Idris al-Shafi. Out of the two great works of Imam Al-Shafi, Kitab al-Risalah Fi-Usul-al-Fiqh, commonly known as al-Risalah, is the most famous book of Islamic jurisprudence. Risalah was composed in Egypt after Al-Shafi settled there. It reflects the legal opinions of Imam Al Shafi while he was at the zenith of his career as a learned man in the field of jurisprudence. Within it Shafi has not only

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26 Y. Aziz, Y. Ahmed, and A. Clarke, The Fiqh of Medicine: Responses in Islamic jurisprudence in development in medical science, (Ta-ha publishers Ltd 2001), 3.6
29 A.R. Doi, Shariah The Islamic Law, (Ta-ha Publishers 1998), pp.88-89
30 ibid p.88
31 ibid p.101
emphasized the Sunnah as the source of Shari’ah but also draws heavily on the Sunnah in formulating the rules of law. The Hanbali School of Law was founded by Imam Ahmad bin Muhammad bin Hanbal. Imam Ahmad had written many books, but the most important of them are ‘Kitab al Amal, Kitab al Tafsir, Kitab al Nasikh wal Mansukh, Kitab al-Zahid, Kitab al Masail, Kitab al-Fadail, Kitab al Mansik and Kitab al-Iman.’

The most well known work of Imam Ahmad is his Al-Musnad in which the Imam has narrated more than fifty thousand out of the seven hundred thousand hadith that he collected. By the end of the 9th Century AD, the 4 major Sunni Schools had come to subscribe to a common theory, namely that the primary sources of Islamic law are: 1. The Qur’an, 2. The Sunnah, 3. The Ijmah (juristic consensus of opinion) and 4. Qiyas (reasoning by analogy).

‘Jafari’ is the largest Shia school of thought and is considered to be the 5th school of thought. The Jafari school of thought and deduction of jurisprudence was founded by the 6th Shia Imam Jafar Sadiq. The founders of the Sunni Hanafi and Maliki school of thought were students under Imam Jafar Sadiq. The Jafari derive their Shari’ah from the Qur’an and Sunnah but differences between the Shia and the Sunni schools stem from:

a) alternative interpretations of the Qur’an

b) alternative interpretation of the Hadith

c) disagreement on the veracity of several Hadith

d) the Shias non-acceptance of the examples and verdicts of the first 3 Caliphs, Abu Bakr, Omar and Uthman

e) the concept of the Infallibility (masuum) of the Twelve Imams, or the Fourteen Infallibles (including Muhammad and his daughter Fatima Zahra), hence the Shia accept their examples and verdicts as is, if they can be proven to have been authentically related from any of them.

32 ibid pp.103-107
33 ibid pp.108-110
34 ibid p.111
The Jafari school of thought recognizes four sources of Islamic law, the Qur’an, the Sunnah, consensus (which must include the Prophet’s or an infallible Imam’s opinion to establish its validity) and human reason. Human reason is capable of inferring categorical judgments drawn from both pure and practical reason. Whatever is judged necessary by reason is also judged necessary by revelation. This correlation between reason and revelation has allowed Shia Jurists to derive religious rulings on many issues not covered in normative sources such as the Qur’an and Sunnah.  36

2.4 - The Shari’ah: A Methodology or a Body of Substantive Rules?

Shari’ah law is considered to be an integral part of the religious, social and cultural life of a Muslim. Professor Schacht, an eminent scholar of Islamic jurisprudence, has described it as the ‘epitome of Islamic thought, the most typical manifestation of the Islamic way of life, the core and kernel of Islam itself.’ The principles and rules of the Shari’ah law as settled by the classical jurists have been traditionally regarded as sacrosanct and immutable. 37

In order to interpret and apply Shari’ah law to a legal problem, it was traditionally considered essential that the jurist should possess sound knowledge of the relevant texts and methodology. There was great diversity and depth in the conclusions that jurists reached regarding what were the correct Islamic solutions to legal problems. 38

One can classify sources as primary sources, which one consults to find the actual texts of laws, and secondary sources, where one finds clarifications of the rules that are set forth in the primary sources. These should be distinguished from remote sources of law, such as customary norms and the cultural heritage from which the law ultimately derives.

Understanding the historical background and origins of legal rules, as found in the remote sources, enhances the understanding of primary and secondary sources, but one does not

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refer to the remote sources to find what the legal system actually treats as the definitive statements of legal rules.\textsuperscript{39}

In the contemporary Muslim world, questions regarding the hierarchy of the Islamic sources have become more widely contested than they appear to have been in the pre modern era. The expansion of secular education, the increase in literacy, and the enormous growth in communications have meant that voices of many different Muslims, not just eminent scholars, are now being heard on these questions.

While in the past the authority of the Islamic jurists was rarely challenged, many contemporary Muslims are inclined to dispute the notion that only highly trained religious scholars are qualified to interpret the Qur’an and Sunnah. Among contemporary Muslims who question the authority of jurists as the sole interpreters of the Shari’ah sources, there is a growing tendency to demote the juristic treaties embodying the \textit{Fiqh} to the rank of secondary sources and to deny that they have any binding legal force.\textsuperscript{40}

Today one also finds Muslims who entirely reject the authority of the \textit{Fiqh} and treat the Qur’an and Sunnah as the only primary sources of Islamic law. Other Muslims question the authenticity of the \textit{hadith} collections and are inclined to downgrade the importance of the Sunnah, treating the Qur’an as the sole primary source of Shari’ah law and the Sunnah, sometimes along with the \textit{Fiqh}, as a secondary source, at best.

In addition to mounting disarray on the question of how to rank the Qur’an, the Sunnah, and the \textit{Fiqh} as legal sources, there is also a growing diversity in approaches to interpretation.\textsuperscript{41} Today, as Muslims without training in the classical religious sciences apply their own ideas of appropriate criteria to finding how the Shari’ah deals with various legal problems, one finds that the traditional forms of legal reasoning are often abandoned and replaced by new and more freewheeling methods of interpreting the sources.

\begin{flushleft}
\textsuperscript{39} ibid pp.184-185
\textsuperscript{40} ibid p.186
\textsuperscript{41} ibid
\end{flushleft}
Maybe the time has come especially after the events of 9/11 and 7/7 for Muslims to re-think their strategy and see where they have gone wrong. Different groups, different sects, have caused complete havoc and turmoil and the media has exploited this and stereotyped all Muslims negatively.

Where has the peace loving Islam, the intellectual Islam, vanished to. The saying “Too many chiefs and not enough Indians” is a true reality for the Muslim scholars and leaders of today. If we are to move ahead with science and technology, we need to be more centralized and unite under one banner and move in the true spirit of Islam.

2.5 - Development and Sources of Islamic Fiqh

The primary sources of Shari’ah within the Sunni tradition are:

1. The Holy Qur’an: the word of God;
2. The Sunnah (Hadith), which are the authentic traditions and sayings of the prophet Muhammad (pbuh)
3. Ijmah, which is the unanimous opinion of Islamic scholars or Ummah.
4. Analogy (Qiyas) is the legal principle introduced in order to derive a logical conclusion of a certain law on a certain issue that has to do with the welfare of Muslims.42

A Muslim resorts to secondary sources of Shari’ah in matters not dealt with in the primary sources.

1) The Qur’an

42 Serour,( above n16) at p.193
The Qur’an is the direct revelation of God to the Prophet Muhammad (pbuh) as a blessing and guidance for Muslims. The whole of the Qur’an is a law in the Islamic sense of law, as belief, and as set of obligations on the individual as to the ideal conduct required by God. The Qur’an purports to regulate the whole of man’s life; the word ‘Muslim’ refers to submission to Islam and its concomitant obligations.

It is a “guidance and mercy and good news for the Muslims; who are prepared to think, analyse, and deduce.”

2) The Sunnah

In its literal meaning the word Sunnah stands for the ‘well-known path’ or the ‘well-trodden path’, which is followed again and again. The Sunnah is unanimously accepted as a primary source of law. The Hadith has come to supplement the Qur’an as source of the Islamic law.

The Hadith of the Prophet enshrines the Sunnah, way of life the customs and practices of the early Muslim Community. The Hadith of the Prophet (pbuh) was invoked to prove that certain acts were performed by the Prophet (pbuh) and therefore they were to be imitated by all Muslims. It is from this point of view that Hadith and Sunnah are sometimes names of the same things.

After the death of the Prophet (pbuh), every case that came up for decisions had to be referred either to the Holy Qur’an or to some judgment or saying of the Prophet (pbuh), which therefore, obtained a wide reputation. The reliability of the data collected from the Sunnah depends to a large extent on the soundness of the methodology of Muslim scholars. Ash-Shafi’i, in debating the viewpoint of Fuqaha who claimed that, since they were sure that every word in the Qur’an was exactly what is the one and only source for the rules of Shari’ah, has argued that, if the Prophetic Sunnah was not inconsistent with the Qur’an, then its should also be taken as a source in its own right.

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44 ibid, pp.30-32
Arguing this point in his *Risalah*, Ash-Shafi‘i said: ‘as for the Sunnah, which he laid down on matters for which a text is not found in the book of Allah, the obligation to accept them rests upon us by virtue of the duty imposed by Allah to obey the Prophet’s orders.’

3) *Ijmah*

*Ijmah* may be viewed as a procedure to arrive at a certain result, a consensus; when everyone agrees on a categorisation (*hukm*) that an action is one of the following: obligatory (*wajib*), recommended or meritorious (*mandub*), permitted (*mubah*), disapproved or reprehensible (*makruh*), or forbidden (*haram*). For that to happen, there must be a sound base from the Qur’an and Sunnah, which needs to be found.

Ash-Shafi‘i interpretation of *Ijmah* is as follows: ‘the legal principle was considered to be permissible only after there was a consensus of the entire Islamic community, or ummah, on a particular legal issue. As this was virtually impossible to achieve, then, a possible source of law making, *Ijmah*, was stillborn.’ The argument may take note of whether *Ijmah* is discussed as a source or as a method, and whether the discussion concerns Islamic *Fiqh*.

At the time of the prophet all of the people concerned had the chance to meet often, and know his teachings. Muslims contend that consensus (*Ijmah*) is based on the Qur’an and Sunnah. ‘*Ijmah*’ is the consensus about whether something is allowed or not with reference to the Qur’an and Sunnah. It does not create a sacred rule. ‘*Ijmah*’ is the agreement of all Muslim learned persons at a time, after the death of the prophet, on a legal matter.

4) *Qiyas*

*Qiyas* (analogy) is a method of finding the rules of Shari‘ah from the source: the Qur’an and Sunnah. It literally means: to measure, to compare, and ‘to see if it fits.’ Ash-Shafi‘i used *Qiyas* effectively in his building of *Fiqh*. Although it is accepted and utilised by most *Fuqaha*,
those in the Dha-hiri school (literalists) amongst the Sunni and the Imami Shi‘ite schools do not accept it.  

The secondary sources are:

1. *Istihsan* (approval), which is the choice of one of several lawful options;
   A; views of the prophet’s Companions;
   B; current local customs if lawful;
   C; public welfare;
   D; rulings of previous divine religions, if these do not contradict the primary sources of Shari‘ah.

_Fuqaha_ have recognised three types of _ijtihad_ (effort to find the rules): firstly, seeking a material source, or an explanation thereof; secondly, analogy firmly based on material sources: Qur’an, or Sunnah, on which there is consensus (_Ijmah_); and thirdly, formal sources not reliant on a material source from the Qur’an or Sunnah, but capturing the spirit of Shari‘ah, taking in consideration the welfare of the community, and expressed as _Istihsan_, _Maslahah_; just as a modern day judge who does not find a textual precedent resorts to equity, and natural justice.

5) _Istihsan_

_Istihsan_ is ‘the principle of jurisprudence that in particular cases is not regulated by any incontrovertible authority of the Qur’an, traditions or _Ijmah_. Equitable considerations may

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45 Al-Marzouqi (above n41) p.47
46 Aziz, Ahmed, and Clarke (above n24) p.14
47 Aziz, Ahmed, and Clarke, (above n24) p.26
override the results of strict analogical reasoning. It is the preference of a ruling other than the one arrived at by analogy, when that rule is found to be harsh or contrary to custom. Whereas Qiyas is based on the Qur’an or Sunnah Istihsan needs only not to contravene them.

6) Istishab

Istishab means legal presumption of continuance. In many areas, the Qur’an is completely silent. It is a natural canon of construction, and one in full accord with the general tenor of the Qur’an that the status quo is tacitly ratified unless it is expressly amended.

7) ‘Urf

‘Urf embodies custom, local habit, and tradition or professional code. This source is common to other laws, even secular ones. It is a source in the sense of it being there to tap; but there must be an active effort to select from it what is consistent, or what is not at variance, with the Qur’an and Sunnah. Islamic Fiqh does not negate all ‘laws’ that precede it.

Diya (the payment of compensatory money for death or injury) is an example of what was adopted from pre-Islamic tribal times.

8) Maslahah or istislah

Maslahah or Istislah is the consideration of the community welfare, public interest, or legitimate personal right in formulating laws. Hofmann observed that:

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48 Aziz, Ahmed, and Clarke (above n24), p 24
49 Aziz, Ahmed, and Clarke, (above n24) p.26
50 Aziz, Ahmed, and Clarke, (above n24) p.26
51 Aziz, Ahmed, and Clarke, (above n24) p.26
It is clear that Islamic law thus remained flexible enough to take into account the requirements of the public interest, but that it was also open to the reception of some pre-Islamic customs. Al-Ghazali said: *Maslahah* meaning fulfilling what Shari’ah was meant for: the purpose of Shafii is that, people are required to preserve their deen, their life, their minds (faculties), their offspring, and their wealth. Any measure that preserves these fundamentals is *maslahah*, and anything that threatens them is *mafsadah* (corrupting and vitiating), and warding it off is *maslahah*.52

9) *Adh-dhara’i*

*Adh-dhara’i* literally means causes, reasons or means. It is usually used with a prefix such as sadd Bab *adh-dhara’i* (opening the door to, or removing the cause), or fath Bab *adh-dhara’i* (opening the door to, or finding a way). Stratagem (*hiyal*) is a variant of it. The basis for it is in the Qur’an when the Prophet (pbuh) decreed that someone receive one hundred lashes, Sa’d ibn ‘Ubadah told the prophet that the man was frail and would die. The prophet (pbuh) advised one stroke with a bunch of one hundred palm fronds.53

2.6 – The Five Categories of Human Actions

The Shari’ah classifies all human actions without exception into one of five categories:

1. Obligatory, such as praying and fasting;
2. Recommended, such as marriage and family formation;
3. Permitted, such as breaking off fasting during illness and travelling;
4. Disapproved but not forbidden, such as divorce;
5. Absolutely forbidden, such as killing and adultery.54

The Shari’ah is not rigid or fixed except in a few areas such as worship rituals and codes of morality. Shari’ah law is considered adaptable to emerging situations in different areas and

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52 Aziz, Ahmed and Clark (above n24) p.27
53 Aziz, Ahmed and Clarke (above n24) ipp.27-28
54 Serour (above n16) p.193
places. It can accommodate different opinions as long as they do not conflict with the spirit of its primary sources and are directed to the benefit of humanity. The development of the science of *Fiqh* resulted in the establishment of certain guiding principles to help form rulings.

There are several principles on which the science of *Fiqh* is based, such as: harm should be removed, one should choose the lesser of two harms, and public interest takes priority over enjoying benefits. The goals of Shari’ah can be summarized into the preservation and protection of self (life, health, procreation, etc.), mind (prohibition of alcohol, freedom of thought, etc.), religion (freedom of faith, non-compulsion in religion, rituals of worship, etc.), ownership (sanctity of private ownership, legitimate commercial relationships, prohibition of stealing, fraud, and usury, etc.), and honour (purity, marriage and laws of family formation, chastity and prohibition of adultery, etc.).

### 2.7 - *Ijtihad*

Ghazali defines *ijtihad* as follow; “*Ijtihad means to expend one’s capacity in a certain matter and to use it to the utmost.* This term is used particularly on such occasions where hardship and effort are involved…Scholars, however, have defined it to mean the ‘expending of the fullest capacity by a Mujtahid in seeking knowledge of Shari’ah laws’”. The perfect *ijtihad* would mean that one has spent so much effort in the pursuit of the knowledge of Shari’ah that further pursuit is humanly impossible.

The principle of *ijtihad* has had a great role in shaping and determining Islamic jurisprudence in its formative phase. Any expert jurist was then free to go back to the roots of law and interpret them for himself and analyse it in a manner, which suited the case. With the crystallization of legal thought and setting up of the schools of law the scope of *ijtihad* was gradually curtailed and by the beginning of the 10th century there was a consensus among the jurists that the principles of law as settled by the recognized schools were sacrosanct.

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and immutable and that there was no longer any necessity for new legal principles to be deduced.

This ‘closure of the gate of ijtihad’ had sad results. On account of this, Islamic law and society remained largely sterile and stagnant for the next one thousand years and the great age of science and technology, which revolutionized men’s thinking, and action quietly passed by the Muslim societies of different parts of the world.\(^{58}\)

Gibb states that to men who believe that the Qur’an is the very word of God ‘the idea of changing or abrogating these fundamental laws is equivalent to apostasy’.\(^{59}\) Yet this is precisely the area where battle has been joined between the conservatives and the modernists in the present century. A Muslim intellectual advanced the most telling argument for unlocking the door of ijtihad:

‘I cannot believe that God has shut the door of progress in the face of His people, elected to attain to the greatest heights that man can reach. I refuse to admit that God desires all nations except the Muslims to inquire into the laws most suited to their kind, religion and time, and that while their scientific and literary eminence is increased by this effort, his chosen nation is forbidden any resort to independent inquiry and experiment.’\(^{60}\)

Azizah Y. al-Hibri states the Qur’an, provides a rich variety of specific rules and general principles if not explicitly addressed there in, Muslims look to the example and sayings of the Prophet Muhammad (pbuh) (his Sunnah) as a secondary source of guidance.

Often, that, too, leaves open some questions of interpretation or application. In such cases, Muslims rely on ijtihad, which is the ability to analyse a Qur’anic text or a problematic situation within the relevant cultural and historical context and then devise an appropriate

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\(^{60}\) Doi, (above n27) pp.80-81
interpretation or solution based on a thorough understanding of Qur’anic principles and the Sunnah.61

This approach results in a highly flexible jurisprudence and is rooted in the Qur’anic verse which instructs Muslims who disagree on the matter to seek its resolution by going back to the words of God and his Prophet.62

It is argued that the flexibility of the Islamic law is not accidental. It is an essential part of Qur’anic philosophy, because Islam was revealed for all people and for all times. The traditional view that Islamic law is inflexible must be revised. Consequently, its jurisprudence must be capable of responding to widely diverse needs and problems. Iqbal states, ‘The teaching of the Qur’an that life is a process of progressive creation necessitates that each generation, guided but unhindered by the work of its predecessors, should be permitted to solve its own problems’63

Furthermore, Islam was revealed gradually.64 This fact as well as certain verses in the Qur’an, illustrates the divine recognition of the human difficulty in adjusting to sudden change. Hence, flexibility and evolution are inherent characteristics of the religion. It must be noted, however, that this flexibility has its limitations. It does not extend to the most fundamental tenets of Islam, such as the belief in the unity of God.65

Among the fundamental principles of *ijtihad* are the following:

1. Laws change with changes in time and place;

2. Choosing the lesser of two harms; and

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61 al-Hibri, (accessed 20 October 2013)
62 Marzouqi (above n41) pp.44-46
64 Nyazee, pp.263-264
65 al-Hibri, (accessed 20 October 2013)
3. Preserving public interest.\textsuperscript{66}

\section*{2.8 - Contribution of the Fuqaha}

By the utilisation of sources and methods of Shari'ah the \textit{Fuqaha} are able to derive at legal judgments, which become laws. The views of \textit{Fuqaha} were important throughout the history of Islam and are still considered important. At the time of the Prophet (pbuh) a person could voice an idea which could be different from that of the Prophet (pbuh) in the cases where it was clear that the view was not from revelation; not only that, but on occasions the Prophet (pbuh) accepted it. Examples of these may be found in the events of the battles of Badr (2/624), when he accepted the view of an-Nu'man ibn al-mundhir, which was contrary to his, as to how to conduct the war. At the battle of Uhud (3/625) the younger Muslims who missed the previous year's battle were keen to meet the enemy and fight. The Prophet (pbuh) thought it was better to remain within the fortifications of Medina but he accepted their view thus they waged the battle and lost.\textsuperscript{67}

\section*{2.9 - Fatwa's (Islamic Legal Opinion)}

Many Muslim \textit{Fuqaha}, through the ages, have rendered their views into legal responses (\textit{fatwa}). It is a good source of information, and is a very popular method of education as well as solving problems.\textsuperscript{68} With the worldwide web so readily available now, ordinary Muslims are directly going to 'Fatwa On-line' where they type in their query and within minutes they get a detailed response from an experienced scholar.\textsuperscript{69}

\textit{Fatwa} literally means an opinion, but it usually means a considered opinion based on deep knowledge of the subject matter. Gradually it became almost specific for legal matters. The origins of Islamic fatwa are in the Qur'an. It was a favourite method of the Prophet (pbuh) of imparting information.

\textsuperscript{66} A. Y. Al-Hibri, "Islamic Constitutionalism and the Concept of Democracy", (1992) Case Western Reserve Journal of International Law, Vol. 24, No. 1., pp. 3-10
\textsuperscript{67} Aziz, Ahmed, and Clarke, (above n24) pp.29-30
\textsuperscript{68} Aziz, Ahmed and Clarke (above n24) p.34
\textsuperscript{69} www.fatwa.com (accessed 5 September 2013)
Madkour says: ‘It is a method of great importance as it deals with queries and questions about actual problems of daily life. It is always about current concerns and it moves with time.’

Vardit Rispler-Chaim observes:

“I found, however, that contemporary legal response (fatwa) largely provide the necessary information on most Islamic medical ethics; the fatwa literature, a branch of Islamic law, deals with many topics, not only medical. For the study of twentieth century Islam it is almost the only channel through which Muslim scholars’ attitudes and legal opinions can be learned. This may be a consequence of the chronic problem of the lack of formulating general rules of law from the mass of specific solution to specific questions, general principles, if evident at all, are found by a consideration of specific solutions to specific questions based upon answers in the texts of the divine law.”

This was because Fuqaha’s attitudes and legal opinions had been individualistic for many years, and did not progress into formulated laws.

2.10 - In Search of Common Ground for the Laws

Through my analysis of Islamic law, I believe that I have shown that there is a set of common principles that should guide the development of Islamic jurisprudence in the area of reproductive technologies. These principles are:

1. Intent is all-important in actions, based on the Prophet’s saying:
   ‘The reward of the deeds depends upon the intentions and every person will get the reward according to what he has intended.’

2. Do no harm: harm must be removed or compensated.

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70 Madkour, al-Madkhal (1966) p.187
71 C.V. Rispler, Islamic Medical Ethics in the Twentieth Century, (BRILL 1993), p. 3
72 Aziz, Ahmed, and Clarke, (above n24) pp.34
73 M.M. Khan, The Translation of the Meanings of Summarized Sahih al-Bukhari, (Kazi Publications 1994), pp.49 and 79
74 Hadith in Sunan Ibn Majah, Cairo, Marba’ah Mustafa al-Babi al-Habibi, Vol 2, 1953, p784
(3) The doctrine of legal presumption of continuance, based on the hadith, ‘the plaintiff is to produce evidence, or else denial on oath is an accepted rebuttal by the defendant.’ An important question attached to it is, ‘what is to be assumed when there is no rule? Is the matter in question allowed or prohibited? The leaning may be towards it being allowed if there is no clear prohibition.’

(4) Hardship calls for a license. A corollary of which is, ‘need or necessity makes for allowing what is prohibited’.

(5) Custom is the rule (in the absence of a ruling)

These cardinal rules lead Fuqaha to think of Islamic Fiqh as the subject of five conceptions: first, few obligations; second, gradualism in a situation; third, making the burden lighter when making and executing laws; fourth, hardship is avoided, and necessity is taken into account; and fifth, justice and equality must prevail. ‘Allah desires ease for you’ ‘Allah desires to make things lighter for you. Man was created weak;’ ‘he has selected you and not placed any constraint upon you in the deen; the religion of your forefather Ibrahim.’ ‘We have not omitted anything from the book;’ ‘your Lord does not forget.’

2.11 – Analogical Reasoning (In Practice)

An analogy is a comparison between two objects, or systems of objects that highlights respects in which they are thought to be similar. Analogical reasoning is any type of thinking that relies upon an analogy. An analogical argument is an explicit representation of a form of analogical reasoning that cites accepted similarities between two systems to support the conclusion that some further similarity exists. Analogies play an important heuristic role, as aids to discovery. Analogies have been employed, in a wide variety of settings and with considerable success, to generate insight and to formulate possible solutions to problems.

75 Qur’an: 2:228, 6:154
76 Qur’an, 6:119
78 Aziz, Ahmed, and Clarke, (above n24) p.43
Reasoning by analogy is the most familiar form of legal reasoning. Outside of law, analogical reasoning often helps to inform our judgements. I have a Labrador dog, which is gentle with children. When I see another Labrador dog, I assume that he too, will be gentle with children.⁷⁹

In law, analogical reasoning has four different but overlying features: principled consistency; a focus on particulars; incompletely theorized judgments; and principle operating at a low or intermediate level of abstraction. These four features produce both the virtues and the vices of analogical reasoning in law. Firstly judgments about specific cases must be made consistent with one another. A requirement of coherence, or principled consistency, is a hallmark of analogical reasoning. Secondly, analogical reasoning focuses on particulars, and it is developed from concrete controversies. Holmes put it this way; a common law court ‘decides the case first and determines the principles afterwards. Ideas are developed from the details, rather than imposed on them from above.’⁸⁰ In this sense, analogical reasoning, unlike many forms of reasoning, is a version of ‘bottom-up thinking’. The key point is that analogical reasoning involves a process in which principles are developed with constant reference to particular cases. Thirdly, analogical reasoning operates without a comprehensive theory that accounts for the particular outcomes it yields. The judgments that underlie convictions about, or holding in, the relevant case are incompletely theorised in the sense that they are unaccompanied by a full apparatus to explain the basis for those judgments. Finally, analogical reasoning produces principles that operate at a low or intermediate level of abstraction. For example if the state cannot ban an English Defence League (EDL) march, we might mean that the government cannot stop political speech without showing that the speech poses a clear and immediate harm. This is a principle, and it does involve a degree of abstraction from the particular case; but it does not entail any high level theory about the purposes of the free speech guarantee or about the relation between the citizen and the state. Analogical reasoning usually operates without express reliance on any general principles about the right or the good. Such principles may of course be an implicit or even necessary basis for decision, but he lawyer who engages in analogical reasoning is not self-conscious about them. Reasoning by analogy, understood

⁸⁰ ibid ,pg.746
in light of these four characteristics, is the mode through which the ordinary lawyer 
operates.\footnote{ibid, pg 748}

Analogical reasoning and juristic preferences are all sub-varieties of \textit{Ijtihad}. Both serve the purpose, each in their respective capacities, to relate the general principles of Shari’ah to new issues. These rationalist doctrines enable the qualified scholar to find a fair and equitable solution to problems as and when they arise. The detailed methods and procedures that each of these doctrines propose are founded on the premise that the law of Islam was not given and delivered all at once. The idea that the law must evolve and move abreast with social reality lies at the root of \textit{Ijtihad} and all of its sub-divisions.

Islamic jurists within each of the five schools of thought normally ascertain the \textit{ratio legis} of an existing law, which is extended by analogy to a new problem. The process involved here is similar to that of the common law doctrine of \textit{stare decisis}. The Judge distinguishes the \textit{ratio decidendi} of an existing judicial decision in reference to a new case and once it is established that the two cases have the same ratio in common, the ruling of the earlier decision is analogically extended to the new case.

The construction of analogy is based on the following three stages of enquiry:

1. Perception of relevant likeness between the factual issues as defined by the court in a previous case;
2. Determination of the \textit{ratio decidendi} of the previous case; and
3. The decision to apply the ruling of the previous case and the present case.

In Islamic law ‘\textit{Qiyas}’ is the process of deductive analogy in which the teachings of the Hadith are compared and contrasted with those of Qur’an in order to apply a known injunction to a new circumstance and create a new injunction. The ruling of the Sunnah and
the Qur’an may be used as a means to solve or provide a response to a new problem that may arise.

An example of the use of ‘Qiyas’ is the case of the ban on selling or buying goods after the last call for Friday prayers until the end of the prayer as stated in the Qur’an. By analogy this prohibition is extended to other transactions and activities such as agricultural work or administration. Another example where ‘Qiyas’ has been applied is the injunction within the Qur’an, which prohibits drinking wine, one could use ‘Qiyas’ to extend to the prohibition of cocaine, heroin, cannabis etc.

A question posed within the minds of many Muslims in the world today, is what methods is a person authorized to use to decide issues that appear to go beyond anything mentioned in revelation from the Holy Qur’an or Traditions in the form of Hadith's?

A few Muslim thinkers such as Rahman are urging their co-religionists to understand the spirit of the Qur’an as a whole before trying to interpret isolated passages, “If this revelation was meant to endure as guidance for man as long as he remains on this earth, then it must be adaptable to changing conditions of life and re-thinking of many values. Otherwise it will become more and more obsolete, and will eventually cease to inspire belief in the religion.”

Mu’tazilah is an Islamic school of theology based on reason and rational thought which is not considered to be part of the five main schools of thought. The adherents of the Mu’tazil School follow the view that sacred precedent is not an effective means of determining what is just, as what is obligatory in religion is only obligatory by virtue of reason.

If I had a choice of what intellectual path Muslims should follow, I would start where the Mu’tazilites left off and work to develop a system of Islamic law which would openly make use of judgments which would encourage judgments of the right and wrong by the human mind, without having to look to scripture at every step.

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83 W.B. Hallaq, ‘*Shariah Theory Practice Transformations*’, (Cambridge University Press 2009), p.57
It can be argued that reason is the principal tool for the advancement of knowledge but the merit and demerit of that knowledge is ascertained with the aid of revelation. Reason is the torchlight, which illuminates one’s path in the material world of observation and investigation, whereas revelation is the source of transcendental knowledge of the world beyond perception. One is the realm of investigation and the other of faith and submission to divine providence.

Revelation and reason are in unison on the recognition and validity of scientific truth and empirical observation. In numerous places the Qur’an invites investigation and enquiry into the creation of God, and this corroborates in principle the conclusions that humans approach to the understanding of reality and truth should be guided by rational and empirical methods. The lesson must therefore be that one should be ready to make necessary adjustments in line with the results of one’s observation of reality and prevailing conditions of life in society.

Reproductive technologies have helped many individuals in the world to achieve their dreams of having a child. I will attempt to formulate my reasoning of how we can use the Islamic tradition with analogical reasoning to derive at answers to the question of permissibility of various reproductive technologies.

Reproductive technologies were not mentioned in the revelation or tradition of Islam, however we do have passages, which attest to the curability of infertility. The starting point for my analysis is the primary source the Qur’an which states

‘And (remember) Zacharyya, when he cried to his Lord: “O my Lord! Leave me not without offspring, though You are the best of inheritors. So We answered his call, and We granted him Yahya (his son). We cured his wife’s (infertility) for him.” \(^\text{84}\)

\(^\text{84}\) Quran, 21:89-90
Furthermore, Muslims are allowed and even encouraged to seek lawful cure of any form of illness or disorder they may have. The Hadith narrated on the authority of Usmah bin Shuraik succinctly states “The Prophet (pbuh) said, ‘Seek remedy, for Allah has never created an illness unless He has also created a cure for it, save the (illness) of old age.”

IVF is seen as one of the cures to infertility, it is used by gays/lesbians to enable them to have children by using sperm or eggs provided by a donor. Islamic law within the main schools of thought stipulates that treatment can only made available within the bond of marriage. I intend to use analogical reasoning i.e. concluding from a given principle embodied in a precedent on the strength of a common essential feature called the ‘reason’ (illa) to analyse these issues.

In certain cases where Muslim women have not been able to find suitable partners or their parents have not been able to find a suitable match, should they be punished and not have the benefit of IVF?

We see many cases where Muslim women have excelled in their careers and due to unforeseen circumstances are left in a difficult position where they are not able to conceive. In those exceptional circumstances I would propose that IVF treatment is and should be an accepted method of treatment under Islamic Law. In order to justify this argument I will use the method of analogical reasoning to support this proposition.

The Qur’an states:

‘He Allah creates what He wills. He bestows female upon whom He wills, and bestows male upon whom He wills.’

It could be argued that Allah ultimately creates what He Will so therefore if Muslim women use IVF to conceive it is ultimately the will of Allah. The real question to ask in this day and

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85 An authentic hadith narrated by Tirmidhi vol iv p.38, Abu Dawud vol ii p. 396 and Ibn Majah vol ii p1137
86 Rahman, (above n80) p.71
87 Qur’an, 42:49
age is: What would the Prophet (pbuh) have done and would he have approved of the practice? It is clear that societies have changed enormously over the last 100 years and women have started to play a very important role in the work place. The changing working pattern has resulted in women having children at a later age, which means medically it may be more difficult for them to have children in the forties and fifties.

The matter becomes controversial when we consider the issue of gay and lesbian Muslim couples being offered IVF or surrogacy treatment. In Islam it is an accepted view that such relationships are prohibited according to all main Schools of thought. Individuals genetically born unable to have relationships with the opposite sex, should Allah punish them for the way they have been created?\textsuperscript{88} We are Allah’s ‘best of creation’ so therefore should we not be able to exercise our free will and be able to procreate by the assistance of reproductive technologies. A medieval medical treatise attributed to Ar-Razi, ‘Treatise on the Hidden Illness’, attempts to explain the ‘hidden illness’ of passive homosexuality. Ar-Razi describes passive homosexuality as being derived from weak male sperm that makes the male child effeminate. Ar-Razi’s treatise demonstrates that homosexuality was viewed as a natural genetic phenomenon.\textsuperscript{89}

The Qur’an in chapter Al-Hujrat- 13 states ‘O mankind! We created you from a male and female.’\textsuperscript{60} This verse clearly illustrates that procreation can only take place between a male and female, however one can use the principle of ‘\textit{ijtihad}’ and state that due to advancement in reproductive technologies one can now bring a child into this life without the necessary prerequisites that existed when the main schools of thought were established or simply that we should be allowed to use ‘\textit{ijtihad}’.

The real test to be applied in these circumstances is based upon whether there would be tacit approval from the Prophet (pbuh) if he were alive. We have seen in the life of the Prophet (pbuh) that certain things that were not permissible became permissible with the passage of time. The issue of homosexuality is clearly mentioned in the Qur’an with the story of the Prophet Lot and his people but the advancement in science and medicine clearly

\textsuperscript{88} Even within a liberal interpretation of Islam, it will be difficult to find room for the reproductive rights of homosexuals unless there is some biological element to homosexuality.


\textsuperscript{60} Qur’an – 42:51
shows that homosexuality is considered to be a natural genetic phenomenon, which needs to be addressed by Muslim scholars.

In the case of the Muslim gay couple a possible solution could be that one of them could enter into an Islamic marriage with the surrogate mother for the period of the pregnancy and then divorce the surrogate mother, once the child is born. The semen would be provided by one of the gay couple and the donor egg inserted into the womb of the surrogate who in Islamic terms is the wife of the gay individual. In this way the child created has the DNA of one of the gay individuals and he can legitimately call himself the biological father of the child. This maybe a solution subject to the acceptance of scholars that within our society we have people who are gays/lesbians that are unable to procreate in the normal way.

The Qur’an states, ‘Then has He established the relationships of lineage and marriage.’ It is argued by some scholars that the use of donor sperm, eggs or embryos will result in the biological father or mother being different from the married couple. In Islamic law, this is similar to adultery or confusion in lineage.

Third party donation does not involve the couple or individual to be involved in a sexual relationship so therefore it cannot be considered as adultery or having an extra-marital affair. In this day and age and especially with the recent legislative changes in the United Kingdom, a potential child born from third party donation will be able to find out the origins of who donated the egg and sperm.

In the four main Sunni Schools of thought there is a general prohibition against gamete donation whereas in the Shia school of thought there is growing positive attitude towards gamete donation.

With regard to egg donation, Ayatollah Khamenei stated in his initial fatwa that egg donation ‘is not in and of itself legally forbidden.’ He stated that both the egg donor and the infertile

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91 Qur’an 25:54
mother must abide by the religious codes regarding parenting. The child of the egg donor has the right to inherit from the egg donor, as the infertile woman who received the egg is considered to be like an adoptive mother, and there is no right to inherit from adoptive parents in Islamic law.\textsuperscript{93}

With regard to sperm donation, Ayatollah Khamenei said in his original fatwa that the baby born of sperm donation would follow the name of the infertile father rather than the sperm donor. However, as with the egg donation, the donor child can only inherit from his biological father, the sperm donor, since the infertile father is considered to be like an adoptive father. I certainly endorse the fatwa of Ayatollah Khamenei and believe that it was a bold decision in addressing a very emotive issue which leaves me to simply add that the other four schools of thought need to be as brave in order to change the status quo for all Muslims.

The practice of \textit{ijtihad} has allowed a certain flexibility and pragmatism towards new technological developments in reproductive technologies. In Iran, egg donation is allowed, as long as the husband marries the egg donor temporarily, thereby ensuring that all three parties are married.

Despite Ayatollah Khamenei’s fatwa allowing for sperm donation, sperm donation is legally forbidden in Iran, because a sperm donor cannot temporarily marry an already married woman whose husband is infertile. Interestingly, embryo donation which involves both sperm and egg from another couple is allowed in order to overcome both male and female infertility because an embryo from a married couple is given to another married couple, it is considered halal, or religiously permissible.\textsuperscript{94}

In respect to surrogacy, the response from Islamic jurists sits in easier juxtaposition due to the fact that within Islam a husband with the consent of his wife / wives can marry up to four wives at the same time. If the first wife is unable to conceive then it is possible for the husband to marry a second wife in order to use the egg of the first wife and place it within

\textsuperscript{94} M. Clarke, ‘Shiite Perspectives on Kinship and New reproductive Technologies’ ISIM Review 17:2006, pp.26-27
the second wife in order that she can conceive. As it is in the domain of marriage, it is considered to be acceptable when all other methods of fertility treatment have failed.

The Qur’an states ‘We have enjoined on man kindness to his parents: In pain did his mother bear him, and in pain did she give birth to him.65 ‘And when you were foetuses in the bellies of your mothers.’66 It is clear from this passage of the Qur’an that the woman who gives birth to the child is the legal mother of this child.

It is important to understand that the first wife’s egg has been implanted into the second wife and therefore the genetic identity of that child belongs to the first wife and her husband. We have to appreciate that the Qur’an in that specific verse is only taking into consideration that it is a husband and wife relationship alone rather than an extra dimension of a second wife being utilized for the process of procreation. One can therefore come to the conclusion that the Qur’an does not expressly forbid this and therefore it is permissible.

Recent advances in the field of cloning and stem cell research have introduced new hope for treatment of various diseases. The Qur’an describes stages of the human creation in chapter 23 (Al-Muminun) 12-14 ‘We created man of an extraction of clay, then We set him a drop in a safe lodging, then We created of the drop clot, then We created of the clot a tissue, then We created of the tissues bones, then We covered the bones in flesh; therefore We produced it an another creature. So blessed be God, the Best of Creators.’67

Some of the Fatwas regarding human cloning originate from interpretations of this verse from the Qur’an. There is a distinction made between the stages before and after ensoulement. The ensoulement based on opinions of the majority of the Sunni and Shia Muslim scholars, takes place about the end of the fourth month (120 days after fertilisation). The use of the embryo for therapeutic or research purposes may be acceptable under necessity if it takes place before the point at which the embryo is ensouled. Reproductive cloning is prohibited whereas cloning for therapeutic purposes is permissible.

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65 Qur’an: 46:15
66 Qur’an 53:32
67 Qur’an, 12-14
The verse in chapter 23 (Al-Muminun) clearly gives a step-to-step guide on the seven stages of birth, however neither the Qur’an nor the Prophetic traditions mention expressly the position in relation to saviour siblings or designer children. It must be right to say that as far as saviour siblings are concerned it is a clear from the Qur’an that to help one individual is the same as helping the whole of humanity. A married couple has a choice as to whether they wish to have another child in order that it may save the life of the existing child. As all children are a blessing from Allah, it is not for us to judge the motive of the parents wanting to have another child and does not alter the motivation for them to look after the new child with the same love and affection and have the best interest of the child at heart. By using the analogy of the Prophet (pbuh) it can be established that he made it abundantly clear that saving one life is like saving humanity, in the same way if the Prophet (pbuh) was alive today it can be argued that he would have endorsed saviour siblings as a means of extending and saving the lives of fellow humans.

In respect to designer children the position from Sunni and Shia scholars is consistent that we should not act as God. Allah has created man in the best of forms, and bestowed upon him the greatest honours. The Qur’an states ‘And indeed We have honoured the children of Adam, and We have carried them on land and sea, and have provided them with (lawful good things), and have preferred them above many of those whom We created with a marked preferment.’

It could be argued that an individual who had been donated an anonymous sperm and an egg for fertilization would not come under the domain of a designer baby and it would be permissible under Islam as the recipient did not specify the colour, intelligence or sex of the child, if the recipients did specify the characteristics required of the donor then it would not come under the domain of a designer baby to which I will turn now.

According to the Qur’an all children are the creation of Allah. If this holds true then children, which are created, as ‘designer children’ are still the creation of Allah. By analogy a Muslim male may decide to only marry a woman who holds certain beauty, high IQ level, which would enable him to have children that would replicate this. In Islam an individual has a

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98 Qur’an 17:70
choice as to who they can marry so that in itself is a selection process in deciphering what traits are required to pass on to the next generation.

A Muslim couple that is infertile should have the same choice in deciding which sperm or egg donation they require in order that it meets their specifications of having a child of their choice. In Islam the process of birth will result in a child that Allah has created in the best form. Using this analogy and the verse Al Israa and the general Prophetic Traditions of seeking cure for ailments genetic engineering may be considered as an acceptable form of reproductive technology. The principle of analogical reasoning can be used effectively in order to justify that genetic engineering can be made permissible within Islam. However, it is important to note that if genetic engineering was to be made permissible to the majority of infertile couples this may result in negative societal implications which is not what Islam intended.

In conclusion, it is fair to state that global reproductive ‘technoscapes’ are becoming increasingly expansive as we enter this new millennium. The Muslim world is generally positioned on the receiving end of global reproductive technology transfer has nonetheless embraced assisted reproductive technologies with considerable enthusiasm, at the same time, reconfiguring them in accordance with the local religious moralities.

Muslim infertile couples living in the United Kingdom have the benefit of being able to make independent decisions without any state interference. In the United Kingdom we have a mixed Sunni and Shia population who due their religious beliefs are able to use Fatwas, which are beneficial to their needs and make informed choices.

Due to the desperation of infertile Muslims, views will change to confirm with the more liberal scholars who have approved the principles of egg and sperm donation, surrogacy and therapeutic cloning. It is, probably only a matter of time before my analogical reasoning on the issue of gay/lesbians, designer children will be considered in debates and more so approved by the liberal scholars. As I have stated at the beginning of this thesis, Islam is a flexible religion, which can address the needs of today’s difficult conundrums with detailed reasoned solutions.
2.12 – Islam and Medicine

The general aim of medical science, according to Muslim physicians, is to secure and adopt suitable measures, which, with God's permission, help to preserve or restore the health of the human body. The normal state of the human body is the state of health. This is the state in which all the functions of the body are carried on normally, and which is characterized by the harmony, balance, and equilibrium of the constituent elements and systems of the body. Illness or disease results from the disruption of this harmony and equilibrium when one or more functions or forms of the body organs are faulty.  

The role of medical science and the physician is to find and employ suitable means for the preservation of that normal state of health or for its restoration in cases where the body has been afflicted with disease. The preservation of health brings into focus the importance of preventive medicine. The restoration of health on the other hand pertains primarily to the task of therapeutic medicine. Thus, there are two main areas of concern of medicine. The Islamic medical system places great emphasis on both.  

The goal of medicine is fully in harmony with the Quranic vision of human well-being. Muslims have generally regarded medicine as a science whose roots are clearly established in the Qur'an and the Sunnah of the Prophet (pbuh). The nobility and prestige of medicine in traditional Islamic society was further enhanced by the belief that this art was originally revealed to mankind through the Prophet Idris.  

According to a famous hadith of the prophet, 'God has sent down a treatment for every ailment.' Another version reads: 'there is a medicine for every ailment such that if a right medicine hits a corresponding ailment, health is restored by God's permission.' In the practice of Islamic medicine, the search for the 'right medicine' went hand in hand with a

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99 Bakar (above n18) pp.106-107  
deep reliance on the divine help. Muslim physicians were guided by the principle that the treatment of a particular ailment depends very much upon its nature and causes.\textsuperscript{103}

Islamic medicine is indeed one of the most important cultural manifestations of the spiritual, moral, and ethical values of Islam. During the long period of its history, Islamic medicine initiated new medical practice and gave birth to new medical and health institutions which made possible a more systematic organization and development of preventive medicine, medical education, medical ethics, drug production, registration and distribution, and therapeutic administration than ever seen before.

The Islamic medical system, at least during its Golden Age, has demonstrated its remarkable power of synthesis and its flexibility as reflected in its adaptability to change, as well as its scientific character through its ability to absorb what was best of the doctrines, methods, and techniques in the various traditional medical systems which the Muslims came into contact with.\textsuperscript{104}

What is noteworthy however is the fact that during all these periods when the process of enrichment of the Islamic medical system was taking place the basic philosophical framework and foundation of Islamic medicine remained practically unchanged. Muslim physicians viewed the general principles of which the theories of Islamic medicine were based as philosophically and scientifically valid and applicable at all times. There are many different philosophies and theories of health and disease in the history of medical thought of the human race.

Each philosophy is based on a particular conception of the human body, and more specifically on a particular physiological perspective. Also, each philosophy has given rise to a distinct system of medicine.\textsuperscript{105}

\textsuperscript{103} F. Rahman, \textit{Health and Medicine in the Islamic Tradition}, (ABC Group International Group 1988), p.43
\textsuperscript{104} Bakar (above n18) p.105
\textsuperscript{105} Bakar (above n18) p.106
Islamic medicine in both theory and practice is the product of the application of the Islamic metaphysical and cosmological principles to the study of health, illness, and cessation of life. There is no doubt that the philosophy of Islamic medicine is very much different from, and even opposed to, that of modern medicine. Islamic medicine, like many other traditional systems of medicine, is holistic in nature and scientific. It is argued that reviving Islamic medicine in the contemporary world does not entail a total rejection of modern medicine. Muslims should derive the maximum of benefits from the achievements made by modern medicine in biological and medical knowledge, as well as in medical technology, to the extent that these are permissible. In other words, Muslims are called upon today to produce a new synthesis in the field of medicine within the framework of Islam.\textsuperscript{106}

Many Muslim commentators believe that it is possible to integrate biological and medical knowledge discovered by modern scientists, insofar as these are true knowledge and just hypotheses or even theories, into the philosophical framework of Islamic medicine since Islamic medicine is by nature synthetics, holistic, and scientific.\textsuperscript{107}

\subsection*{2.13 – Islamic Law in Relation to Human Reproduction}

Infertility affects around one in six couples in the United Kingdom, which are approximately 3.5 million people in the UK.\textsuperscript{108} The new technologies of human procreation, including Artificial Insemination by Donor (AID), Artificial Insemination by the Husband (AIH) and In Vitro Fertilization (IVF), are welcomed by many of those who are suffering from this. However, these techniques are associated with many legal, ethical and religious problems. I intend to discuss these problems in the light of Islamic law. The Sunni school of thought prohibits the introduction of a third party in the act of procreation, whether it is a sperm, an ovum, a pre-embryo or a hired womb whereas in the majority of the Shia school of thought it has now become permissible.\textsuperscript{109}

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\textsuperscript{106} Bakar (above n18) p.106
\textsuperscript{107} Nagamia (accessed 12 September 2013)
\textsuperscript{108} www.nhs.uk - Infertility- NHS Choices
\textsuperscript{109} M.A. Mohammed, \textit{Contemporary Topics in Islamic Medicine}, (Saudi Publishing and Distributing House 1995), p.155
\end{flushleft}
IVF and other new treatments will no doubt play a big role in helping childless couples now and in the future. IVF is very expensive business but many centres have already sprung up in many Islamic countries.\footnote{ibid} Despite the strict stance of the Sunni Islamic jurists, who only allow procreation between spouses in their lifetime, the fate of excess oocytes and frozen embryos resulting from IVF projects will cause many ethical, religious and legal problems, even if Islamic teachings regarding procreation are strictly adhered to.

Since the introduction of IVF and the successful birth of Louise Brown in 1978, many ethical and legal problems have been raised. As the technique advanced, new alternatives to traditional parenthood were practised. There are at least 16 reproductive alternatives available now, involving various combinations of sperm and ova from husband, wives and third parties, as well as choices as to the location where fertilization occurs and who carries the pregnancy to term.\footnote{Ibid p.158}

Many of these issues are completely new with no precedent or baseline from which an ethical, religious or legal decision could be taken. This has led to heated discussions, involving all those interested in the subject, ranging from members of legislative houses to members of the media.

I intended mainly to examine the following reproductive technologies from an Islamic perspective: a) IVF, b) Surrogacy and c) Cloning and Genetic Engineering.

**2.14 - Infertility**

Infertility according to Ahmed Abdel Aziz Yacoub can be primary, where the couple have never had any offspring; or secondary where there has been a previous pregnancy, but no present possibility. Both may be due to any of a number of afflictions.
(i) Primary infertility

Primary infertility means that a spermatozoon of the male does not fertilise an ovum of the female, hence there are no products of conception to be dealt with. The causes can be that:

(a) There are no spermatozoa, or there are too few of them, or that they are in a very early stage of development which has not allowed their migration to suitable sites from whence they would have been available for the process of fertilisation.

(b) There are no ova, available for fertilisation, either because they are not there at all, or because they are there but cannot be released from the ovary.

(c) Other causes of primary infertility, including the very rare cases of congenital unavailability of parts of the birth canal.\textsuperscript{112}

(ii) Secondary infertility

Secondary infertility is present when a woman who has conceived before, or could conceive before, is unable to become pregnant. There can be many causes for that, the most common being:

(a) Infection and consequent blockage of the passages that convey the ovum, or the fertilised egg in the female or the sperm in the male.

(b) Non-production of ova or spermatozoa because the organs that produce them have been destroyed by disease, cancer, or have been removed.

(c) Removal of the womb, or the tube in the women.

(d) The exhaustion of supply of the ova in the female menopause\textsuperscript{113}

A fertilised ovum according to the Muslim Scholars is known as an embryo up to eight weeks of gestation; after that and until delivery it is a foetus. The crux of the matter for Muslims is for a sperm from the husband to fertilise an ovum, or ova from his wife, and for the product to remain in the mother’s womb until it reaches a stage compatible with extra-uterine life.

\textsuperscript{112} Aziz, Ahmed, and Clarke (above n24) pp.233-234
\textsuperscript{113} Aziz, Ahmed and Clarke (above n24) p235
Islam allows the treatment of ailments, encourages marriage and begetting children within the framework of the family. Marriage in Islam, can take place between a husband and more than one wife. The maximum number of wives is four; but Islam discourages being married to more than one wife, in the case where the man fears that he may not be able to be just to his wives:

‘...then marry other permissible women, two, three, or four. But if you are afraid of not treating them equally, then only one, You will not be able to be completely fair between your wives, however hard you try.’

2. How does Islamic Fiqh impinge on reproduction?

The methods of overcoming primary and secondary infertility will now be examined, as to their permissibility in Islamic Fiqh. According to the Sunni Fuqaha, any form of donated sperm from other than the husband is ruled out. Also, ova in any situation must have come from the wife of that husband. The basic rule is that the procreation of children should be within the bond of marriage between a man and women. This limits the methods of treatment that are permissible.

The following examples are permissible according to Sunni Islamic Fiqh:

(i) Infertility could be due to the fact that healthy spermatozoa are too few in numbers to effect fertilisation. The semen is collected from the husband at intervals and it is cooled and pooled, until enough spermatozoa are collected to effect fertilisation. Then that seminal pool is applied to suitable parts of the wife’s birth canal to optimize possibilities of fertilisation of her ovum or ova (in vivo fertilisation).

(ii) A second approach would be to fertilise the ovum of the wife with her husband’s spermatozoa under less wasteful and more favourable laboratory conditions of incubation in a Petri dish (IVF).

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115 Qur’an, 4:3 and 4:128
(iii) The aforementioned technique can be further refined by actually injecting or
impregnating an ovum from the wife with a spermatozoa of the husband (a
microscopic technique) in a Petri dish, then implanting it at a suitable stage of
division of the cells into the wife’s womb.

(iv) In cases where the availability of ova is the problem, ova are harvested after
suitable hormonal preparation, from the wife and are fertilised by the sperm of the
husband, then returned to the womb, which would have been prepared for
implantation of the fertilised ova.

All the above procedures are suitable for cases where the tubes, which convey the fertilised
ovum to the uterus, are blocked or have been removed, as in secondary infertility cases in
the female.116

3. What happens to surplus embryos in the modern infertility techniques?

Fertilisation of an ovum by a spermatozoon is the essence of the procedure in the
management of infertility. However to achieve the result of having an embryo implanted in
the womb and proceeding to term, more than one fertilised product is necessary to be put in
the prepared womb. 117

To achieve this about nine to ten fertilised ova have to be available in the laboratory, six to
seven fertilised ova (usually more) remain after implantation. They are saved for other
attempts in other cycles of the female in case the first attempt failed which is more likely than
not. Generally there will be some fertilised ova as a surplus. The destruction of embryos
conceived in vitro according to Sunni Islam is an act of abortion in so far as the process of
cell division and organisation is aborted.118

116 G.I. Serour, “Assisted Fertilisation and Islam” Proceedings of the first International congress on controls and
ethics of human reproduction in the Muslim world Cairo) 10-13 December 1991 pp163-169
117 Aziz, Ahmed, and Clarke (above n24) pp.235-236
118 Aziz, Ahmed and Clarke (above n24) p 236
It is the view of some Muslim scholars that ensoulment and humanity are inseparable; humanity, in its turn, depends on a natural human environment. It seems reasonable to regard the embryo as deriving its humanity only after having established normal unity with its human mother; prior to such an infusion of humanity, it appears more practical to look upon the embryo as a laboratory artefact. This view is criticised on the grounds that it does not define a soul.

In accordance with Sunni *Fiqh*, a legal case may be made for the view that the gravity of responsibility for destruction of such fertilised ova is related to the stage of development reached. There is the very early stage before implantation which does not possess an infusion of humanity; but after implantation there are various stages of development i.e. 120 days, at the end of which, the embryo can possess ‘ruh’ (spirit).

The Qur’an mentions different stages of child development: ‘*sulalah min tin’* (purest kind of clay), ‘*nutta’* (a drop of seed), ‘*alaqa’* (clot that clings), ‘*mudgha’* (like a lump), then bones appear, and become clothed with flesh, ‘*and then brought him into being as another creature. Blessed be Allah, the best of creators!*’ The Prophet (pbuh) said: - ‘The creation of any one of you is gathered in the womb of his mother for forty days as a nutfa (drop), then later an ‘alaqa (blood clot) for the like of that, then later a mudgha (morsel of flesh) for the like of that. Then the angel is sent to him and breathes the ruh into him’. 

The debate in question is not purely scientific; it is essentially to determine the undeterminable: when does life start? The difficulty is reflected in the way each viewpoint coins its own definition to exclude or to include certain stages of existence in the argument. Thus, we have: fertilisation, pre-embryos, embryos, and human persons. Those who support embryo research make a distinction between the point at which human life starts (fertilisation) and that at which a human person comes into existence, and therefore deserving of protection.

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119 Qur’an, 23:13 and 77:21
120 Qur’an, 23:14
121 Qur’an, 23:12-14
Sunni *Fuqaha* state: the removal or aborting, the sperm-ovum union stage or the semen that is being formed within the uterus through the different stages of development of the fertilisation product, when it may or may not be removed, and the ensoulment at 120 days (corresponding to the clinically recognised quickening of the foetus at 17th week), beyond which point all Sunni *Fuqaha* are agreed that it is not permissible to destroy the foetus, mulling over the aborted foetus, which though it might have had movement yet in reality was incompatible with extra-uterine life.

A fertilised ovum in a Petri dish is not a baby in Sunni *Fiqh*; it has not reached the preserve of the womb. Yet, profound respect is accorded to it, as it is the precursor of life.122

Jurists in the Maliki School do not permit the removal of the semen once it has reached the uterus.123 All other Sunni Fuqaha do not approve of interference with the products of conception at any stage (*makruh*), although it does not become an offence until it has reached 40 days124 for some and 120 days for others.125 Surplus embryos may be disposed of according to the Islamic *Fiqh* after they have been used for begetting offspring for the married couple during the cycle. Moreover a Fatwa in 1989 said that, ‘Under certain circumstances, and under the supervision of a committee set up for the purpose, tissues from embryos can be used for organ transplantation.’126 In November 1998, it became possible to isolate stem cells from embryos and foetal tissue—cells that could be used to treat conditions such as Alzheimer’s and Parkinson’s disease.

Stem cells have potential for replacing cells ravaged by chronic diseases such as Alzheimer and Parkinson’s diseases, spinal cord injury, and diabetes, stroke and congestive heart failure. ‘Within five years humans could be cloning themselves and obtaining stem cells from there own pre-embryos to replace diseased cells in a wide range of disorders.’127 However fifteen years since this statement was made this promise has not been realized.

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122 Aziz, Ahmed, and Clarke (above n24) pp.238-240
123 al-Dardir, *al-Sharh al-Kabir*, vol 2, Cairo, p.266
126 Fatawa al-Majma al-Fiqhiyya, Jedd, Saudi Arabia, 14-20 March 1990, Decisions No (58/7/6) concerning the use of embryo for transplantation: recommendation of the meeting in Kuwait 23-26 October 1989
127 T. Friend, “Report: Medical potential is huge” in USA Today (May 24 1999) p2 columns 1-4
4. Can a widow use stored fertilised ova of her late husband?

“...and it is not lawful for them to conceal what Allah has created in their wombs if they have iman in Allah and the last Day.”¹²⁸

Although the verse concerns divorced women, the purpose of the ruling is applicable to widows as well. Once a relation has ended, all matters concerning it should be drawn to a close. Rights and obligations and all other estate matters are settled. The widow is not to marry for four months and ten days following the loss of her husband, so as, inter alia, to ascertain whether she is pregnant or not.

Children should be born within the marriage framework of the family unit: ‘...so that you might find tranquillity in them. And he has placed affection and compassion between you.”¹²⁹

The current majority view based on these Qur’anic verses is that a widow cannot use her fertilised ova after the death of her husband. However, I think it can be argued that as long as the widow has not remarried she should be allowed to use her fertilised ova in order to have a child. The father of the child would still be certain, as we would know from the IVF clinic as to how fertilisation has taken place.

5. Surrogate wives and polygamy

Can the fertilised ovum of one wife and husband, be implanted into the uterus of the other wife of the same husband?

*Fatwa of al-Azhar [1980]¹³⁰ from a prestigious Sunni institution points out that all fertilisation of ova must be from the sperm of ‘her husband only’, not adulterated by or mixed with

¹²⁸ Qur’an, 2:226
¹²⁹ Qur’an, 30:20
semen from another person or animal. When the product of this in vitro fertilisation is returned to the womb of that wife, this is permissible in Shari'ah.

However, incubating the product of such fertilisation in the womb of an animal (not human) for some time then returning it to the womb of the women in question is corrupting Allah’s creation and is not permissible.  

There is no mention of another wife of a husband. The question was put to Sheikh Jad al Haq in 1980, when he was Mufti of Egypt; his response is summarized below:

‘Insemination of a wife (in vivo) with semen taken from her husband…is allowed…artificial insemination in vitro (test-tube babies) using the husband’s semen only is allowed…mixing the wife’s ovum with her husband’s sperms, and transferring the fertilised ovum to the uterus of an animal (for whatever reason) for a period, then returning it to the wife’s uterus is forbidden…Note: although surrogate motherhood was not specifically mentioned in the fatwa, it is understood from other evidence that it is forbidden.’

The issue of surrogate incubation by humans was not addressed by the Fatwa of Sheikh Jad al-Haq [1980] as he spoke of animals only. Surrogate use of humans are an important issue, the more so in Islamic Fiqh as of the practical fact that there can be another wife of the same husband at the same time.

The importance of this was highlighted by the Fatwa of Majlis al-Fiqh al-Islami (7th.), Makkah, Saudi Arabia, allowing it and then rescinding it. Twelve years later Oman quoted the 1980 fatwa of Sheikh Jad al Haq of incubation in animals and noted that, “Although surrogate motherhood was not specifically mentioned in the fatwa, it is understood from other evidence that it is forbidden.”

134 ibid
I still think that the original *Fatwa Majlis al-fiqh al-Islamic* was not in violation of any rules of the Qur’an, Sunnah, or the views of the learned Muslim *Fuqaha*, and that there may be room for more detailed analysis of the situation. This question resurfaces from time to time. Al-Qaradawi (1987), spoke of the possibility of hired wombs, but was opposed to the idea, and suggested womb transplants as a possible solution.\(^{135}\)

*Majma’ al-fiqh al-Islami* in its third congressional meeting 11-16 October 1986, in Omman, Jordan said that it was impermissible to implant the fertilised ovum (by the sperm of her husband) into the womb of the other wife of that husband.\(^{136}\) Recently, (on Sunday 6\(^{th}\) May 2001), Sky News said that scientists in the USA proved that a baby was born with genetic materials from three parents, one male and two females.\(^{137}\) So the ovum of the other female does contribute genetic material. Will this technology be acceptable in Islamic *Fiqh*, even if there was a marriage bond between the husband and his two wives? It seems to be the acceptable within the Jafari School of thought as the husband is married to both women and therefore any genetic material would be a part would be a part of the marriage bond, however this would unlawful in the United Kingdom due to polygamy laws.

2.15 – In Vitro Fertilisation (IVF)

Islamic Scholars, whilst discussing artificial insemination have also talked of the following possibilities:

1. It is permissible to invent an artificially made ovum, fertilise it with a man’s a sperm and let the child develop in an artificial womb. In this case, the child will be fully related to the father. At most, he or she will be a child without a biological mother.

2. It is permissible to invent an artificially made sperm and inseminate it into a woman’s womb. Such a child will be fully related to the mother. At most he or she will be a child without a biological father.

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\(^{136}\) “Out of one cell, many” USA Today, May 24 1999, p.2 columns 5-7 (top of page)

\(^{137}\) Sky News, 6 May 2001
3. It is permissible to take an artificially made ovum and an artificially made sperm, and then fertilise and develop the two in an artificial womb. Such a child will be related to no one.\textsuperscript{138}

Even if Islamic teachings are properly practised and IVF is allowed only between spouses during their lifetime, problems are bound to appear. These problems are summarised as follows:

1. IVF is very expensive.

2. The IVF success rate is still low: 30 per cent pregnancies in the best centres in the world, of which at least one-third will abort. The successful delivery rate is 10-15 per cent in the best centres.

3. Laboratory errors are liable to occur, so that a sperm or ovum of the third party is introduced.

4. If sperm banks are allowed to practice, as is occurring in the West, many problems will appear.

5. As IVF is practised in private, profit-making centres, with no legislation or regulation at present in the developing countries, it is liable to deviate from Islamic teachings and pursue unethical means in order to maximize financial gain.

6. IVF involves stimulation and induction of ovulation resulting in procurement of many oocytes (up to 50). The oocytes are usually fertilized with a success rate of 80 per cent, and grow to 4-8 cell blastulae (also with a success rate of 80 per cent). Three to four embryos are sometimes transferred to the uterus. Replacing more embryos results in an increased failure and loss of pregnancy. If it is successful, it results in a multiple pregnancy, which is associated with hazards, both to the mother and her embryos.

7. Freezing embryos: preservation of embryos allows fewer embryos to be replaced on several different occasions with fewer hazards to their mother, and at a lower cost.

However, cryo-preservation of embryos raises many difficult legal, ethical and religious issues, viz:

A) When one of both spouses dies unexpectedly while their frozen embryos are still available, should the embryos be thawed and transferred to surrogate mothers?

\textsuperscript{138}www.people.opposingviews.com
Surrogate motherhood is completely and unanimously prohibited by Islamic jurists of today.

B) If pregnancy occurs successfully to full-term and delivery, what to do with the excess frozen embryos? Can the parents donate them for infertile couples, married or unmarried, or even for lesbians? Donation of embryos will involve third parties in the act of procreation even if it is in marriage. In Islam, involvement of the third parties is prohibited.

C) Then, if donation is not allowed, what to do with excess frozen embryos. Is it allowed to do research? And for how long?

Some jurists may take sides with advantages accruing from allowing scientists to culture unwanted embryos to a certain age limit (e.g., the beginning of the development of the nervous system). The medical advantages are numerous. Many chromosomal and hereditary diseases will be studied further which might enhance or give way to a cure. Besides this the embryonic tissues can be used for transplants; they are better organs for transplantation than cadaver or adult organs. Most jurists will stand by the sanctity of human life even at an early embryonic level.

The embryos can be examined prior to their replacement. If a disease could be detected, it may be better not to replace the affected embryo, than to abort it at a much later stage. It is possible to decide the sex of the 4-6 cell embryos, and if there is a sex-linked serious disease, the embryo may not be replaced. This may open the path for parents to choose the sex of their embryos, the unwanted sex being discarded prior to replacement.

8. It is possible that in the near future some societies or governments, wishing to have super humans, may choose gifted, clever, strong men to donate their semen and fertilize the eggs of gifted, clever, beautiful women. The resulting embryos are then transferred to many surrogate mothers. Such a procedure is completely prohibited in Sunni Islam. Al Bukhari narrates that Sayida Aisha described the different types of pre-Islamic (Jahiliya) marriages known to the Arabs.

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139 M.A. Albar, Contemporary Topics in Islamic Medicine, (Saudi Publishing and Distribution House 1995), pp.157-160
One of them was to choose a strong courageous man to sleep with one’s wife, in order to get strong progeny. Islam considered that type of reproduction as ‘Zina’ -i.e., fornication. The above-mentioned procedures involve third parties and procreation outside wedlock, which is prohibited in Sunni Islam.

9. Whatever may be the success of IVF, it will not solve the increasing problems of sexually transmitted diseases, which participate in the increase of infertility. Similarly, more abortions are carried out all over the world, and this in itself causes an increase in infertility. The use of IUD is also associated with a higher infertility rate and hence, with a global increase in the use of IUD, infertility is going to increase.

IVF will only solve a small percentage of those suffering from infertility, and then only at a very high cost-financially, ethically, and religiously.

Muslim Commentators have argued that these means of procreation are fraught with many dangers that would affect the stability of family life and encroach upon Islamic teachings, apart from it being very costly. Rigorous protocols and supervision should be enforced. These projects should be limited to governmental or non-profit making institutions.  

Unlike Sunni Muslim scholars who are scripturally based in their thinking, Shia religious authorities give precedence to a form of individual religious ijtihad and muta. Through the use of ‘aq’, or intellectual reasoning, various Shia scholars have come to their own conclusions regarding the rightness or wrongness of gamete donation. Shia Islam allows a form of temporary marriage called ‘muta’ which is not recognised by Sunni religious authorities. In Shia Islam, muta is a union between an unmarried Muslim woman and a married or unmarried Muslim man, which is contracted for a fixed period in return for a set sum of money. Since the arrival of donor technologies muta has been invoked to make egg donation legal within the parameters of marriage.

140 www.people.opposingviews.com
Within this context of *ijtihad* and *muta*, Shia religious authorities now accept the idea of donation, but are strict in their interpretation of how donation should be practised, argue that:

1. when a couple needs a donor, they should go to a Shia religious court, where a decision can be made on a case by case basis

2. there should be a determination about which religious reference (i.e., source of spiritual emulation) the infertile couple follows;

3. the decision should be made in the presence of witnesses, the IVF doctor, and with the agreement of both parties (the infertile couple and the donor)

4. the husband should do a *muta* marriage with the egg donor for the period of time in which the whole procedure is taking place because polygyny is legal in Islam and avoids the implications of adultery

5. because a married Shia Muslim woman cannot marry another man other than her husband, she cannot do a *muta* marriage with a sperm donor. Technically, the child born of a sperm donor would be an out of wedlock child, without a family name and without a father. In theory, only widowed or otherwise single woman should be able to accept donor sperm to avoid the complications of adultery.

In Iran, donor eggs and donor embryo programs have been set up at most IVF clinics. Donor eggs come from three sources: other IVF patients, relatives, and unmarried women who agree to participate as egg donors in one day *muta* marriages for a fee. Such marriages only require a witness and are not officially registered; thus, they take place in confidence in the back rooms of IVF clinics. Indeed, donors who wish to remain anonymous enter these *muta* marriages only by written agreement, without even meeting the recipients of their eggs or their temporary husbands. They receive their money following egg harvesting (usually about U.S $550), provide no personal information about themselves to the recipient couple, receive no information about the recipient couple and go about their business.¹⁴¹

2.16 – Surrogate Motherhood

Surrogate motherhood is a by-product of the artificial insemination. It has created great controversy in the legal and ethical circles around the world. Surrogate motherhood means that a woman allows a fertilised ovum of another couple to be implanted into her womb. Then she carries the child to its full term for the other couple. This can be done for free or in exchange for money.

This procedure of human reproduction is adopted when a women has a problem in carrying her child to its full term.\textsuperscript{142} From the Sunni point of view, surrogate motherhood as portrayed above is not allowed because it involves the insertion of a sperm of another person into the women’s uterus. This goes against the verse of the Qur’an, which says that the believing women should guard their private parts except from their spouses.\textsuperscript{143}

There are, however, certain procedures in the Islamic marriage system, which would allow some form of surrogate motherhood. For example, if a woman is having problems in carrying her husband’s child to its full term, then the husband may marry another woman (on a temporary or permanent basis) and then an ovum of the first wife fertilized by the husband’s sperm can be injected into the womb of the second wife with her approval. To which of the two wives will the child belong? Does it belong to the genetic mother (the first wife) or the gestational mother (the second wife)?

According to Ayatollah al-Khomeini it depends on the age of foetus. If it was inseminated in the womb of the second wife after four months, then it belongs to the first wife the second wife is just a receptacle. If it was inseminated before its fourth month, then it is difficult to say that the child belongs to the first wife.\textsuperscript{144} However late implantation is not currently physiologically possible.

\begin{flushleft}
\textsuperscript{142} ibid
\textsuperscript{143} Quran: 24:31
\textsuperscript{144} Iman Khomeini, Tahrir Wasila, vol.2, p.623
\end{flushleft}
In Lebanon and parts of Iran, doctors are keeping Ayatollah Khamenei’s Fatwa at their surgeries to demonstrate the permissibility of procedures to sceptical Muslim patients and as noted by Clarke many ‘such patients have profited from it to undertake donor sperm and egg procedures, even surrogacy arrangements, with a clear conscience.’

2.17- Genetic Engineering

Due to the rapid advancement in science and technology, the Islamic world has had to face the new realities and respond to them. The Islamic Organisation for Medical Sciences has regularly organized many seminars in an attempt to deal with medical and health issues through an Islamic perspective. Participants have included Muslim jurists, medical doctors, pharmacists, biological science specialists, and experts in various other human sciences.

The seminar ‘Genetics, Genetic Engineering, the Human Genes, and Genetic Treatment - An Islamic Perspective’ held between 13-15th October 1998, in Kuwait produced the following statement and recommendations:

1-General Principles:

1. ‘God has created man in the best form and elevated him above all other creatures. Any tampering with man’s basis constituents or subjecting his body to aimless genetic engineering experimentation would be in violation of man’s God-given dignity, as asserted by the Qur’an.’

2. ‘Islam is a religion of knowledge and science, as confirmed in the Qur’an, which imposes no restrictions on constructive scientific research. The outcome and conclusion from such research should not, however, find their way into implementation before having being considered in the light of Islamic legal principles.

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145 Clarke Morgan, Islam and Kinship, (Bergahn Books 2011), pg. 26
147 Qur’an, 17:70
148 Qur’an 39:9
and so long as they do not violate these principles they should be permitted. Genetic science, and all its ramifications are, like any other field of knowledge, encouraged and supported, by Islam, Muslim scientists should be at the forefront of research and inquiry in this field.’

3. ‘Islam recommends the safeguarding of human health, as stated in the Qur’an,\textsuperscript{149} and the avoidance of harm. Furthermore, Islam specifically urges treatment for hereditary as well as acquired diseases and ailments. This in no way conflicts the Islamic teachings of perseverance and acceptance of God’s will.’

4. ‘Every man, regardless of his genetic features, has the right to have his dignity and rights respected.’

5. ‘Nobody’s genes should be the subject of research, treatment or diagnosis without having first carried out thorough and rigorous evaluation of the possible risks and benefits associated with such activity, while respecting the precepts of Islamic law in this regard and obtaining prior, conscious and free agreement of the person from his guardian, putting the person’s own interest first and foremost. If the person concerned is not in a position to grant his consent, no research on his genes must be carried out, unless this has an immediate and clear benefit for the person’s own health.’

6. ‘The right of everyone to decide whether to be informed of the results of genetic diagnosis or its effects must be fully respected.’

7. ‘All diagnosis of preserved genes or genes obtained for research purposes, or any other purpose, must be treated with full confidentiality.’

\textsuperscript{149} Qur’an 2:195
8. ‘No-one must be subjected to discrimination of any kind on the basis of his genetic identity, which might be intended to infringe any of his rights or basic freedoms, or undermine his integrity.’

9. ‘No research on human genes or the applications of any such research, especially in the fields of biology, genetics or medicine, should take precedence over the ruling of Islamic law and the respect of human rights, basic liberties and human dignity of any individual or group of individuals.’

10. ‘Muslim countries are urged to venture into the area of genetic engineering by establishing research centres, working within the directives of Islamic law, to complement one another as much as possible, and grant qualifications to people to work in this field.’

11. ‘The Islamic Organisation of Medical Sciences is urged to form committees to study and monitor ethics of medical practice in every Muslim country as a step towards the formation of an Islamic federation for medical ethics in biotechnology.’

12. ‘Muslim Ulema must prepare and publish research, in a simplified and accessible form, on scientific facts relating to genetics and genetic engineering and educated and enlighten the public.’

13. ‘Muslim countries are urged to include genetic engineering as part of the education system and give it more prominence at university and higher levels.’

14. ‘Muslim countries are urged to give more attention to genetics and genetic engineering in the national public media and give full and adequate coverage of the Islamic view of these sciences.’
15. ‘To ask the Islamic Organisation for Medical Sciences to monitor scientific progress in this field and to organise similar seminars to prepare and issue the required recommendations, if necessary.’

The seminar discussed genetic engineering and the reservation surrounding it since it first emerged in the 1970’s, regarding the potential risks involved in its unregulated practice. It is seen as a double-edged sword that can be equally used for good or evil.

The seminar agreed that genetic engineering may be used in the prevention, treatment or alleviation of diseases, whether in the form of genetic surgery in which genes are replaced by other genes or genes are implanted in the patient’s cells, or when genes are planted in another body to obtain larger amounts of the same genes to be used in the treatment of certain diseases.

The seminar affirms the need for countries, in view of the high cost of such process, to provide such facilities to their nationals who need it, especially those with limited income. The seminar also recommends that genetic engineering not be used for any sinister or offensive purposes, or crossing the genes boundaries between various species in order to produce hybrids or merely for sport or scientific curiosity.

The seminar also recommended that genetic engineering must not be adopted as a means for changing the human genetic constitution, in what is called the improvement of the human breed, or in genetically tampering with the human personality or interfere in man’s competence or individual responsibility. The seminar warned that scientific progress should not be made open to monopoly or profiteering and so deprives the poor from benefiting from these achievements.
The seminar supports the United Nations Organisation’s policy in this regard of establishing research centres for genetic engineering in developing countries and providing the necessary personnel training and facilities for such centres to function.\textsuperscript{150}

\textsuperscript{150} Seminar ‘Genetics, Genetic Engineering, the Human Genes and Genetic Treatment – An Islamic Perspective, Kuwait, 13-15 October 1998
In summary the seminar was a breakthrough in the Islamic world in understanding the dire need to discuss and analyse the scientific and medical advancements in the field of human reproduction. It drew a number of scholars from around the globe who came to a unified declaration but one has to appreciate that with all major religions the fundamental structure is based upon the premise that children are born out of wedlock.

The seminar did not give overall approval to reproductive technologies but simply based it’s declaration on a generic formula of how it interpreted good and bad. The applicability of Islamic law is becoming a very important part of ordinary Muslims in the world and thus their needs to be a more consistent and clear picture of what is permissible and what is not.

Medical innovations are on the rise. As we deal with them in our every day life, it is essential that we be aware of the Islamic legal stance, which determines what is permitted and what is prohibited with regard either to the doctor or to the person who has to resort to these innovations. Islam is all for scientific research and efforts exerted for the good of mankind to control disease and alleviate the suffering of patients and relieve their pains, provided that this is done in ways that do not go against the Shari’ah.151

Pointing out the Islamic legal view with regard to medical innovations is of vital importance to Muslim communities living in the western world as well as to those who seek medical help in non-Muslim countries.152

2.18 - Cloning

Cloning is linked with reproduction, surplus embryos, and experimentation with such and other human embryos, which may be bred specifically for that purpose. Thus it becomes imperative to examine the areas in cloning which are inseparable from fertilisation, and experimentation. Such examination depends on discovering the responses in Islamic Fiqh.

Cloning occurs commonly in nature in plants and some invertebrate animals (womb and insects). It also occurs at the hands of plant and animal breeders. Monozygotic ‘identical twins’ occur in humans naturally. The first successful cloning in vertebrate animals was reported in 1952, in frogs, from the nuclei of early embryos.\textsuperscript{153}

Dolly’s uniqueness comes from being cloned from an adult cell, taken from the mammary gland of an ewe. This raised for the first time the possibilities of making identical copies of the adult humans. Other centres succeeded in repeating the procedure. Recently, Aileen Ballantyne published an article in reference to the work of Professor Ian Wilmut of the Roslin Institute where Dolly the sheep was cloned, ‘Dr Dolly plans the clones that will save lives’. He believes that, within the next five years, a daughter will consider donating her eggs to create an embryonic copy of her mother or father. From such a creature—the world’s first human clone—will come live-saving tissues transplants, perfectly matched to their recipients. They will be used to treat a wide range of crippling diseases.\textsuperscript{154}

According to Mufti Allie Haroon Sheikh cloning does not fall under the category of trying to resolve the problem of infertility, because it is motivated rather for the satisfaction of one’s own personal ego, to have a clone of oneself. Producing children in this manner would threaten the very institution of marriage, and therefore would be an illegal venture under Islamic law.\textsuperscript{155}

It has been argued by some Islamic scholars that these forms of unnatural conceptions are nothing but the influence of the devil, who had taken a solemn pledge to Allah when expelled from paradise, that he would change the creation of Allah and His appointed things as the Qur’an states: ‘And I would instruct them that they should alter the creation of Allah.’\textsuperscript{156}

\textsuperscript{153} Aziz, Ahmed, and Clarke (above n24) p.246
\textsuperscript{154} A. Ballantyne, ‘Dr Dolly plans the clones that will save lives’ The Sunday Times, 16 May 1999, 5.6, News Review (top page, columns 4 and 5)
\textsuperscript{155} A. Haroon, Islamic Principles on Family Planning, (Darul-Isha’at 1999), p.129
\textsuperscript{156} Qur’an, 4:119
Cloning of humans according to Abid Mustafa is prohibited on the basis that the production of children in this manner is different from the natural way that Allah has made humans to reproduce their offspring. Allah states ‘And that He created pairs, male and female from Nutfah when it is emitted.’ Secondly that the children who are born out of cloning females, without a male have no father’s. The Qur’an states ‘Call them by the name of their fathers, that is more just in the sight of Allah.’ Thirdly, the production of children, through cloning prevents applying many of the Shari’ah rules, such as the rules of marriage, loss of kinship, fatherhood, inheritance etc. The Prophet Muhammad (pbuh) stated ‘Whoever claims relationship by birth to other than his father or belonged to other than those he belongs to, then the curse of Allah, the Angels, and all the people be upon him.’ Narrated Ibn Majah.

Ahmad-at-Tayyib in early 2003 proclaimed in his Fatwa that reproductive cloning should be prohibited, but argued that therapeutic cloning did not pose a problem under Shariah. Hussein Fadlallah from Lebanon argues that the verse in the Qur’an which states that the devil says to God that he will seduce people into changing God’s creation, does not apply to cloning as cloning does not constitute a change in creation, but rather the discovery of new forms of reproduction within creation.

He argues that if cloning should be banned at all, then not due to the procedure itself, since it does not call into question God’s prerogative, but rather because of the social implications of this technology.

Islamic Fiqh and the new challenges

It may be opportune to conclude this section by a general overview of what Muslim Fuqaha call ‘Rulings as regards to what Shari’ah was silent about’. As a forward-looking plan and an on-going process it becomes necessary to analyse the idea that, ‘if something is not...

157 Qur’an, 53:45-46
158 Qur’an, 33:5
160 Qur’an, 4:118-119
expressly forbidden, then it is permissible.’ Muslim Fuqaha have addressed the question: The basic rule that, ‘everything is allowed unless it was specifically forbidden, or that, everything is not permitted except for what Allah has ordained for us?’

Advocates of each viewpoint quoted the Qur’an, the Hadith, and reasoning (aql) there was the third group who said, ‘We do not know.’ The majority of Fuqaha are of the first viewpoint.¹⁶² I have gone into great detail over this debate, because the essence of the Islamic Fiqh is the knowledge of what is permissible and what is not:

‘So they could increase their knowledge of the deen (yatafaqqahu) they would be able to notify their people when they returned to them so that hopefully they would take warning.’¹⁶³

Ash-Shafi’i said: ‘The rule of Allah based on the Qur’an and Sunnah never escaped the mass of Fuqaha at any time; as ignorance of it is inconceivable.’¹⁶⁴

Shahrastani, said: ‘Rules must be found to the innumerable events in the multifarious avenues of endeavour and change. These rules must never transgress the Qur’an and Sunnah, but it is not expected that every rule would have been spelt out in them. It is best to avoid passing blanket judgements on ‘things, which have not yet been clarified.’¹⁶⁵

2.19 – Ethics in Classical Islam

The study of the ethical principles in the religious tradition starts with the jurists’ discussions of the sources of the law in the eighth and ninth centuries A.D. The party of rational opinion (ra’y) held that in deciding questions of the Islamic law, judges and lawyers might make their own rational judgements independently of scripture, in cases or aspects where scripture gives no guidance. The other party, more strictly traditional, held that legal judgements can be based only on scripture and Traditions, or derived from them in certain approved ways, such as analogy. The conflict on this question was focussed by Shafi’i in particular, with his

¹⁶³ Qur’an, 9:123
¹⁶⁵ Shahrastani (d.548/1153) al Milal Wa’n-Nihal, vol.4, 1968, p.4
systematic critique of the legal methods. Shafi ‘I worked out in a very thorough way the
theory of a positive law, based entirely on Islamic revelation and Traditions; and he states
his primary principle in his maxim that justice is nothing but obedience to the revealed law
(the Shari’ah).166

The division of parties follows the same lines: the partisans of reason maintaining that man
can know much of what is right and obligatory by independent thought, the traditionalists
supporting revelation and Traditions as the sole source of such knowledge in religion.

The early reactions of traditionalist theologians against rationalistic ethics were closely
connected with traditionalist fears in jurisprudence. The main objection they raised against
rationalistic ethics was that independent human reason implies a limit on the power of God;
for if man could judge what is right and wrong he could rule on what God could rightly
prescribe for man, and this would be presumptuous and blasphemous. They further objected
that the judgements of reason were arbitrary, based only on desires; that such judgements in
fact always contradicted each other; and lastly that they arrogated the function of revelation
and rendered it useless.167

The doctrine of this school on ethics corresponded with that of Shafi’i on legal justice; in
brief, that right action is that which is commanded by God. In fact we can find an even closer
relation than one of correspondence, for such a view merges right ethical action with legal
justice.

It is subjectivist because it relates values to the view of a judge who decides them, denying
anything objective in the character of acts themselves that would make them right or wrong
independently of anyone’s decision or opinion. And the view is theistic because the decider
of values is taken to be God.168

The main virtues taught by the Qur’an were: piety, i.e. humble obedience and fear of God;
honesty in dealings; justice and avoidance of all wrongdoing; benevolence; gratitude to God
and to human benefactors; and chastity. Love of God and fellow men is rarely mentioned

166 F.G. Hourani, Reason and Tradition in Islamic Ethics, (Cambridge University Press 1985), p.16
167 Ibid, p.17
168 Ibid
explicitly, but is really implied by the other virtues. Performance of the ritual duties and legal obligations mentioned in the Qur’an is required of every individual, with exceptions made for circumstances of hardship.

The Qur’an prescriptions were supplemented by the far more extensive Traditions (Hadith) of the Prophet (pbuh), and to a smaller extent of his companions. These Traditions were recorded and criticized diligently. With a few exceptions they conform to the norms of the Qur’an. But even the Qur’an and traditions together could not easily cover every situation that might arise, especially after the Muslim empire extended beyond Arabia and required rules for urban life, commerce and government in the advanced countries of the former Sassanid Empire of Iran and the former Byzantine provinces of Syria and Egypt.\textsuperscript{169}

The primary question for ethical theology was therefore: what methods is man authorized to use (if he is ever authorized) to decide issues that appear to go beyond anything mentioned in revelation or Traditions? This question first arose among Muslim Jurists and provincial governors, who were faced with a practical necessity to make justifiable legal verdicts, which could be defended against accusation of making arbitrary decisions.

Notice that the question as I have put it is already within the framework of religious thought, since it refers to authorization of decisions, and authorization implies an authority, which in Sunnite Islam can be the Qur’an and Sunnah. Thus even rationalist theologians (the Mu’tazilites) were obliged to justify their advocacy of reason as derived from religion, or at least not contradicting it. This last condition was binding on all ethical theories, including those of philosophers.\textsuperscript{170}

2.20 – Ethical- Islamic Perspective on the Family

“The Prophet Mohammad (pbuh) stated: ‘women are the other half of men.’ The unit of humanity is not a man or a woman. It is a man and a woman in that unison that makes them a family (just like the smallest part of water is not oxygen or hydrogen but both united). Like

\textsuperscript{169} Ibid, p.271
\textsuperscript{170} Ibid, pp.272-273
many other religions, Islam decrees that the pairing of a man and a woman to make a family constitutes a sacred bond that the Qur’an calls ‘a stout pledge’ that has to be documented and authenticated by the marriage contract. ‘It signifies the commitment of the spouse to one another and establishes their mutual rights and responsibilities as well as those vis a vis their children.’

‘The solidarity of the family and the strength of family ties is of paramount importance in Islam. It spreads even beyond the nuclear family along the widening circles of blood ties.’ The Qur’an calls it ‘the relation of the womb’. In Islam, marriage serves two functions. One is to fulfil the needs of both individuals, both physically and spiritually. ‘Amongst His signs is that He created for you –from amongst you-consorts, with whom to dwell in tranquillity; and He laid love and compassion between you.’ The other function is to procreate and have children; ‘God made for you –from amongst you-consorts, and out of your consorts made for your children and grandchildren; and bestowed on you from His bounty; would they then believe in the vain things and deny the blessings of God?’(16:72).

2.21 - Reproductive Choice

According to M Fathalla ‘reproductive health’ is defined as a condition in which the reproductive process is accomplished in a state of complete physical, mental, and social wellbeing. Reproductive health is not merely the absence of disease or disorders of the reproductive process. This fertility implies that people have the ability to reproduce, to regulate their fertility, and to practise and enjoy sexual relationships. It also implies that women can go safely through pregnancy and childbirth, that fertility regulation can be achieved without hazards, and that people are safe in having sex. Reproductive choice is the right of the person to choose freely his or her reproductive performance including his or her reproductive potentials. Though reproductive choice is basically a personal decision it is not merely so. This is because reproduction itself is a process that doesn’t involve the person who makes the choice alone. It also involves the other partner, the family in all its forms, the society, and the world at large.

172 ibid
It is therefore not surprising that reproductive choice is affected by the diverse contexts, cultures and religions as well as the official stance of different societies. The reproductive choice of the person not uncommonly may even conflict with the interest of his or her own society. This is likely to occur when his or her choice does not enjoy the approval and support of the society. In reproduction, one cannot always have what one chooses even within one's own society or country. Every day many people cross borders to fulfil a reproductive choice, which may not be permitted in their own societies or countries. Such an act is not by all means restricted to one country or followers of one religion. It is a well-known fact for physicians working in the field of medically assisted conception that a few Muslims fly over to Europe or United States to fulfil a reproductive choice, which they cannot have in their own county. The same pattern also exists in Europe among residents of different European countries with different regulatory mechanisms for the process of reproduction. The birth of a baby by a post-menopausal British woman who had medically assisted conception in Italy has made headline news all over the world.

Reproductive choice includes two main aspects, reproductive choice practice and reproductive choice research. Reproductive choice practice deals with the choice of the pattern of reproduction: its prevention, promotion, or the use of its potentials. Its objective is the control of one’s own present or near future reproductive pattern. It includes: prevention of conception, termination of conception, sex selection (ss) whether pre-conception, medically assisted conception (MAC), and postmenopausal conception.

Reproductive choice research involves the choice and procedures and techniques on one’s reproductive products, namely pre-embryo and foetus, in the early phase of their development. The objective of such choice is mostly beneficence to generations to come, humanity at large, and possible beneficial effects to one’s offspring.

Gamal I Serour states that reproductive choice research includes; embryo research, gene therapy, and fetal tissue transfer and research.
2.22 - Reproductive Choice Practices

Temporary methods of contraception are acceptable for fertility regulation with the free informed consent of both the husband and wife. Permanent methods of contraception may only be conducted for therapeutic purposes, when pregnancy would endanger a woman’s life or health is associated with the birth of a seriously handicapped child.

This includes genetic screening for the identification of carriers of harmful genes before they get pregnant or have a family. Appropriate counselling of these carriers may help them tremendously in making an enlightened decision about their reproductive choice. Programmes to detect Tay-Sachs disease, sickle-cell anaemia, and cystic fibrosis are some examples of this situation.

Disclosure of such information to the couple on their request is certainly ethical and may help them in taking an enlightened decision and prevent later unhappiness and disappointment at the reproductive choice outcome.\textsuperscript{177}

Looking at the ethical issues associated with cloning, at the centre of the debate in Islam is going to be the question of the ways in which cloning might affect inter human relationships. In large measures, Muslims concerns in this connection resonate the concerns voiced by many about the social role of parenting and nurturing interpersonal relations. Islam regards interpersonal relationships as fundamental to human religious life. In fact, the Prophet is reported to have said that nine-tenths of religion constitutes inter-human relationship, whereas only one-tenth is God-human.

The Qur’an declares sex pairing to be a universal law in all things.\textsuperscript{178} The debate on genetic replication is concerned with moral issues related to the possibility of technologically created incidental relationships without requiring spiritual and moral connection between a man and a woman in such embryonic manipulation. Can human advancement in biotechnology create

\textsuperscript{177} Serour (above n114) p.195
\textsuperscript{178} Qur’an, 51:49
relationships, which jeopardize the very foundation of human community, namely, a religiously and morally regulated spousal and parent-child relationship under the laws of God?

Since the therapeutic uses of cloning in IVF appears as an aid to fertility strictly within the bounds of marriage, both monogamous and polygamous, Muslims have little problem in endorsing the technology. The majority opinions from Sunni and Shia scholars opine that there would be almost unanimity in Islamic rulings on therapeutic uses of cloning, as long as the lineages of the children remain religiously unblemished.

In Islam although religious, ethical and legal dimensions are interrelated, it is important to understand the legal aspects of cloning that Fuqaha would evaluate carefully in their legal reasoning to deduce the judicial decisions on the subject.

Three major subsidiary principles applied to resolve ethical dilemma and derive judgements related to bioethical issues are: (1) ‘protection against distress and constriction’ (‘usr wa Haraj); (2) ‘refrain from causing harm and loss to oneself and another’ (la darar wa la dirar), and (3) ‘averting causes of corruption has precedence over bringing about benefit’ (dar‘u al-mafashd ‘ala jalb al-masalih).\(^{179}\)

It is obvious that in light of the limited knowledge that we have about whom cloning would harm or whose rights would be violated, Muslim legal rulings are bound to reflect a cautious and even prohibitive attitude to cloning beyond treatment of infertility or assessment of genetic or other abnormalities in the embryo prior to implantation. Whereas recent breakthroughs in mammalian cloning provides a unique opportunity to the scientists to fathom the secrets of God creation, it also carries with it grave and unprecedented risks. One questions the fact that since we do not will unless God wills, can this breakthrough in cloning be regarded as part of the divine willing to afford human kind yet another opportunity for moral training and maturity? The Qur’an seems to be suggesting that embryo splitting is

\(^{179}\) Sachedina, (accessed 13 June 2013)
just that opportunity for our overall maturity as members of the global community under God.\textsuperscript{180}

Genetic Engineering has particularly attracted lengthy discussions amongst Islamic scholars because of a phrase in the Qur’an about ‘changing God’s creation.’ According to the Qur’an, after Satan tempted Adam and Eve to sin by eating from the forbidden tree, he was dismayed to see them repenting and being forgiven and honoured by their mission to planet Earth as God’s vice-regent. Satan asked God to grant him another chance to prove that humans are not that trustworthy after all.\textsuperscript{181}

If allowed to test them on earth, Satan disclosed some of his plots to confound them saying: ‘verily of Thy servants I shall most certainly take my due share, and shall lead them astray and fill them with vain desires. And I shall command them so that they cut off the ears of cattle (in idolatrous sacrifice), and I shall command them and they will change God’s creation’

The regard for this verse among Islamic scholars and medical practitioners also affects their decisions on such issues as sexual conversion operations.\textsuperscript{182}

Fortunately, however, the consensus is that this Qur’anic verse cannot be invoked as a total and radical ban on genetic engineering. If carried too far it would conflict with many forms of curative surgery that also entails some change in God’s creation. Many ethical issues are raised by scientific development of genetic engineering. The creation of new virulent bacteria for use in biological warfare was a serious concern of the early seventies when the technology of recombinant DNA was first described. Such an application is clearly wrong. Applications such as the diagnosis, amelioration, cure or prevention of genetic disease are acceptable and even commendable. Gene replacement is essentially transplantation surgery albeit at the molecular level. The pharmaceutical possibilities of genetic engineering will open the doors in treatment of many illnesses and the possibilities in agriculture and animal husbandry might be the clue to solving the problem of famine the world over.\textsuperscript{183}

\textsuperscript{180} ibid
\textsuperscript{182} ibid
\textsuperscript{183} ibid
The main concern about genetic engineering lies in the area of the unknown and unsuspected future. The possibility of grafting new genes not only in somatic cells but also into germ cells thus affecting coming generations could later be associated with tragic self-perpetuating mutations. The hazards of atomic radiation were not apparent for some time, nor could the damage be repaired, and the stakes with genetic engineering are far more serious. The introduction of genetic material from one species into another practically means the creation of a new species. If pursued with man’s inclination for seeking the unknown until it is known and the unachievable until it becomes achievable then mankind may be confronted by patterns of life yet to appear on the biological stage. Science might think that everything is under control while the case is not really so.  

Further, manipulating the human progeny might be extended beyond combating disease to the cultivation of certain physical characteristics considered desirable leading to elitism and discrimination against normal individuals who lack those characteristics. Worse still is the manipulation of behaviour if genes determining behaviour are isolated. Islam would certainly condemn the principles of tampering with the human personality and its capacity for individual responsibility and accountability. The technology itself attracts large capital for investment, and its investors will inevitably seek maximal financial return.

Moral concerns have been voiced that bear on equality, justice and the common good. Perhaps it is time for a comprehensive public debate and the prospective formulation of an ethical code for genetic engineering. A long story is in the waiting, and it is just beginning to unfold.

2.23 - Sex Selection

The Arabs before Islam practised sex selection, when female babies used to be buried after their birth; Islam forbids such selection. Pre-conceptional sex selection merely to choose

184 ibid
185 ibid
186 ibid
the sex of the baby is forbidden, as this constitutes a challenge to the will of God. However, pre-conceptional sex selection for health reasons is acceptable. Post-conceptional sex selection is only acceptable for health indications. Sex selection, whether pre-conceptional or post-conceptional, is acceptable for health indications to prevent the birth of a seriously handicapped child, but not for the mere choice of the sex of the child.  

2.24 - Gene Therapy

Genetic research on human subjects is part of medical research and the ethical requirements and rules of medical research should apply to it. It should be governed by previous international guidelines relevant to this problem such as the Nuremberg and Helsinki Declarations (1963 and 1975), the CIOMS guidelines (1982), the Inuyama Declaration (1990), and the Cairo Declaration (1991) for the Muslim Countries.

There are four well-known categories of human gene therapy, which it is helpful to delineate, in order to focus the ethical gene therapy discussion. These include:

1. somatic cell gene therapy;
2. germ line gene therapy;
3. enhancement genetic engineering: (a) somatic cell enhancement, (b) germ line enhancement;
4. eugenic genetic engineering.

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188 Albar, (above n136) pp.159
189 Serour, (above n114) p.200
190 Serour and Omran (above n186)
Genetic manipulation is desirable to remedy genetic defects. Serious ethical questions begin to arise at the borderline cases when the aim of genetic manipulation shifts from therapy to the creation of new human types. Though there is fairly general approval of somatic cell gene therapy, ethics has not been able to solve the dilemmas of germ line gene therapy. From a Muslim perspective human gene therapy should be restricted only to therapeutic indications. Somatic cell gene therapy is encouraged as it involves the remediying and alleviation of human sufferings. However, enhancement genetic engineering or eugenic genetic engineering would involve change in the creation of God, which may lead to imbalance in the whole universe and should be prohibited.

Gene therapy to manipulate hereditary traits such as intelligence, stupidity, stature, beauty, or ugliness is a serious act as it may unbalance the life of man.

2.25 - Islamic Perspective in Medical Ethics

The introduction of modern medical technology has posed perplexing new questions for Muslims, the answers to which they are still seeking.

Infertility and desire of a couple to have a child of their own is a new problem. However new techniques to solve this have added a new twist. Now we have successful technology to fertilize an egg outside the uterus (test tube babies) and inject sperm into the uterus from the husband or a surrogate male donor, take the ovum of a woman and fertilise it with the sperm of her husband and inject it into the uterus of another woman for incubation.

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192 Serour, (above n114) p.200
193 Serour, 'Ethical Issues in Population Based Genetic Research ', paper presented at the international seminar on bioethics, Dunedin, 22-7 November, 1993
194 ibid
Muslim scholars and philosophers have pondered on the following questions:

A. Is marriage a legal contract between a man and a woman or is it a sacred covenant between the two and God is the witness of such?

B. Was the child born of an intact legal marriage or outside the marriage?

C. In the case of the surrogate father, who is the real father and does the child have the right to know who he is?

D. In case of the surrogate mother, who is the real mother, the one whose ovum is being used, or the one who lets her uterus be used?

E. Is renting a uterus for this purpose allowed or justified?

F. A woman married or single can technically have one child per month if she lets her ovum be fertilised by different sperm incubated each month in a hired uterus. This will save her the pains of pregnancy, labour and lactation. Is this right?\footnote{197}

In Islam the marriage of a man and a woman is not just financial and physical arrangements of living together but a sacred contract, a gift of God, to enjoy each other physically and continue the lineage.

\textit{‘And God has created for you consorts from amongst yourselves, and out of your consorts He created children and grandchildren for you, and provided you out of His bounty. Will they then believe in vain things and be ungrateful to God’s favour?’}\footnote{198}

\footnote{197} H. Hathout,\textit{‘Islamic Perspective in Obstetrics & Gynaecology’}, (Islamic Organization for Medical Sciences, 1986)

\footnote{198} Qur’an, 16:72
‘Among His signs is that created consorts for you amongst yourselves, so that you may find tranquility with them, and He set love and compassion between you. Verily in this are signs for people who reflect.’\textsuperscript{199}

The Prophet (pbuh) has emphasized marriage by saying: ‘marriage is my tradition. He who rejects my tradition is not of me.’\textsuperscript{200} In fact he described marriage as half of religion, the other half being God fearing.

Therefore violation of this sacred contract of marriage by a biomedical technique is violation of Islamic law:

Some Prophets were childless and asked God to give them children (Qur'an 19:2-7 and 21:89-90 for the prayers of Zacharyyia and 51:28-39 for the story of Abraham and Sarah). Therefore it is justified to seek parenthood in a legitimate way and still recognise who controls it.

\begin{quote}
‘To Allah belongs the dominion of the heavens and earth. He creates what He wills, He bestows female upon whom He wills, and He bestows males upon whom He wills. For He is all knowledgeable, all powerful.’\textsuperscript{201}
\end{quote}

This bio technical parenting is only allowed if it is the product of an intact marriage i.e. during the life span of marriage. Artificial insemination using the husbands sperm, fertilised in the uterus of the wife or the test tube is allowed.

Surrogate motherhood is not acceptable because of two questions:

A. Who is the mother?

B. There is a question of lineage.\textsuperscript{202}

\textsuperscript{199} ibid, 30:12
\textsuperscript{201} Qur'an, 42:49-50
‘None can be their mother except those who gave birth.’

‘It is He, who created man from water, then has He established the relationship of lineage and marriage, for your Lord has power over all things.’

Islam recognized the sacredness of the womb (uterus).

“O mankind! Revere your lord who created you from a single person and created, of like nature, his mate, and from them twain scattered (like seeds) countless men and women. Revered God through whom you demand your mutual rights and (revere) the womb (that bore you), for God ever watches you.”

2.26- Destroying the Extra Fertilised Ova

In most cases of artificial insemination, three ova are removed from the woman’s body and all three are fertilised by the husband’s sperms. But only one is used for re-implantation into the woman’s womb. And if it fails in the first attempt, then the other fertilised ova are used. The question, which has created much controversy, is about the extra and unwanted fertilised ovum. What should be done with the extra-fertilised ovum? Must it be used? Can it be destroyed?

According to the Shari’ah, there should be no problem in destroying the extra-fertilised ovum. It will not constitute abortion because, firstly, abortion only takes place after the implanted of the fertilised ovum in the womb and, secondly, abortion takes place in a woman’s body not in a test-tube or a laboratory dish!

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203 Qur’an, 25:54
204 Ibid, 4:1
205 www.people.opposingviews.com
Another by-product of the new technology is the so-called sperm bank where sperms and fertilised ovum are preserved in frozen state. There are four questions, which must be addressed here.

Firstly: is man allowed to preserve his sperms in frozen state? Similarly, are married couples allowed to preserve their fertilised ova for future use? I can think of no Shari’ah basis for prohibiting such an act. It is no different from the act in a person banks or donates his blood.

Secondly: is it permissible to sell the sperms or the fertilised ova? One cannot sell his sperm to be injected into the uterus of another woman; he may only sell it to a scientific institution for medical research. Similarly, a couple cannot sell their fertilised ova to be implanted into the womb of another woman.

Thirdly: can a woman use the preserved fertilised ovum or sperms of her husband after the latter has died? Apparently, there is nothing to prevent her from doing so. The frozen ovum (fertilised by her husband’s sperm) is her property and therefore she can use it. The child will, of course, be legitimate. However, this would be allowed only if the woman does not marry another person after her husband’s death. Since Islam does not allow a woman to have more than one husband at a time, the second husband will take the place of the first. Qur’anic verse says; ‘protect their private parts except from their spouses.’

Fourthly: can a woman use the fertilised ovum after she has been divorced from her husband? This is allowed only if she has not married another person. As soon as she marries another person, she cannot use the ovum fertilised with the sperm of her previous husband.206

206 ibid
Problems of bioethics and genetic engineering belong to the contemporary age. The Muslim scholars from around the world are responding to these new developments. The fundamental objection to the manipulation of genes would appear to be that it is ‘interference with the will of God’; the will of God often means the ‘process of nature un-interfered with by human actions.’

Genetic improvement of plant seeds and that of animals has been going on since time immemorial: what object can there be to improvement of the human seed—provided, of course, that in the process no loss of human life or human dignity is incurred?

The development of test tube babies is also something to which there could be no Islamic objection, provided the union is between the genes of husband and wife. Indeed, this is a welcome development: it fulfils a genuine need for a child on the part of parents where the mother is unable to conceive the child. The worry that this process is ‘interference in God’s work’ is totally unfounded; it is just like the process by which a sapling is cultivated under controlled conditions and transferred to its proper place when it is strong enough to grow there.

The worry is not that one is trying to vie with God in doing so but rather that one might try to vie with the devil and distort human nature. Islam would not permit the union of genes of a male and a female who are not husband and wife, because this would, it appears, constitute adultery under Islamic law.

Under Islamic law, adultery does not mean merely the physical sexual intercourse between an unmarried couple but also refers to a situation where the descent of a child is mixed up—it is partly for reason that a waiting period (idda) is prescribed by the Qur’an for a divorcée or a widow, in order as far as possible to establish clearly the correct parentage of the child.

207 F. Rahman, (above n19), p.106
208 F. Rahman, (above n19)
209 F. Rahman (above n19) p.107
Besides, Islamic law, following the Qur’an had prohibited adoption, along with the pre-Islamic custom of ‘zihar’, as creating a false and unnatural relationship. Zihar was a formula whereby a husband would declare his wife “as inviolate to me as the back zihar, meaning ‘back’, but as commentators tell us, actually meaning ‘front’ of my mother.’

The Qur’an prohibits both together in 33:4: ‘God has not two hearts in any man’s breast. He has not made your wives with whom you do zihar your mothers, nor has he made your so-called [adopted] sons your real sons. These are [only] words that you utter through your mouths, but God speaks the truth and he guides the right way.’

A provision peculiar to Islamic law, acknowledgement of parenthood, may provide the solution to this problem. If a boy or girl has no known parentage and is claimed by a man or women as his or her child, the child shall be assigned to such a claimant. Muhammad al-Shaibani (d.804) goes so far as to state that if an unmarried woman goes to the court with a child claiming it to be hers and the child has no other parentage, the court must recognize the women as the child’s mother.²¹⁰

The jurist’s argument is that in such cases the interest of the child is paramount, and the question of how the child came into being will not be asked. Principles of equity and public interest override the strict letter of the law. Al-Shaibani also states that if a Muslim and a Christian dispute with regard to a boy, the former claiming that the boy belongs to him and is his slave, while the latter claims that the boy is his son and belongs to him, the court must decide in favour of the Christian ‘because a person’s status as a free human has priority over his or her status as a Muslim.’²¹¹

²¹₀ F.Rahman (above n19) p.108
²¹¹ F.Rahman (above n19)
It is obvious; however, that genetic manipulation lays extraordinarily grave responsibility on humans. The most fundamental questions to be asked in this connection are these: what does genetic improvement of the quality of human life mean? Who is authorized to decide? What are the criteria of judgment? The Qur’an states about the Soul, ‘We granted him amplitude of knowledge and physique.’ This shows that a combination of mental, where mental obviously includes both intellectual and more qualities is to be aimed at. But who is to decide upon the nature of these qualities, particularly the moral ones? While there could be in principles no objection to genetic engineering—indeed, it is a welcome opportunity—we know that this unique opportunity also carries with it grave and unprecedented risks.212

Biomedical advances; new medical technologies and public concern about ethics in recent decades have stimulated a renewed interest in medical ethics. Islamic bioethics derives from a combination of principles, duties and rights, and, to a certain extent, a call to virtue. In Islam, bioethical decision-making is carried out within a framework of values derived from revelation and tradition. It is intimately linked to the broad ethical teachings of the Qur’an and the traditions of the Prophet Mohammed (pbuh) and thus the interpretation of Islamic law. In this way, Islam has the flexibility to respond to new biomedical technologies. Islamic bioethics emphasizes prevention and teaches that the patient must be treated with respect and compassion and that the physical, mental and spiritual dimensions of the illness experience are taken into account. The 4 main concerns of Islamic ethics are similar to western ethical systems; autonomy, beneficence, non-maleficence and justice.213

2.29 - Islamic Philosophical Perspective

Abu Bakr al-Razi states ‘The supreme end for which we have been led is not the gratification of physical pleasures but the acquisitions of knowledge and the practice of justice: these two occupations are our sole deliverance out of the present world into the world wherein is neither death nor pain.’214

212 F.Rahman (above n19) p.109
Ethical justice is justice in accordance with the highest virtues, which establish a standard of human conduct. In accordance with legal justice, man is commanded to observe a minimum-standard of duties; but in accordance with ethical justice, man is commanded to conform to the highest possible standard of good. Justice, in the words of Aristotle, is ‘the greatest of virtues …and in it every virtue is comprehended.’ The highest virtues are taken to be implied in the revelation, but Muslim writers have drawn their ethical standard not only from Islamic but also from foreign (Greek, Persian and others) ethical sources. In their theories of ethical justice, however, they consciously sought to harmonize Islamic values with foreign notions and values.

In accordance with the doctrine of Al-Hasan, God commanded mankind as a whole to follow an ethical standard of justice, but does not predicate the individual’s moral acts; each man is responsible for his own wrong doings. “Guidance flows from God” said Al-Hasan, “but wrongdoings come from man.” In accordance with this doctrine, whoever holds that his acts are commanded by God is considered a hypocrite and should be blamed for his wrongdoings, but should not be punished since he would be judged by God in the hereafter.

In using this philosophical thought process in relation to the complex issue of various fertility treatments currently available in this day and age, it is clear from an ethical justice point of view that man is commanded to do the highest possible good. Scientist and medical practitioners who have discovered these new treatments and new technologies clearly fit into the category of doing the highest possible good, as Al-Hasan states ‘guidance flows from God.’ If it wasn’t for them many married couples that have been unable to have children would have been very unhappy and thus it would be seen as not doing justice. Children are seen as a gift from God and thus a good to the married couple and to society at large.

Ghazali formulated a new theory of justice on two levels - Divine and Human. Man’s conduct, he maintained, is guided by divine justice as an expression of God’s Will, and by rational justice, as an expression of man’s free will granted to him by God. The law, the embodiment of revelation, governs man’s external actions, and reason governs man’s actions from within. The two provide guidance to pursue justice and good. Whereas the law,

215 Aristotle, Nichomachean Ethics, 1129b, p.13
216 Khadduri, (above n213) p.106
consisting of God’s commands and prohibitions, indicates what is just, reason explains why some of the rules are just and why others are unjust, as the law sets forth only the category of obligations, some are legally binding and others are commendable (morally binding).\textsuperscript{217}

According to Razi, the acquisition of knowledge and the pursuit of justice are the ultimate ends of human existence. In the tradition of Greek philosophy, he asserted that the aim of life is not the gratification of physical pleasure, but the acquisition of knowledge and the realization of justice. Pleasure he goes on to explain, is prompted by passion; but reason ‘urges us to eschew present pleasure for the sake of other objects which it prefers.’ For God, who ‘loves us to have knowledge and to be just’ does not desire that man should suffer pain—He ‘will punish those of us who inflict pain, and those who deserve to be pained, each according to his deserts.’

Pleasure and pain on earth will come to an end, Razi held, while the pleasures of the next world, where no death exists, are everlasting. No man, needless to say, should be prepared to purchase a pleasure that perishes at the price of an infinite pleasure that endures. “This being so, he warns, it likewise necessarily follows that we ought not to seek any pleasure, the attainment of which would inevitably involve us in the commission of an act barring our deliverance into the world of spirit, or that would oblige us in this present world to suffer pain exceeding both quantitatively and qualitatively the pleasure we have chosen”.

It is evident that Razi, who takes it for granted that man is in possession of free will and guided by reason, would prefer to make a choice in favour of the deferred pleasure in the hereafter than the immediate pleasure on earth. The philosopher he said, ‘may sometimes eschew many of these lawful pleasures (mubahat) in all the thought to train and habituate his soul, so that it may be easier for him to give them up when the occasion requires.’\textsuperscript{218}

By analysing Razi’s work it becomes evident that man is in the possession of reason, which he guides to make choices. Pleasure, he argues, comes from passion and that due to our reasoning one would rather prefer the pleasures of the hereafter than the short-term pleasures of this world. My point is very simple; If God has created us in this world for a

\textsuperscript{217} Khadduri, (above n213), p.113-114
\textsuperscript{218} Khadduri (above n213), p.116
reason? If God has given us the ability to think and reason? Has God provided cures for infertile couples?

It becomes clear that having children, being involved in the upbringing of children is a big pleasure for the couple that have given birth to the child in this world. It is a dream come true for infertile couples that are now able to have children by the means of artificial reproduction. The pleasure of the next world becomes a secondary issue. In can be argued that this divine justice is about being just and fair in allowing couples to be treated for infertility, for research to continue to help the advancement of medicine whether that be medical research on embryos or genetic engineering for the sole purpose of the greater good of humanity.

2.30 - Legal Justice

According to Shafi ‘Justice means acting in obedience to God [i.e., to his Law]’.

Legal justice is justice in accordance with law. Etymologically, justice is a legal term and the literal meaning of *jus* and *justum* necessarily overlap; however, the meaning has considerably been extended to imply not only legal but also other aspects. So law and justice may coincide, as some elements of justice may be embodied in the substance of the law; but law may or may not have justice as an objective, depending on whether the law was laid down to achieve justice or some other goals. In Islam, Shari’ah is closely intertwined with religion, and both are considered the expressions of God’s will and justice, but whereas the aim of religion is to define and determine goals-justice and others-the function of law is to indicate the path (the term Shari’ah indeed bears this meaning) by virtue of which God’s justice and other goals are realized.\(^{219}\)

The law provides no specific measure to distinguish between just and unjust acts. It devolved therefore upon the scholars to indicate the underlying principles of justice, which would serve as guidelines to distinguish between just and unjust acts. Although these

\(^{219}\) Khadduri (above n213) p.135
principles have not been brought together and correlated into a coherent theory of legal justice, they may be grouped into two categories, each embracing a distinct aspect of justice. These aspects may be called the substantive and the procedural, and the meaning of justice in each necessarily varies from one to the other. Does the Shari’ah seek to protect the collective interests of the community as the primary object or the interest of the individual believer?

An examination of the public and private rights and duties indicates that the purpose of the law is to protect the interests of the believer as a whole; the interests of the individual are protected only in so far as they do not come into conflict with the general interest.\textsuperscript{220}

Closely connected with the general good as an ultimate purpose of the law, is the principle of happiness. Happiness has been the theme of inquiry by many philosophers and utopian writers, and Muslim scholars shared the views and aspirations of their peers in other countries on the subject, but not naturally they discussed it within the framework of Islamic traditions and experiences. However, little or nothing may be found on the subject in early Islamic literature and most writers seem to have urged the pursuit of piety and righteousness and made only vague references to happiness in paradise.

Some, like Al-Hasan Al-Basar’i, held very pessimistic views about life on earth and went so far as to say that men were not to be brought into the world in order to be happy.\textsuperscript{221}

In analysing legal justice from the perspective of our primary subject matter the treatment of infertile couples it becomes clear that the likes of Al-Hasan Al-Basar’i are contrary to the views of ordinary Muslim couples that are unable to have children. Life on earth is not about being unhappy; no doubt for Muslims life is a test in this world but it does not mean that one has to be unhappy.

The purpose of legal justice should be to facilitate law in such a manner that it assists individuals to be happy within the domain of Islam. By this I mean that scholars need to look

\begin{footnotesize}
\begin{enumerate}
\item Khadduri (above n213) p.136-137
\item Khadduri (above n213) p.139
\end{enumerate}
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at the real spirit of Islam and act justly in making legal decisions which they have underestimated in the past and which will have a huge impact on Muslim society at large.

2.31 - Conclusion

The real challenge that the Muslims have to face is a situation of fundamental rethinking and reconstruction, their fundamental issue is precisely to determine how far to render the slate clean again and on what principles and what methods, in order to create a new set of institutions.

Sayyid Ahmed Khan said: ‘if people do not shun blind adherence, if they do not seek that light which can be found in the Qur’an and the indisputable hadith, and do not adjust religion and the science of today, Islam will become extinct in India.’ They are not only statements of personal faith and expressions of the principles of liberalism but provide a leaven and fertilisation of ideas for an eventual reformulation of the Faith.222

Islam is a flexible religion; adaptable to the necessities of life, and what is unethical in one situation may become ethical in another situation or at another time. Islam is a religion, which has given great importance to ethical principles of autonomy, beneficence, non-maleficence, and justice. No doubt when a person makes his or her reproductive choice, he or she would like to see that the different ethical principles are observed. However, because the reproductive choice directly affects human life and procreation the different interests conflict with each other i.e. a potential child, a partner, and the society at large.

Muslim Jurists and scholars have been able to agree upon a broad consensus on which they all agree no matter which school of thought they follow. It is accepted that IVF is considered to be a safe option for the Muslim community but again questions of posthumous gametes being used in an IVF procedure is problematic and is widely debated amongst Muslim Jurists and Scholars. Surrogacy was a completely a no go area and considered the most

222 F. Rahman (above n19) pp.216-217
problematic reproductive technology according to Sunni Islam even though it is the oldest of the technologies, however the Shia scholars have made brave leaps in it’s permissibility.

Time and thoughts are changing amongst Sunni and Shia scholars as how best to approach surrogacy. There has been progress in how this reproductive technology could be accepted amongst Muslims. Genetic engineering has been considered acceptable to the extent of enhancing the quality of life but not to create a master race or a child without wedlock. The fabric of Muslim society is based upon a husband and wife having children in wedlock but it is time that we focus our minds upon all the Muslim gay/lesbian community who equally have a fundamental right of having a child. Islam needs to address the feelings of these communities and accept their genetic makeup as a medical fact.

Muslim religious scholars have taken up not all the bioethical issues which arise from modern biomedical discoveries and techniques, and which are currently debated in the West. As far as issues that have been debated in the Muslim community are concerned some remain to be resolved in a conclusive manner. But, in most cases, Muslim jurists have achieved quite a remarkable degree of consensus in their legal views. In the encounter between Islamic contemporary bioethics, the nature and pattern of its responses is essentially determined by the teachings contained in its sacred law, which is at once ethical and legal.

Muslims critical or antagonistic toward modern science constitute the majority group. Included in this category are those identified by the modernists as the adherents of the worldview of ‘taqlid’ (strict adherence to established doctrine). Many religious conservatives and traditionalists oppose the study of modern science because they see great incompatibility in its worldview and their traditional conceptions of nature. Their attachment to the traditional worldview is all the more intense with desire to conserve and preserve the popular religious rites and practices which are only meaningful within the framework of that worldview. In attempting to preserve their particular worldview by shunning and rejecting modern science instead of intellectually challenging it, and rebutting its philosophical standpoints in the light of their own belief system, these religious scholars lend themselves to a just criticism by the modernists.
It is left to the present-day Muslim scholars to demonstrate intellectually the idea that useful modern technology can be introduced into society without adversely affecting its cultural identity and its social fabric. The Shia scholars have been brave in taking the first steps in overriding old Fatwas with new Fatwas, it is time that the Sunni scholars follow suit.
Part 3 – The Legal Perspective

3. 0 - Law and Human Reproduction

Every law stems from beliefs, values and accepted moral standards, as society shifts, individuals evolve and individual characters are shaped and this societal change has been energised by the acceleration of technological advances.

The rapid advance in technological innovations over recent years has meant that legislation is being left behind and often misinformed.\textsuperscript{223} This notion of the law lagging behind can metaphorically be illustrated by personifying technology as a messy child, ambling through a room and the law an anxious parent walking two paces behind and trying to clean up the debris.\textsuperscript{224}

Grant Gilmore too observed a reactive nature in the law surrounding medicine ‘the body of the law at any time or place is an unstable mass in precarious equilibrium’\textsuperscript{225} He reinforces the notion that the law when it comes to medicine is not fixed but limbering to meet a consensus in the needs of both society and technology.

Louise Brown is an illustration of this; she was the first test tube baby to be born in July 1978, born during a time when there was no legal recognition or regulation of assisted reproductive technologies. Public disquiet resulted in government establishing the Warnock committee, from which the Warnock report was introduced to outline proposals for regulation.\textsuperscript{226}

\textsuperscript{223} Warren E Burger, Reflections on Law and Experimental Medicine, 1982 in George P Smith, Setting Limits: Medical Technology and The Law (2001) 23 Sydney L. Rev. 283, 1
Some 12 years later in 1990, the first statute in relation to reproductive technologies was introduced in the statute book, the Human Fertilisation and Embryology Act (HFEA). Due to the rapid changes in this area, Parliament subsequently passed the new Human Fertilisation and Embryology Act 2008, which is divided into three parts. The first Part deals with the amending legislation which makes extensive amendments to the 1990 Act, thus, the 1990 Act remains substantive law and to understand this part of the law currently requires one to have both Acts available. Part 2 of the 2008 Act is freestanding and is concerned with parenthood in cases involving assisted reproduction and applies to births after April 2009. The 1990 provisions continue to apply to births before that date and thus have not been repealed. Part 3 of the Act deals primarily with the amendments to the Surrogacy Arrangements Act 1985.\textsuperscript{227}

The original law was introduced in a context where the shifting individual attitudes meant that traditional paternalism gave way to individualistic materialism; paternalism was no longer the norm, but now seen as out of fashion.\textsuperscript{228} This shift in attitudes resulted in individuals no longer being prepared to accept without question the decisions of those in positions of power\textsuperscript{229}. Individuals sought answers and remedies to complications they faced in life and these problems were welcomed, with open arms, by science and technology and as we will see not always warmly welcomed by the legislature. I will now provide a closer analysis of the legislation.

3.1 - \textit{In Vitro} Fertilisation (IVF) and the Law

On the 25\textsuperscript{th} July 1978 Louise Brown the first ever child conceived through IVF was born. This marked the beginning of a new era of human reproduction in which science and technology.

\textit{In Vitro} fertilisation (IVF) is a widely accepted modern reproductive technique. Mason gives a comprehensive description of the three stages of IVF;

\begin{quote}
"Firstly, multiple ovulation is induced in the woman by hormonal treatment and the ova are harvested, generally through laparoscope; clearly, this stage involves considerable medical and surgical skill – not to mention some discomfort for the patient. Secondly, the ova are incubated with the husband’s sperm. Although this is popularly known as a ‘test-tube baby’ technique, the process is carried out in a petri"
\end{quote}

\textsuperscript{228} M. Brazier and E. Cave, \textit{Medicine Patients and the Law}, (5\textsuperscript{th} edn, Penguin 2011), p.37
\textsuperscript{229} Ibid
Fertilisation of the ova by the spermatozoa is the least complicated part of the technique. Finally, the fertilised ova, or pre-embryos, are transferred into the woman’s uterine cavity in the hope that they will implant and develop into viable foetuses…

Following Louise’s birth the legislators were presented with a fait accompli within a regulatory vacuum. Public tensions, lack of research and moral panics led to the commissioning of the aforementioned Warnock Committee, an all-encompassing committee established by Government to discuss possible regulation of modern reproductive techniques. Findings of the Warnock report subsequently led to the HFEA 1990 this was subsequently amended to the HFEA 2008, which is the authority on the issue today.

Under section 3(1) of the HFEA 2008 IVF is a treatment, which may only be carried out under licence from the HFE Authority:

3 **Prohibitions in connection with embryos**

(1) No person shall –

(a) Bring about the creation of an embryo; or

(b) Keep or use an embryo, except in pursuance of a licence

The Act goes further in schedule 2 to outline any conditions that the Authority may attach to such a licence. Therefore couples seeking IVF must gain the approval of a licenced clinic that has been delegated with the powers to accept or reject applications from couples. Individual licensing clinics must act in pursuance with the Code of Practice propagated by the HFE Authority.

Two main reasons can be identified as to why a couple may be refused treatment, they may be medically unsuitable or they may be deemed socially unsuitable as parents. It is the latter ground of refusal, which has been a cause of distaste; the Glover Report addressed some of the key arguments in relation to this ground of refusal. He put forward that although it would

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be hard to detect who would make a good parent or not, it cannot be denied that children need love, although inhuman treatment and cruelty of children cannot be predicted, where there seems a risk there will be a strong need not to help these people to become parents.\textsuperscript{231}

Glover goes on and draws comparison between the cruel and inhuman treatment of a child and a child being bought up by a single parent or a lesbian couple \textit{\ldots} “\textit{a distinction has to be drawn between two very different types of case. If it is a question of giving a child to people who will behave with horrifying cruelty, it may be ‘a mercy if the child is not born’. On the other hand, perhaps a child with only one parent suffers some disadvantage relative to other children, but few such children would feel life was anywhere near so bad as to wish they had not been born.”}\textsuperscript{232} Furthermore he defines the notion of a spectrum, whereby children suffering from cruelty would be at the high end of the spectrum whereas those having just one parent will be at the lower end of the spectrum.

The concern here is that evaluations on the welfare of a child will be decided subjectively. This will result in discrepancies from clinic to clinic and due to a lack of resources may further stimulate an element of competitive suitability, whereby couples may be turned away due to factors which could possibility negate their chances of success. In \textit{R v Sheffield HA}\textsuperscript{233} a 37-year-old woman was refused treatment for an IVF programme on the basis of her age. The Health Authority argued treatment was not granted due to their limited resources, and the lower success rates achieved by older women. The judge took a view in agreement with the Health Authority that treating woman over 35 would be irrational.

One could argue that the subjective element based on success rates is de facto a strategy used by individual clinics to boost their success rates, thus giving them more appeal to other potential couples.

\textsuperscript{232} Ibid
\textsuperscript{233} \textit{R v Sheffield HA} [1994] 25 BMLR 1
Other statutory requirements for the practice of IVF state that couples seeking IVF must be counselled prior to receiving treatment.\textsuperscript{234} Counselling will protect the couple from putting up their hopes, as they will be warned of the substantial risks and the low rates of success. Counselling will be of an ethical nature too, and will discuss the sensitive aspects of the procedure, such as the status of the embryo and surplus embryos.

Provided that couples wish to proceed, they will be required to provide written consent on the use and storage of their gametes or embryos.\textsuperscript{235} Couples must be professionally counselled before consent is given and they must be made aware that consent can be withdrawn or varied any time prior to the use. There is no unilateral requirement for consent, but rather a dual requirement, in that for example both husband and wife must individually consent and can withdraw their consent at any time.

This approach differs from the transatlantic approach in that consent is a unilateral requirement. One can argue that the duality approach mitigates against messy situations arising, for example if the relationship breaks down and one party wishes to withdraw their consent, they will not have to involve themselves in lengthy litigation battles to establish to who the material belongs to. They simply withdraw their consent and their material is allowed to perish.

As developments were made in IVF it actualised to the notion of an embryo and discussions on the status of an embryo had practical relevance for the first time ...\textquoteleft human embryos might be brought into existence which might have no chance to implement because they were not transferred to a uterus and hence no chance to be born as human beings. This inevitably led to an examination of the moral rights of the embryo...\textsuperscript{236} Subsequently the enactment of the 1990 Act led to provisions outlining details on the storage and the usage of embryos.

During the latter half of the nineties the courts were faced with an interesting ethically charged case whereby the main provisions of the 1990 case in relation to embryos came

\begin{itemize}
\item \textsuperscript{234} 14 (3)(6) HFEA Act 2008
\item \textsuperscript{235} Schedule 3, HFEA Act, 2008
\item \textsuperscript{236} Warnock Committee Report (1984) Para 11.8
\end{itemize}
into play. *R v Human Fertilisation and Embryology Authority ex p Blood*\(^{237}\) questioned the use of posthumous gametes; the case involved a widow, Mrs Blood who sought judicial review of the HFE Authority’s refusal to let her be inseminated with her dead husband’s sperm. The sperm had been taken from her husband as he laid in a coma not long before his death, therefore none of the requisite written consents in relation to the storage or the use, as mandated in the 1990 Act, had been obtained. The absence of this written consent meant that the licenced clinic were acting unlawfully by storing the sperm and insemination with the sperm would have contravened the provisions of the 1990 Act.

The ruling made by the Authority was upheld and Lord Woolf put forward that;

‘…these proceedings will clarify the legal position. Because this judgement makes it clear that the sperm of Mr Blood has been preserved and stored when it should not have been, this case raises issues as to the lawfulness of the use and export of sperm which should never rise again.’\(^{238}\)

As use of the sperm would be in breach of the 1990 Act, it was upheld that Mrs Blood could not be inseminated with the semen in the UK- however pursuant to her rights under Article 59 of the EC Treaty she was entitled to go to Belgium and receive the treatment there.

### 3.2 Parenthood

The legal definition of parenthood is covered by both ss 27-9 of the amended 1990 Act and ss 33-47 of the 2008 Act. Sch 6, para 35(3) of the 2008 Act states that both Acts remain *relevant statutory provisions*. The provisions of ss 27-9 of the 1990 Act do not have effect in relation to children born by way of assisted reproduction after the commencement of ss 33-48 of the 2008 Act. Conversely, the relevant sections of the 2008 Act will apply only to children born after their commencement.

\(^{237}\) *R v Human Fertilisation and Embryology Authority ex p Blood* [1997] 2WLR 806, CA

\(^{238}\) ibid
Section 35 specifically deals with the married woman. It states that when the woman has been inseminated with the sperm of a man other than her husband and provided that her husband has consented, her husband will be treated as the father of the child. The sperm donor is covered against the withdrawal of consent by the husband under s 41(1). The s35 rule is voided if the husband can show that he did not, in fact, consent to the procedure.

Section 36 of the 2008 Act extends the responsibilities of fatherhood to a man other than a woman’s husband subject to a number of conditions. Firstly for the insemination to be carried out in a licensed clinic and secondly that it must satisfy the ‘agreed fatherhood’ provisions laid down in s.37. The agreed fatherhood conditions are that both the man and the woman concerned have given the person responsible for the treatment notice in writing that they consent to the man’s fatherhood and that neither has withdrawn their consent or otherwise altered the agreed conditions of parenthood. Reciprocal protection of the donor when such an agreement is reached is provided by s.38 (1) in respect to both married and unmarried couples.

The 2008 Act extends the provision of the Civil Partnership Act 2004 to assist reproduction, s.42 enabling a woman in such a partnership to assume the role of parent of a child born as a result of donor insemination.

Section 43 allows a woman in a homosexual relationship outside a civil partnership to be treated as a parent of a donor inseminated child subject to the same, modified, conditions as apply to heterosexual couples that are laid down as agreed female parenthood conditions. S.46 also extends the civil partnership and intended female parenthood provisions to the posthumous situation. Other than in respect of posthumous fatherhood, and posthumous female parenthood, neither the 1990 Act nor the 2008 Act make specific reference as to the registration of the birth of the child but again this seems to be clarified by implications. Section 48 of the 2008 Act states that recognition of a person by the law as the mother, father, or parent of a child under ss.33-47 is ‘for all purposes’- and this must include the registration of births and marriages. Near absolute freedom from parental responsibility is
conferred on the donor by s48 (2) of the 2008 Act, which again, refers to exclusion ‘for any purpose’. 239

Issues in relation to same sex relationships have not arisen within Islamic jurisprudence as yet therefore I feel it is not necessary to deal with this specific issue in detail. I appreciate that this is an important development in law and reproductive medicine in the United Kingdom.

3.3 - Limitations with the Current Law

An area of controversy exists in relation to post-menopausal women; it has been heavily debated whether treatment to this group should be permitted. Taking welfare into account it can be argued that if a woman gives birth at the age of sixty-two she will be eighty before her child is an adult, and it is highly likely that her health may be in decline and the child may face losing her. A crucial question one can ask therefore is whether the age of the mother, will risk harm or neglect to the child?

The cost incurred to have the treatment also impedes on couples taking advantage of this technique and this is the hurdle where some fall flat. Private clinics can charge a great deal for programmes of IVF and couples are increasingly falling into debt or bankruptcy having to fund this.

America has seen an emerging trend of the IVF loan business, whereby couples are increasingly taking out loans to fund their treatment. 240 One can however argue that companies providing these couples loans are doing so in the most unethical of ways, exploiting them while they are in the most vulnerable of states. A regulatory framework would monitor these exploitations and injustices.

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239 Laurie.T.G & Mason J.K, Law & Medical Ethics,(9th edition OUP) pg. 281-283
A very small amount of funding has been made available to the NHS however it is simply not enough to fund everyone, and this too comes with strict criteria. Offering treatment only when neither party has a child already or operating upper age limits.241

Decisions taken within the NHS however must be taken reasonably as illustrated in R v Ethical Advisory Committee of St Marys Hospital ex p Harriott.242 In this case Mrs Harriott was refused treatment due to her criminal record for prostitution. She argued against this being unreasonable and unlawful however the judge held that in the circumstances the clinician had acted accordingly. He further emphasised that had the treatment been refused on the grounds of religion or ethnic origin, this would constitute unreasonableness. The NHS are therefore empowered with the discretion to decide to whom treatment will or will not be granted.

IVF can act to some as a liberator; it can give them a viable solution to achieve genetically related children and as it is the method that interferes least with the natural order of marriage and procreation, from the emerging reproductive techniques, it seems to cleanse the consciousness. However this is not to say that it does not come with its own difficulties. For one, although it may be morally acceptable on the face of it, ethical dilemmas still exist, for example what is the status afforded to an embryo and what about the disposal of surplus embryos. The current law has answers to these questions, but these answers may not always be in accordance with the views of specific patients and providers.

One can also argue that too much power is being enlisted on licenced authorities such as private clinics and the NHS. Arguably these third parties should not have the right to ‘play God’ and decide on such personal matters that don’t related to them, is this not a violation of ones right to procreate?

The wealthy may not face too many obstacles in their desire to procreate as they will be able to fund the treatment privately, however low income couples will face disadvantage. It begs the question of funding, it remains to be seen whether more funding will be made available or whether any of the other emerging reproductive techniques will lead the way in the innovation of modern methods of reproduction.

242 R v Ethical Advisory Committee of St Marys Hospital ex p Harriott[1998] 1FLR 512
3.4 - Surrogacy and the Law

The most criticised of new reproductive techniques is surrogacy, which first gained legislative attention in 1985. Although a modern practice, surrogacy does have historical precedents; the sixteenth chapter of Genesis tells the story of Abraham and his wife;

‘Abraham’s wife Sara had born him no children. Now she had an Egyptian slave girl whose name was Hagar, and she said to Abram, ‘You see that the Lord has not allowed me to bear a child. Take my slave girl; perhaps I shall found a family through her…He lay with Hagar and she conceived…’

The Warnock Committee in its 1984 Report defined surrogacy as ‘the practice whereby one woman carries a child for another with the intention that the child should be handed over after birth.’

A couple may commission the use of a surrogate mother and this may take form in one of the following situations; a woman may be infertile her husband’s sperm will be used to artificially inseminate another woman, known as the surrogate who will carry the child, or the woman may be fertile but her body cannot physically carry a child, her ovum will be removed and fertilised in vitro by her husband’s sperm and subsequently inseminated into the surrogate.

The former is the more common practice and commonly referred to as ‘partial surrogacy’; the surrogate mother in a partial surrogacy arrangement will have a genetic link to the child. The latter is known as ‘full surrogacy’, as the commissioning couple provide both the sperm and the ovum genetically the child is exclusively theirs. The practice of full surrogacy is sometimes referred to as womb leasing as the surrogate is used solely for the purposes of gestation.

In English law, the one statutory definition of surrogacy is contained in the Surrogacy Arrangements Act 1985.

Surrogate mother means a woman who carries a child in pursuance of an arrangement -

(a) made before she began to carry the child, and
(b) made with a view to any child carried in pursuance of it being handed over to, and the parental rights being exercised (so far as practicable) by, another person or other persons.\textsuperscript{245}

By section 1(3):

‘An arrangement is a surrogacy arrangement if, where a woman to whom the arrangement related to carry a child in pursuance of it, she would be a surrogate mother.’

One may assume that surrogacy implies that the carrying woman would be acting at the request of another woman who is unable to have a child herself. Although this may at times be the case, the impression given from the few cases which have arisen in this country, and the much greater number in the United States, suggests in fact that the driving-force often comes from the husband or partner the (commissioning father) of the infertile woman.

The man’s wish to have a child genetically related to him seems to be the main reason for many surrogacy arrangements. Given that the principal objective of these techniques is to maximise the chance of having a child genetically related to the intended parents, it is logical that full surrogacy or womb leasing would be considered a better option by the commissioning parents because the child would be genetically theirs.

The Warnock Committee observed that surrogacy might also be used for convenience, where the commissioning mother is physically able to bear a child, but chooses to avoid

\textsuperscript{245} S.1 (2), Surrogacy Arrangements Act 1985
doing so, maybe so as not to interrupt her career, or affect her appearance. The practice might also be utilised by lesbian women, single men and homosexual couples who want to bring up children.

Legislation was swiftly passed less than a year after the Warnock report in the form of the Surrogacy Arrangements Act 1985 following the highly publicised surrogate birth of baby Cotton. In this case a partial surrogacy arrangement, negotiated by an agency, was entered into between an American commissioning couple and a British woman, Kim Cotton (who was married with three children of her own). Following the successful birth of a child, it was clear that Mrs Cotton was happy to relinquish all parental rights in respect of it. The commissioning father issued a wardship summons in order to obtain custody, which was duly granted. The approach taken by Latey J took a liberal approach. He disregarded factors such as the legality of a surrogacy arrangement and conduct of the parties involved. The core underlying focus of the judgement was the welfare of the child and what would be in the best interests of the child.

The court’s decision, when presented with a fait accompli (the baby having already been born), was relatively straightforward given the circumstances. After all, there was a healthy, financially stable, respectable, loving couple that had gone to great lengths to have a baby they desperately wanted and a genetic mother who had at no time wanted to keep her. The publicity this case generated and the wider issues it entailed meant that legislation had to be introduced to address the nature of surrogacy arrangements and the role of agencies.

In the United States, surrogacy has become a small industry with numerous agencies set up to recruit prospective surrogates for childless couples. They vet the surrogate, negotiate the fee and act as intermediaries so that the parties never have to meet. The establishment of a British branch of such an agency had led to the recruitment of the surrogate mother in the Baby Cotton case.

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246 Re C (a minor) [1985] FLR 846
The overwhelming negative publicity the Re C case received, coupled with the recommendations of the Warnock Committee, led to the enactment of the Surrogacy Arrangements Act 1985.

The statute takes centre stage in that it does not whole-heartedly approve but neither does it put an outright prohibition on surrogacy. It can be said that it does offer discouraging sentiments to the practice and the act did make it illegal to facilitate commercial surrogacy arrangements and prohibited advertising for surrogates and as surrogates.

3.5 - Who is the Legal Mother?

The definition of a ‘mother’ in English law is the woman who gives birth to a child. A mother is defined by the Human Fertilisation and Embryology Act as:

‘The woman, who is carrying or has carried a child as a result of the placing in her of embryo or of sperm and eggs, and no other woman, is to be treated as the mother of the child.’

Therefore this means that the woman who gives birth to the child will always be known as the biological mother, regardless of genetics. A surrogate who agrees to a full surrogacy arrangement, in which her womb is leased by the commissioning parents, will in English law be held as the biological mother; even though she has no genetic link to the child she is carrying. The English view differs from the American view wherein a distinction is made between the genetic mother and the gestational mother.

Although this approach is intended to protect the birth mother’s rights if the surrogate mother has no interest in the child she will hold prima facie responsibility for that child.

To acquire legal parental responsibility the commissioning parents may either; go through the lengthy process of adoption and adopt the child under the terms of the Adoption Act.

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247 S.33 (1) Human Fertilisation and Embryology Act 2008
1976 or be granted a parental order under s.54 of the Human Fertilisation and Embryology Act 2008.

There are a number of conditions, which need to be satisfied in order to obtain an order under s.54. The gametes must be of at least one of the applicants;\textsuperscript{248} the applicants must be husband and wife, civil partners or living together as partners and enduring a family relationship.\textsuperscript{249} The application must be made within six months of the birth of the child.\textsuperscript{250}

The 2008 act widens the scope of applications. Previously section 30 of the 1990 act was restricted to married couples only, this proved problematic and restrictive ‘Given that around 40 per cent of all children are now born to unmarried parents, confining access to parental orders to married couples seems overly restrictive…’\textsuperscript{251}

Parties to a surrogacy arrangement may choose to bypass all legal formalities entirely. They may instead opt for an informal act of handing the child over upon birth. This however means that the surrogate mother retains legal parental responsibility of the child and she would have to be consulted on important decisions parents take on the upbringing of a child.\textsuperscript{252} This can be problematic for those parties who following the arrangement want to be free to get on with their own lives, as formalities will results in their lives remaining entwined.

3.6 - Negotiation of Surrogacy Arrangements on a Commercial Basis

The HFEA 2008 states that;

(1) No person shall on a commercial basis do any of the following acts in the United Kingdom, that is—

(a) Initiate or take part in any negotiations with a view to the making of a surrogacy arrangement,

\textsuperscript{248}S.54 (1)(b) HFEA 2008
\textsuperscript{249} S.54 (2) HFEA 2008
\textsuperscript{250} S.54 (3) HFEA 2008
\textsuperscript{251} E. Jackson, Regulating Reproduction: Law, Technology and Autonomy, (Hart Publishing 2001), p.275
\textsuperscript{252} ibid p.280
(b) Offer or agree to negotiate the making of a surrogacy arrangement, or
(c) Compile any information with a view to its use in making, or negotiating the making of, surrogacy arrangements;

and no person shall in the United Kingdom knowingly cause another to do any of those acts on a commercial basis.

(2) A person who contravenes subsection (1) above is guilty of an offence; but it is not a contravention of that subsection—

(a) For a woman, with a view to becoming a surrogate mother herself, to do any act mentioned in that subsection or to cause such an act to be done, or
(b) For any person, with a view to a surrogate mother carrying a child for him, to do such an act or to cause such an act to be done.

(3) For the purposes of this section, a person does an act on a commercial basis (subject to subsection (4) below) if—

(a) Any payment is at any time received by himself or another in respect of it, or
(b) He does it with a view to any payment being received by himself or another in respect of making, or negotiating or facilitating the making of, any surrogacy arrangement.

In this sub-section payment does not include payment to or for the benefit of a surrogate mother or prospective surrogate mother. i.e. her expenses.

Clearly, the main purpose is to legislate against the facilitator of commercial surrogacy arrangements, particularly agencies which profit from mediating between would be commissioning couples and potential surrogates. Section 3 also imposes criminal liability on those involved in the advertising of such arrangements. Whereas Section 2, importantly, specifically grants immunity from criminal liability to the immediate participants: Section 2(2)(a) protects the surrogate and Section 2(2)(b) the commissioning couple. This reflected the view of the Warnock Committee that it would be wrong for the birth of a child to a surrogate to be tarred with criminality.
3.7 - Enforcement of Surrogacy Agreements and Case Judgement

Surrogacy will inevitably produce instances of dispute where the parties involved change their minds or renege on an agreement. The commissioning parents cannot be certain that they will receive the child after it is born. Indeed, the surrogate may ultimately prove unwilling to give up the child once born or the commissioning parents' circumstances may have changed. Conversely, the surrogate mother cannot enforce promised payments, although she is in the strong position of having the child initially and of being the legal mother.

Judicial attitudes have varied and not always been as liberal as Latey J who refused to enter into the rights and wrongs of surrogacy and focused only on the best interests of the child. Indeed, if there is a dispute the Court will look to where best the interests of the child lie; section 1 of the Children’s Act 1989 states that

‘When a court determines any question with respect to the upbringing of a child, the child’s welfare shall be the court’s paramount consideration.’

The earliest example, A v C,²⁵³ came about in 1978 (some years before assisted reproduction became generally accepted). In brief, an unmarried couple arranged for a prostitute’s friend to be inseminated with the agreement that the resultant child is handed over to them for a fee of £3000.

The genetic mother changed her mind and the father applied for access; this was granted in the child's best interests. However, on appeal, Ormrod LJ, in marked contrast to Lately J’s approach to the Baby Cotton case, described the agreement as ‘pernicious and void and the father as being a constant reminder of the whole sordid story’; the Court of Appeal unanimously reversed the decision and decreed that the father should not be allowed to see his son. However, the involvement of a prostitute as opposed to respectable middle-class couples no doubt influenced the court’s thinking.

²⁵³ A v C [1978] 8 Fam Law 170
The case *Re P (Minors) (Wardship: Surrogacy)*\(^{254}\) also dealt with whether a surrogate had the right to have a change of heart or whether she was bound by the arrangement she had previously made with the commissioning parents. Here the surrogate refused to hand over the twins she had conceived by a married professional man. The children were made ward of court and were allowed to stay with their natural mother; the court action was effectively a matter of custody.

When the case eventually came to be heard, the children had been with her for five months and the judge was greatly influenced by the extent of natural bonding that had already arisen between them over the aforementioned period. Therefore, he found nothing to outweigh the benefits to the twins of preserving the connection to the mother with whom they had bonded, and who had demonstrated a satisfactory degree of maternal care.

On the other hand in the case of *Re W (Minors)*\(^{255}\) the judge actually pre-empted the law with the intention of ensuring that bonding of womb-leased twins with their genetic parents occurred. The welfare of the twins was of paramount importance to the courts and it was decided in the best interests of the children to uphold a relationship with their genetic parents.

Again it is worthwhile noting that the judge did not see fit to criticise either the commissioning parents or the surrogate for having entered into a surrogacy agreement in the first instance nor the surrogate mother for ultimately failing to respect the agreement. As the surrogacy agreement is not legally binding, if a surrogate mother chooses to keep the child then, in the absence of overriding issues that might affect the welfare of the child, the court is likely to allow the child to remain with the birth mother.

\(^{254}\) *Re P (Minors) (Wardship: Surrogacy)* [1987] 2 FLR 421
\(^{255}\) *Re W (Minors) (Surrogacy)* [1991] 1 FLR 385
The court went even further to offer their view on the validity of surrogacy agreements. In *A v C [1985]*\(^{256}\) Comyn J at first instance stated:

> ‘The agreement between the parties I hold as being against public policy. None of them can rely upon it in any way or enforce the agreement in any way. I need only give one of many grounds for saying this, namely that this was a purported contract for the sale and purchase of a child…’

Ormrod LJ in the Court of Appeal described the arrangements as “most extraordinary and irresponsible, bizarre and unnatural…a sordid commercial bargain…”\(^{257}\).

**3.8 - Surrogacy Arrangements Unenforceable**

In their 1987 White Paper Government signposted that legislation should put clarity on surrogate arrangements being unenforceable in the English courts (Para 65). Consequently the Human Fertilisation and Embryology Act 1990 (HFEA), inserted a new section 1A into the Surrogacy Arrangements Act 1985 to clarify this. No surrogacy agreement is enforceable by or against any of the persons making it.\(^{258}\)

Although the English courts overrule the enforceability of surrogacy arrangements, the same cannot be said for agreements made in foreign jurisdictions. The notable case *W and B v H*\(^{259}\) illustrates this. The case involved a surrogacy agreement between an English surrogate mother and an American commissioning couple. A surrogacy agreement was entered into in California. During the pregnancy the surrogate mother had a change of heart and returned to the UK where she gave birth to twins.

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\(^{256}\) *A v C [1985]* FLR 445  
\(^{257}\) ibid  
\(^{258}\) *Surrogacy Arrangements Act 1985* S.1A  
\(^{259}\) *W and B v H (Child Abduction: Surrogacy)* [2002] 1FLR 1008
The court eventually determined that the babies should be returned to California, following international abduction proceedings brought by the US commissioning parents.

Another notable case of a surrogacy arrangement going wrong which was under the glare of the media spotlight recently was Re TT (Surrogacy), which led to Baker J warning about the inherent risks of surrogacy.

The case involved a woman known as Miss N and Mr and Mrs W, a married couple she had met via the Internet and informally agreed to become a surrogate mother for. This did not involve an agency rather it was a private arrangement whereby they would use her egg and Mr W’s sperm. During the pregnancy Mr and Mrs W paid Miss N the sum of £4,500.

However, before the birth of the baby the relationship between the parties broke down and the surrogate mother had a change of heart deciding to keep the baby. When the baby was seven days old Mr W applied to court for a residence order. The mother opposed the application and made her own application for a residence application in her name.

The baby girl (known as TT) was five months old when the court gave judgment and Mr and Mrs W had only had limited contact with her since her birth.

The court’s decision to award care to the surrogate mother was guided by the paramount consideration of the baby’s welfare. This was based on the close bond formed between the surrogate mother and the baby, the continuing breastfeeding and the danger of emotional harm should the baby be moved into the care of the commissioning parents.

Above all, the court held concerns about Mr and Mrs W’s ability to meet the baby’s emotional needs. Baker J said the risks of entering into a surrogacy agreement are “very considerable” and went on to say “in particular, the natural process of carrying and giving birth to a baby

\[^{260}\text{Re TT (Surrogacy)} [2011] EWHC 33 (FAM)\]
creates an attachment which may be so strong that the surrogate mother finds herself unable to give up the child."

After the Judgment the Child Support Agency has stated that as the child’s biological father, Mr W shall pay £568 in child support per month to Miss N. Miss N has also been allowed to keep the £4,500, which was paid to her during her pregnancy. Commenting on the decision, Mr W argued that if he needed to pay £500 a month to avoid the child living in poverty then that were another reason why the baby should be with him and his wife.

Clearly, the interpretation of what is best for the welfare of the child is open to debate with the court leaning towards the emotional needs and mother-daughter bond rather than the financially stable family environment of the married couple on this occasion.

Whilst Baker J accepted that in some cases the surrogate mother’s promise to give up a baby may indicate a lack of commitment to the child and thus call into question the mother’s ability to care for her, but held that in this case she had genuinely changed her mind.

Perhaps an even more contentious case which hit the headlines in recent years was Re N[261], between the surrogate mother, Mrs P and the commissioning parents, Mr and Mrs J; not least because there was another breach of a surrogacy agreement on the former’s part. In both instances Mrs P had deliberately tricked the commissioning couples into believing that she had miscarried their babies.

The court ruled she had entered into the surrogacy deals and conceived using sperm from the two fathers with the sole intention of keeping the two children for herself. One of the children was almost four years old by the time her father became aware of her existence.

Her biological father, who had paid £850, and his wife decided not to apply for a residency arrangement for her but sought a court order for contact. They subsequently reached an

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261 Re N (A Child) [2008] FLR 177
agreement with Mrs P that the girl would be told at the appropriate time that her biological father was and be permitted to see him.

Mr J who had made an agreement to inseminate Mrs P in 2005, on condition that the child would be given to him and his wife on its birth discovered the truth about the miscarriage just prior to the baby’s birth and when she did not honour that agreement, they started legal proceedings.

By the time the court made it’s ruling the baby had been with Mrs P and her husband for 18 months. Coleridge J found that Mrs P, was motivated by ‘a compulsive desire to bear further children’ and had at no point intended to hand over the baby to his biological father. It all only came to light when her oldest daughter, 19, informed the surrogacy agency so the two couples learned the miscarriages had never occurred.

Despite saying that Mr and Mrs P had been good parents to the boy he ruled that their deception in making a surrogacy agreement with the intention of keeping the baby suggested that Mr and Mrs J would make better parents. He maintained that cared for by his natural father and his wife, the child was ‘most likely to grow into a happy and balanced adult and fulfil his potential as a human.’

Interestingly, the judge felt that it necessary to issue a warning to surrogacy agencies and comment on the risks of entering into surrogacy arrangements. Coleridge J said surrogacy arrangements were now a feature of modern life. ‘When all goes according to plan they are a way of remedying the agony of childlessness. However, when the arrangements do not go according to plan the result, in human and legal terms is, putting it simply, a mess’.

He added: "As this case illustrates, women who put themselves forward for this role are very exceptional and may well have real unmet psychological needs of their own. When the arrangements go wrong the cost in terms of appalling emotional pain for the parties is huge. I would urge all agencies to ensure their checks into the background of all parties to these essentially artificial child birth arrangements are as thorough as they can be.”
Mrs P and her husband appealed the decision but Coleridge J's ruling was upheld. Therefore, in spite of 18 months’ bonding with the married surrogate mother and good parentage, the court felt that the inherent deception involved, coupled no doubt with the situation of Mr and Mrs J, outweighed this when considering the child’s welfare.

This case brought into sharp focus several of the most serious issues with regard to surrogacy and its pitfalls. Whereas other methods of infertility treatment may be considered to have some distance between some of the parties involved, surrogacy has a powerful effect on all involved with occasionally traumatic consequences and protracted legal complications.

The reasoning behind unenforceability of binding surrogacy agreement can be seen as the approach of the United Kingdom to dissuade parties entering into insecure surrogacy arrangements full stop. Although this may have been the one of the objectives to dissuade, Emily Jackson puts forward that the continued practice of surrogacy shows that this is an imperfect deterrent.262

It may also have been intended by the law to protect the right of the woman, who carries and gives birth to the child. Larry Gostin argues that ‘the rights of a gestational mother to make future decisions about her body, lifestyle and an intimate future relationship with her child are so important to her dignity and human happiness that they should be regarded as inalienable.’263

With the exclusion of emotion from a typical contract, one may also assume that matters of family and medicine are out of the remit of contract law. “The rules of contract that discourage contract in non-commercial settings…express a reluctance to allow contract law to intrude at all upon the world of family and friendship, lest by doing so it destroy their peculiar communal quality…the social realm is rich in precisely the attributes that are thought to be almost wholly absent from the economic sphere. The communal forms in

262 ibid p.308
263 Larry Gostin, A Civil Liberties Analysis of Surrogacy Arrangements, (1990) 14
which it abounds, islands of reciprocal loyalty and support, neither need much law nor are capable of tolerating it.\textsuperscript{264}

The public policy argument may also be presented; in that surrogacy can be analögised to the purchase of a child, something which is expressly forbidden in the Adoption Act 1976.\textsuperscript{265} Or selling ones reproductive capacities can be analogised to the selling of oneself, arguably this is a form of slavery and all slavery is prohibited.

However Jackson argued that the laws failure to enforce surrogacy contracts meant that women may be persuaded to become surrogates even if they are not entirely sure that they want to give up their child after birth,\textsuperscript{266} the main aim thus backfiring as more ‘messy’ problems will be caused than deterred.

The provision that only reasonable expenses be incurred and reimbursed and indeed the outlawing of profit-making agencies may, however, result in an unregulated underground surrogacy as infertility levels continue to rise and the supply of surrogates willing to lease their wombs or carry a child for 9 months to help another out of pure altruism cannot possibly meet the demand.

The commissioning couple and the surrogate mother may agree the amount beforehand but how does one define ‘reasonable’ and will this be then evaluated retrospectively? It is interesting, after all, to consider the difference between paying a fertility clinic sizeable amounts of money and paying a surrogate directly or via an agency to effectively achieve the same aim: having a child genetically linked to one or both of you to bring into the loving home of parents unable to do so through conventional means.

The question of how to deal with and regulate surrogacy arrangements raises numerous issues, and the UK has taken a careful middle of the road approach allowing surrogacy on a

\textsuperscript{264} Roberto Unger, \textit{The critical Legal Studies Movement}, (Harvard University Press 1983), 61
\textsuperscript{265} Adoption Act 1976, s 57
\textsuperscript{266} Jackson (above n250) p.314
limited basis, outlawing commercially arranged surrogacy and making it a criminal offence for potential surrogates or commissioning parents to advertise.

Public policy in the UK also forbids the use of binding surrogacy contracts. Surrogacy arrangements are thus based on trust and honesty and the commissioning parents must apply to court for a parental order post birth to obtain full parental rights. This can only be granted with the full consent of the surrogate mother and, if married, her husband. This contrasts with many European countries which ban surrogacy altogether, such as France and Italy and some US states, India and Ukraine which allow commercially based surrogacy where surrogacy contracts are legally enforceable and require the surrogate mother to hand over the child at birth.

3.9 - Problems Faced by Surrogacy

Patchwork Regulation

The legislative framework, which evolved to deal with surrogacy, was based on no coherent policy. Consequently, medical practitioners and organisations seeking to give help and guidance to commissioning parents and surrogates have to do their best in what is effectively a policy vacuum.

With perhaps the exception of the moral outrage of Ormrod LJ, it would seem that the court decides cases largely based on their opinions of what was best for the child, in that particular case, rather than having clear guidelines to follow.

If judges were equipped with set guidelines; that must be literally interpreted for safeguarding, it can be argued that the welfare of a child may be at risk. Therefore judges should arguably be allowed some flexibility in deciding individual cases on their own merits, with particular emphasis being placed on the children in question.
Some however may argue that this middle of the road legislative approach lacks any form of clarity and consistency which either a total prohibition or complete regulation would offer. Although clarification would be achieved a total prohibition would be difficult to practically monitor and enforcement would compromise intimate family life, in Orwellian style surveillance and the practice may be forced to go ‘underground’.

On the other hand complete regulation may send out the wrong message entirely, it may be seen to send out a message of acceptance or even encouragement. Though society is ever changing and evolving, one can argue that attitudes towards the contentious subject of surrogacy, due to its humanist and emotional nature will always be left behind. Although society tolerates the practice, it may be a step too far to say that society would duly accept and encourage the practice.

### 3.10 - Recommendations of the Brazier Report

Unsatisfactory provisions forced Government to commission a review of surrogacy arrangements in the UK. Professor Margaret Brazier chaired the review and a second report was produced in 1998\(^{267}\).

Among the recommendations of the Brazier report;

(a) Payments to a surrogate mother should be restricted to legitimate and documented expenses – including loss of earnings;
(b) Any payment over and above would legitimate expenses would result in ineligibility of parental orders;
(c) Surrogacy agencies should be registered by the Department of Health;
(d) A code of practice should be drawn up setting out good practice for surrogacy arrangements and this should be binding on all agencies;
(e) The government should consider introducing new legislation\(^{268}\)

Although a number of recommendations were made, none of these were adopted into legislation and fifteen years on the law of surrogacy still remains unclear. So exists a


‘patchwork’ of regulatory provisions. Although statistics suggest that surrogacy has remained reasonably rare and the majority of arrangements follow through without dispute. Limitations of the law and passivity on behalf of the legislature following the Brazier recommendations have come to light in recent cases.

In Re G (Surrogacy: Foreign Domicile)\textsuperscript{269} a partial surrogacy arrangement was agreed between a British surrogate and commissioning parents from Turkey. However the commissioning parents, from the advice of COTS, were ill advised and were unable to obtain a parental order, as neither parent was domiciled in the UK, as required by the law. Within the judgement the welfare of the child was considered as the overriding issue, giving way to the issue of domicile.

Macfarlane J criticised the role played by COTS;

\begin{quote}
“The court’s understanding is that surrogacy agencies such as COTS are not covered by any statutory or regulatory umbrella and are therefore not required to perform any recognised standard of competence. I am sufficiently concerned by the information uncovered…Given the importance of the issues involved when the life of a child is created in this manner, it is questionable whether the role of facilitating surrogacy arrangements should be left to groups of well-meaning amateurs.”\textsuperscript{270}
\end{quote}

It can be questioned whether this negligible error would have taken place had the recommendations of Brazier been implemented and had there been a regulatory non-profit agency, registered by the Department of Health working within the confines of a statutory code of practice. Although Macfarlane’s judgement indicates the establishing of these services one could argue that professionalising services such as COTS would make way for the commercialisation of surrogacy. However had the regulatory authority been established it is highly likely that the very basic of errors as demonstrated in Re G would have been avoided.

\textsuperscript{269} Re G (surrogacy: Foreign Domicile) [2007] EWHC 2814
\textsuperscript{270} ibid
The Brazier committee also found that surrogates were being paid ‘in excess of any reasonable level of actual expenses incurred as a result of the pregnancy’\textsuperscript{271} and payments of up to £15,000 were cited.\textsuperscript{272} There was no criminal enforcement feature to deter parties from making these payments; however enforcement was implemented through the acquisition of parental orders, in that commissioning parents who had made excessive payments would not be duly granted with parental rights.

There was however some contradiction in theory and practice as illustrated in \textit{Re X and Y (Foreign Surrogacy)}\textsuperscript{273} in this case excessive payments were paid by a British couple to a Ukrainian surrogate on a monthly basis and upon the birth. These payments were lawful in Ukraine, however were held as excessive in the British courts. Although they significantly exceeded mere expenses, Hedley J had little other choice but to grant a parental order, on the basis that failure to grant the order although in line with public policy would seriously undermine the welfare of the child.

Hedley J again faced a similar problem in the more recent case \textit{Re L}\textsuperscript{274} in which although excessive payments again had been made by a British couple to an American surrogate, the court was obliged to treat the child’s welfare as its paramount consideration, thus the balance of public policy gave way and a parental order was granted. The effectiveness of the Brazier recommendations in relation to expenses when dealing with cases of similar standing are questionable, one could argue that even if excessive payments were made, they would be disregarded if the child’s status was to be compromised and as Gamble states the people who pay excessive expenses know that ‘the chances are that those deals will be ratified afterwards’.\textsuperscript{275}

\textsuperscript{271} Brazier Review Para 3.20  
\textsuperscript{272} Ibid, Para 5.4  
\textsuperscript{273} Re x and Y (Foreign Surrogacy) [2008] EWHC 3030  
\textsuperscript{274} Re L (a minor) [2010] EWHC 3146  
3.11 - The Future

A lack of development in relation to the law surrounding surrogacy has left the issue somewhat ‘hazy’276 and at times left to the interpretation and analysis of judges. Although viable recommendations have been made, within the last 15 years, it seems that surrogacy has come off the legislative radar. There have been a few modern publicised cases; however they have not resulted in the implementation of ‘knee jerk’ legislation as previous years demonstrate.

A growing pattern in the recent case law suggests an emerging pattern of cross border surrogacy transactions also know as ‘reproductive tourism.’277 This may be more attractive for various reasons such as wider availability and greater scope for payments to be made. However case law emphasises new concerns following these overseas transactions. In Re IJ (A Child)278 Hedley J emphasised the legal difficulties and explained that the rules of immigration could not be bypassed so easily. Thus making arrangements abroad may not fulfil the ‘quick-fix’ purpose, which many view it as.

Public perception to surrogacy is warming, although we haven’t gone completely full circle and taken the American approach by embracing surrogacy and its commercialism it can be said that our attitudes are slowly shifting and we are coming round to non-commercial practices of surrogacy. Whether the current law suffices in dealing with issues of surrogacy is questionable. The plethora of case law demonstrates a wide all-encompassing reform of the case law, if one is to be made, however the viability of this can be argued as the merits of one case may not necessarily be the merits of another. Therefore leaving some degree of flexibility in interpretation allows for the welfare of each individual child to be analysed and considered. Surely the importance of life cannot be regulated by a brush stroke provision; there must be some room for manoeuvre.

276 ibid, p.67
277 ibid p.84
278 IJ (A Child) [2011] EWHC 921 (Fam)
3.12 - Cloning and the Law

In February 1997 a scientific breakthrough was made in the form of Dolly the cloned sheep. Although Dolly was a huge scientific achievement, her birth was entrenched in controversy and she brought a great deal of concern, both nationally and internationally, about the evolution of technological advances and most controversially the implications of the cloning of human beings.

The Secretary General of the Council of Europe, Daniel Tarschys, asserted, ‘the cloning of an adult sheep may be an impressive scientific achievement but it also demonstrates the need for firmer rules on bioethics…No human cloning whatsoever is acceptable.’ Dr Hiroshi Nakajima, Director General of the World Health Organisation adopted a similar view ‘WHO considers the use of cloning for the replication of human individuals to be ethically unacceptable.’ As did Frederico Mayor of UNESCO ‘human beings must not be cloned under any circumstances.’

Following the controversial birth of Dolly, it became evident that the HFEA 1990 act, which at that time was the authoritative legislation was lacking in clarity. Most frightening was that the previous Act did not regulate the birth of Dolly, and therefore was open to violation. Dolly’s birth opened the doors to ethical, legal and clinical debate and the eventual revising of the 1990 Human Fertilisation and Embryology Act.

In its most basic form there are two distinct types of cloning; first there is what is broadly termed as therapeutic cloning, this involves the production of cells or tissues for the use of medical research with the intention of creating therapeutic applications. The second is reproductive cloning this entails the asexual reproduction of a single cell with the aim of creating a genetic duplication of an existing organism. Therapeutic cloning does not result in a cloned person, however reproductive cloning would produce a live born person whose genome is the same as the cloned source.

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279 Jackson (above n250) p.248
280 Jackson (above n250)
281 Jackson (above n250)
The use of cloning to date has only been performed on animals and whether it might be applied to humans and for what end is widely debated.

3.13 - Somatic Cell Nuclear Transfer (SCNT) or Cell Nucleus Replacement (CNR)

The most common cloning technique and one, which gave rise to Dolly, was the innovation of German biologist Hans Specmann. The technique is known as Somatic Cell Nuclear Transfer (SCNT) or Cell Nucleus Replacement (CNR) and involves the extraction of the nucleus of a cell and inserting it into an egg, which has had its own nucleus removed.

Bearing in mind the nucleus is the part of the cell that contains all an organisms genes. If successful the transferred genes will reprogram in their new empty donor egg and form a genetically identical clone to the source from which their DNA was taken.

The process is similar for therapeutic cloning, whereby a cell is removed from the patient requiring medical treatment. The nucleus of this cell is removed and inserted into an empty donor egg. Division is encouraged and resulting embryonic stem cells are then removed from this embryo and used to treat the patient. In this instance however the dividing cells are not implanted into a host but removed and as a result the embryo dies.

Therapeutic cloning has been an applauded innovation and medical breakthrough, more or less accepted legally to assist with medical research.

Human reproductive cloning technologies on the other hand raise a number of sensitive questions Human reproductive technologies raise a number of sensitive questions, which touch on the core basis of our existence.

Embryonic stem cells permit the growth and production of tissues or organs, to repair or replace defective organs. This enables scientists for example to clone bone marrows for a
Reproductive cloning, specifically human reproduction, however has caused much more controversy. Although there is no doubt that there may be many benefits of reproductive cloning including the possibility of giving those who are infertile the opportunity to have children, as an alternative where other methods have failed, it does pose certain ethical and moral conundrums. The potential benefits of human reproductive technologies have both individual and social implications.

It may be argued, that both forms of cloning are reproductive as both involve the creation of an embryo. The difference being the intent for which the embryos are being created and in what way they are being treated. Therapeutic cloning involves the creation of an embryo for research purposes, once used the embryo is discarded. Whereas theoretically in human cloning the embryo would be created, then inserted into a woman’s womb and allowed to develop and be born.

3.14 - Legal Framework

The current law, like its predecessor, makes a clear distinction between therapeutic and reproductive cloning. The Human Fertilisation and Embryology Act 2008 (HFEA) puts an outright prohibition on human reproduction by cloning but permits certain activities to be carried out subject to acquisition of the necessary licence. ‘The Government disagrees with the committee that there is any significant case for reopening the debate on reproductive cloning.’

Legislation in this area is vital;

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282 Government response to the report from the House of Commons Science and Technology Committee: Human Reproductive Technologies and the Law, 2005, Para 20
*To ensure that legitimate medical and scientific applications of human reproductive technologies can continue to flourish, to promote public confidence in the development and use of human reproductive technologies through effective regulatory controls applicable to them, and to secure that regulatory controls accord with better regulation principles and encourage best regulatory practice.*

1. **Meaning of embryo**

2(1) In this Act –

(a) embryo means a live human embryo and does not include a human admixed embryo (as defined by section 4A(6)), and

(b) reference to an embryo include an egg that is in the process of fertilisation or is undergoing any other process capable of resulting in an embryo

The Act defines what is prohibited by virtue of section 3(2) (1):

No person shall place in a woman –

(a) An embryo other than a permitted embryo (as defined by section 3ZA), or

(b) Any gametes other than permitted eggs or permitted sperm (as so defined).

According to section 3ZA;

(4) An embryo is a permitted embryo if –

(a) It has been created by the fertilisation of a permitted egg by a permitted sperm,

(b) No nuclear or mitochondrial DNA of any cell of the embryo has been altered, and

(c) No cell has been added to it other than by division of the embryos own cells.

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This is arguably capable of limiting scientific progress if it were to be construed narrowly. Techniques such as SCNT/CNR for therapeutic purposes would be questionable under this section, as they entail alteration of nuclear DNA.

In addition further potential for confusion arises when the above section is read in conjunction with section 3ZA (5) (b) which states that ‘regulations may provide that an embryo can be a permitted embryo, even though the egg or embryo has had applied to it in prescribed circumstances a prescribed process designed to prevent the transmission of serious mitochondrial disease.’ This leaves some ambiguity and confusion.

Furthermore permitted embryos may be prescribed at the discretion of regulations; this ambiguity provides a broad scope for future developments in reproductive cloning.

A licence for the use of embryos in research must be obtained from the HFE Authority; their policy is to allow research only where they feel that the use of the embryo for research is necessary, desirable, and essential.

The Authority may permit a licence for certain purposes; these purposes are listed in Schedule 2, S.6 3A(2) as follows:

(a) Increasing knowledge about serious disease or other serious medical conditions

(b) Developing treatment for serious disease or other serious medical conditions

(c) Increasing knowledge about the causes of congenital disease/medical condition that does not fall within paragraph (a)

(d) Promoting advances in the treatment of infertility

(e) Increasing knowledge about the causes of miscarriage

(f) Developing more effective techniques of contraception

(g) Developing methods for detecting the presence of gene or chromosome or mitochondrion abnormalities in embryos before implantation, or

284 Human Fertilisation Embryology Act 2008 Section s 3ZA(5)(b)
285 HFEA 2008
(h) Increasing knowledge about the development of embryos

Furthermore schedule 2 continues to use the same terminology in describing what the HFE Authority may licence. It leaves the HFE Authority with the discretion to decide not only what is desirable and necessary for principal purposes but also what may be specified in regulations. This is beneficial as it leaves room for manoeuvre should there be further scientific advances. However in the same vein it lacks concrete authority and provides no clear direction.

**Section 3  Prohibitions in connection with embryos**

The major and most controversial method of research, which is regulated through the 2008, Act is the mixing of human and animal embryos, under a licence for medical research. Abuse against this is strictly construed;

Section states 4A

(1) No person shall place in a woman—

   (a) A human admixed embryo,

   (b) Any other embryo that is not a human embryo, or

   (c) Any gametes other than human gametes.

(2) No person shall—

   (a) Mix human gametes with animal gametes,

   (b) Bring about the creation of a human admixed embryo, or

   (c) Keep or use a human admixed embryo, except in pursuance of a licence.

Section 4A (6) provides a definition of a human admixed embryo. It includes admixed embryo where an animal eggs genetic material was removed and replaced with human
nuclei\textsuperscript{286}. The resulting cell would function as a human egg and could be used to create an embryo and thus provide an alternative source for stem cell research.

Admixed embryos fail to come under the ‘permitted’ requirement by virtue of the DNA of the embryo being altered. The House of Lords Select Committee on Stem Cell Research considered in 2002 that there should be an outright ban on admixed human embryos and stated that ‘\textit{For any possible therapeutic applications there would also be significant concerns relating to safety, on which reassurance would be needed.}\textsuperscript{287} The House of Commons Select Committee on Science and Technology did not object to admixed embryo being used for research purposes. They provided that they would be regulated and fall within the 14-day rule and there would be a prohibition on implantation into a woman.

Arguments in support of the admixed embryos have focused on the medical benefits that may result. The British Fertility Society welcomed the result, which it said would contribute ‘\textit{enormously to advances in the new science of regenerative medicine with the capability of improving the understanding of the mechanisms of chronic debilitating disease, as well as the causes of infertility.}\textsuperscript{288}

Ultimately the HFE Authority considers the creation of an admixed embryo like any other embryo, created for the purposes of research in particular on the development of embryo mutations and how this can be controlled.

However while it is important to promote scientific development, one may oppose the use of these embryos on the grounds that there is potential to use other cells to fulfil the same research. This is even more so since the availability of human embryos has been low and the use of animal embryos has been justified. Therefore research may not be warranted on embryos when it can be carried out on adult cells, such as bone marrow.

\textsuperscript{286} HFEA 2008 Section 4A (6)(c)
\textsuperscript{287} House of Lords Select Committee on Stem Cell Research Appendix A, Para 2
\textsuperscript{288} Dr Mark Hamilton, Chair of the British Fertility Society, 2008
The usefulness and safety issues of such embryos are equally questionable especially when there are no certainties that there will be any significant advances. It is unlikely those patients will see any real benefits for many years and that in the early stages the main aim of using such embryos is research. Side effects from use of such embryos are unpredictable, and even if they were used they may prove ineffective. However one could put forward that the objective of research is ‘trial and error’ you learn from your mistakes.

3.15 - Objections to Therapeutic Cloning

‘One may infer, from the rigidity of the current legislature regarding therapeutic cloning and stem cell research, that legal constraints are motivated by the fear that scientific development will be faster than legislative debate… and lead to the unregulated reproductive cloning of human beings…’289 There was a general fear, a fear that in giving scientists free reign for the purposes of therapeutic cloning they would find a way to undermine any controls on reproductive cloning.

Although therapeutic cloning is by law permitted it is not entirely without criticism. There is much debate regarding the potential for use of human embryonic stem cells, which have come to be favoured over other stem cells for their use in cloning. The concerns are primarily founded on ethical objections; possibility of alternatives; and regulatory safeguards.

The differing ethical, political and religious beliefs in respect of the sanctity of life have prevented a consensus and to date leaves a great deal of debate. One of the most debated issues is the status that is afforded to an embryo. The debate as to the status revolves around how the embryo is perceived.

3.16 - The Status of an Embryo

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In rejection of the use of embryos the argument posed is that ‘the use of a human embryo for research is morally wrong because of the very fact that they are human….The human embryo is seen as having the same status as a child or an adult, by virtue of its potential for human life.\textsuperscript{290} However, opposing views state that an embryo is simply ‘…a collection of cells which, unless it implants in the human uterine environment, has no potential for development...\textsuperscript{291}

Embryonic status was a complete grey area, with little legal protection afforded to it prior to the recommendations made in the Warnock report. The report considered that it was inappropriate to endow the embryo of the human species with the full panoply of Human Rights. However, it was also inappropriate to simply consider it as nothing more than a ball of cells.\textsuperscript{292} It was recommended that no live embryo, frozen or unfrozen, may be kept alive beyond 14 days, by which time the primitive streak will have appeared as the cells become more defined, and that research may only be carried out up until this point.\textsuperscript{293} If the embryo were to be considered as having all the legal rights of an adult then any potential research would be off limits.

Embryo research is only permitted with a licence in the aforementioned five areas specified in schedule 2(3). The status and use of an embryo for purposes of research has been debated. Those against the use consider it as being morally unethical as it leads to the destruction of the embryo upon completion of the research, therefore resulting in the destruction of potential life.

The Warnock Report addressed this concern by stating that although the embryo would be destroyed, research involving the embryo is permitted, but only for significant gains. Emphasis was made that human embryos are not to be used in a way that is frivolous or unnecessary.\textsuperscript{294}

\textsuperscript{290} Warnock Committee, Report on Human Fertilisation and Embryology, 1984, para.11.11
\textsuperscript{291} Ibid para 11.15
\textsuperscript{292} House of Commons Select Committee on Science \& Technology, Fifth Report, \textit{Human Reproductive Technologies and the Law}, (March 2005) para.28
\textsuperscript{293} Warnock Committee, \textit{Report on Human Fertilisation and Embryology}, para.11.22
\textsuperscript{294} Ibid para 11.17 – 11.18
The view of Warnock was that the medical benefits in creating the embryo outweighed any shortfalls and therefore research was justified in certain instances. The Science and Technology Committee further propagated this, where the committee concluded they were ‘…not persuaded, especially in the context of the current law and social attitudes, that all research on early human embryos should be prohibited.’ This did to a certain degree tidy up and put some clarification onto the status on an embryo.

3.17 - Source of the Embryo

Embryos can either be created artificially or surplus embryos from assisted reproductive techniques such as IVF can be used for purposes of research. This posed a further ethical dilemma; should only surplus embryos from IVF be used or can we allow creating embryos simply for research.

At present research on embryos is conducted most commonly on embryos created for the purpose of IVF treatment, which are surplus to requirements and are donated specifically for research purposes. It is permissible for embryos to be created for research purposes. It is this specific creation of embryos for research purposes which is seen as unethical as it involves creation of embryo which are destined for destruction while surplus embryos, are destined to be discarded whether they are used for research purposes or not.

The majority of those who comment on this issue regard the preferable method to use surplus embryos rather than create them specifically. The view was taken that an embryo created for research was quite clearly being used as a means to an end. Those opposing the use of embryos being created for research do so on the basis that ‘embryos should not be created specifically for research purposes unless there is a demonstrable and exceptional need which cannot be met by the use of surplus embryos.’

295 Lords Select Committee, Stem Cell Research, Chapter Four: The Status of the Early Embryo, para 4.21
296 Ibid para 4.26
297 Ibid para 4.27
298 Ibid
299 House of Lords, Science and Technology Committee
Therefore the main question to be asked is whether the specific creation of embryos for research purposes is justifiable? The Warnock committee in their addressing of this did not object to the creation of embryo solely for purposes of research. They reasoned this on the aforementioned basis that medical benefit outweighed any objection and that human embryos are not to be used for unnecessary or frivolous purposes.

3.18 - Potential Regulation of Reproductive Cloning

Although therapeutic cloning is currently controlled and regulated the potential dangers of giving reproductive cloning a similar degree of control and regulation would cause furore. Application of human cloning may be impossible to effectively regulate and raises questions such as; which forms of reproductive cloning would be acceptable, is it only limited to infertile couples and how to prevent abuse?

It can be said that there is a general public concern over cloning powers being used above and beyond the scope of regulation and being used for undesirable purposes

‘...disproportionate fear of legions of mad scientists whose curiosity and desire for self-advancement will always impel them to go beyond the limits set for them by law.’\(^\text{300}\)

Furthermore it is suggested that “trust both in science and the regulation of scientists has declined since the late seventies.”\(^\text{301}\) Public perception of scientists therefore suggests that there is doubt on whether regulation of reproductive cloning can effectively be controlled and little confidence is given to scientists acting within their limits.

\(^\text{300}\) Jackson (above n250) p.256
\(^\text{301}\) Price in Jackson (above n250) p.256
The difficulty however may not simply be as to the form of reproduction but the status afforded to the parents and balancing their freedom with the majority. In addition if we accept the view by the House of Commons Select Committee on Science and Technology that ‘...the state should not prevent someone having a child – by assisted reproduction or other means...and the state should intervene only in carefully defined and justified circumstances, where there are specific harms in reproductive decisions’ further issues are bought to light, which have not yet been debated such as the issue of harm. If we accept there to be no harm in bringing someone into existence then the justifications prohibiting human reproductive cloning seem flawed.

3.19 - Genetic Engineering and the Law

Human genetic engineering is the alteration of the genotype with the aim of selecting the desired phenotype or modifying an existing phenotype (phenotype for this purpose are certain behavioural traits and characteristics). Our genes influence our health and disease, as well as human traits and behaviour. Researchers are still developing their understanding of the genomic contributions of these different types of phenotypes.

Human genetic engineering is generally divided into two categories somatic and germ line. Somatic genetic engineering is directed towards the remedying of a defect; similar to cloning this would take the form of therapeutic genetic engineering. Germ line genetic engineering entails the changing of the germ or reproductive cells. The major difference between the two forms is that germ line engineering is inheritable, that is the modified genes would not only remain with the child that resulted from the procedure but also their progeny so other generations that follow.

However, such a clear distinction is debatable. Both germ line and somatic techniques may be used for therapeutic ends for example to help treat genetic disorders. Genes that have come to being in undesirable ways may be treated by inserting a good gene into the cells of the individual, which would divide as normal and the modified cells would produce the relevant trait that may have been absent.

302 Science and Technology, (2005), p.49
Genetic diseases such as cystic fibrosis and diabetes may be cured in this way. However the fear is that the use of germ line therapy may escalate down a slippery slope of enhancement, eugenics and non-medical traits. Desired human traits may become readily available to make people smarter, taller or stronger.

In 1982 gene therapy pioneer French Anderson introduced four categories of human gene therapy into scientific literature, this is Maurice A.M. De Wachter's summary;

1. Somatic Cell Gene Therapy: here a genetic defect in the somatic, or body cells of a patient are being corrected;
2. Germ Line Gene Therapy: here a genetic defect in the germ, or reproductive cells of a patient are being corrected so that offspring of the patient would also be corrected;
3. Enhancement Genetic Engineering: here a gene is being inserted in order to try to enhance or improve a specific characteristic, for example adding an additional growth hormone to increase height;
4. Eugenic Genetic Engineering: here genes are being inserted in order to try to alter or improve complex human traits that depend on a large number of genes as well as extensive interactions with the environment, for example intelligence, personality, character.\(^\text{303}\)

Anderson’s categorisation gives us very specific definitions of human modification. From his distinction we can establish a spectrum type notion; at one side we have modification of life threatening or life impeding diseases, whereas as the opposite side we have the somewhat trivial, superficial, desired human traits and characteristics. For the purposes of this analysis I will be focusing solely on the two main types of genetic engineering, namely somatic gene therapy and germ line gene therapy.

We can establish therefore that somatic gene therapy works by replacing or supplementing the faulty genes. However as genetic disorders are hereditary it is only the individual who will be cured; there is still a high risk of the gene being passed onto any offspring and as a result, any offspring developing the disorder. Germ line therapy in contract aims to eradicate the disease and provide a cure that will be carried on to future generations.

3.20 - Gene Therapy Policy

The Committee on the Ethics of Gene Therapy was established in 1989, under the Chairmanship of Sir Cecil Clothier (the Clothier Committee) the committee considered gene therapy in 1991. In the Committee's 1992 report gene therapy was described as:

‘The deliberate introduction of nucleic acids into human somatic cells for therapeutic, prophylactic or diagnostic purposes.’

The Clothier committee recommended that the research in the UK should be limited to somatic gene therapy only under strict regulation and prohibited germ line therapy. The Clothier Committee on the Ethics of Gene Therapy put forward:

‘Because there is insufficient knowledge to evaluate the risk to future generations, genetic modification of reproductive cells, or the germ cells which give rise to them, should not at present be attempted.’

This view has been clearly incorporated in the six principles the GTAC operates when considering applications for gene therapy research;

(a) Gene therapy is research and not innovative treatment;

(b) Only somatic therapy should be considered;

(c) In view of safety and ethical difficulties germ line interventions are off limits at present;

(d) Gene therapy should be restricted to life threatening disorders where no current alternative effective treatments are available;

(e) Patients should take part in gene therapy research trials only after a full explanation of the procedures, risks and benefits and after they have given their informed consent, if they are capable of doing so; and

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305 Report of the Committee on the Ethics of Gene Therapy (Cm 1788), 1992, para 5
Recognising that some people, including young children, may not be able to give such consent, therapeutic research involving such patients must not put them at disproportionate risk.\textsuperscript{306}

These principles can be said to play a protective role not only protecting and limiting any classes of research being carried out but also striking a balance between the risks and the benefits for the individual.

Somatic gene therapy trials were first used in respect to patients with Severe Combined Immunodeficiency (SCID), a disease that prevents immune systems from functioning properly which causes high susceptibility to infections and ultimately death. Four-year-old Ashanti De Silva was the first person to be treated for SCID using genetic engineering in the United States. The effectiveness of De Silva’s treatment is questionable, although the treatment did have a short-term effect, her faulty cells have not permanently been replaced with healthy cells and therefore she is subject to periodic courses of gene therapy.

Research regarding gene therapy was originally applied to monogenic disorders. The UK has focused on certain single gene genetic disorders such as Huntington’s disease, cystic fibrosis and sickle cell anaemia. However, over the years research has been extended to multifunctional diseases, caused by a combination of genes, such as alzheimer’s, heart disease and chromosomal disorders, such as down syndrome.

Studies now also include research of acquired diseases such as HIV and Cancer. According to the Parliamentary Office of Scientific Study Post note, since 1993 there have been 96 trials that have been approved by the GTAC.\textsuperscript{307} Of these, 72% were for cancer, 13% for single-gene disorders and 7% for vascular disease. In 2004 there were 12 gene therapy applications, 11 of these were approved.

\textsuperscript{307} Parliamentary Office of Scientific Study postnote June 2005 Number 240 Gene therapy, p.2
The Government’s support of gene therapy is demonstrated in its 2003 white paper ‘Genetics: Our Inheritance, Our Future – realising the potential of genetics in the NHS.’ The white paper highlighted the importance of providing genetic services to patients and showed commitment from Government in the form of a £50 million investment. This investment would have arguably acted as an allusion, giving researcher’s added assurance in their undertakings.

The ultimate benefit of somatic gene therapy and such techniques is increased knowledge and understanding of diseases. In addition it is said that it would facilitate:

- better tests to detect carriers of gene variants which render either them or their offspring liable to certain diseases;
- the definition of the genetic components of common disorders;
- a clearer understanding of disorders at a biochemical level;
- preventative medicine through screening for genes which predispose an individual to certain diseases;
- new therapies, developed because our improved understanding of disease enables a more rational approach to drug development and treatment (we will know the exact target of the drug), and because gene transfer is becoming possible.\(^{308}\)

**3.21 - Legal basis - Germ Line Therapy**

The main statutory authorities regulating genetic modification are both the Medicines for Human Use Clinical Trial Regulations 2004 (Clinical Trial Regulations 2004) and the Human Fertilisation and Embryology Act 2008.

\(^{308}\) The Human Genome Project, *Gene Therapy and Patenting*, (Research Paper 97/128, 1 December 1997) p.15 para A
While many applications are being permitted there are a number of potential benefits for some diseases, the GTAC will not however consider any proposal for therapeutic genetic engineering on reproductive cells. The GTAC’s code of practice and procedure is regulated under the Clinical Trial Regulations 2004. The Regulations prohibit the use of germ line therapy under section 19(3)(3) which provides that;

‘The licensing authority shall not authorise a clinical trial involving products for gene therapy if the use of those products in that trial would result in modifications to any subject’s germ line genetic identity.’

The Regulations thereby limit inextricably research to somatic gene therapy and consequently limit reproductive genetic engineering.

Rejection of genetic modification is carried through to 2008 Act provisions namely section 3ZA allows only ‘permitted’ embryos to be implanted into a woman’s uterus. This provision prevents any form of genetic modification from being used and implemented.

The Government agreed that the law should allow cell nuclear replacement for the purpose of studying mitochondrial diseases. The law was thus amended by virtue of s3ZA (5), which enables regulations to provide an embryo to be a permitted one even if the DNA has been altered to prevent serious mitochondrial diseases. It would thus be more than mere research as far as serious mitochondrial diseases is concerned. 309

This section may however be an exemption rather than normality and gain to no avail for common diseases. In addition while GTAC current policy is to allow only somatic therapeutic genetic engineering this may be a target for germ line intervention. This is something that the Select Committee welcomed and allayed that ‘while prohibiting the modification of chromosomal DNA for reproductive purposes, should provide for regulations to be made to relax this ban under tightly controlled circumstances if and when the technology is further advanced.’ 310

309 S.3ZA (5), HFEA 2008
In ethical terms the relaxation of this ban, albeit under tight controls may still give rise to germ line modification of genes, this would arguably be a threat to the very basis of who we are. There are a number of objections to this including the potential to alter human evolution, potential risks and dangers and broader social problems.

3.22 - Germ Line Therapy – Objections

Arguably the biggest problem is that this technique is just not advanced or risk-free enough, to become a viable clinical treatment. Therefore the view of the Select Committee to relax the laws, even with regulations in place, may still be a long way off. As with any other medical intervention, the application of germ line therapy may carry with it potential risks, the danger with germ line therapy is that any mistakes rendered may not be reversed and may affect future generations.

Possible dangers include unknown side effects and irreversible changes to a normally functioning gene by the introduction of a new gene. There is also a possibility that in IVF - germ line combined procedures, the tampering by instruments may lead to loss of embryos or gametes. This gives rise to the potential risk that a child born may be severely affected by the intervention than if there had been no intervention.

Lack of concrete evidence to support that the intervention by genetic engineering would be safe makes justifying embryo research implausible. However, even if this could be overcome and the potential for germ line therapy becomes a realistic option it may not be ethically desirable or warranted.

A major rejection of germ line therapy on an ethical basis is founded on concerns that the alteration of DNA by means of germ line therapy would effectively give rise to the modification of the genetic makeup and human gene pool of future generations. The consequence is not only inheritable, that is the evolution of mankind over generations and
the human gene pool would be undermined, but this would also be irreversible. It violates the natural law and therefore plays God.

Saying this, there is potential for the cross transfer of germ cells by means of somatic gene therapy, this procedure would too undermine the natural human gene pool. For this reason GTAC has warned ‘Research aimed at modifying the germ line of subjects is unlawful. The possibility of inadvertent targeting or modification of germ cells should be carefully assessed during pre-clinical studies.’

Of course, germ line genetic engineering unlike somatic cell is intentional interference. Though the interference may be overstated considering that only a limited number of the population who may potentially have access to the procedure as like with IVF the procedure would be expensive and be likely to be limited to serious diseases.

Nevertheless the potential looking beyond the theoretical possibility that it may be open to the public may not be that unimaginable if we keep in mind the flexible nature of the regulations, which will potentially permit amendments, as to stay in line with modern technological advances and science.

Flexibility of the 2008 Act has been welcomed by the Catholic Bishops Joint Committee on Bioethical Issues; their opinion is:

“We believe that, like other parts of the body, the genome may in principle be altered, to cure some defect of the body. If a person’s reproductive potential is in some way faulty, to amend that potential, is, in principle, an acceptable way of promoting the health of that person, and his or her descendants. We can imagine situations in which to choose this kind of treatment would be, not simply a right of the person choosing it, but morally required. Granted that people should not be deprived without good reason of the genes which would otherwise have inherited from their parents and passed on to their children, the real possibility of eliminating from a family some serious disease - for example, Huntington's Chorea - would appear to be a good

311 Gene Therapy Advisory Committee, Operational Procedures for the Gene Therapy Advisory Committee in its Role as the National Ethics Committee for Gene Therapy Clinical Trials, 2008, p.4 para 12
However, going back to the notion of safety and risks they concluded, ‘the current risks to the embryo of germ line interventions - whether on the embryo or the gametes [eggs and sperm] which form it - go beyond what is reasonable.’

Those objecting to legislation permitting germ line therapy would suggest that if construed narrowly Section 3ZA (5) germ line therapy is outside the terms of the 2008 Act. Objections will focus on two poignant ethical reasons; enhancement of genes and eugenics.

According to some germ line therapy violates the natural law as it plays God and crosses the barrier between medicine and mankind for treating diseases. It may lead to a slippery slope whereby the desirability will not only stop at disease being cured but also the positive enhancement of certain traits and behavioural characteristics, such as adding a growth gene to make future generations taller.

This brings in to question which traits to permit and which to exclude? Equally who would keep check and decide? What may be considered, as a desirable trait today may not be desirable tomorrow? It may be the case that like objections to pre implantation genetic diagnosis, it would lead to genetic discrimination if permitted, certain traits were chosen over others, making those with the undesired traits considered inferior.

One may also state that even in terms of medical conditions there are divergences, what is considered as a condition leaves room for movement as conditions are constantly being redefined. Some may see little difference between helping to cure spinal disorders and the assistance to improve its function even though it may be already sufficient. There is a fine line between what would be for the use of medical conditions and nonmedical in this view.

We are not yet permitted to for example, contrary to some suggestions, create ‘designer

\(^{312}\) Genetic Intervention on Human Subjects’, The report of a working party of the Catholic Bishops Joint Committee on Bioethical Issues London, 1996, p.32

\(^{313}\) Ibid
babies’. According to 2008 Act section 1ZB(1) A licence under paragraph 1 cannot authorise any practice designed to secure that any resulting child will be of one sex rather than the other and limits any choice to preventing sex related diseases.

A further objection is that germ line therapy may lead to positive enhancement leading to positive eugenics. Eugenics is coined from the Latin word ‘well born’. Improving our eugenics may extend to personality traits or intelligence. The reality of this is obscure and remains as a mere possibility, at least currently no research can be said to be safe enough. If this was the case the greatest difficulty that exists between disease and positive enhancement could be said to be that the line between them is unclear and becomes more so with new technological developments, what is considered as a disease today is continuously being redefined.

Using genetic engineering to improve certain traits may lead to a superior class of beings, who have an advantage over others by virtue of their genetics; being able to have more children, get better jobs, be wealthier etc. It may not be plausible, for this reason to allow any germ line genetic modification as no realistic line can be made between disease and enhancement. However, it should be noted that genetic eugenics are not entirely the same as classical eugenics; that is the elimination of human beings but rather eradication of unwanted traits or enhancement of desired traits. Nevertheless, The British Medical Association has taken it seriously with the considerations of ethnic cleansing using technological advances. Whether these traits ever become susceptible to genetic manipulation remains to be seen.

3.23 - The Alternative: Pre-implantation Genetic Diagnosis PGD

An area where there has seen a shift in attitudes is the use of genetic testing; this is either by screening or diagnosis. The former is aimed at a specific group in the population and the latter at a specific individual. Prenatal screening and diagnosis has become readily available in the UK, the former simply tests whether a child may be at risk of inheriting a disease and the latter, diagnostic testing identifies a diagnosis of the disease.
Where there are fetal abnormalities both screening and diagnostic offer an informed choice whether to continue or abort the pregnancy. However, the development of Pre-implantation Genetic Diagnosis (PGD) has been made possible through development of IVF; this has been the cause for controversy.

The use of PGD is important and potential reasons for the use are that it allows for the selection of an embryo; which is more likely to implant and develop, unaffected by an inherited disease, which is a tissue match for an existing person who would benefit from a transplant of (probably) umbilical cord stem cells or which has a desired characteristic for nonmedical reasons.

IVF combined with PGD testing and selection of pre implantation embryos enables only embryos, which are unaffected from disease to be transferred to the woman. Embryos created outside the body by IVF can be tested for genetic disorders. While not technically modifying the genetics it is essentially selecting the desired genetics, the closest means legally permitted. Of course in the future there may be cases where embryos for mitochondrial diseases are treated and transferred to the woman.

3.24 - PGD and Tissue Typing - Human Fertilisation and Embryology Act 2008

PGD and Tissue typing are explicitly covered under the 2008 Act under Schedule 2 (3)(1ZA)(1)(d). The Act goes further to underline that licences will only be granted in relation to an abnormality, which is at particular risk.\(^{314}\)

The effects may prove to be limitative in the future; as the provisions in relation to PGD are generally used to treat rare diseases. The subjective nature is debatable.

It would seem that PGD does have the potential to avoid germ line therapy. However this may be in some situations rather than all. Although PGD is an alternative and less risky

\(^{314}\) HFEA 2008 schedule 2 (3)1ZA(2)(a)
procedure to germ line therapy it does have a shortfall when it comes to parents who both suffer from a genetic disorder and thus pose a significant risk that the off spring will have the same disorder but are unwilling to use donated egg or sperm. In this situation PGD is not effective since all gametes are defective.

It should be noted however that PGD is limited to serious disease, if a couple where both are affected by a genetic disease have reached reproductive age it is possible, that the disease would fall outside the scope of the 2008 Act in any event, since it might not be deemed a serious disease.

In addition there is also a further difficulty with those that object to discarding of embryos. Some people consider that it is unethical to discard any embryo regardless of its genetic condition and thereby the use of germ line would be necessary in order to prevent a disease and at the same time consider to do so would help reduce child mortality and morbidity, and fewer abortions and destroyed embryos. However the potential of germ line to harm or even destroy embryos during the procedure undermines this argument, as both carry a serious risk to the survival of the embryo and both may involve the discarding of embryos before implantation.315

Equally, if you consent to PGD it would be fair to say that you have placed the embryo at risk and therefore it is hypocritical to then consider germ line therapy any more ethical. A case-by-case approach and ethical confusion that has arisen leaves the potential of PGD as a viable alternative to Germ line therapy somewhat implausible, though it is an alternative nonetheless.

3.25- PGD - Objections

Relatively few licences are granted for PGD in conjunction with IVF. Nonetheless, PGD is considered by some to be unethical because it allows the potential for deselecting embryos with genetic disorders. It poses potential for clear discrimination of healthy embryos over

diseased and thereby discriminating against the disabled. It in effect suggests that disabled people are inferior.

However, on the other hand the benefit of the treatment is that a healthy child can be born. The only option for those that have diseases and have been screened to pass on to offspring is to do nothing or abort once a child is conceived. The view taken by some that destruction of embryos, which are deemed unsuitable, is wrong can be said that the destruction of a child once conceived is no more wrong than at pre-implantation stage, which is permitted.

A further objection levelled at PGD is that in selecting certain embryos particularly those healthy over diseased is that it may lead to eugenics and the removal of identity and diversity. ‘Every single individual is unique and valued and has an intrinsic value as a person and I believe that this selection on genetic criteria reduces that degree of individuality.’

The House of Commons Select committee considered the notion that children created become mere products and numbers, as a mere commodity ‘What was wrong with the Nazi eugenic programme was that the State imposed a blueprint of perfection on couples seeking to have children by forcing sterilisation of the ‘unfit’ and removed their reproductive freedom.’

It concluded, “If ensuring that your child is less likely to face a debilitating disease in the course of their life can be termed eugenics, we have no problem with its use. State programmes that impose a genetic blueprint are another matter. They should be outlawed as part of any regulation of assisted reproduction. Use of the word eugenics must not be used as an emotive term of abuse to obscure rational debate.”

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316 House of Commons Select Committee Science and Technology p.53 para 110
317 Ibid. Page 54 para 115
318 Ibid page 55 para 116
3.26 - Benefits of Germ Line Therapy

While somatic gene therapy addresses rare genetic diseases with the benefit that it does not directly affect future generations, there are limitations in its ability to treat some diseases, and its efficiency. Somatic cell therapy may not be able to treat the most miserable of diseases such as diseases affecting the nervous system, where somatic cell intervention is limited as new genes cannot be introduced into the nerve cells. Germ line therapy on the other hand has the potential, if all the risks and safety issues were overcome, to do so.

Equally germ line therapy can prove to be a much more efficient than somatic cell therapy. Where somatic cell therapy is used on one person there is nothing to prevent their partner from passing the genetic disorder on to the next generation, if this was the case the offspring would too need to be treated with somatic cell therapy. Whereas germ line therapy would efficiently eradicate the disease and it would not be passed on to future generations.

Nevertheless germ line therapy does have alternatives, and like somatic cell therapy, there are other means by which the defective genes can be avoided such as donation of sperm and ovum, PGD, and discarding defective embryos, which would eliminate the need for germ line intervention to prevent diseases.

Furthermore since germ line therapy is unlawful according to the law its application for research purposes let alone for clinical terms is very premature. Its potential benefits to the general public may thereby be a very long way away if it is ever made available.

“While recognising the potential benefits that treatments such as gene therapy can have, it is important that such technologies are not oversold. Surveys indicate that many people believe - erroneously - that gene therapy is already widely and successfully in use. Not infrequently reproductive decisions are influenced by the belief that gene therapy (or other
effective treatments) would shortly be available to cure their child. The technology has not
developed to meet these expectations.”

We have made much progress with somatic cell therapy however much of somatic therapy is
still in its early stages of research and clinical treatment is a long way off becoming a reality.
In the Governments 2003 White Paper the real concern with existing research is how to
stream line and make these appropriate for clinical trials.

Whether or not the treatment is available either for research or clinical trials a strong
argument in support of making germ line therapy available is that everyone has a right to
reproductive choice, and that this should not be in the name of human dignity and autonomy
limited by the majority for the minority. However, balancing this with ethical concerns may
not be so simple.

3.27 - Conclusion

English law and Islamic law are not far apart. Similarities are evident. In Islamic law,
independent analogical reasoning is used to formulate new Fatwas. This ensures that the
religious decree is kept up to date and contemporary, and inoculates the notion that Islam is
a religion for all people, during all eras and in at all times.

In the same vein English law derives from the logical reasoning of society, and their
parameters of morality. One contemporary illustration is the rights that have been granted to
gays and lesbians. As societal attitudes and morality towards homosexuality evolved, the
law was amended to meet the needs of a changing community.

Both Islam and English law welcome IVF as a means of reproduction. The Islamic criterion is
strict, as IVF must be sought within the union of marriage, opposed to the revised Western

319 Making Babies: reproductive decisions and genetic technologies, Human Genetics Commission, January
2005 p.81 para 7.29
criterion, which permits same sex couples and single mothers from exercising their right to have children. Significant progress has been made by the Shia scholars in issuing Fatwas to allow ‘third party donation’ in the IVF process but the Sunni scholars have been slow to follow suit. To keep up to pace with the needs of modern society Islamic law needs to provide for an evolved society. Same sex Muslim couples may have a desire to become parents, or women who chose not to marry; who wish to become mothers may need an outlet of religious guidance.

Although Islamic jurisprudence is behind in relation to this, one area they have advanced in is surrogacy. The practice is much widely accepted in the Islamic world, as a man is permitted up to four wives, if his first wife cannot conceive it is accepted that he may marry again in order to procreate.

In English law there are clear provisions that a husband can only be married to one wife at any one given time. In comparison under Islamic law, a husband is allowed to have four wives, at any one given time. The restriction in English law prevents Muslim families from being able to access reproductive services which they would like to access and which are allowed under Islamic law. For example, a wife who is unable to carry a baby may use the husband’s second wife in order to carry the foetus to full term, which would not be legally possible under English law.

Similarly, both Islamic and English jurisprudence do not wholesale accept genetic engineering or cloning. Accepted only for medical purposes, and not to design one’s own child, or enhance features. This exceeds the bounds of Islamic decree and the parameters of morality.

Islamic law has developed jurisprudence and kept on par with societal evolution in the same way that English law has. Both legal systems have developed jurisprudence, in a similar way, to meet the changing needs of society. Although some gaps are still evident, moral evolution will play a key role in expanding the acceptance of the more controversial reproductive technologies.
Religious moralities have 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 practised, third-party reproductive assistance with gamete donors and surrogates is nonetheless legally or religiously restricted. The comparison between Islamic law and English Law is important to focus on the major points of similarity and contrast between UK law and Islamic Law. Whether analysing Sunni Muslim bans on all forms of third-party assistance or Iran’s Ayatollah Khamenei’s Fatwa permitting both egg and sperm donation, it becomes clear that all of these disparate events quickly translate into material outcomes on how ARTs are conceptualized and practised.

ART comparisons based on law, religion, culture, politics and economy are useful to understand the complex dynamics of how different societies address the difficult issues of new and emerging technologies. By 1980, only two years after Louise Brown’s birth, the Grand Shaykh of Egypt’s Al-Azhar University had issued the first Fatwa permitting IVF to be practised by Muslims. By 1986, the first IVF centre had opened in Egypt and in 2003 the Egyptian IVF industry had truly blossomed with approximately 50 clinics, 5 of them partially state subsidised.

Following the 1980 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 has been issued in Kuwait, Qatar and the United Arab Emirates. In 1997, at the ninth Islamic Law and medicine conference, held under the auspices of the Kuwait based Islamic Organisation for Medical Sciences (IOMS) in Casablanca, a land-mark 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.

Such a ban on third-party reproductive assistance of all kinds is effectively in place in the Sunni world, which represents approximately 85-90 percent of the world’s more than 1 billion Muslims. The ban in the Sunni world seems to derive less from the threat of legal

320 Eich Thomas, Islamic and Assisted Reproductive Technologies, (Berghahn Books 2012), pg. 27
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.

Ayatollah Ali al-Khamenei, is considered politically conservative, and in the eyes of many, a highly repressive figure. However, on the issue of ARTs he is the 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, donor embryos, donor sperm and surrogacy arrangements.

To summarise the similarities and differences between Islamic law and English law within assisted reproductive technologies, I have produced a simplified table. This table helpfully sets outs the various legal position’s to assist Muslim infertile couples, Medical practitioner’s, scholars, policy-makers and Lawyer’s in the United Kingdom to form a better understanding of Islamic and English law on the key issue of ARTs.

<table>
<thead>
<tr>
<th>ARTs Method</th>
<th>English Law</th>
<th>Sunni scholars</th>
<th>Shia scholars</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVF</td>
<td>Under section 3(1) of the HFEA 2008 Act, IVF is a treatment, which may only be carried out under license from the HFEA Authority</td>
<td>Permitted under Fatwa al Azhar, Mufti of Egypt ‘Ali Jad al-Haqq(1980)</td>
<td>Permitted by all Shia scholars</td>
</tr>
<tr>
<td>Procedure</td>
<td>Sunni Position</td>
<td>Shia Position</td>
<td></td>
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<tr>
<td>----------------------------------</td>
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</tr>
<tr>
<td><strong>Egg and Embryo donation</strong></td>
<td>Permitted under ss.27 and 28 HFEA 1990 Act, the child born of embryo donation is, for all purposes, the child of the carrying mother and her consenting husband</td>
<td>Sunnis do not permit egg or embryo donation</td>
<td></td>
</tr>
<tr>
<td><strong>Sperm Donation</strong></td>
<td>Permitted under HFEA 2008 Act</td>
<td>Forbidden, Sunni scholars consider artificial insemination of donor sperm into the vagina as a adultery or fornication (zina)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Majority Shia scholars forbids it with the exception of Ayatollah Khamene’i who allows it on the basis that (zina) must be restricted to ‘penile penetration of the vagina’ and therefore donor sperm insemination (DI) cannot be classified as (zina).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ayatollah Khamene’i</td>
<td></td>
</tr>
</tbody>
</table>
permits the posthumous use of sperm, however other Shia scholars do not support this.

<table>
<thead>
<tr>
<th>Cloning</th>
<th>HFEA Act 2008 puts an outright prohibition on reproductive cloning, 3(2) (1). Therapeutic cloning is permitted.</th>
<th>Reproductive cloning prohibited whilst therapeutic cloning is allowed; Seminar held in Kuwait October 1998-‘Genetics, Genetic Engineering, the Human Genes, and the Genetic Treatment – An Islamic Perspective.</th>
<th>Therapeutic cloning allowed on the basis that embryos were derived from no embryonic sources or surplus embryos were used.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-implantation Genetic Diagnosis</td>
<td>Permitted under HFEA Act 2008 – 1ZA (2)</td>
<td>Sunni scholars approve PGD or PGS in cases of sex-linked disease; they unanimously reject PGD for sex preference.</td>
<td>Shia scholars approve Pre-implantation Genetic Screening (PGS) for detecting Huntington’s Disease or genetic predisposition to breast cancer, to exclude aneuploidy in older women and for sex selection and balancing; they have the added advantage of donating the unwanted embryos by <em>mut’a</em> arrangements to others or for research</td>
</tr>
</tbody>
</table>
Part 4 – Philosophical Perspective

4.0 - Bioethics and Human Reproduction

"Methods that fail to respect the dignity and value of the person must always be avoided. I am thinking in particular of attempts at human cloning with a view to obtaining organs for transplants: these techniques, insofar as they involve the manipulation and destruction of human embryos, are not morally acceptable, even when their proposed goal is good in itself." \(^{321}\) Dignity as a perplexed emotion or feeling is what tends to personify the conservative philosophical standpoint in relation to modern reproductive theory and technological development. It is in this context that the development approach reaches complications and numerous objections are raised against this technology. However, before a specific focus can be placed on the advancement of reproductive techniques it is important to establish a solid foundation on the ethical and moral nature of reproductive theory, before further building on the developments of technology and the impacts, which are raised.

The Oxford dictionary defines ethics as the ‘moral principles that govern a person’s behaviour or the conducting of an activity…’\(^{322}\) ethics are intrinsically linked and coincide with morals. Morals are defined by the Oxford dictionary as ‘concerned with the principles of right and wrong behaviour’\(^{323}\) Morality therefore refers to a shared viewpoint of the rights and wrongs of human conduct by society at large. Moral norms are embedded within the fabric of society, they are not born overnight, and they are transmitted down through generations.

Morality can be distinguished as; common morality and community specific morality. Common morality comprises of those universal moral principles that bind all persons, wherever they may be based, whatever their occupation. These are the core basic moral

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principles underpinning human nature, examples of improper conduct that fall within the bound of these universal principles includes; lying, stealing and killing. Community specific morality relates to those moral norms, which flow from a particular cultural, group or institution, conduct which one group may accept another group may define improper.

One illustration of this can be seen in the example used by Kuhse and Singer in relation to the story being told by Herodotus;

…“Darius, King of Persian, summoned the Greeks from the western shores of his kingdom before him, and asked them how much he would have to pay them to eat their fathers’ dead bodies. They were horrified by the idea and said they would not do it for any amount of money, for it was their custom to cremate their dead. Then Darius called upon Indians from the eastern frontiers of his kingdom, and asked them what would make them willing to burn their dead fathers’ bodies. They cried out and asked the King to refrain from mentioning so shocking an act.”

This illustrates what may be seen as acceptable conduct for the citizens of one community may not for the citizens of another, we cannot however deny that one group is acting in an improper fashion, as these are the norms they have grown up with.

Many philosophers have put forward their own theories of morality. Hare put forward the notion of consequentialism, in that the rightness of an action will depend on the consequences. Utilitarianism the most commonly known form of consequentialism ‘…puts forward a single principle that it claims can provide the right answer to all ethical dilemmas, if only we can predict what the consequences of our actions will be.’ This theory brings to life principles of morality; it allows individuals to anticipate situations and those who will be inherently affected by the consequences of their conduct. However one could also suggest this theory somewhat tedious, in that each action will result in a consequence and that consequence must be followed back to each individual.

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325 ibid, p.3
Immanuel Kant provided another notable theory; that we must always treat each other as an ends, never as a means and this should form the basis of our interactions and relationships with others. He emphasised we should not use people as a gain for our own personal advances. Similar to Hares theory this theory is based on our conduct with others, and upholds a notion of selflessness.

The Aristotelian theory on the other hand draws reverence on human nature, and provides that our human nature is our moral source. Therefore we seek such good things as knowledge, friendship, health, love and procreation as it is unnatural to act contrary to our good human nature. This theory it is more encompassing as it draws on various aspects of life, however as Kuhse and Singer contend this theory as being flawed;

‘The fact that our species, especially its male members, frequently go to war, and are also prone to commit individual acts of violence against others, is no doubt just as much part of our human nature as our desire for knowledge, but no natural law theorist therefore views these activities as good.

Some philosophers however find it defective to base morals on cumbersome rules and theories; instead they argue that it is much more compatible to base morality on individual character and what it takes to become a good virtuous person. Beauchamp and Childress find that moral virtue is something, which is approved by society. Thus virtuous character traits can be shaped and evolve as society slowly evolves. Members of certain professions should also possess certain character traits a doctor or nurse for example, although strictly speaking, legally don’t have to act compassionately in their work, a compassionate doctor or nurse would arguably gain much more trust, gratitude and satisfaction from their patients. Brazier uses an example to illustrate that ethics demand a higher standard of behaviour than that the law requires ‘A competent surgeon who removes a patient’s gallstones without mishap fulfils her legal duty of care. If she dismisses the complaints of pain with scorn, makes him feel like a child, and treats him as just another patient number, is she acting ethically?’

326 ibid, p.4
327 Beauchamp and Childress, Principles of Biomedical Ethics, (5th edn, 2001), p.27
328 M. Brazier and E. Cave (above n227) at p.66
The specific focus of this analysis takes us into the arena of bioethics. Bioethics is the term coined together which refers to ‘...any ethical challenges presented by advances in the biological sciences.’\textsuperscript{329} Consistent medical development has resulted in constant ethical upheaval and debate, with some developments society welcoming with wide arms and others attracting much controversy and cautiousness. Bioethics has become the concern of not just science and medicine but a wide range of other spectres including law, journalism and also members of the general public. Bioethics is not a modern phenomenon with their origins deeply rooted in the Hippocratic oath, the first medical ethics guide of its kind for the medical profession. Amongst other etiquettes it prohibited doctors from undertaking sexual relations with their patients or their patient’s wives and advised them to avoid alcohol and drug misuse.

Over two millennia later some of the traditional basic ethical tenants of the Hippocratic oath are still in existence; the prohibition of direct euthanasia and abetting suicide. However medical innovations and the evolution of societal attitudes over the last fifty years have led to reflection of the medical ethics to coincide with societal morality.

The current most influential work on bioethics is the principles formulated by Beauchamp and Childress, namely; respect for autonomy, beneficence, non-maleficence and justice. These principles provide an ethical framework to be upheld by doctors and medical staff. As Gillon says they ‘...help us bring more order, consistency and understanding to our medico-moral judgements.’\textsuperscript{330} When undertaking any study of medical health and law it is important that some attention is given to these principles. I will adopt them for my analysis here, partly because consequentialist and Kantian considerations can, at least to some extent be accommodated within the principles framework.

\textsuperscript{329} S. Holland, *Bioethics; A Philosophical Introduction*, (University of York 2003) p.1
\textsuperscript{330} Gillon, in Brazier and Cave, (above n227) at p.64
The word autonomy is derived from the Greek and can be translated to mean self-rule or self-governance. Respect for autonomy is based on respect for the autonomous choices/decisions an individual makes. A person with autonomy will therefore act with liberty and will be free from control. Whereas a person with diminished autonomy is ‘…in some respect controlled by others or incapable of deliberating or acting on the basis of his or her desires and plans. For example, prisoners and mentally retarded individuals...’ The principle of autonomy does therefore not provide a defence to every decision made by a human being. The decision must be informed, made by someone with free choice and the mental capacity to do so. Brazier juxtaposes a child not wanting to go to the dentist against someone suffering from schizophrenia who may refuse treatment as the ‘voices’ tell him the doctor is Satan. The choices made in these instances are not autonomous as mental capacity to outweigh the benefits is excluded. Another juxtaposition is that of a woman who refuses surgery for breast cancer on the basis she cannot tolerate any mutation to her breast and a Jehovah’s Witness who refuses a blood transfusion on religious grounds. Although these decisions may seem inexplicable to some, the individuals in these circumstances can justify the reasoning behind their decisions and they are therefore acting autonomously.

Beneficence follows autonomy, in that doctors should not only act autonomously but also carry out their work with the aim of contributing to their patient’s welfare. Common theories of beneficence are based on beneficence as benefiting others, which is perceived to be an aspect of human nature that motivates us to act in the interests of others. The central tenement of beneficence is to remove or prevent any harm and balance this with actions of benefit. However one may argue that this is strongly rooted in paternalism, as a beneficent doctor will do what he thinks is best in the name of beneficence.

331 Beauchamp and Childress (above n 326) at p.58
332 Brazier and Cave (above n227) at, p.65
333 Brazier and Cave (aove n227) atp.65
334 Beauchamp and Childress (above n326) at p.166
Take the example of a pregnant woman, about to give birth; a natural childbirth would be extremely dangerous for both her and the child, should the doctor act beneficently and go ahead with a Caesarean section, as this would after all be in the best interests of the patient. Although weighing up the harms and the benefits this seems like the more virtuous route, we must not forget the underpinning principle of autonomy, in that the doctor must seek the consent of the patient. A doctor acting beneficently will provide his judgement and reasoning; however leave the final decision in the hands of the patient.

Non maleficence or do no harm, the third principle, has its obligatory origins dating back to the Hippocratic oath ‘I will use treatment to help the sick according to my ability and judgement, but I will never use it to injure or wrong them.’ This principle although prohibits harm, does not prohibit harm in all instances, as harm during some operations in the form of either physical pain or scarring is unavoidable. One must however make a distinction between harm and harm, which is the side effect of acting beneficently. In the latter instance harm will be justified as it outweighs any notion of non-maleficence in that it is carried out for the greater good.

Beauchamp and Childress’s final principle is that of justice. It may sound coherently obvious that a doctor should act justly by treating all patients fairly and equally. Brazier illustrates this final principle by example of the Queen and a homeless person. She asserts that medical professionals should not show preference for patients who enjoy a particular status, or provide a sub-standard level of service for patients, which they disapprove. However certain circumstances such as a lack of medical resources may result in unavoidable instances of injustice, such as the strict criteria couples seeking IVF on the NHS must adhere to.

335 Hippocratic Oath – www.pbs.org/wgbh/nova/body/hippocratic
336 Brazier and Cave (above n227) at p.66
Having equipped ourselves with an understanding of the fundamental principles of bioethics we can now take our study a step further into the arena of bioethical studies into the realm of ethics in specific relation to reproductive technologies. Reproduction technologies, an area of vast scientific development have given the doctor as well as the lawyer, a conundrum of an ethical nature.

“Science has given the doctor tools to work marvels undreamed of by earlier generations. In vitro fertilisation and gamete donation to assist infertile couples to have children are no longer seen as extraordinary. The technology to create artificial gametes is on the horizon. So a man who produces no natural sperm might be able to father a child via sperm ‘constructed’ from other cells in his body. Ectogenesis may become a reality so that the foetus could be gestated in an artificial womb. A family with a child dying of certain genetic diseases can be helped to create a ‘saviour sibling’. Tests will ensure that the new baby does not suffer from her sibling’s disease, and is an exact tissue match for her.”

Although these new innovations bring about a sense of excitement and opportunity they also bring a need for reflection and deliberation. Scientists will go to great lengths and may cross many boundaries in their quest for development. Their technological breakthroughs however advanced may raise various questions of a bioethical nature for both society and the lawmaker, and striking a balance between the conflicting moral ideals in relation to a particular area of conduct may prove to be difficult. In situations with conflicting moral opinions it may be difficult to establish a common moral ground and general consensus.

We now focus on each technique directly, and the reasoning and objections that are apparent, we will base this analysis on the four fundamental principles discussed, namely; autonomy, beneficence, non-maleficence and justice.

4.1 - IVF and Autonomy

337 Brazier & Cave (above n227) at pp.61-62
One can argue that to a certain extent infertile women seek a child in order to conform to the societal norm. Although there is no direct undermining of autonomy one can argue that autonomy is undermined subconsciously.

Corea illustrates ‘the propaganda…that women are nothing unless they bear children, that if they are infertile, they lose their basic identity as a woman…has a coercive power. It conditions a woman’s choices as well as her motivations to choose. Her most heartfelt desire, the pregnancy for which she so desperately yearns, has been to a varying degree conditioned.’ This strong signalled subconscious message averted to women reinforces the notion that the primary purpose of a woman is to bear and rear children, thus those facing reproductive failure seek to remedy their defect. Callahan and Rogers argue ‘reproduction-assisting technologies…contribute to the subordination of women by continuing to tie the value of women to reproduction.’

A rather farfetched analogy on the reason behind infertility is that infertility is not a result of bad-luck, but a consequence aiming to punish the woman as she is at fault. It is assumed “that women are infertile as a result of their own choices, for example by choosing to delay child bearing, by having had an abortion, through contracting sexually transmitted infections, or by overuse of particular contraceptives. So a woman’s inability to conceive is commonly thought to be the consequence of her deviation from conventional gender roles, through an over-zealous pursuit of her career or through sexual promiscuity. She is then responsible for her infertility, which is ‘natures’ punishment for her unnatural behaviour.” But arguably this undermines autonomy, in that women must subscribe to a certain behavioural norm.

In my opinion women are free autonomous individuals who are free to make a choice as to whether they wish to pursue their career or whether they wish to conceive children at a certain stage of their life through IVF. However, I do agree with Corea that within the sub-

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338 Jackson (above n250), at p.180
339 Jackson (above n250) at p.175
340 Jackson (above n250) at p.202
conscious mind of women there is always the expectation that they will have to bear children at some stage of their life in order to prove a point to society or to be accepted in society.

4.2 - IVF and Beneficence

The rapid development of IVF as a viable means to bypass infertility was the product of curious scientists and researchers, working day and night, looking to develop a fix for infertility. “With the development of human embryos taking place in laboratories we have entered a new and frightening age where we have a category of human beings treated as consumer products. As a result, human embryos can now be discarded, dissected, frozen and stored end eventually disposed of, genetically manipulated and experimented upon – all at the whim of scientists.” Scientists and researchers are working vigorously to make their mark within their field.

One may mistake their curious nature and vigour in attitude as a means to achieve something purely for their own personal gain. Whether that gain is simply curiosity, to make a name for themselves in their specialist field or for the financial gains is unknown, but arguably some will have their own personal agendas and will treat women and embryos in the Kantian manner as a means to an end.

We touched on in the previous chapter the status of an embryo, and whether the embryo should be treated as and given the same rights as a fully-fledged human being. We established that although an embryo is not to be treated as a human being per se, protection is to be afforded to it once it reaches the primitive streak, during which the brain and nervous system begin to develop.

Some however use the notion of survival to argue that embryos before implantation are to be given a lower status as without being implanted they have next to no prospect of survival. Those taking this view further their analysis by way of a metaphor to describe the process of implantation as a lifeline ‘this is tantamount to a view that a person lost at sea is not a person

341 Margaret Tighe, in Kuhse and Singer (above n323) at p.91
unless or until he manages to secure a hold on a lifeline… Scientists holding this view think it permissible and morally acceptable to carry out research on embryos prior to implantation. However arguably beneficence is being undermined if embryos are consistently being used with a view to them being killed, ‘since these people may not ever be born they may never acquire the status and, the rights, of born persons, and may spend their whole lives as slaves of science.’ This paints a frightening picture, of tunnel-vision scientists satisfying their own needs without a care for anybody or anything else.

The Catholic church too rejects the argument of pre-implantation embryo having a lower status, they are of the view that every stage of human life is equally worthy of protection and the more vulnerable a human being is at a particular stage, the more strenuous should be the communities efforts to protect him or her. They further this by stating ‘with the formation of every embryonic cell a new individual is person comes into being with his or her characteristics…from that first moment has begun the adventure of a human life.’

There is a general divide when it comes to the status of an embryo; ones morals or religious beliefs often dictate their opinions. However one thing which remains is the law governing the status of embryos and therefore any arguments objecting to IVF ethical grounds have somewhat been compromised.

As well as the embryos, which get used by the scientists to further their research, it can also be said that women involved in the process are too being unfairly used. Corea put forward that ‘scientists’ desire for self-aggrandisement through achieving the first IVF birth took precedence over the minimisation of risk.’ Furthering on this McLean described how women ‘…have been used more frequently and more damagingly, than others as a vehicle for inadequately tested or researched procedures, techniques and technologies.’ This again implies that scientists are acting in their own interests to further their own ambitions and not providing the due care and attention to their subjects. However as much as we try to negate the image of the scientist it seems that they have made various breakthroughs and

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342 Margaret Tighe in Kuhse and Singer (above n323) at p.92
343 Margaret Tighe in Kuhse and Singer (above n323) at p.93
344 Margaret Tighe in Kuhse and Singer (above n323) at p.94
345 Kuhse and Singer (above n323) at p.95
346 Jackson (above n250) at p.180
347 Jackson (above n250)
through their dedication in identifying a viable bypass to infertility they have allowed many couples to gain happiness. It is therefore not all bad, and objections that one’s beneficence becomes undermined will not stand, as this area has already had parliamentary attention and is regulated by statute.

4.3 - IVF and Non Maleficence

Couple seeking IVF are sometimes placed at a parallel with those seeking adoption in that both groups must satisfy their fitness as parents. However Hope and Lockwood disagree with this parallel they argue that adoption is a model based on supply and demand, whereas infertility treatments are completely different.

When seeking fertility treatment they outline that questions should not be asked whether the couple are fit and suitable parents for a particular child, rather ‘are the interests of this potential child better served if he or she is born to these parents or if he or she never exists at all?’ therefore ‘…the possibility of ‘this’ potential child being born to any other (possibly better) parents does not arise.’ This analysis appears somewhat to broaden the criteria, in that the refusal to access treatment will be as a result of an extremely poor level of parenting and evident harm.

However infertility treatment like adoption is subject to strict criteria that on the face of them can seem extremely unfair and discriminatory. Take for example the plight of an older woman who has a desire to have a child and seeks treatment for an infertility clinic; there is a highly likely, all most certain, chance she will be refused on grounds of her age. This refusal will be highly based on the maleficence principle, of doing no harm to both the mother and to the welfare of a potential child. It is arguable that the welfare of a child born to an older mother will be impaired and undermined, the main objection is that an older woman may not live to see her child enter adulthood, and the child will be prone to harm on the loss of his mother at a young age. Although the life expectancy of women is increasing, there seems to be no shift in this rationing and it appears that this amongst other age associated reasons is a valid justification in refusing to treat older women.

348 Hope, Lockwood and Lockwood, The interests of the potential child, edited in Kuhse and Singer (above n323) at p.116
A further age associated reasoning is that harm may be caused through the potentiality of an older mother, being less able to cope with the demands of motherhood as effectively as their younger counterpart. This argument seems somewhat sexist in that men are granted the right to fatherhood in their old age, yet a woman will be deemed inadequate and incompetent. When juxtaposing an older woman who gives birth naturally with an older woman who seeks assistance one can establish that questions are not raised on the likelihood of potential harms being faced by her child. It seems that natural conception by a woman in her forties seems generally acceptable. Arguably this could be that the natural pregnancy is one, which largely remains in the private sphere.

Potential harm to a mother can be of a physical or, due to its highly charged emotional grounding, a psychological nature. Wagner and St Clair provide a synopsis of the physical harm likely to be expected following the use of fertility drug treatments essential in stimulating the ovaries to heighten the chance of a successful pregnancy. "Complications linked to the superovulation by fertility drugs include ovarian hyper stimulation syndrome, cysts, and coagulation abnormalities leading to thromboembolism, stroke, myocardial infarction, molar pregnancy, and ovarian cancer. Ectopic pregnancy rates are high, but it is not clear whether this is due to IVF/Embryo transfer or to pre-existing tubal disease."³⁴⁹

Others outline that the use of one dangerous drug in the treatment, known as clomiphene citrate can have disastrous resulting consequences including; birth abnormalities, a long lifespan of the drug in the body, visual problems in both mothers and children and unpleasant side effects including nausea, dizziness and emotional instability.³⁵⁰

Furthermore the drug can lead to the unnecessary consequence of the effects of a multiple birth. This is the result of a greater number of embryos being cultured in vitro and transferred into the uterus. Therefore the increased rate of pregnancy is a result of the greater number of embryos being transferred; this can be illustrated by the highly publicised case of Mandy Allwood who gave birth to octuplets. Such births bring to attention risks of survival to term and birth abnormalities.

³⁴⁹ Wagner and St Clair quoted in Thompson, Reproductive narrative, gender, reproduction and law, 2003
³⁵⁰ Rowland, in Kuhse and Singer (above n323) at p.97
They also bring about theories of consequential morality following their survival, and the burden they will place on their parents and on society;

“If they do survive the neonatal period their care takers face extra-ordinary demands in relation to provision of food, nurturance and physical care. Little is known…about how parents cope or the extent to which they can obtain help and support. [In terms of] community provision higher order multiple births [have] become of increasing concern. The usual demands made on behalf of these children are not only on the health services but also on social services, which are already stretched as a consequence of the implementation of welfare policies transferring care to the community.”

However fertility clinics to avoid the problem of multiple births have limited their cultured embryo transferal to a maximum of three per cycle. This therefore flaws such arguments objecting to IVF due to multiple birth risks.

As well as the inherent physical risks, objections and disdain to the practice is followed through by the imminent psychological risks involved. The emotional roller coaster of infertility may evoke feelings of both mental and physical stress. Without a supportive foundation feelings of self-worth and self-esteem could gain an ultimate low. As well as images of one’s body. However objections based on mental harm may be unfounded when taking into account the greater good, desire and desperation for a child one may argue the emotional roller coaster or even for that matter a physical roller-coaster is worth the ride.

4.4 - IVF Resource Allocation - Justice

The often discriminatory and unjust refusal of certain individuals or couples to treatment is amplified by the fact that publically funded resources are scarce. There is simply not enough to go round, therefore harsh selection criterion are justified on the basis of ensuring allocation to individuals who harbour the best possible success rates. Thus couples are

351 Price, in Thompson, 2003
competing with one another and the winner benefits by receiving treatment cycles. It is for this reason why again age is an issue.

Success rates tell us that the effectiveness of treatment is significantly reduced, as a woman grows older; therefore refusal in offering treatment to women over 35 is just, as it falls on the notion of effective rationing.

Refusing older women is not irrational when balancing economic expenses against success rates. However that is not to say that older women cannot seek treatment by paying the price in private clinics. Arguably some will argue is unfair, and will result in treatments being more accessible to richer older woman, who can afford to pay privately, than their poorer counterparts. The refusal of services to older woman is arguably paternalistic, ‘given that we would not consider to deprive 40-year old women of natural pregnancy, it seems paternalistic in the extreme to deny them assisted reproductive services on grounds of age alone.’ After all there is still a chance of success, surely one could argue trying is worth the risk and it is better to try and have hope than to entirely give up.

Another divisive factor which influences the resource allocation of treatment is the weight of the woman, as being either overweight or underweight is associated with reduced fertility. St Marys Hospital IVF guidelines further clarify this ‘if you are overweight, it is difficult to see the ovaries on a scan and dangerous to undertake a laparoscopy or have a general anaesthetic. We treat women who are close to their ideal body weight for the height.’ Again this may seem unfair and unjust to woman who are not at their ideal weight, however any arguments against a ruling will arguably fall flat on the notion of effective rationing and success rates.

Following the ruling in the Harriott case, discussed previously, some clarity was made as in what can and cannot be ruled as unfair and therefore reviewed by the courts. It was clarified that ‘…refusal of treatment on non-medical grounds could be reviewed by a court” however “…it would be unlawful to reject a patient because of her race or religion or other irrelevant

352 Mason and McCall, Law and Medical Ethics, 2013, p.275
353 Wang et al, 2000, Body mass and probability of pregnancy during assisted reproduction treatment: retrospective study, (British medical journal vol 317) p.1320
354 Quoted in McHale and Fox, Healthcare law: text, cases and materials, (Sweet and Maxwell 1997), p.671
grounds.\textsuperscript{355} This affirmed the notion that treatment is generally refused due to a low success rate and refusal on this ground is permissable. Taking into account the lack of public funding available, strict criteria is justified on the ground that resources should be allocated where they will be most effective.

Some critics however form the conservative view that funding should not be made available at all. Brock states that ‘\textit{According to these critics, infertility is best understood not as a disease but as an incapacity, in which case infertile individuals are not ill and needing treatment to restore their health, but instead are simply unable to perform a socially undesirable function.}'\textsuperscript{356} This however is an extremely narrow view, and can arguably be said to come from individuals who have either already had children or have no desire to have children. The relationship between public funding and infertility treatments is therefore one of hostility, Brazier suggests that ‘\textit{…one woman’s right to reproduce would have to be weighed against her mother’s right to preventative care to ensure breast cancer is detected early enough, against her grandmother’s need for a hip-replacement, against perhaps her great grandmother’s life itself.}'\textsuperscript{357}

Furthering on Brazier’s sentiments Kass states, ‘\textit{much as I sympathise with the plight of infertile couples, I do not believe that they are entitled to the provision of a child at public expense.}'\textsuperscript{358} Others however do not criticise the very fact that public funding is available, rather they criticise the ways in which this funding is used and argue that effective remedies to cure infertility should be developed rather than techniques such as IVF be used to bypass the problem.

When looking closely at the practice however one can argue that if IVF was to be used in the strictest sense, in order to offer supplementary support to those who cannot conceive naturally we can rule out providing IVF to older women, single and homosexual couples. In that these groups would not have the opportunity to conceive naturally therefore they should not be granted assistance at all as the right has not been befallen on them in the first instance. Wikler when discussing this in relation to single and lesbian women put forward that the ‘\textit{lack of male reproductive partner may be a misfortune, or a preference, but it is not}'}
a disease state\textsuperscript{359} this reiterates the notion that refusal in these circumstances will not be granted as there is no evidence of a medical condition. These groups would therefore be excluded from receiving such treatment. However arguably this objection in modern society is discriminatory, as society has evolved, familial relationships are not viewed in the same light they once were, they have moved with the times.

It seems therefore that although objections of an unjust nature have surfaced counter-arguments on rationality of efficiency are in place to strike down such objections.

4.5 - Surrogacy

Four prominent concerns regarding surrogacy from a moral perspective stand out, the concern that surrogacy would undermine autonomy, dehumanise or commodity the mother and child; cause harm and cause injustice amongst commissioners and surrogates.

4.6 - Surrogacy and Autonomy

One can argue that at the foundation of surrogacy there is an entrenched battle between autonomy and paternalism. Provided that woman are not unduly influenced, surrogacy empowers them to take full control of their reproductive freedoms and effectively do as they please with their bodies. Although surrogacy is not completely prohibited in the UK as discussed earlier, it is not duly permitted and encouraged either. This is the paternalistic influence of society aiming to disarm women of their rights and freedom to use their body as they wish.

Thus one may ask, why if not unduly influenced a woman would want to exercise control over her reproductive capacities for the benefit of another. The most obvious motivation is the financial gain of such a transaction, however money is not always the single motivator and it is often the plight of infertile friends or relatives to whom a surrogate may feel she

\textsuperscript{359} Jackson (above n250) p.200
wishes to provide the gift of life.\textsuperscript{360} Lori Andrews in her study on surrogates found that 75 per cent of surrogates found the most rewarding aspect of surrogacy to be helping to create a family.\textsuperscript{361} Andrew’s from her study found that women who enjoy parenting themselves ‘describe tremendous psychic benefits from helping someone else meet a joyous life goal.’\textsuperscript{362} In the same way, Phillip Parkers study found there was no single motivation for woman wanting to become surrogates but an amalgamation of motivations including appealing financial results, the enjoyment of being pregnant and the satisfaction of giving the ‘gift of life’ to another.\textsuperscript{363} Follow up interviews with surrogate mothers conducted by Fisher and Gillman discovered that the majority of surrogates found the experience to be positive and fulfilling.\textsuperscript{364} Even the Brazier report went so far as to acknowledge ‘many women have found being a surrogate an emotionally rewarding experience, with no obvious ill-effects on them or their families.’\textsuperscript{365}

Thus surrogacy is the generous giving from one woman to another and the beneficence of the surrogate’s act of giving is evident. However critics argue that the autonomy in the decision to give this ‘gift’ is impaired and therefore should not suffice. This is because ‘it is simply not possible for a woman to bear a child for someone else to be fully informed and entirely voluntary.’\textsuperscript{366} They base their argument on and stress that before conception a woman is not to know whether she will be able to hand over her child after birth, obviously this is due to the bond she forms with the foetus during gestation. This as Dion Farquhar describes reflects the indissoluble bond created during pregnancy, and the presumption that hormonal changes associated with pregnancy inhibit rational choices.\textsuperscript{367} This has negative implications on women who wish to act as surrogates and hand their babies over upon birth as it assumes that there is no rationality of thought.

Interestingly Jackson contrasts the rational choice argument with that of putting a child up for adoption six weeks after its birth and destroying a foetus during pregnancy. These are emotionally charged situations, during which any decisions and thoughts made will be concocted with hormonal irrationality. Thus it is arguable why the decision of a surrogate

\textsuperscript{360} Re Adoption Application [1987] Fam 81
\textsuperscript{361} Jackson (above n250) at p.300
\textsuperscript{362} Jackson (above n250)
\textsuperscript{363} Jackson (above n250)
\textsuperscript{364} Jackson (above n250)
\textsuperscript{365} Jackson (above n250)
\textsuperscript{366} Brazier, para. 4.26
\textsuperscript{367} Jackson (above n250) at p.301
\textsuperscript{368} Jackson (above n250)
mother to hand over her baby following the birth should be held as a decision of autonomic flaw.

Many critics are doubtful of this relationship between genuine autonomy and the impairment of surrogates, maternal instincts. They argue that the experience of pregnancy and giving birth creates inalienable duties that no woman would relinquish unless coerced embodies a curiously traditional conception of motherhood. This opinion is parallel to that, that a woman’s decision form a surrogacy agreement is an exercise of her empowerment as her reproductive liberties as she will always be bound by maternal instinct, as ‘childrearing is a women’s natural destiny.’ However feminist arguments go against this in that the sole purpose for a woman’s existence is not for the purposes of carrying a child and therefore they negate any facet of maternal arguments.

Some women such as Shulamith Firestone also go as far as stating pregnancy to be a barbaric act and go even further to state that they look forward to the time when technology would free women from the oppression of biological reproduction. Firestone concludes that so long as women are tied down with reproduction they will never be free. However one could argue that it is not the biological difference between a man and a woman which oppresses a women; but the social status afforded to a women which brings about feelings of oppression, therefore it is not biology which needs to be changed, but the attitudes of society.

Others argue that a woman’s autonomy may be undermined by the inherent pressure they may be facing; they may therefore be unduly influenced and coerced to take part and lease their womb to a distraught friend or family member. We must remember that at the heart of every intra familial surrogacy arrangement must be feelings of emotion, love and compassion. A woman’s ability to think freely will no doubt become clouded by emotional and social pressures they may be facing to act as ones surrogate. A woman may not want to let the commissioner down and arguably knowing that someone’s happiness rests on your shoulders and literally on the delivery of a promise, will no doubt bring about immense feelings of stress, even irrationality.

368 Jackson (above n250) at p.302
369 Jackson (above n250)
370 Firestone in Kuhse and Singer (above n323) at p.103
371 Firestone in Kuhse and Singer (above n323)
If financial gain is the main motivating factor one can argue that this negates the formation of a free informed decision, as ones vision is clouded by the pound signs. The dangers of irrational decision-making may bring uncertainty and the future of the surrogacy arrangement may be acrimonious and end messy. Therefore one can argue, the ability to act autonomously and rationally may be tainted in a variety of ways, arguably the biggest argument is that a woman cannot say that she will relinquish her rights upon the birth of the baby as during the time in which she agrees to relinquish all parental rights up until the birth, she has developed a bond with the baby. However that is not to say that autonomy is the main principle, which brings down surrogacy as a viable societal option, as we will see.

4.7 - The Commodification of Surrogacy - Beneficence

There is general consensus that, children whether a result of a normal pregnancy, assisted reproduction or surrogacy should not be used as mere ends, but as ends in themselves. Matthew Tieu considers that the impact that surrogacy has on the relationships it produces, adds to this idea of objectification. Tieu notes that a surrogate mother will in order to be able to break the natural bond that she may have with the child go through a process of self-deception. This is a form of concealment of the issues that are potentially an expression of exploitation of the surrogate. Those who take such a view also rely on evidence that suggests surrogates use a process of ‘cognitive dissonance reduction strategies’.372

This was demonstrated by a study undertaken by Van Zyl and Van Nierkerk who highlighted common views that surrogate mothers developed in respect of their relationship with the child; “I don’t think of the baby as mine. I donated an egg I wasn’t going to be using. The baby isn’t mine. I am only carrying the baby; and I am strictly a hotel. They interpret this to be a state of denial. Once the mother has denied her status as mother and reduced it merely to a ‘human incubator’ in that their relationship is nothing more than one of ownership, the child being the ‘product.”373

Paul Lauritzen considers surrogacy as offering a service and surrogates as renting out their wombs.\textsuperscript{374} He considers that the language of ‘gestational services’ does not properly acknowledge the fact that women place their entire body under risk and strain, as with any other pregnancy, and not simply an isolated organ. Lauritzen notes that paid surrogacy is ‘dehumanising because it treats women and children as fungible commodities’.\textsuperscript{375}

Margaret Radin defines this fungible object is defined as one that ‘can pass in and out of a person’s possession without effect on the person as long as its market equivalent is given in exchange.’\textsuperscript{376} Both the child and the surrogate can be viewed as fungible objects, a surrogate can be replaced if she fails to live up to the expectations or agreement and the child is able to pass literally in and out of a surrogates body, under this perspective, without much effect. There are dangers surrounding surrogacy becoming a transaction and a service provided; this is therefore a justifiable objection.

A link is made between surrogacy and prostitution, by Anoton van Niekerk and Liezl van Zyl who state that it is not the fact that both of these acts are a form of alienated labour but that in both cases a physical capacity (sexual intercourse and gestation) that should be afforded special respect, is degraded to a form of alienated labour.\textsuperscript{377} The Brazier report founded that any payments above reasonable expenses would have to be regarded as “a form of child purchase.”\textsuperscript{378} In support of this Field argued that ‘society…has an interest in keeping certain subjects outside of the market economy. The transfer of a child is one of these subjects.’\textsuperscript{379}

Following on from Fields sense of the immorality of such transactions within society Radin states that “if a capitalist baby industry were to come into being…how could any of us…avoid subconsciously measuring the dollar value of our children? How could our children avoid being preoccupied with measuring their own dollar value? In the worst case, market rhetoric could create a commodified self-conception in everyone, as the result of commodifying every attribute that differentiates us and that other people value in us, and

\textsuperscript{375} ibid, p.9
\textsuperscript{378} Brazier, para 4.35
could destroy personhood as we know it”.\textsuperscript{380} This would give rise to an overtly commodified society where selfishness and materialism is prevalent.

Martha Nussabaum however in parallel puts forward that every adult of working age with the exception of the independently wealthy, takes money for the use of some part of their body.\textsuperscript{381} Adam Smith goes further to draw analogy between prostitution and opera singing, acting or dancing on the grounds that ‘certain very agreeable and beautiful talents’ should never be exploited for financial gain.”\textsuperscript{382} These views therefore follow a trend that surrogates should be paid and any service a woman provides as a surrogate should be viewed as any other service provided within the market place. However others argue that those who chooses to fulfil surrogacy as a career can be similarly described to those partaking in prostitution as the lazy person’s way of exploiting their natural resources.\textsuperscript{383} When prescribing surrogacy as an authentic career route, Overall asserted that;

\begin{quote}
“It is not and cannot be merely one career choice among others. It is not a real alternative. It is implausible to suppose that fond parents would want it for their daughters. We are unlikely to set up training courses for surrogate mothers. Schools holding ‘career days’ for their future graduates will surely not invite surrogate mothers to address the class on advantages of ‘vocation’. And surrogate motherhood does not seem to be the kind of thing one would put on ones curriculum vitae.”\textsuperscript{384}
\end{quote}

Overalls assertion in current society is extremely farfetched, it hangs on the notion that women would actually aspire to become surrogates and this is the career they would want to shape and train for. Contractual surrogacy as a profession would be unwelcome in our current morally upstanding society, if we were to hypothesis that Overalls assertion was to materialise arguably it would be met with disdain and immoral connotations. However arguably the service fulfils a general need, with great confidence we can state that the desire to have children is something so intrinsically linked to human nature that the need will never go away. However in the same vein surrogacy cannot be a practice which young girls aspire

\textsuperscript{380} Radin, p.1921
\textsuperscript{381} M. Nussabaum, \textit{Sex and social justice}, (Oxford University Press 1999), p.276
\textsuperscript{382} ibid
\textsuperscript{383} L. Purdy, in Kuhse and Singer (above n323) at p.106
\textsuperscript{384} Overall in Kuhse and Singer (above n323)
towards, becoming a surrogate does not require a talent or an artistic flair such as dancing or singing, therefore surrogacy cannot be characterised as being the same.

One benefit, which attracts women towards surrogacy, is that it constitutes ‘a low-tech approach to a social problem, one which would slow the impetus toward expensive and dangerous high-tech solutions.’

Such as the ones, which are likely, to put women at the hands of doctors and scientists within medical establishments, where arguably the woman has little control. Thus surrogacy can be viewed as the only reproductive technology, which enables women to remain in control. Although this may be beneficial in the earlier stages, if something goes wrong and things get messy there will be outside interference. Arguably this therefore does not justify surrogacy.

The most concerted argument is put forward by Purdy who states that women have until now carried out reproductive labour for free, and that paying women to bear children should force society to recognise this as a socially useful enterprise and children as socially valuable creatures. This argument goes against pregnancy and childbirth being the fruits of a loving relationship and argues for the selfish act of recouping some remuneration for one’s own selfish needs and desires.

4.8 - Surrogacy and Non Maleficence

Some object to surrogacy under the principle of non-maleficence in that unnecessary harm will be caused. Harm in the sense of surrogacy is threefold, there is the risk of harm to the surrogate mother, harm to the baby and harm to any existing children the surrogate may have.

385 Purdy, in Kuhse and Singer (above n323) at p.110
386 Purdy, in Kuhse and Singer (above n323)
Harm in relation to a surrogate mother can take various guises; the most obvious and grave harm a surrogate mother could face is maternal morbidity, although with advancements of technology and greater experience this in today’s western society is quite rare. That is not to say however that other risks are unavoidable. There are various other physical risks and complications associated with pregnancy, therefore surrogacy may be said to undermine non-maleficence. However this assertion is arguably flawed in that the risks a surrogate mother may take are arguably the same risks that are faced by a natural mother, therefore it can be argued as to why a surrogate should be looked at any differently. Secondly surrogacy to a large degree is extremely less hazardous than risks others may be exposed to such as soldiers in the army and policemen. Therefore arguments opposing surrogacy on the basis of physical harm to the surrogate are defective.

Another theory of the harm, which a surrogate will face, is allayed by Purdy who puts forward that ‘women cannot be involved in contracted pregnancy without harming themselves, as it is difficult to let go of a child without lingering concern.’ This notion plays on the deep emotional harm, which a surrogate will face, having carried a child and formed a bond with that child. It is questionable that they will feel a much stronger sense of post natal depression than a woman who gives birth in normal circumstances and keeps her child as a surrogate mother will have to bear twice the loss, in the first instance following the birth and again when handing the child over to the commissioning parents. However feminism would rule this out completely in that not all women have a maternal nature and therefore not all women will find it difficult to let go. This argument is also flawed in that it positions women as emotional beings incapable of letting go of a child due to their emotional imbalance as an inherent feature of their femininity.

The welfare of a child is of paramount importance, the questionability of whether surrogacy will harm the child born is therefore of tantamount concern. The possibility of a child finding out that he was bought during a contractual pregnancy agreement and the sole reason for his existence was to be purchased may cause extreme distress and extreme psychological damage. This as Jackson notes is ‘thus assumed to be qualitatively worse than learning that your genetic father was a sperm donor, or that your genetic mother was an egg donor, or that you were conceived outside of your mother’s body.’ This view suggests that the main cause of emotional trauma would be the realisation that there was a price tag put on you.

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387 Purdy, in Kuhse and Singer (above n323) at p.108
388 Jackson (above n250) at p.295
However there is nothing to suggest that those who were born through a surrogacy agreement, not of a commercial nature, but rather for a family member or friend the same trauma would not be consequent. The Brazier report takes this stance in assuming that less emotional trauma would arise from a non-commercial surrogacy arrangement.

However concerns that a child of a surrogacy arrangement, will face psychological harm are purely of a speculative nature and there is no evidence to suggest that harm will undeniably exist. Recent studies on the relationship between adoption and psychological harm suggest that the younger the child is when adopted the less likely they are to suffer from psychological harm. This can be analogised to surrogacy ‘...Since children born through surrogacy are generally handed over at birth; it might be supposed that surrogacy would have comparatively little impact upon children’s long term wellbeing.’ These results suggest that the potential for harm faced by a child has little relevance.

Jackson also goes as far as to suggest that a child may feel much more secure knowing that they were the subject of a surrogacy agreement ‘People who engage in surrogacy arrangements only do so because they have a strong desire to have a child. So unlike many children conceived naturally, these children may have the psychological advantage of knowing that their birth was planned and wanted.’ These children may arguably feel a sense of security and a higher sense of self-worth, knowing that they were wanted and highly desired by their parents before their birth.

It should be emphasised that a child born to fertile parents can too be subject to psychological damage. Jackson illustrates using the example of an alcoholic couple, their child may be exposed to extreme levels of harm, and however ‘the reproductive freedom and bodily autonomy of two alcoholics undoubtedly trumps our concern for the wellbeing of their future children.’

389 Jackson (above n250) at p.296
390 Jackson (above n250) at p.297
391 Jackson (above n250)
Arguably this brings to surface a sense of unfairness and injustice, in that fertile couples, which may desire a child much less, will not be subject to the same strict processes when exercising their reproductive freedom. Harm therefore is not a feature exclusive to surrogacy arrangements, harm is faced by children on either end of the spectrum, whether they are children born from a surrogacy arrangement, whether they were adopted or whether they were naturally conceived and remain with their natural parents. It is important to note that following their birth all children will be protected under the provisions of the Children Act. 

One must not also forget the effects a surrogacy arrangement may have on any children the surrogate already has. Wertheimer suggests that seeing their mother hand a child over, following its birth, ignites feelings of their own sense of insecurity. Although again this is purely speculative as there is no evidence to prove that these children will suffer psychological trauma. Arguably the degree of harm a child of the surrogates will face will depend on their age and whether they are at an age of understanding. The harm placed on surrogate’s children is looked at to a lower degree than that of the actual child. The court emphasises that the onus falls on the surrogate mother to explain to any children she has the basis of the surrogacy arrangement she partaken in.

The desire for a child it seems outweighs any harm caused, and though harm as an overriding objection to surrogacy may exist is not strong enough of an objection to independently suffice against surrogacy. Framing harm with the other objections against surrogacy will be weightier.

4.9 - Surrogacy and Justice

Aside from intra familial surrogacy, most over surrogacy arrangements will arguably illustrate an economic disparity between the commissioning couple and the surrogate. There are certain types of people who will play the role of the commissioning couple and another type of person who will play the role of the surrogate. Due to the financial gain arguably poorer women are more inclined to play the role of a surrogate for wealthy commissioning parents. Therefore the notion of fair access to surrogacy is questionable.

392 Jackson (above n250) at p.276
Gena Corea describes surrogate mothers as ‘breeders’ and suggests that full surrogacy facilitates the employment of third world women as foetal incubators. Field goes two steps further to suggest that ‘a fully developed surrogacy system would doubtless include shipments of frozen sperm or embryos around the world to be implanted in Third World women at bargain rates’ and ‘career women who want to be mothers (would) have the option of hiring another woman to gestate their child even if they themselves are fertile.’ Janice Raymond agrees with Field in that ‘an international market of surrogacy where women of colour could easily be exploited and hired at a lower rate than the current market price.’ This brings dystopian images of a class divide and the exploitation of the poor. With the surrogacy market open on a global scale, arguably everyone will be seeking the lowest prices therefore global competition will result in some women in the poorest countries being paid very little for their services. One can analogue this role of a third world breeder being no different to a slave. However one may argue that this ‘breeder’ role empowers women in the poorest countries, and offers them remuneration for a service during a time when there is no or little other opportunity to gain employment or remuneration.

As Jackson states however there is no evidence that these nightmare visions of surrogacy preside and that arguably we are thinking ahead of ourselves. She argues that the practice is utilised by women who are unable to physically bear a child themselves. However who knows how the future of surrogacy will pan out, will provisions prohibiting surrogates to gain remuneration other than reasonable expenses remain in place? Or will attitudes evolve permitting remuneration for surrogacy and therefore opening the doors to the ‘nightmare’ world exploiting the underclasses and the poor as envisaged above.

396 Jackson (above n250) at p.293
4.10 - Somatic Gene Therapy and Germ Line Therapy

The debate surrounding genetic engineering has also focused on two conceptual distinctions: whether Somatic gene therapy should be preferred over Germ line therapy and if genetic engineering is to be permitted by law, would it be ethically viable to permit gene therapy to simply address and alleviate illness or would it also allow for gene enhancement and modification?

Somatic Gene Therapy

The potential for gene therapy is vast, as noted earlier it would help to reduce a number of painful and life threatening diseases, and it is for this therapeutic purpose some consider that advancements in this field cannot come quick enough. French Anderson considers gene therapy as a solution to a number of our current medical problems when he states that:

“It would be unethical to delay human trials . . . Patients with serious genetic disease have little other hope at present for alleviation of their medical problems. Arguments that genetic engineering might someday be misused do not justify the needless perpetuation of human suffering that would result from unethical delay in the clinical application of this potentially powerful therapeutic procedure.”

General acceptance of this however in the form of a reproductive procedure is confined and the GTAC further clarify in their six principles conditions in which this treatment will be accepted as a viable treatment. The GTAC guide clearly states that gene therapy will be permitted in cases where it would be used to cure a ‘life threatening disease’. Concerns are raised however as whether this permitted use would be stretched to include modification of non-disease related aspects. One can argue that somatic cell therapy is more accepted opposed to germ line therapy not only because it would, ideally, deal with life threatening

diseases but because it is being propagated to tackle only such matters and it does not challenge our ethical views, however it is no more in some respects more unethical than IVF. It reinforces our view of the principle of beneficence, in that it removes human suffering from the equation, which therefore makes it easier to accept it as a viable option.\(^\text{399}\)

It would however be a misconception to assume that because it is not radically attacking what we consider as moral or that it is without limitations. One other matter that should be at the forefront is that while one may conclude that it is desirable to allow either somatic or germ line gene therapy this does not eradicate any limitations of such advances. While somatic gene therapy is considered a breakthrough and is a feasible option in contrast to germ line therapy it is still considered by some, that it is not worth the problems that such a technique would incur.

The availability of other modes of reproduction, a recurring objection, also begs the question is it needed in the first place? This can only be answered if we look at what consequences and challenges such a procedure would pose and therefore whether the benefits that could be gained justify running the risks.\(^\text{400}\)

4.11 - Issues of Safety and Risks - Beneficence and Non-Maleficence

When analysing the ethical objections of somatic cell gene therapy one can argue that there are underlined issues of a both beneficent and non-maleficent nature, the former in that although the main aim of somatic cell transfer is to alleviate diseases, reduce pain and perhaps even go so far as to cure diseases, one may argue that with the current safety risks involved scientists and doctors are not in the position to trial this on humans, as there are still risks involved which may take away any benefits, thereby undermining the ethical principle of beneficence. Risks involved may cause harm to the baby, the pregnant woman and some critics also go as far as saying the embryo, this therefore undermines the principle of maleficence, to cause no harm, as the risks and implications are at this stage unknown and unpredictable.

\(^{399}\) ibid

\(^{400}\) V. Ivanov, "Ethics and Human Genetics", in Council of Europe, "Second Symposium on Bioethics", Strasbourg, 30/11-2/12, 1993
The House of Commons in their Post Note identify a number of concerns in relation to somatic gene therapy, which have been enunciated. They consider that there is potential for gene therapy to successfully ensure ‘Gene delivery’, ensure ‘Safety of Vectors’, avoid ‘immunity’ and provide ‘Durability and Integration’, only marginally possible at the current time.\(^{401}\) The Post Note highlights that many of the single diseases are more likely to be treated, though not invariably, by gene therapy, but that in multi it becomes a perplex and more difficult task to ensure all the above. If as the Post Note, we take cancer for example this may become clear why.

However efficiency problems with vector immunity and a limited length of gene expression have caused many to rethink their position on somatic gene therapy. Initially many considered and some still do that gene therapy is simply that it ‘appears to provide just certain new methods, not something radically different. Somatic gene therapy is viewed like any other somatic therapy, although the treatment is targeting disease at a more fundamental level than ordinary treatment.’ Anders Nordgren considers that a catalyst for a revival of the general acceptance was the case of Jesse Gelsinger in 1999.

In this case an 18 year-old patient participated in an adeno viral vector gene transfer, the immunological reaction directly associated with the gene transfer was said to have been the cause of his tragic death. Such startling results although occurring in the USA are nonetheless a warning for the rest of the world and while future experimentation doesn’t mean death would ensue it is not to be forgotten or treated lightly.\(^{402}\) This is just one which has been reported and Nordgren warns there may be a number of others that have not been reported.\(^{403}\) It is all the more important to take heed from these past experiences, and understand that just like germ-line therapy somatic gene therapy can carry enormous risk even if it is not altering our reproductive cells.

Ultimately the greatest benefit of gene therapy is that it cures the person of an illness or disease, which limited and prevented them from normal life. If it works it is a great achievement. Side effects with these treatments are unlike those with other procedures, consequences could be serious as the ones mentioned above in that a person cannot

\(^{401}\) House of Commons Post Note , 2005, Parliamentary Office of Science and Technology, 240, at p 2-4
\(^{402}\) A. Nordgren, Responsible genetics: the moral responsibility of geneticists for the consequences of human genetic research, (Kluwer academic publishers 2001), p.173
\(^{403}\) ibid
change or alter their state or reverse their procedure and are therefore left with the side effects for life. While as a society we may wish to use such a technology with the above in mind it seems that currently there is no clear-cut guidance on how to achieve this safely.

These arguments in respect of safety and risks should be taken very seriously as illustrated by the Jesse Gelsinger case. It is clear that no scientist should carry out somatic gene therapy without sufficient safety precautions. However, if the clinical risks can be expected to be minor, somatic gene therapy should be allowed and should continue.404

On a similar note Alexis Rojas considers that although risks may pose a moral and practical limitation it is one that is not absent from other medicines ‘…morally impermissible consequences...are just as much possible consequences from traditional medicines.’405 Edgar and Tursz view such risks as instrumentally and practically able to be overcome with greater supervision and review. I would agree that the risks may be limited and reduced where there is greater regulation and standard guidance is to be applied consistently; however reaching a global or even state to state level consensus in some countries would be extremely difficult. 406

If the beneficence principle argument is accepted, then our bottom line should be a responsibility to maximise the benefits and minimize the risks, this I would argue can only flourish and be expected if we continue to research in a bid to continually improve. The only question then remains to what extent?

4.12 - Germ Line Therapy

It seems the real reason somatic germ line therapy is ethically opposed is that for some it would be a seed that grew inadvertently into an even more repugnant intervention, namely that of germ-line therapy. In terms of reproduction somatic gene therapy is preferred as the

404 ibid p.175
406 Such as the USA who has varied acceptance of gene therapy depending on the state.
changes made to the genes remain and affect only the individual, it is not passed down to other generations. In effect it is isolated. This being the basic premise and belief over the years some have come to question whether this really is the case. Some consider that somatic gene therapy has the potential to affect the germ line gene. This would be an objection that would, fairly justify, according to critics a ban on gene therapy. However the fact that there is potential for mishap rather than common procedure is arguably a weak argument for an outright ban of all somatic gene therapy especially when we consider the major medical benefits that could be achieved.

4.13 - Slippery Slope to Germ Line/ The Distinction of Disease and Enhancement

A closely related argument against somatic gene therapy is that if it does not affect the germ line now it will inevitably in the future. The need for a clear cut distinction between somatic and germ line therapy is primarily made in order that we can draw a line between what is considered as appropriate and what is seen as inappropriate genetic intervention. The slippery slope argument has been concisely described by Frederick Schauer:

‘…Regardless of the term employed, the phenomenon referred to is the same. The single argumentative claim ... is that a particular act, seemingly innocent when taken in isolation, may yet lead to a future host of similar but increasingly pernicious events.’

Those that take this view, such as Anderson and Fletcher consider that if we allow somatic gene therapy to continue that germ line therapy will become acceptable so that because it is generally considered in appropriate to allow germ line therapy because we consider it immoral one should not allow somatic gene therapy either or to continue.

Yet the Clothier Committee considered a clear line could be drawn: ‘The development and introduction of safe and effective means of gene modification for this purpose is a proper goal for medical science. We therefore recommend that the necessary research continue’.  

It should also be remembered that somatic therapy is not without limitation. The GTA holds authority to decide in which cases to allow somatic gene therapy according to their point of reference:

‘To consider and advise on the acceptability of proposals for gene therapy research on human subjects, on ethical grounds, taking account of the scientific merits of the proposals and the potential benefits and risks.’

In any event the GTA as a regulatory body regulates and controls the extent of gene therapy, for actions involving germ line therapy prior approval from the GTAC must be satisfied. It would not simply be ‘allowed’. There would be immense social, political, and technical boundaries that germ line would need to overcome before it could realistically be said to be accepted. It is arguable at least that this would be sufficient to keep if we need to keep a boundary between the two from existing.

4.14 - Germ Line Gene Therapy

Germ line therapy like somatic gene therapy can be used to treat serious diseases but it can and does extend further to directly altering an individual’s germ line and thereby making irreversible changes to future generations. A number of objections are raised in rejection of germ line therapy and arguably some of the strongest rest on the idea that it acts as a conduit for infiltrating unwanted uses such as enhancement rather than therapeutic, social problems such as undermining the human gene pool, and social justice.

409 Clothier Report, at 84
4.15 - Floodgate for Enhancement and Perfect Beings

One of the growing concerns is that if we permit the use of germ line therapy the doors would be opened for the misuse of science for treatments that do not fall within the therapeutic umbrella but rather for enhancement purposes. These may be said to be differentiated by their aims: therapeutic treatment aims to repair or cure a disease or injury whereas germ line enhancement aims to improve the condition of the organism beyond its normal healthy state. However there are three potential problems with such a distinction and germ line as enhancement and these are: what can be classified as normal, is a distinction between disease and enhancement, and, is enhancement a feasible prospect?

4.16 - Distinction

The lack of clarity when it comes to an objective definition for the normal state means that therapeutic and enhancement uses of germ line engineering are likely to be subject to change and reflect the times and its context. Arguably this fickle nature means what may be acceptable and considered therapeutic today may be seen as enhancement tomorrow or vice-versa.

Although this lack of clarity results in an unclear distinction, problems also arise if a potential distinction was to be made. Enhancement is objected on the grounds that it goes further than just repairing or curing but it alters and changes by improving the human being. The distinction is blurred however if we consider what has been termed as “traditional enhancement or environmental enhancement. Sorensen considers that maybe genetic enhancement such as IQ and memory boost when, and if ever, they become possible – are not as different from environmental enhancements such as private schools, tutors, camp and private lessons.”411 Like Sorensen one can see that parents exert a degree of control on children and also have access to various means that can be employed to enhance

themselves; whether this is through make-up, dying their hair or ensuring their children attend certain schools.

Bostrom and Roache also share this view, that a distinction based on therapy and enhancement is not consistent. They reflect on the contrasting side of modern medicine which contrary to its intended use does not always limit itself to simply curing and repairing.

For example they note that standard contemporary medicine ‘includes preventive medicine, palliative care, obstetrics, sports medicine, plastic surgery, contraceptive devices, fertility treatments, cosmetic dental procedures, and much else.’\(^{412}\) They suppose that because of this indifference they should be treated the same. Others also consider this important for consistency and preventing inequality. There is a presumption that because there are similarities that they should be allowed to be used the same that state intervention should not be applied in either case. It is likely that there would be similarities as both therapeutic and enhancement employs the same process.

Sorensen in contrast, highlights issues based on the biomedical principle of justice, in that while both environmental and genetic enhancement exacerbate inequality by allowing parents who are of a certain class to ensure economic and general advantage of their children by having access and using such means, or potentially being able to, thereby increasing their status and position in society. Arguably those in a more favourable economic position are being treated much more favourably, resulting in inequality and unfairness for the lower classes. It is arguable that this inequality will result in an uneven society whereby the wealthy, upper classes, become a super class.

4.17 - Normality

What is normal is arguably subject dependent. Some consider that the term normal in actual fact applies to both therapeutic and enhancement thereby undermining a vivid distinction between the two and that the problems arise when we try to put a stamp on what is normal. John Harris considers that:

"Enhancements are not plausibly defined relative to normality, to normal species functioning, nor to species typical functioning." He further considers that "The overwhelming moral imperative for both therapy and enhancement is to prevent harm and confer benefit. Bathed in that moral light, it is unimportant whether the protection or benefit conferred is classified as enhancement or improvement, protection or therapy.

He considers that in the context of evaluating enhancement and therapy in context of diseases is that the problem should be evaluated independently of what is normal. Instead the problem is ameliorated not by reference to what is normal but to what is better. The purpose of both therapy and enhancement in his view is thus not to return people to their status quo of normality but to improve them.

Arguably like Harris one can see that reference to normal functioning does not acknowledge for the fact that this is of no benefit to a person for whom normal is a tragedy. The moral dilemma is not simply justified by normality. A person who suffers from a serious disability is not comforted by the normal functioning as in effect she is returned to her disabled states, that is if we accept that disability or disease is an exception to the norm rather than the norm. Bostrom and Roache in a similar tone suggest that the cure in effect may be worse than the disease.

They thus reject that normal functioning necessarily impacts on the ethics of capacities of those who use such interventions as enhancement. This may be the case, however I would disagree with Harris in that when reference is made to normal it does not necessarily revert them to that last state they were in but the state they would be if they did not have the disease. The diverging opinions however do highlight the quandary that enhancement leaves us in; in that it gives us no consensus as to normal.

It is however questionable why it is important that a set definition of normal is made? On the one hand it may guard against the potential misuse or skewed versions of normality by

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413 John Harris, Enhancing Evolution, (2010), p.36
414 Ibid, p.59
genetic enhancement. This is possible through use by some people for reasons that are for some repugnant or wrong, which by being allowed are imposed on others, and eventually come to be common, setting the normative standard. The danger then is that what is normal is shaped by certain people and reflects their version of normal. On the other hand to insist on a definitive normality means any divergence from the ‘norm’ would result in those who do not conform being considered as abnormal.

4.18 - Feasibility and Lack of Knowledge

A further dilemma surfaces, whether it is feasible that germ-line enhancement is a realistic prospect. There are a number of potential uses of germ-line genetic engineering and in the context of enhancement there are arguments that one-day intelligence, height, memory, sex, and or mood to name a few traits are likely to be susceptible to manipulation and improvement.

Hood considers that simple traits and complex traits may one day be possible to master. He notes that human traits being dominated by a single gene, such as susceptibility to infectious diseases such as AIDs, could in the future, once the technical and ethical issues have been resolved be mastered by germ-line therapy. He elaborates further and writes in respect of complex traits such as attractiveness or mood; “Complex human traits are encoded in many genes representing complex informational pathways. Thus complex traits include most interesting human traits- the ability to learn, memory, consciousness, physical attractiveness, and so on. It would be inappropriate to consider engineering these fundamental human traits before we understand the information pathways and biological networks that encode them… that may take decades or more”. According any enhancement for improving oneself is limited realistically to single traits and reduces the alarming picture of entirely reshaping of the human at present.

Another argument against the potential development of complex traits is that genes coexist with and work with other genes. They as Judson considers act in concert. He considers that ‘general heritable qualities of body or mind, our longevity, our intelligence, our particular

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talents, are the product of many genes in exquisite balance among themselves and with the environment'. If we understand genes as working in harmony together then unlike Hood, Judson considers that any form of germ line intervention would be infeasible.416

Whichever view we accept, we come to the same conclusion that presently no sufficient scientific knowledge is available to make enhancement or germ line therapy a realistic prospect at least for some even if only in part. Hood’s theory is left open, as he does not exclude the likelihood of even complex traits becoming manipulated, at a later stage but still nonetheless one day. What prevents such traits from being manipulated is the potential of moral and safety issues being surmounted. The latter arguably being the most difficult to overcome, thus objections are justified.

4.19 - ‘Designer’ Babies

One of the most troubling aspects of enhancement technology and use of germ line engineering is that we are able to ensure our future offspring are predisposed with carefully selected traits; we are not only improving but solidifying a blue print for smarter, healthier, and or better looking social beings. This may result in the creation of a race of super humans.

Arguably this would go above and beyond the principles of beneficence and autonomy, parents may argue that traits are selected to benefit a child, however there is no evidence to suggest that the benefit is required in the first place.

Sandel premises that to ‘remake nature, including human nature, to serve our purposes and satisfy our desire fails to exemplify, and may even destroy an appreciation of the gifted character of human powers and achievements and this is because to appreciate children as

\[416\] ibid, p.20
gifts is to accept them as they come, not as objects of our design or products of our will or instruments of our ambition.\(^{417}\)

Ability therefore to genetically alter the make-up of our offspring goes against nature, children are being seen as mere goods. One can see how this can be a true version of reality where those who are infertile are exploited by institutions and industries bent on cashing in on their dilemma by providing a market for reproductive material and services and reducing reproduction to an enterprise. One can also consider that to parents who accept that fashioning, designing or tailoring a child with certain traits can equally add to this commodification by condoning it.

Bostrom considers the contrary and states that; ‘some mothers and fathers might find it easier to love a child who, thanks to enhancements, is bright, beautiful, healthy, and happy\(^{418}\)’ Bostrom introduces the issue of love in an extremely superficial context. However Sandel, does not suggest that children are loved less but that they are mere commodities and stifled through a desire to re-create perfection. In this way whether children are enhanced, or not does not reflect whether a parent will love them.

Even it was implied it is more morally repugnant that we accept it easier to love those that are enhanced. It is their intention as to selecting certain traits that creates the unease as it implies that certain traits are worth keeping and others are not; that perfection can be attained. The alternative to acceptance is to reject and in doing so implies an open-ended view that there is potential for better and that this better is more beneficial than current state.

Savulescu considers that parents have a duty, not only to promote their child’s health, but they are also ‘morally obliged to genetically modify their child so that the chosen characteristics provide them ‘the best opportunity of the best life.’\(^{419}\) Savulescu unlike Sandel does not seem to distinguish between health and enhancement and as Sandel states it is wrong to see health in a wholly instrumental means. While parents exert a great deal of

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\(^{419}\) Aziz, Ahmed, and Clarke, (above n24) at p.48
control over children whether through education to enhance their chances in life or caring for them to help their health to flourish this is one thing to nurture and another to control genetics that cannot be rebelled or deselected again. The result would be that if health was not considered as a ‘bounded good’ then parents would be ‘drawn into an ever escalating ‘arms race’. I might add that this arms race produces a society bent on eradicating any traits that do not bring success.\textsuperscript{420}

There are parallels with what may be commonly termed ‘hyper-parenting’ and genetic enhancement. Hyper-parenting may be reflected in parent’s overzealousness to encourage and push children to perform to certain sports (from early ages), moulding and managing children’s careers. If anything this demonstrates that enhancement is an extension of our current times, times that show we are engrossed with seeking utopia. However pressuring children to live up to these expectations it will reduce us to simply trying to fit in to the new ‘norm’ of enhanced beings and discriminate those who do not conform.

The effects of this on a child may also be disastrous, although again there is no evidence, how would a child feel having found out that they were a mere product of their parents desires and that they were created in a certain way to capture the love of their parents. Arguably this undermines all four bioethical principles in regard to the child; their autonomy is being undermined as their parents have already preconceived decisions about them and their future. Their beneficence in that they are a mere product of their parents desires and therefore a means to an end for their parents, beneficence also ties in with non-maleficence in that more harm may be created both physically and psychologically than anticipated and justice in terms of the injustice faced by the child in this situation, arguably this may taint their own images of self-worth and self-image.

\textbf{4.20 - Sex Selection – A Step Towards Being Perfect}

One such way to make perfect our offspring is the use of technologies such as IVF and PGD. The latter could determine the sex of the child. This is restricted by the HFEA 2008 where although it is permitted to use methods to establish and determine the sex where

\textsuperscript{420} Aziz,Ahmed,,Clarke (above n24) at pp. 48-49
there is a serious risk of mitochondrial disease, especially sex-linked disorders. Authorisation for fulfilment of selfish reasons is not allowed and would be a controversial step. In 1990 Imperial Cancer Research Fund said to have identified a human gene that determines gender. Gene probes, which are said to be able to identifying male bearing chromosomes, have said to be developed for IVF treatments at Hospitals and Universities. These advances are still progressing and developing; however they brought attention to the potential use for controlling sex selection and ethical concerns in their potential uses of genetic engineering for sex selection. Many fertile and infertile couples can enjoy the use of PGD or IVF or screening of cells for the gender or ultrasound pictures.

The difference as Matthew Liao defines is that using genetic engineering to select the sex of the child would entail putting the ‘new gene into a virus, thus using genetic engineering for sex selection is then to put the gendered genes of the desired sex in a virus-like organism and use germ-line engineering to alter the sex of an embryo’. This thus moves away from merely diagnostic to manipulation of the genes and here lie the ethical concerns.

One important matter that Bostrom and Roache note is the significance of ensuring the interest of children as being paramount and providing that we do so justifies genetic enhancement falling in the middle ground and as a means to ensure they do well in life. The worry is that it can lead to situations where one gendered is preferred over the other, and therefore one sex slowly gets eliminated. In this context it is arguable that the child’s interests are not being exercised, rather parental autonomy and control are the dominant features.

Sandel reinforces this view ‘sex selection is an instrument of sex discrimination, typically against girls, as illustrated by chilling ‘sex ratios in India and China…societies with substantially less men than women will be less stable, more violent, more prone to crime, or war than societies with normal distributions’ While one would argue that there is no empirical data to verify that this would thus be a generalisation, it would however be the case that generally this practice is undesirable.

422 N.Bostrom and R. Roache (above n411) at p.22
423 Sandel (above n416) at p.22
Others however consider that there is every reason for being able to select a child’s sex. Such a view is taken by Rob Sparrow who believes that the biological sex of the child will make a great difference to their life prospects. They have he states ‘have different physiologies, different metabolisms, and different susceptibilities to disease and illness’ and because of their gender they will have different reproductive options. ‘Sex differences affect both the range of life options available to individuals and their chances of success in pursuit of these options’ but that there is no argument that can ensure the preference of either sex over the other simply that they have different biological and social expectations and capacities.424

Kahane and Savulescu go further and pose the potential that if enhancement was allowed to develop that we would face a situation where gender did not really matter as we could modify so that we were neither male nor female. They disagree with Sparrow on the reasoning that choosing one over the other doesn’t dictate procreative choice, the reasons are context dependent on conditions such as prejudice and tradition and any choices should be based on the maximum information about the embryo so that after identifying the gender other traits to be looked at such as potential diseases.425

On the one hand this diametrically opposed position may not actually have much realistic impact in our society. Studies by Mehri and Pal on sex choices in relation to PGD suggest that the majority of people do not care about their child’s gender and it is only a minority that do.

He notes that from current studies that there is unlikely to be significant impact on sex ratio. But highlights that more studies ‘globally’ need to be undertaken to get a better understanding of whether there is likely to be real shifts as studies of industrialised nations do not represent a global perception of gender.426 Therefore it may not be the case that a substantially different ratio would exist as. Nonetheless these radical changes in my view

426 Z. Mehri and L.Pal, ‘Gender tailored Conceptions: should the option of embryo gender selection be available to infertile couples undergoing assisted reproductive technology?’ 34 No8, 2008, p.2) 1049 men and women aged 18-45 were asked in Germany study)
raise concerns that such freedom to select sex would not be unreasonable to foresee however it may lead to a different world and engender more problems rather than eliminating them.

4.21 - Personal Choices - Autonomy

If permitted genetic engineering would empower parents with autonomy of most decisions regarding the child. Bostrom and Roache regard that children’s interests should be an important factor when considering selecting traits for children.\(^{427}\) This is important when considering what seems to be opposing principles of parental autonomy and choice. If we take Savulescu’s stance that parents are morally obliged where faced with for example ‘a choice of implanting one of two embryos which are genetically identical except in that only one of them is genetically predisposed to high intelligence, the parents-to-be are morally obliged to select that embryo over the other, since a more intelligent child is likely to have a better life than a less intelligent one, other things being equal.’\(^{428}\)

While it may be that more intelligence means more success it does not translate into a better life, it would translate to this if success in economic terms were seen as better life. What is a better life is subjective, and everyone has different aspirations and expectations. It presupposes that simply having a selection of traits makes for a better life, it ignores social and cultural and human interactions that may undermine even the most enhanced person’s ability to have a successful or better life.

Such arguments are rooted in the premise that allowing parents the autonomy in decision-making will result in wise decisions being made and the right choices. However in reality there is a disagreement as to what is a wise decision and a right choice. There is also no way that these decisions can effectively be monitored. One can only assume that a parent generally has their child’s best interests at heart.

\(^{427}\) Bostrom and Roache (above note 411) at p.22
Choice permits variations and this may incorporate the above that is if we accept choice to be free from any restraint or limit. Such was the case for a couple in Washington USA when they decided to select sperm from five generations of deafness in family. They were met with as Sandel notes, ‘condemnation’ however an advert in the newspaper advertising payment in return for a donor with high IQ did not receive the same reaction.\(^429\)

This implies that there are certain traits that are acceptable and others that are not. Even if they could be regulated so that traits such as deafness should not be permitted it is hypocritical to the very meaning of choice.

Bostrom and Roache highlight that certain traits are valued at certain times like being pious was a highly sought after trait during the Victorian era and much less so in modern England. To this end parents should limit their preferences to traits that will benefit the child regardless of their eventual preferences and values such as intelligence and health rather than piety. Bostrom and Roache may have a point that there should be some limit but this limit cannot be enforced and is loosely a moral encouragement.\(^430\) Some consider that ‘Popular suggestions such as avoidance of disease or securing the quality of life threaten to smuggle into individual choices substantive views about human worth…citizens will end up being engineered according with a dominant set of values…\(^431\)

Even if we accept that throughout general life we have and are influenced by our environment and social networks it does not eradicate the real concern that parental choice may lead to potential risks both to society and parents. This choice is arguably also taking God’s role; in a still somewhat conservative society the objections to this are constant.

**4.22 - Gene Pool- Ecological Argument**

Apart from the underlying potential to cause disruption to the individual there are arguments that on a social level germ-line gene therapy would interfere with the human gene pool. The

\(^{429}\) Sandel (above n416) at pp.1-2
\(^{430}\) Bostrom and Roache (above n 411) at pp.22-25
\(^{431}\) Bostrom and Roache (above n411) at p137
aim of germ line therapy would be to repair a certain defect and ensure that this remedial work is carried forward to future generations. Some analysts have argued thus that future generations have a right that they inherit an untampered and unmodified gene pool. They consider the gene pool as a common heritage that is claimed by all human species equally. The effect of germ line therapy would be to tamper with hundreds and thousands of years of evolution processes. Robert Morrison considers that:

“The nominalist biological position is that there can be no such thing as an ideal man. Men are brothers simply because they all draw their assortment of genes from a common pool. Each individual owes his survival and general wellbeing partly to his own limited assortment of characters and partly to the benefits received through cultural interchange with other individuals representing other assortments. It follows that the brothers in such a human family have a sacred obligation to maintain the richness and variety of their heritage—their human gene pool and their common culture. Every man in a sense must become his brother's keeper, but the emphasis is on keeping and expanding what both hold in common, not on converting one brother to the ideal image held by the other.”

Others take issue with this argument; they consider that a gene pool does not at least in genealogical terms exist or that it is material in nature. Those who take such a view consider that there is no tangible lineage of the gene pool or integration as suggested by Morrison. After all we inherit our genes from our parents and no gene integration on at least a biomedical level is evident there. They equally consider that there is no control or power over the gene pool so that we have a duty to guard or protect or manage.

The human gene pool accordingly has been undergoing changes and as an abstract phenomena been evolving through time. Therefore there is according to this view no difference in the changes made by nature and technology. Yet clearly one is natural and one is intentional.

Once the gene pool has been altered, there is no going back and no code for reversing the process. The difficulty in considering and discerning what constitutes a disease as in somatic germ therapy is even more exasperated here because of this. It brings to focus a serious issue that germ line may be more open to abuse. The fickle nature of social acceptance may mean that even when there is a line between a minor disease and a serious disease or simply a trait that is defective that attitudes change according to our social perceptions. Ironically whatever changes are made in germ line therapy remain forever, grave danger may ensue form this as people may be left with changes and wrongly altered traits. Evolutionary theory thus recognises that what is a good modification at one time may become lethal when circumstances change. There is an assumption that the choices made today would be negatively viewed by future generations. We do not have forsyth to be able to tell which traits would be acceptable or unacceptable.

For Capron while germ line therapy may go beyond ordinary medicine and interfere with human evolution, it must be admitted that all forms of medicine obstruct evolution. But that is inadvertent, whereas with human germ line genetic engineering, the interference is intentional. However he does not consider that 'the results produced by evolution at any points in time are hardly sacrosanct' producing as they do genetic diseases, he concludes that intentionally interfering 'in humankind's genetic inheritance is not a sufficient reason to foreswear the technique forever…'435

Similarly one final point on this issue is that whether the impact of the technique is likely to be so drastic is questionable. Ultimately there would be a select number of people willing to use the technology firstly and secondly if only certain diseases were selected then an even lower number of people would be eligible. To have any impact on evolution, genetic enhancement would need to be operated on an unfeasibly large scale.436 This reduces the image of a mass population coming to retune their genes and it becomes a marginally small number of people that would take advantage of the technique.

4.23 - Eugenics

435 ibid
An extension of the gene pool argument, which is considered as a relative concern in genetic modification debate, is the idea of eugenics. The term eugenics derives its meaning from socio-cultural, historical and bio-ecological background. It was first presented by Francis Galton who perceived eugenics as the science of improving human condition through ‘judicious mating...to give the more suitable races or strains of blood a better chance of prevailing speedily over the less suitable.’ It also resonates with other synonyms such as well born. He understood eugenics to mean the use of genetic science or techniques with the desired aim of; first, elimination of disadvantageous genes in the human population (commonly known as negative eugenics); and second, the maintaining or increasing the desired genes (positive eugenics.)

Sandel depicts the historical and cultural background of eugenics and its spread through USA and Europe. Eugenics brings negative connotations and atrocities. In the USA laws were introduced in 1907 to prevent what as thought to be inferior classes from reproducing (adopted in Indiana and other states later), and soon after in 1910 a programme was opened to catalogue undesired traits from hospitals, asylums and prisons. In order that an organized overview for a basis to promote the prevention of reproduction among the genetically unfit.

This most notably came to head in USA in the *Buck v Bell* case, where an unmarried mother was condemned to a Virginia home for the feeble and then ordered to undergo sterilisation. Justice Oliver Wendel Holmes held that ‘We have seen more than once that the public welfare may call upon the best citizens for their lives. If would be strange if it could not call upon those who already sap the strength of the state for these lesser sacrifices... three generations of imbeciles are enough.’

The effects of this process of sterilisation were not fully stopped until the 1950’s following the atrocities of the Second World War. World War II also demonstrated the wave of eugenics but that surpassed mere sterilisation and expanded to genocide and murder. Adolf Hitler’s third Reich in 1930’s drawing on the American experience enacted state sterilisation programmes to purify themselves of the inferior class.

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437 Sir Francis Galton, *Inquiries into Human Faculty and its Development*, Macmillan, 1883, footnote 25
439 [1927] 274 US 200
440 Sandel (above n416) at p.66
Hitler’s view on this is clear in his writing in Mein Kampf, ‘the demand that defective people be prevented from propagating equally defective offspring is a demand of the clearest reason, and if systematically executed, represents the most humane act of mankind.’

Allowing traits such as intelligence, height, memory or age to be seen as bad or warranting alteration, which was reinforced by state recognition that it would undermine our core values as humans, that it would lead to a devaluation of being human on account of a certain genetic makeup. It would result in discrimination on grounds of genetic make up since those people that did not conform to the set standard would not be socially accepted and or fit in; it would be a process once again to weed out the inferior. The emphasis on having choice as to a child’s traits would reduce them to by products of current standards of beauty or intelligence and undermine their right to self-determinism, uniqueness and independence.

Jeremy Rifkin succinctly highlights the potential dangers of germ line therapy with enhancement when he states that:

“If diabetes, sickle-cell anaemia, and cancer are to be prevented by altering the genetic makeup of individuals, why not proceed to other less serious “disorders” such as myopia, colour blindness, dyslexia, obesity, left-handedness? Indeed, what is to preclude a society from deciding that a certain skin colour is a disorder? In the end, why would we ever say no to any alteration of the genetic code that might enhance the well being of our offspring? It is difficult to imagine parents rejecting genetic modifications that promised to improve, in some way, the opportunities for their progeny.”

One must reiterate however that this form of eugenics is different. It is different namely as Nazi regime aimed to eliminate people and bio-ecological gene eugenics would be aiming to eliminate defects or certain traits. Arguably dangers germ-line gene therapy poses to eugenics differ therefore to classical eugenics. While this may be the case, it can be said

441 Sandel, (above n416) at p.67
that while people in their physical form are not being removed where it the case that germ line therapy became possible then by virtue of eliminating certain defects over time only certain characterizes or certain types of people may come to exist.

Sandel criticises those who envision the new eugenics that encompasses a free market and, liberal eugenics, on the basis that this would be unlike the former classical eugenics as it would not be about state coercion but free choice, that is enhancement and selection of traits for offspring are mere extensions of former eugenics but with free choice. Sandel laments that it is not quite as simple as free choice or that because people have freedom that moral repercussions are dispelled simply because we are not coerced. He firstly points out that in the, free market if we consider a egg and sperm donation in artificial assisted insemination that parents have free reign to pick and select the designed traits of children. However that here old eugenics meets new consumerism.443

Eggs that are likely to be sought are those which fetch the highest premium, he notes those would come from the, privileged classes. Ultimately thus social imbalance would be created because upper classes were chosen over others, their survival and superiority would be secured. Commercialization would prevail and it would become all about making money. This would lead to the downplaying of the biomedical principle of beneficence, as commercialization would result in scientists and researchers benefiting by using other individuals for their own gains.

Furthermore Sandels analysis of, liberal eugenics exposes the weakness in the argument. The term reflects, 'non coercive genetic enhancement that does not restrict the autonomy of the child.'444 Those in support of this consider that provided the enhanced capacity is an ‘all purpose’ means there is no moral qualm. Robert Nozick even considers that a, ‘genetic supermarket’ would be appropriate where parents can, ‘order’ their child without imposing a set design on society as a whole and the benefit being that there is ‘no centralised decision fixing the future human type.’445 However Sandel considers, quite rightly, that the state is likely to influence and manipulate the situation maybe not through direct and visible forms of control but indirectly.

443 Sandel (above n416) at pp.74-75
444 Sandel (above n416) at p.75
445 Sandel (above n416) at p.79
Parents desire to ensure a child’s, ‘well being’ provides a means by which to exert pressure, he considers that just as state requires children to be sent to school that it can, ‘require parents to use genetic technologies to boost their child’s IQ’. State intervention is thus accepted he argues so long as it does not undermine the child’s autonomy.

Although coercion in eugenics seems more repugnant it is arguable that it is morally incorrect whether therefore there is or isn’t coercion. Whether however there would necessarily be a threat of such magnitude only if germ line therapy could not be limited to therapy rather than enhancement. This inevitably depends on whether a distinction can be made between the two.

This concern that germ line therapy will lead to bio-ecological eugenics is founded on the fact that there would be no conclusion or way to limit the potential use of such a therapy and as Rifkin states why would we ever say no to any alteration”? In the first instance this argument presupposes that germ line therapy is not possible in any way to be monitored or regulated. Sheldon Krimsky considers that this may be possible and should be based on the boundary between somatic cells and germ line cells, and the boundary between the amelioration of disease and the enhancement of traits. He has acknowledged though himself that the first entails a clear distinction whereas the second has a vague distinction. Arguably disease itself is ever evolving and in a constant state of flux depending on the time. Krimsy’s formulation falls short of a meaningful solution. This may very well be the case; this problem may not be solvable or be solved simply by drawing a distinction.

Others think to the contrary in that the slippery slope can be avoided by ensuring there are distinctions made between what is morally warranted and what is not. Berger and Gert consider that this would be best dealt with by drawing a line between ‘maladies’ and ‘non-maladies’. A malady would be defined as physical disorder and one, which is contrary to benevolence and non-maleficence. Suffering is only then to be described as a ‘malady’ when it is connected with death, pain, disability, loss of freedom and pleasure. In accordance with this one could contract alleviating someone from grave pain and suffering with

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446 Sandel (above n416)
enhancing one by changing sex or intelligence. Here the line advocated is one of therapy over enhancement rather than somatic and germ line.\footnote{448} Germ-line gene therapy is to be limited to maladies because borderline conditions contain the danger of a slippery slope.

Interestingly regardless of this distinction some consider that this does not provide a conclusive result as ‘the relevant moral distinction will not adequately influence our choices, for the reason that genetic ‘enhancement will be undermined by the dynamics of competition among parents and among nations.’\footnote{449}

Opinion poll on attitudes to genetic research and treatment in 2005 provided varied results. When the target condition was a serious illness and only body cells were affected, the vast majority would agree to genetic alteration: 92% for cystic fibrosis and 82% for heart disease. A two-thirds majority (63%) would even allow changing genes to overcome baldness. But far fewer – only 34% – would approve of this approach to improving memory.\footnote{450} When the same was potentially to be used on reproductive cells opinion fell: But three-quarters of the sample still felt that this would be acceptable for cystic fibrosis, and just under two-thirds for heart disease.

Two conclusions can be drawn. First that even if there was a potential to use the technology individuals holding views contrary to Rifkins view may actually not want to use it at least in the UK for purposes and traits as suggested. Far from the simple view that germ line therapy would lead to eugenics there would have to be a great deal of control, weight and force by the state to implement such a hypothesis if the opinion of majority of the public is anything to go by. Second there are still people who would consider using germ line therapy for ‘therapeutic’ purposes. It is overly deterministic to consider that simply because genes are altered that eugenics would result, only if we accept that it is genes alone that determine what constitutes an individual then this argument may have credibility.

\footnote{448} J.C. Fletcher, “Ethical issues in and beyond prospective clinical trials of human gene therapy”, (1985) Journal of Medicine and Philosophy, 10(3); 293-309
4.24 - Justice

The advances in germ line engineering, especially genetic enhancement may as some fear exacerbate current social inequalities. Should germ line engineering become feasible in the future, it is likely that it is going to be expensive. Those who may consider and wish to use the service will be divided into two groups; those that can afford and those that can’t; the ‘haves’ and ‘have-nots’.451

The issue is thus about the distribution of social goods, or what is termed distributive justice. However, there are no set standards as to what constitutes injustice and I do not intend to dissect the different models of justice. I consider that a great gap in social, political and economic terms should not be accepted. The role of justice is that it acts as a bulwark against inequality. If germ line therapy or even enhancement becomes medically viable then it would be reasonable that everyone should have access to this.

There are worries that germ line engineering will however introduce class division and thus inequality. While class division exists today there are arguably two differences between current class division and those introduced by germ line enhancement. Firstly, while currently class division may exist because some are able to afford using cosmetic enhancement technology, whereby any advantage is not inheritable by future generations. Whereas enhancement through germ line engineering, may envisage not only to the physical appearance but psychological and cognitive so that intelligence, beauty, athletic ability, shyness and many other facets of an individual may be enhanced. A job that entails physical prowess such as modelling may mean that a model that enhances their features in comparison to another that doesn’t enhance their features will get more contracts, their physical advantage translates into economic and social advantage for themselves and ultimately their heirs.

Secondly, current social stratification while far from perfect the divisions at present are accepted because of how they are derived, through chance and evolution. In contrast germ line enhancement would be an instant fix and a fast lane to economic and social success. A person that aimed to become a Professor and did not use enhancement technologies could not compete with a person who does and increases for example their IQ, regardless of how much time and effort they put in.

Others reject that germ line engineering would constitute an injustice. Instead Fritz Alhoff considers that a distinction needs to be made between genetic enhancement itself and distribution being unjust. He considers that the distributive scheme is what would cause the injustice. This thus leaves the possibility that justice can be done if a just distributive system is established. What constitutes a just system is once again left undefined and open to debate. He uses the Rawlsian interpretation of classical liberation methods of justice. According to Rawls ‘*No one is thought to deserve his greater natural capacity or to merit a more favourable starting place in society*’.452 There is no difference to him between the arbitrariness of the natural lottery and social lottery.

4.25 - Reproductive Cloning

There are a number of objections and concerns raised about human cloning, the basis of most of these arguments are rooted in ethical, legal or technical perspectives. These arguments pose questions and concerns including psychological, physical, behavioural, social and cultural consequences; would there be harm to the child’s mental wellbeing; their behaviour; the attitudes of the public towards clones and the clones’ perception of themselves and their formation of their personalities and identity. These are just some questions that need to be addressed, we start our analysis on one of the most prominent concerns in relation to cloning, that of human dignity.

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The notion of human dignity is the most commonly cited ethical concern in relation to human cloning. This notion is often used to justify a ban of human cloning as an implausible and inappropriate form of reproductive technology by critics on the grounds that to allow this would violate ‘human dignity’. There is strong consensus that human cloning is incompatible with human dignity and that condemnation of human cloning should be translated into law.

The notion of human dignity however is not something new and has played a prominent role in governmental and intergovernmental instruments for a decade. Moral condemnation of reproductive cloning features in many policy statements. The great importance placed on this notion in policy statements over the years would suggest that it has become the accepted and serious overarching principle against human cloning.

The emphasis placed on human dignity can be seen in the International Covenant on Civil and Political Rights (ICCPR) 1966 and the International Covenant on Economic, Social and Cultural Rights (ICECSR) 1966. Both state that countries should ‘recognise (that) these rights derive from the inherent dignity of the human person.’ Human dignity is also at the core of the UNESCO Universal Declaration on the Human Genome and Human Rights. Which recommends a ban on ‘practices which are contrary to human dignity, such as reproductive cloning.’

Article 2 of the UNESCO Declaration places emphasis on human rights in that;

(a) Everyone has a right to respect for their dignity and for their rights regardless of their genetic characteristics.

(b) That dignity makes it imperative not to reduce individuals to their genetic characteristics and to respect their uniqueness and diversity.

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Article 11, Universal Declaration of the Human Genome, 1997

Although human dignity is a dominant feature in many policy statements it is not defined in any of them. It is by virtue that human dignity does not come from a homogenous definition that it is elaborated and explained in a number of closely related concepts: individuality, autonomy, uniqueness, instrumentalization. Human dignity and these closely related concepts are used interchangeably; the assumption made is that human dignity inevitably equates to such concepts and thereby these are invariably infringed. One could also say that this helps to explain why there are such diverging opinions of its relevance in reproductive cloning.

According to Schulman there are 4 recognised varied interpretations of dignity:

(1) The classical notion of dignity that encapsulates dignity as being rare and unusual and warrants worth and honour;
(2) The biblical account of individuals as creation ‘made in the image of God’ and as a result possessing an inherent dignity;
(3) Kantian moral philosophy’s as based on human dignity as interrelated and identified with rational autonomy; and
(4) 20th century constitutions and international human rights declarations, which solidifies the notion that human dignity as a core value on which all human rights should be based on and or reflected.\footnote{A. Schulman, ‘Bioethics and the Question of Human Dignity’, in ‘Human Dignity and Bioethics: Essays Commissioned by the President’s Council on Bioethics’, Washington, D.C: Government Printer 2008, p.3}
It is not the purpose of this paper that these in turn are analysed. What can be ascertained is that human dignity as a concept is perplexed with under conceptualisation. Its potential as a solid and purposeful concept is thus undermined. Dr Richard Ashcroft shares this view. Ashcroft considers that lack of cohesive definition makes such a notion difficult to sustain as a core value or at least to the extent that it undermines its potential for a real debate as he states:

“Human dignity covers pretty much everything and nothing. Human dignity related rhetoric is the continental European bioethics equivalent to shifting goal posts in a street soccer match. Human dignity is not based in or derived from a coherent philosophical framework… (and)…Dignity-related claims have pretty much the same effect on the cloning debate as the neutron bomb has on modern warfare. They kill everything in their way. For a start they kill every argument in their way; who would dare to defend cloning if it is so obviously violating the human dignity? Who would want to be seen as supporting such a vicious attack on our dignity? The beauty of this rhetorical bomb is that it removes any necessity of engaging proponents of reproductive human cloning in a serious debate.”

With common sense it is possible to see human dignity as a concept capable of supporting and rejecting technological advances such as human cloning, in respect of the former it embodies the free and able individual who can and should be allowed to make autonomous choices. We can predict that at least if not excessive there are likely to be marginal risk or consequence from reproductive cloning but that this is at the choice of the individual. It is also not different from other novel and new technological advances that shook and shaped our technology such as IVF, which received the same condemnation as reproductive cloning is receiving today. In respect of the latter, dignity reflects the broad moral and social position that allows for a specific activity to be rejected on a collective morality objection.

There should however be an open debate. Whether or not there are serious risks or harm to the cloned child which consequently and or infringe human dignity and related concepts is something that should be balanced carefully anything less would simply trivialise human dignity and undermine its importance. It is however also important to remember that with the

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speed and development that we have faced, it is not strange that some academics feel that there is little to discuss.

Some critics consider that reproductive cloning is simply a matter of time, an inevitability that will become common practice. If something is inevitable there is no point in discussing something unavoidable.\footnote{G.J. Annas, ‘Human Cloning: A Choice or An Echo’, (1998) University of Dayton Law Review, 23(2), pp.247-275, p.260}

However, this misses the point. If reproductive cloning became a medical practicality it would need to be regulated by producing a workable legislative framework, which could not be achieved without discussion of such issues; it would be the only means by which effective control could be made to avoid the horror stories that are associated with reproductive cloning and abuse to be vetted.

\section*{4.27 - Cloning and Autonomy}

Autonomy in relation to human cloning is twofold, there is the autonomy owed to the parent seeking cloning as a mechanism and there is autonomy owed to the clone that arguably needs protection. As previously discussed autonomy is self-determination and the ability to make decisions, which are not overruled by others. Parents seeking cloning, or any other reproductive technique, may therefore argue that their pursuit of cloning as a means of reproduction is them acting autonomously; therefore they should not be denied this right. In \textit{R v Collins and Ashworth Health Authority ex p Brady}, Kay J commented:

‘It would seem to me a matter of deep regret if the law has developed to a point in this area where the rights of the patient count for everything and other ethical values and institutional integrity count for nothing.’\footnote{\textit{R v Collins and Ashworth Health Authority ex p Brady} [2000] Lloyds Rep Med 355 at 367}

However others argue that the autonomic principle has become distorted and it is not entirely patient focused; therefore every choice a parent makes will not always be executed by medical staff and scientists. O’Neill pointed out that the definition of autonomy is misleading in that it doesn’t mean patients will be given all their heart desires but that
autonomy involves ‘privacy, voluntariness, self-mastery, choosing freely, choosing ones moral position and accepting responsibility for ones choices…’

However even if parents were to argue that their choice to have a child via human cloning was autonomous, the law would still restrict them. When we discuss human cloning alongside autonomy arguably the first thought which one encounters is the autonomy and protection of the clone. Therefore for the remainder of this section we will focus on the clone.

A number of critics suggest that reproductive cloning undermines a person’s autonomy. Those who object suggest that there is a connection between a lack of autonomy and lack of dignity in reproductive cloning. Professor Kaveny notes that reproductive cloning would violate the child’s conditions of autonomy. In addition the fact that the child is not conceived within the normal parameters, and the child’s knowledge of this would give rise to problems for the child not least in her opinion as to his sense of dignity and also the possibilities of his future. This is a view also accepted by many other proponents, Annas considers there would be immense psychological repercussion if the child is to be made aware they did not come from a maternal line, having a need to have a sense of self. There may well therefore be some correlation between human dignity and autonomy.

Opponents however outline that it is somewhat overly simplistic to accept this argument. It is not always the case and certainly not always essential for adopted children or IVF created offspring to be told about their conception. Their neither dignity, nor autonomy seem perceived to be compromised if they were aware of either.

Some argue against human cloning in that a lack of autonomy will mean a person will not have control over their destiny. However arguably destiny is not determined by such events and individual’s autonomy is determined as much by himself or herself as with external factors, genes cannot singularly determine and predict their future and limit autonomy. A further important rebuttal is that even if genes play a role in shaping our future, our

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\begin{itemize}
\item O’Neill in Brazier and Cave (above n227) at p.69
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experiences cannot be copied and it is this, which contributes to our view of our life and ourselves. Human cloning and dignity do not necessarily have to be in conflict. Autonomy based arguments therefore are not sufficient to justify rejecting cloning simply on this basis.

A further argument against human cloning is that the individual’s uniqueness would be violated; the clone would not be a unique individual. Opponents of human cloning suggest that every human being should be treated with respect, dignity and as a unique person and that reproductive cloning categorically prevents this. Annas who notes that cloning jeopardises the prospect of 'undermining the uniqueness of every individual on which human dignity is based.'

On the other hand an unequivocal rejection that there is no interrelation between cloning, uniqueness and human dignity may be evident. However such arguments cannot be sustained either. That is not to say that reproductive cloning invariably limits human uniqueness, but simply that it is predictable that it may undermine uniqueness in a marginal sense.

There are no means by which any empirical evidence can be used to test whether there is any substantive correlation between cloning and a lack of uniqueness. There have been a number of studies of identical monozygotic twins, which can be a point of reference. Identical twins are a natural and common occurrence in our society and are accepted not to be lacking autonomy or uniqueness because they derive their existence from the same gene pool. Twins although genetically identical are accepted to be different people with unique personalities and identities. There are some that consider that regardless of the term clone which would imply an identical copy of another that it is not possible to create and 'exact' copy of another human being, there are certain limitations. Although the gene structure would be similar at the molecular level there are likely to be many differences. We cannot copy or re-create the human brain nor can we extract and copy our personal experiences, emotions and feeling. This in turn means that there are a number of different behavioural traits and attributes that are also likely to exist in clones.
Kovas and Plomin, 2007 study of identical, fraternal and monozygotic twins suggests that there is no evidence that human experiences can be copied in exact detail.\textsuperscript{464} Moreover they demonstrated that even when twins had a high correlation in intelligence or personality attributes, that even these were not identical. They suggest that there is a moderate influence of genes and moderate non-shared and shared environmental influences. A complex human characteristic such as the development of personality or intelligence in their opinion is influenced in a moderate sense by genetics. They emphasise that there is a great deal of gene-environment interaction, which contributes to both our experiences and complex characteristics that makes us who we are.

Other studies also go on to further demonstrate that having identical DNA, as twins do, does not prevent you from having freedom and being individual. Segal et al conducted a study of virtual twins, she describes as siblings not biologically related. The study included 43 virtual twin pairs between the ages of 8 and 13 years. These ‘twins’ were of the same age and bought up together.

She concluded that there was a decrease in importance of shared environmental factors and increase in non-shared and genes especially as children began to get older in helping to form the child’s intelligence.\textsuperscript{465} This underscores the significant role that environment has in determining our uniqueness.

Although the study is not of identical twins it is a point of reference and highlights that shared environmental factors such as the family plays a minimal role in both studies where as non-shared factors such as the unique experiences of for example education, culture and society interact with genes to explain personality characteristics, behaviour, identity and individuality issues, general intelligence and behavioural adjustment. This further demonstrates that even in normal settings with twins, genes and environment work together. The same could be said for human clones who although would have identical genes would not be inextricably

prevented from forming into unique individuals because of this interplay- after all once in existence they are no less human than the next being.

Arguably other features of autonomy can include those such as individuality and identity. Kass suggests that human cloning poses a real threat to the clone's identity. He considers that a clone is likely to experience confusion and concerns about their identity in respect of their appearance when compared to another human being and also about the fact that they are effectively an identical twin of potentially their father or their mother. He considers that the enormous pressure that would be placed on the clone to live up to their superior and the comparisons that people are likely to make of the clones alter ego is so overwhelming that it would suffocate the child's sense of identity.\(^{466}\)

In light of the above it is difficult to accept that cloning per se would mean that the clone's identity would be identical to that of the superior who has been cloned. They may be genetically identical but if we accept that genes are not the sole or only means by which we acquire or determine our sense of self then each individual, because they would experience different things would therefore have different views, values, beliefs and ultimately their own sense of identity.

For this reason being in the same room and sharing the same experience is not to say that one would feel the same experience as the next person. The same reasoning applies to human cloning, in fact George Johnson states;

"In the reigning metaphor, the genome, the coils of DNA that carry the genetic information, can be thought of as a computer directing the assembly of the embryo. Back-of-the-envelope calculations show how much information a human genome contains and how much information is required to specify the trillions of connections in a single brain. The conclusion is inescapable: the problem of wiring up a brain is so complex that it is beyond the power of the genomic computer."\(^{467}\)


Such comments further show that there is no method by which a replication of the brains connections can take place by technology.

In addition the human clone would be born at a different time to the clone. It is thus arguable that the vast difference in time precludes the clone from forming concerns about their identity. The clone would effectively be introduced into a world that is different to the cloned, possibly with different political, cultural, social and economic infrastructures and attitudes. The effect of which would arguably be that the clone would have their own environmental stimuli, which would help to shape their views, and formulate their identity rather than simply being a copy of their clonee.

A person’s sense of self also comes from how they look. The importance of a person’s distinct appearance is evidenced by the fact that people will usually tend to identify them by their appearance. If the clone were to look exactly like their clones their sense of identity is diminished by the fact that although they are aware they are different, others would find it difficult to distinguish them. This is less problematic when we consider there to be only two people involved but is much harder to accept or approve of when we consider the potential of multiple or hundreds of same looking people. In this instance the clones’ identity through appearance is extremely limited. They would become most likely a number or category as there differences are not visible.

Of course it is somewhat unrealistic to consider that this would be a realistic possibility, since the clone and clonkee are likely to be a number of years apart they are unlikely to look alike to the level that it would bring people into confusion.

In addition human cloning arguably does not undermine human dignity by virtue of human identity and individuality being bought into dispute. Peters considers that ‘it is not individuality or identity per se that constitutes a person’s dignity. Uniqueness does not determine dignity.’ Therefore individuality and identity does not automatically confer human dignity. If we take identical twins for example simply because they are identical does not mean that they are lacking dignity nor on the other hand dignity is neither obtained simply because one is unique. Human dignity is about a common and widely shared quality.

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Nick Bostrom considers human dignity ‘as a quality, a kind of excellence admitting of degrees and applicable to entities both within and without the human realm.’ For Bostrom, dignity as a quality in human beings (or for that matter intelligent machines) functions as a virtue or an ideal, which can be cultivated, fostered, respected, admired, or promoted.

Identity, Individuality and human cloning are not as clear-cut. Human cloning does and can potentially undermine identity of the clone only in a limited sense and to such a degree that it does not eradicate all meaningful formation of identity. It is also arguable that not every clone would be harmed by cloning by virtue of knowing they were identical to another or that the other had already lived a life before them, different people react in different ways and therefore depends on the person and those opinions around the person. Although I don’t agree that this objection is strong enough to completely rule out cloning, that is not to say I condone cloning, as I do not, some weightier objections follow.

4.28 - Cloning and Beneficence

Some critics have even suggested that human cloning may lead to human commodification. It is feared that human cloning would lead to the mere production of objects as means to an end. If to become a commodity cloning will benefit certain individuals over others, as some individuals may gain the power and control to exercise cloning.

When acting beneficently one should act with a view to, provide the utmost benefit to another. If cloning were to become more widespread, bodies providing cloning may do so for their own advantage and their own gain, future needs and concerns of the clone may be entirely overlooked, especially if cloning is bought to the market place and money and transactions are involved. Leon Kass notes that:

‘The violation of human equality, freedom, and dignity are present even in a single planned clone. And procreation dehumanized into manufacture is further degraded by

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commodification, a virtually inescapable result of allowing baby-making to proceed under the banner of commerce.’

And further that:

‘...the powerful economic interests that will surely operate in this area; with their advent, the commodification of nascent human life will be unstoppable’

The worry is based on a Kantian outlook of human dignity and morality founded in the categorical imperative. Kant's basic tenet of morality is to ‘act so as to treat people always as ends in themselves, never as mere means.’ Kant equally states that you should ‘Act in such a way that you treat humanity, whether in your own person or in the person of any other, never merely as a means to an end, but always at the same time as an end.’

Those who adopt such a view also consider that human life in itself would be reduced to a mere manufactured product and the human being would become a mechanical conduit of others wishes and desires. If this was to occur and human beings in this sense were to be considered as mechanical products then as with other commodities in everyday life one could understand why any respect or human dignity should or would not be afforded to them.

Some academics argue the mere process of human cloning is seen as instrumentalising the individual by virtue of the fact that ‘...the clone is created for the primary benefit not of the individual but of some third party as a means to an end.’ While one could accept that there is potential for abuse of the process and parents may decide to have children for what may be considered as immoral reasons. However, it is also important to note and we cannot deny that parents may also want children for acceptable reasons such as filling the void left by infertility the same reasons as those undertaking IVF or naturally conceived methods.

In addition if instrumentalisation is to be considered in the Kant tenet then it needs an object. In this instance the child is considered the object of their parents’ wishes. It remains open to debate though whether the child is thereby merely a thing. In my opinion the desires of the parents may objectify the child in that they exert control however this is no different from other forms of assisted reproduction. There may be many reasons and not just for the sake of having children this doesn’t mean children would not be loved, cared, respected and accepted in to society, as this argument would suggest. In addition since there is no method to monitor the parents’ reasons through IVF or any other method this argument is flawed and highlights that it is no more likely to commodify a child through cloning than IVF for example.

Studies above have demonstrated that there is marginal influence of genes in determining how we behave, our personalities, and our uniqueness; with this in mind it is inconsistent then to accept that human cloning would without doubt reduce children to mere ends.

4.29 - Cloning and Non-Maleficence

One might find consensus that where a child has been wronged it has been harmed. At present there are no guarantees that the developing child would not be harmed by cloning. This undermines the principle of non-maleficence, whereby harm cannot be caused unless of course it is caused for the greater good. The Human Embryo Research Panel of the National Institutes of Health (NIH) advised that embryos should only be transferred to a woman’s uterus when ‘there is reasonable confidence that any child born as a result’ will not be harmed.\textsuperscript{473} In addition the National Bioethics Advisory Commission, \textit{Report on Human Cloning} (1997), stated, ‘the use of this technique to create a child would be a premature experiment that exposes the developing child to unacceptable risks.’\textsuperscript{474} Therefore if the likelihood of harm to materialise is high, arguments against cloning will be considerably more weighted than those for cloning.

Jaenisch and Wilmut consider that, “\textit{Since the birth of Dolly, the sheep, successful cloning has been reported in mice, cattle, goats, and pigs. Enough experience has accumulated to}
realise the risks. Animal cloning is inefficient and is likely to remain so for the foreseeable future. Cloning results in gestational or neonatal developmental failures. At best, a few percent of the nuclear transfer embryos survive to birth and of those, many die within the perinatal period.

*There is no reason to believe that the outcomes of attempted human cloning will be any different. The few cloned ruminants that have survived to term and appear normal are often oversized, a condition referred to as "large offspring syndrome." Far more common are more drastic defects that occur during development. Placental malfunction is thought to be the cause of the frequently observed embryonic death during gestation. Even apparently healthy survivors may suffer from immune dysfunction or kidney or brain malformation which can contribute to death later."*

According to Wilmut and Jaenisch cloning will result in defects in children either distinguishable upon birth or identified defectives later in life. There is however no data on human cloning to date. Statistics therefore focus on trials of animals. If we take Dolly the Sheep who was created after 277 attempts to fuse an adult sheep cell nucleus with an egg, only 27 embryos developed normally for a week. Of these Dolly was the only one of 13 that survived to birth. This is a clear indication of the fallibility and inefficiency. Dolly was eventually euthanized at the age of 6.

Of course there is no cognitive connection between her death and artificial reproduction techniques but there are speculations that this contributed to it. Following Dolly there have been further animal experiments with low success rates. Only between 1% and 4% of embryos result in live births it is estimated. Such a low rate also not only indicates that it is highly unreliable and furthermore that there is marginal knowledge and understanding of the possible risks associated with human cloning.

Of course even with the results at hand it should not be forgotten that they concern animals rather than human beings, we can never fully and comprehensively understand whether there would be the same or similar risks until or unless experiments were performed on humans.

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One concern is that there would be a great deal of embryo wastage considering the low success rate. However while this is not a minor objection in comparison to other assisted reproduction technology’s, such as IVF, embryo wastage is not a sound enough reason to object to human cloning.

Silver however notes that the success rate of animal cloning is not as alarming as it first seems when compared to natural reproduction and highlights that in the experiments with Dolly 277 eggs were used in order to obtain only one live clone, it is important to remember that only 13 of the eggs actually started to develop into embryos, and of these, 12 were miscarried early in pregnancy. Silver considers that this, natural filtering mechanism would mean that only embryos that were the fittest would survive and those with defects would not reach birth and thereby the potential for clones with defects are not likely in his opinion, to be common.

In addition normal procreation is not free from malfunction and also carries a low success rate and is not free from wastage either. During a natural conception chances of survival for the full term can be low, however an important difference is that this is a natural occurrence and is not a conscious choice. It is also not at the heart of the issue if it would reduce the chances of defects in comparison to normal procedures because the ultimate result is that it could harm a clone. We are unable to determine or quantify the extent of harm yet and thus any harm that may be inflicted may be much worse in one isolated instance than a number of defects or abnormalities in normal procreation.

Jaenisch and Wilmut highlight that not only are these techniques currently unavailable but that quality control of cloned embryos will not be available in the foreseeable future either. Apart from the potential damage to the clone the mother is likely to have unwanted consequences such as miscarriages and the effects of this therefore still begs the question whether it is justifiable to place the child in such danger and or potentially the mother. Without any empirical data to satisfy that defects would not occur or that these risks are

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477 L. Silver in G. Kolata, ‘Clone, the Road to Dolly and the Path Ahead’, (Penguin, 2002)
479 R. Jaenisch and I. Wilmot (above n474) at p.2552
minimal it cannot be said either way whether it is safe or not to satisfy the NBAC threshold for ensuring there is no unacceptable risk either.

A child could be said to be harmed by cloning if we accept the above view; namely that cloning may produce unwanted side effects if not immediately at least in the future. Some consider however that cloning in itself cannot constitute harm.

The premise of this view is that the act, which brought the child into existence, is not at fault for those consequences because the only other alternative to the child would be that they did not exist or were not conceived. This view is taken by Feinberg who uses an example of a couple who are aware that they carry a genetically inheritable disease and yet decide to conceive. He states; ‘To be harmed is to be put in a worse condition than one would otherwise be (‘to be made worse off’), but if the negligent act hand not occurred then. [the child] would not have existed at all.’

This view is shared with Parfit who considers a young girl that conceives a child:

‘The girl chooses to have a child. Because she is so young, she gives her child a bad start in life. Though this will have had bad effects throughout the child’s life, his life will be predictably, worth living. If the girl had waited a several years, she would have had a different child, to whom she would have given a better start in life.’

According to Parfit the mother in this situation has not harmed the child by having it when she did even though there were repercussions as the only alternative would be that the child did not exist. Therefore both consider that a child is harmed if it is made worse off to its alternative. Of course this can be qualified and Feinberg accepts that if the child could be made in a less non-harmed state that the actions causing the conception which were negligent would constitute harm to the child. However we can say that this analysis is flawed as Parfit’s conclusion is based on the idea that if the mother waited she would be in a better position, with more worldly knowledge and experience to provide a better life to the child.

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Therefore the child in this instance is not suffering from a genetic/biological problem, but a social one.

Pattinson however rejects this view, an individual in his view is denied or had his rights violated if he is not given an alternative existence where these rights are exercised. He concludes that, ‘The use of cloning appears to be a necessary condition for the existence of any particular cloned individual and even if it were not there is no reason to assume that any alternative existence would be better for that individual…The act of cloning cannot as such violate the clones right’s.’ 482

In essence all three conceded that cloning itself does not harm the child per se. However I would suggest that according to Parfit’s view it is arguable that the parent that chose to clone itself acts immorally as the circumstances that the child was conceived could have been avoided and thereby the child that would be born would be different, in that it may not have suffered from certain diseases. In addition what is evident in both Parfit and Feinberg’s view is that only the present and current state of the child is considered. It is also arguable that cloning while not per se harmful there are harms that as a result of the act of cloning could arise in the future. Furthermore I would adopt Cohen’s view who criticises such a stance as overseeing the fact that all too often subjects of germ-line intervention are mystified, ‘they are not un-conceived children waiting in the world of non-existence, eager to enter this world, even if in a seriously impaired condition.’ 483

The extent of the rights based theory is equally perplexed. Cloning cannot be said to violate a clone’s rights because they do not exist and if the process of cloning is employed it cannot violate rights by virtue of cloning being a prerequisite to their existence. He qualifies this however by suggesting that cloning may violate others rights or where cloning is intended to violate the rights of the clone in the future, such as creating a child for the sake of controlling their autonomy. This resonates previous assertions that cloning inhibits autonomy and causes psychological harm. This argument is flawed in any event.

482 Ibid, p.305
A further problem in considering the potential harm to the cloned child is that we tread into grounds of mere speculation and generalisation when we start to discern harm on the basis of alternatives. This is because when we question whether there would be harm we also bring into play and need to answer a further question of how much harm? Some commentators answer this by suggesting that it is whether a life would be worth living if such harm occurred.

‘Evidence, not mere surmise, is required to conclude that the psychological burdens of knowing that one was cloned would be of such magnitude that they would outweigh the benefits of life itself.’ 484 This echoes the view of Parfit, namely that; a child’s life is worthwhile if it has a minimal acceptable quality of life. The choice of the parent or their actions that bring the child to conception cannot then be blamed for any harm or be said to have caused the harm.

In implying this we automatically open the doors to a myriad of potentially generalised conclusions. In suggesting that life would be so awful if cloning were permitted that life itself would not be worth living one could say that this includes people who are disabled. In our society disabled people are no less worthy of living than any other people and to the contrary even with a disability people are able to continue with day-to-day activities. The question of whether a life is worth living is a very subject dependent, what is worthwhile to one person is not to the other. Does it cover minor disabilities or is it subject to only life threatening diseases? Even in the latter it may prove to be difficult to categorise what this would include and have a clear-cut list of minimally acceptable and unacceptable categories. It is then a generalisation and a sweeping statement to say that the psychological harm associated with cloning is such a burden to the clone that it would eliminate any worth of life. This is as stated above an argument that is qualified by the individual’s perception and view of family lineage.

Contrastingly, something that is indirectly implied by Parfit and others who accept that if the life is not below a marginally substandard level that one should simply get on with what one has and is thus worthwhile. However, I would suggest that living life should not simply be a matter of putting up with something or making the best of something, especially if this could have been avoided such as for those considering cloning to use alternative methods.

What is of concern is that there seems to be an assumption that there is a clear line between those lives that are and those that are not worth living. One could suggest that conditions, diseases or illnesses, which cannot be treated or avoided, would make life not worth living but in practice they are not so easily quantifiable. There is no means currently to measure pain or suffering and thus to truly identify the extent of a substandard or marginal level life. Measures of assessing whether harm caused would make life worthwhile are not available to us at the moment and they may never be.

Taking everything into consideration if the above arguments were seen as worthwhile there is limited theoretical support that cloning in itself per se would infringe the psychological wellbeing of the clone. It can also be argued that construing in the strict sense of this welfare principle would affect a lack of regulation reform. I do however believe that this principle of harm cannot be taken lightly and the slightest risk of abnormality and harm created should raise alarm bells that we should steer clear from the practice.

4.30 - Cloning and Justice - Realistic Uses and Reproductive Choice

Human cloning may have many potential uses and a number of reasons arise why people may wish to use it including the following:

1. Alleviating infertility problems people currently have
2. Enabling a parent with a serious condition or disease to reproduce without passing this on to their offspring
3. Potential culture of organs for transplantation
4. Enabling a parent to clone a lost child or loved one
In terms of alleviating infertility human cloning would assist those women that do not have an ovum and men that do not produce sperm. In this sense cloning would be limited to a marginal group of people in society. Cloning while a cutting edge scientific development would be an exception rather than a common occurrence. In any event it would according to Roberts enable individuals to not only conceive children, where they have failed before, but also produced biologically related children. There lies the dilemma; such couples may well use other sources to become parents such as surrogacy, IVF, or adoption, so in what circumstances should it be allowed and would it be limited, so only couples that cannot conceive whether by natural or assisted reproduction should have access to it, even if they are fertile?

In the first instance one could understand that after attempting and exhausting all other avenues those couples that are still unable to conceive would turn to cloning as their last resort. While, it is more difficult to accept cloning as a means for those couples able to use alternative methods, we may be more inclined to permit those who use it as a last resort.

In addition the matter hinges on the fact that a couple that has not attempted any other form of assisted reproduction, bypassing all available options, do so because they wish to have biologically related children. This desire is respected by other forms of assisted reproduction (such as IVF) and it is difficult to see why it should not be so in this context. However, Kahn has criticised ‘the current strong social trend towards a fanatical desire for individuals not simply to have children but to ensure that these children also carry their genes’. Others like Spriggs and Savulescu argue that while ‘this may have some instrumental value it is overvalued.’ Whether it is right or not couples have a strong sense of need to have genetically related children.

Robertson considers that not all forms of reproductive cloning need to be banned. He notes that the use of cloning by those that are fertile and forego to reproduce coitally or naturally as a step towards genetic controlling of the offspring. It represents an affirmative step towards genetic selection, which in his opinion is contrary to current selection practices that focus on negative screening, such as for diseases or conditions and would be more than a

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mere right to reproduce but to control the entire genetic makeup of the offspring.\textsuperscript{487} Whereas he considers that those couples that were infertile, or have exhausted other means, and or have a serious inheritable disease cloning in this instance should not be prohibited. Otherwise these couples will have to forego being able to have children altogether, where other means are not effective and they wish to have biologically related children.

While one can see that cloning could provide an alternative to infertility treatments that we have at present it is not a ‘cure’. It would be a misconception to accept it in this way; after all if this were the case then infertility would be eradicated. Ultimately the availability of other means of reproduction which would allow couples to have genetically related children undermines the actual need for cloning; same sex couples are able to use a surrogate, infertile couples adoption, those wishing to avoid diseases being passed on to their children are able to use PGD and so on.

We can also imply under that principle of justice that cloning may result in a right to procreate, in \textit{Eisenstadt v Baird}, the United States Supreme Court described what has been called a principle of reproductive freedom; ‘\textit{If the right to privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so affecting a person as a decision whether to bear or beget a child.}’\textsuperscript{488} Those who support cloning rely on this reproductive freedom and suggest that in the event that a risk to mother and child are eradicated and was ethically acceptable that human cloning is and should be covered by this right.

The European Court judgment in \textit{Dickson v United Kingdom} restated the principles of procreation.

In contrast to a decision a year prior to Dickson’s case,\textsuperscript{489} the court affirmed that where there is a desire to have a child there must first be an ‘opportunity’ to realise procreation. The case relates to the ability to control, opportunity and capacity to procreate. This judgment

\textsuperscript{487} J.A. Robertson, ‘Cloning as a reproductive right’ In G. McGee, eds. \textit{The Human Cloning Debate}, (Berkeley Hills Brooks 2002), pp.221-233, p.233
\textsuperscript{488} \textit{Eisenstadt v. Baird}, 405 US 438, 1972
\textsuperscript{489} \textit{Evans v United Kingdom} [2007] All ER (D) 109 (Apr)
considers contributing to the right to procreate. However the judgement is likely to be limited to artificial insemination rather generally for genetic engineering and nothing from which to draw leads for a wider conclusion.\footnote{Dickson v United Kingdom [2007] 3 F.C.R 877 at 72 and 78} The case created a right to procreate but had not yet brought it to birth by acknowledging that this should be respected under the Human Rights Convention, it fails to bring about a framework that addresses or establishes a fully fledged human right, but created the opportunity for the parties involved after satisfying certain conditions.\footnote{M. Eijkholt, ‘Commentary: The Right to Procreate is not Aborted’, (2008) Medical Law Review, 16, pp.284-293, pp.292-293}

Robertson considers that reproductive freedom is an inherent moral right. It is a negative right and one, which the government is unable to interfere where human cloning has been made possible and available by a provider.\footnote{J. A. Robertson, ‘Children of Choice: Freedom and the New Reproductive Technologies’, (Princeton University Press 1996), p.291} In this sense whether or not someone is fertile or infertile or has exhausted the current assisted technologies this assumes that people have a right to choose. Robertson interprets the right to reproduce as being procreative liberty or freedom and the ability to control the use of one’s ‘procreative liberty’.\footnote{ibid, p.16} The Government should not limit this liberty unless there is strong justification.\footnote{ibid, p.4} He however goes further to state that an individual’s right will only be respected not to create a child but to create a ‘certain child’\footnote{ibid, p.127} In essence therefore according to Robertson the couple need to have access to technologies such as IVF, screening and germ line interventions to what he terms as quality control devices. He does limit trait choices to be those that ensure the child is normal and healthy,\footnote{ibid, p.152-153} children that have enhanced traits but are not healthy are excluded as desires covered by this notion of procreative liberty.

Cohen criticises Robertson’s theory.\footnote{ibid, p.43} Cohen highlights that Robertson has not successfully established a case for procreation on his basis, she considers that it is difficult to justify such an over extension that is using technologies to ensure certain traits. Until this is established there is no foundation for right to choose the traits to fall within the right to procreate.\footnote{Cohen in B. Almond and M. Parker, (above n482) at p.300} In addition she considers that if as Robertson considers embryos and foetuses can be aborted if they are below par then the opposite must exist, that foetuses and embryos can be created
above par.\textsuperscript{499} However, he highlights, as I would stress that the important issue of the child’s welfare seems to be completely missing.\textsuperscript{500} There is only the desire of the parent and what they wish. In fact Robertson does not consider that even if there were harms to the child this should not bar the parents. This disagree with, by permitting this, if we ever do, should not mean that there is exclusive choice\textsuperscript{501} consideration of the child should be an equal guiding force. As will be discussed what is normal and healthy are debatable and leaving it entirely to parental choice does not always ensure children are what Robertson would consider as healthy or normal. I argue that this right to procreate is strongest when this is the only means by which a couple is able to procreate at all.

Others however are not convinced firstly that we have such a right in terms of human cloning and in the event that this is established that this right is without limits. Reproductive freedom as our basic right is limited. The limitation is that these rights cannot be exercised if to do so would harm or infringe the rights of others. Reproductive rights involve the rights of the child and the risk of harm that exercising such a right would have on the child. As detailed above even if one accepts that cloning does not per se cause child harm it is still unethical considering that the parents knowingly put their child at physical danger by the very act of bringing him to existence.

Merely being bought into existence does not automatically mean that they are benefited, of course that is relatively easy to accept when the only alternative is that the child were not to exist. Reproductive freedom is not to say that it should be achieved by any means no matter how dangerous or controversial and it certainly does not justify the potential risks and dangers associated with cloning. We are dealing with lives and people’s futures and the anything goes principle is unacceptable.

There is also a danger that by assuming that procreative freedom as a right entitles couples to use cloning and argue that their personal autonomy is placed above anything else, even the child’s. Although such a right is a negative right and non-interference by the government is respected it is a right that may be somewhat widely construed. It is one thing to argue one has a right to procreate and another to say that you have a right to achieve this by any

\textsuperscript{499} Cohen in Almond and Parker, (above n482) at p.300 
\textsuperscript{500} Cohen in Almond and Parker (above n482) at p.301 
\textsuperscript{501} Cohen in Almond and Parker (above n482) at p.302
means available. Furthermore, there is to date little by way of guidance as to the extent of a person’s procreative liberty, there is no document that clearly states when to and when not to procreate or carry a child to birth. Furthermore it is arguable that if cloning was to be banned that this would not interfere with the right to procreate as the government is not under a duty to ensure that those that want a child have a child. It seems that the right protects those that can produce in the sense that it leaves them an option whether they wish to do so or not.

Inevitably this would entail a balancing act of whether the potential risks to the person, child and community that such a process would involve outweigh the benefits of undergoing the process. One could say that until the benefits outweigh the harms that cloning should not be made available as a medical treatment and as currently the right to procreate is outweighed by the potential risks of cloning, cloning should not be made available as a method of human reproduction.

4.31 - Social Implications

According to the Oxford English Dictionary a parent is defined as ‘a person who holds the position or functions of a parent. A protector and guardian; sometimes applied to a father- or mother-in-law.’ In our modern society this definition has undergone a vast makeover, for one thing same-sex parents and single parents are now accepted. The nuclear family is and has to some degree been withheld long before human cloning became a topic of debate.

Nonetheless the actual relationship between the parties to an asexual reproduction would be inherently ambiguous. 502 This argument is founded on the basis that the clone would be a replicate of the clonée, one of the parents. It then begs the question how the relationship will develop between the clone and the parent that is it cloned from.

If the mother was the donor and conceived a daughter would their relationship be different? Arguably it would. ‘Cloning shows itself to be a major violation of our given nature as embodied, gendered, and engendering beings— and of the social relations built on this

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In addition there are likely to be wider family implications specifically the perception and status of children to their wider family such as cousins and also the social perception of the family. Furthermore some critics argue that ‘cloning undermines the structure of the family as reproduction and progeny are not connected. If this is the case then cloning works entirely to the point for which it is to be permitted, to allow and permit couples to become parents and be a family.  

A more controversial aspect is the legal implications of such a familial set up. Individuals may, in Evans opinion, have difficulty determining their parents in the eyes of the law and the clarity is equally likely to be blurred. There is also the potential that birth siblings may be genetic cousins in which case there would be a need to revise laws in respect of martial eligibility. However it seems that while there may well be a disturbance to socially acceptable relations it is also clear that currently unusual and strange relations are not called for prohibition. One such example would be a widow that marries his wife’s sister and has children; if she already had children, and then the children with the widow would be both cousins and stepsiblings.

However the status of father and mother by law may well be more difficult to distinguish than in the above situation. This is especially the case where same sex couples have a child together. In this situation neither would have genetic parentage in the normal sense, they would be providers. Cloning by nature as an asexual process would eliminate the need for a father, while this is maybe great news for single people or same sex couples it may well bode ill for the child who would by choice be left without a father.

The status of the father would be unequivocal. Where a ‘married’ woman after transfer of an egg through assisted reproduction carries a child the husband is treated as the father if he consented to this. This inevitably means that those that are married and are infertile may be covered but those that are same sex couples or unmarried are not covered. IVF laws as to the status of mother and father only go so much as to assist in reducing fears that human cloning would lead to a disruption of the parent’s status. It is a far more radical procedure with greater impact on the family.

Kass, (above n469) at, p.559


ibid, p.30
Cloning is also considered to be inherently unnatural to humans. It is without doubt an unnatural form of reproduction as it is asexual. In referring to cloning as unnatural the assumption however is that it is not beneficial in any way as it brings to mind negative connotations. Clones are in this way considered to be something other than human or even less. This is not necessarily so exclusive. There are many aspects of our everyday life that are unnatural including the medicines that we have, including those for common flu, but it is not considered wrong to consume them even though they are not natural. Therefore unnatural is not automatically bad and what one may view as unnatural another may not.

Often the argument connected to this notion is the idea that cloning is tampering and altering God’s creation and from a religious perspective it is ‘playing God’. The control of nature is believed to be in the hands of God and to enable asexual reproduction would undermine the core tenet of this notion. It is easy to see that cloning would exert a great deal of control over the genetic makeup of an individual; this places the cloner above the cloned. This, critics argue is unlike sexual reproduction where because our genetic makeup is different we treat each other with respect and as equals.

The uniqueness and novelty of sexual reproduction in this sense is considered to be an important factor of being human. While this is understandable it does not mean that those produced in this way should be treated any less human than any other person. In addition the sanctity of life is undermined and those who propagate this argument suggest those created by such means would not have a soul. It is thus rejected, as reproductive cloning is not a reproductive means by which a human should be created; only God creates humans and life should be made through the relationship between man and woman.

The Roman Catholic Church commented that ‘every possible act of cloning humans is intrinsically evil’ and can never be justified as it interferes with God’s creation.  

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506 J.C. Weaver, Christianity and Science, London SCM Press, 1998 p.175
Human cloning would mean, "No longer would a person start as the union of a man’s sperm and a woman’s egg, but by a sort of asexual process that some people claim has similarities to budding. This would break the God-given system of sexual reproduction. It denies the asymmetry of marriage where male and female come together in a binding relationship that in part reflects the binding relationship shown in the Trinity." 507

The Church of England states "one may see the human intellectual abilities that permit us to understand and manipulate the world of which we are inhabitants as being God-given powers and part of the Imago Dei. The point then is to use those powers right and in accordance to the divine will. Once again, one must say that not everything that can be done should be done. To scientific knowledge, and powers that it confers, we need to add the wisdom to accept the good and refuse the bad." 508

By contrast the Catholic Church rejects any form of intervention. It is considered that since life begins at the moment of conception that anything that deviates from this is forbidden in their Instruction on Respect for Human Life in Its Origin and on the Dignity of Procreation [Donum Vitae], issued Cf. Encyclical of John Paul II, Evangelium Vitae, 63 John Paul II declared that;

"Methods that fail to respect the dignity and value of the person must always be avoided. I am thinking in particular of attempts at human cloning with a view to obtaining organs for transplants: these techniques, insofar as they involve the manipulation and destruction of human embryos, are not morally acceptable, even when their proposed goal is good in itself."509

The Islamic perspective according to many raises concern about human cloning but according to Larijani and Zahedi it is not because it is seen as playing God:

“...from an Islamic perspective, cloning does not bring into question any Islamic belief. The creator of the universe has established the system of cause-and-effect in the world; all creation takes place solely through His will. Cloning would be only manipulating God’s creation; therefore scientists would not become God or replace God.” 510

Rather, the duty is to ensure that through the process suffering is reduced and that harm to the cloned is not caused and here is where a number of religious theologians consider that human cloning from an Islamic perspective is not justified. The potential risks and negative developmental consequences outweigh the potential for suffering:

“In the opinion of most Muslim jurists, cloning, as a great scientific event, would have advantages and limitations. According to its inevitable consequences, reproductive cloning is prohibited due to the majority of Muslim reference decrees. However, stem cell research and cloning for therapeutic purposes is permissible with full consideration and all possible precautions in pre-ensoulment stages of foetus development.” 511

However not everyone agrees that this argument has any foundation in modern society, the argument that we are playing God seems very weak to me indeed. Why? Simply because nature, disease, and the laws of physics, chemistry, etc., are forces that tend to destroy us, so every time we take a vitamin or any medication, or see a doctor or have any medical procedure of any kind performed, or perhaps even stay inside a building, we’re not letting nature take its course. 512

A further point is that there is no consensus between the modern religions over this issue. It makes it therefore more of a moot as to which religion is true and correct and does not go to show why this argument is valid. To what extent religion should play a role in determining the development of technology is not conclusive.

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511 Ibid, p.3189
512 D. Yount, “Arguments against reproductive cloning and ‘therapeutic’ cloning” The center for global tolerance and engagement, 2004, p.2
New Medical technologies have been instrumental in providing ground-breaking treatments in our healthcare system but present normative challenges. Due to a lack of appropriate norms to perceive and deal with new reproductive technologies it becomes extremely difficult to handle such technologies. It is argued by Jan Helge Solbak, Soren Holm and Bjorn Hofmann that:

"analogies have at least two normative functions; they inform both our understanding and our conduct. Furthermore, as these functions are intertwined and can blur moral debate, a functional investigation of analogies can be a fruitful part of ethical analysis. We argue that although analogies can be conservative; because they bring old concepts to bear upon new ones, there are at least three ways in which the can be creative. First, understanding of new technologies is quite different from the analogies that established them, and come to be analogies themselves. That is, the concept may turn out to be quite different from the analogies that established them. Second, analogies transpose similarities from one area into another, where they previously had no bearing. Third, analogies tend to have a figurative function, bringing in something new and different from the content of the analogies."

Analogy is a helpful tool in understanding the various reproductive technologies whether it is conservative or liberal analogy. The use of such mechanism is pivotal in widening the debate on new reproductive technologies.

Although childbirth is a unique experience for both parents, one cannot deny that it is for the mother exclusively a much more endearing and emotional time and it is arguably the mother who will form a greater bond with the child, after carrying it. Some theorists put forward that a man’s insecurity and their somewhat lack of need during the process of childbirth undermine his sense of masculinity. Masculine endeavour therefore aspires to “mock the

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stupendous mechanism of the creator of the world.” However in man’s mission to imitate the creator one must not disregard the possible dangers and harms of experimental science.

Mary Shelley’s Frankenstein is full of symbolism of a masculine nature; the novel plays on the issue of the single-handed development of a human into being, where women are peripheral, if not an afterthought. Rosi Braidotti comments on the issue:

“On the imaginary level…the test-tube babies of today mark the long-term triumph of the alchemists’ dream of dominating nature through their self-inseminating, masturbatory practices. What is happening with the new reproductive technologies today is the final chapter in a long history of fantasy of self-generation by and for men themselves – men of science, but for the male kind, capable of producing new monsters and fascinated by their power.”

It is arguable therefore that the basis of these modern reproductive technologies are based on men finding a way to leap into the somewhat private arena of reproduction and gain some form of control over women and reproduction. O’Brien however feels that the masculine need to take control of reproduction is more deeply rooted on a sense of underlined uncertainty when it comes to the paternity of a child. Oakley agrees with O’Brien’s argument and highlights the emergence of these new reproductive technologies with a historic need for assured paternity she pursues that ‘these reproductive technologies enable men to achieve what they have always wanted – proof of fatherhood’ this argument demonstrates an inherent lack of trust a man has in a woman and his need to be certain.

The use of these modern technologies is also arguably breaking down the maternal role of a woman as Sue Milns notes women are being deconstructed and utilised where there ability lies ‘the new reproductive technologies have brought about fundamental change in the process of reproduction by the achievement of conception through deconstructed and disintegrated female bodies [a] radical break-up of the processes of conception, gestation

514 M. Thompson, ‘Reproductive Narrative; Gender reproduction and law’, (Ashgate 2003), p.144
515 ibid, p.149
517 Oakley, in Thompson,(above n513) at p.152
and rearing of children and the distribution of these functions amongst different women.\textsuperscript{518} This puts a whole new perspective on reproduction and arguably brings to mind a sense of male domination, with control of function being spread thinly between different women, therefore leaving the main body of control at the hands of a man, most likely the instigator of such a process of reproduction.

Although these theories of masculinity do nothing in the way of wholly justifying the objection to modern reproductive technologies, they do allow for some interesting thought on the direction of modern reproductive technologies and where we may be headed.

**4.34 - Conclusion**

Human dignity is the cornerstone of human existence, human dignity comprises of the four principles enshrined in biomedical ethics, namely autonomy, beneficence, non-malevolence and justice. Similarly human dignity is the dominant rhetoric in Islamic thought. ‘Islam is a religion that aims to ascertain, uplift and sustain the honour and dignity of man. In Islam, man is God’s vice-regent on earth. Every terrestrial component has been created for the purpose of accommodating and facilitating the fulfilment of man’s noble mission of vice-regent. Man resides in the centre of Islam’s universe.’\textsuperscript{519} The biomedical ethics established by Beauchamp and Childress are similar to the ethics enshrined in Islam.

‘Indeed, Allah orders justice and good conduct and giving to relatives and forbids immorality and bad conduct and oppression. He admonishes you that perhaps you will be reminded.’\textsuperscript{520} One thus has autonomy over himself, and this ought to be addressed in accordance with the principle of natural justice.

In alignment with beneficence and malevolence, the Islamic view of human life is regarded above all else, thus deserves protection and respect. ‘If anyone slays a human being, unless

\textsuperscript{518} Milns, in Thompson(above n513) at p.155
\textsuperscript{520} Qur’an, 16:90
it be [in punishment] for murder or spreading corruption on earth, it shall be as though he had slain all mankind; whereas, if anyone saves a life, it shall be as though he had saved the lives of all mankind.  

Bioethics, a fairly recent phrase coined together is essentially the same as ethics in Islam. Whether you are deriving a conclusion from Islam ethics or from bioethics, the results will be the similar. Islam often noted as an archaic religion, provides flexibility in terms of formulating answers to complex conundrums. Bioethics, more recently adopted in western practice thus has been employed to do the same.

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521 Qur’an 5:32
PART 5.0 – Final Conclusion

Law, philosophy and theology are intertwined in the search to find a solution to the problem of infertility and how to govern treatments for infertility. This is evident both in terms of Islamic law and the English legal system. On the one hand we have liberals trying to legalize and push forward for a more permissive approach to addressing those needs and on the other hand we have conservatives who are still living in an archaic period trying to abide by their strict morals and traditional religious upbringings. It is time that we strike a balance between these two corners and reach a fair equilibrium, to reach a fair conclusion to assist those who have been affected by infertility.

Islam is the fastest growing religion in the world; it requires dealing with complex medico-legal conundrums in the United Kingdom. Muslims want an answer according to the Qur’an and Sunnah, which is religiously acceptable to them in this current day and age. It is important that we do not fall foul of interpretation and that we move forward with the principles of *ijtihaad*, by interpreting decree in relation to our contemporary age, for the greater good of humanity. Human Reproduction is a very emotive and secretive matter within the Muslim community and therefore it is the role of scholars to openly debate, raise awareness and create guidance to help the many Muslims who are searching for a solution that is in line with their religious beliefs.

Islam is defined as not only a religion, but also a way of life. Although revelation from Allah was revealed to the Prophet Muhammad (pbuh) during the 7th century, it is widely accepted that Islam is a religion for all people, during all times. Answers to contemporary problems faced by individuals in the modern age, infertility being just one example, can be found in both the Qur’an and Sunnah.
The analysis of Shari’ah and its applicability is a complex field that involves weaving through the complex maze of Islamic scripture, consisting of the Qur’an and Hadith, which constitute the primary sources of Shari’ah and the cornerstone of Islamic law. While divine proscriptions from the Qur’an are considered inviolable, most Islamic jurists make a distinction between injunctions that cover worship (ibadat) as unchallengeable and social transactions (mu’amalat) as amenable to change to cater to the needs of today’s society.

According to Farouk Mahmoud, *Ijtihad* is considered the most powerful instrument employed by orthodoxy and modernists, both Sunni and Shia for formulating Fatwas. Neither the Qur’an nor the Prophetic Hadith provide any direct quotes on ARTs and in these circumstances Islamic jurists (*Fuqaha*) utilise *ijtihad*, providing, as Marcia Inhorn puts it, an ‘Islamically correct’ solutions to the many contemporary issues for which an answer is not readily available.522

From my analysis it can be argued that collective *ijtihad*, compared with individual *ijtihad*, is more robust. It is enriched by the expertise of participants from other appropriate disciplines and capable of examining the intricacies of ARTs, which are intertwined with Shari’ah evaluation of ARTs. Muftis and Marja’i (Shia scholars chosen for their knowledge, piety and competence) will be considered to be proficient in Islamic jurisprudence, but they cannot be considered experts within ARTS or other disciplines as well. The Sunni infrastructure entertains both independent and collective *ijtihad*, the latter comprising Sharia councils, Fiqh academies and other collective assemblies that are operated by experts from many disciplines.

It can be argued that the Shia are more experienced in using *ijtihad*, and certainly their *ijtihad* is bolder, as well as innovative and pragmatic; however they do not have a multidisciplinary consultative assembly practising collective *ijtihad* which would be helpful especially to understand the complex and technical issues that a Marja might not be well versed with. For Shia, ‘The religious duty incumbent upon each Shia believer to follow the

522 Tremayne Soraya, Inhorn C Marcia, Islam and Assisted Reproductive Technologies, (Berghahn Books 2012), pg 72-73
rulings of one high-ranking Shia scholar, or Marja’ al taqlid lead to a plurality of religious rulings.'

Fatwas constitute the most important component of contemporary literature on Islamic perspectives of ARTs. Fatwas are not legally binding unless backed by a government statute, however Muslim people throughout the world consider them authoritative. An infertile couple could opt for the Fatwa of their choosing; for example, Sunnis could adopt a ruling from a different Sunni legal school. It is theoretically possible for couples to go across the Sunni-Shia divide and use a Fatwa from the Shia Jafari school of thought. Finally, they could transgress the Shari’ah boundary and employ prohibited ARTs, facing the consequences in the hereafter.

A Fatwa must be considered in the context and particular circumstances in which it was issued. In 1980, Shaykh Jad al-Haq, the leading cleric at Al-Azhar University, issued his historic Fatwa on ARTs. This was the first Fatwa on ARTs to be issued for the Muslim world, both Sunni and Shia.

All Muslims followed Shaykh Jad al-Haq’s Fatwa until Ayatollah Khamanei’s Fatwa in 1999, after which the Shia diverged on issues of mut’a (temporary marriage), third party assistance and conception outside of marriage. To fully understand this change of position, it is important to note that unlike Conservative Sunnis, the Shia claim that mankind was blessed with aql (intellect) and thus able to differentiate right from wrong, which led to an innovative form of ijtihad.

The modern scholars of our time have emphasised the need for correct interpretation and explanation of the inner meaning of the Qur’an and the need for engagement with the full spectrum of Islamic thought and practices. According to them the authenticity of the Prophet’s Sunnah, which has been shrouded since its inception, needs clarification.

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523 ibid
Detailed investigation of the interplay between the dynamic changes in Islamic perspectives and the cutting edge of ARTs demonstrate diverse contexts in the Islamic world and considerable variations in the way in which Islamic scholars perceives which ARTs are and are not permitted by Shari’ah. This is as a result of the varied Shari’ah interpretation between Sunni and Shia scholars, which has led to controversies in the exact Shari’ah status of ARTs.

The Shia jurists, like their Sunni counterparts, base their Fatwas mainly on scriptural texts but lean significantly towards *ijtihad*, reflecting Shia enthusiasm to direct new technologies towards diagnostic and therapeutic goals. Recent liberal Fatwas originating from quarters in Iran and Ayatollah Fadlallah in Lebanon show significant deviations from the classical Sunni view. Shia scholars have been dynamic and keen on examining the avenues available for a solution to infertility, however their pragmatic *ijtihad* and their recent rulings on ART issues have led to a paradigm shift from conventional marriage to *mut’a* arrangement and finally to conception outside marriage. The legitimacy of the bold Shia Fatwas still remains controversial in certain quarters. The Shia enthusiasm and religious rulings may be dictated by consumer demand and driven by service provider enthusiasm, with ART specialists interpreting Islamic rules quite differently from the scholars, leading to many variances in clinical practice according to Farouk Mahmoud.524

Ambiguity and difference of opinion in numerous Fatwas has led to the ordinary Muslim infertile couple finding it difficult as to what ARTs are deemed to be Shari’ah compatible. In Muslim society, children are highly valued, parenthood culturally mandatory, and childlessness is considered socially unacceptable. It is for this reason ARTs are generally embraced by Muslims. Shari’ah evaluation of ARTs is hindered by controversies due to differences in Shari’ah interpretation between the Sunni and Shia schools of thought. There is a general consensus for IVF treatment, however there exists significant disagreement on issue of third party assistance [sperm, egg, embryo donation and surrogacy], anonymity of donors, and conception outside the marriage contract, which pose a Shari’ah dilemma. Both Sunni and Shia scholars endeavour to alleviate the plight of the infertile couple, the Shia more so than the Sunnis because of their pragmatic utilization of *ijtihad* and *mut’a*. However, some innovative Fatwas of the Shia and the use of *mut’a* for ARTs do not conform to conventional Shari’ah norms.

524 ibid, pg. 91
Collective ijtihad practiced by the Sunnis is to be recognised as an important feature of Shari’ah evaluation on ARTs whereas the Shia are reluctant to engage in formal collective ijtihad deliberations on vital issue of global importance, and they rely on the individual ijtihad of their Marja’i, which lacks the expertise of a multidisciplinary team.

The Sunni negative stance on sex preference is understandable both from an ethical and Shari’ah viewpoint, sex balancing needs to be judged on the benefit to both the couple and the child. The Qur’anic verse and Hadith that provide support for the woman who carries the pregnancy as the mother have recently been questioned by Islamic scholars and needs to be clarified.

The Shia concept of mut’a marriage for ARTs remains controversial, at least in the eyes of the Sunni’s, however the Sunni’s have also developed the concept of ‘misyar’ in recent times, which is very similar to the concept of mut’a. A ‘misyar’ is a marriage contract where a couple do not live together and where the husband is not financially responsible for a ‘misyar’ wife. This allows them to have a sexual relationship without committing the sin of adultery. The Shia tacit approval of donor sperm shielded by the veneer of an embryo label does not conform to conventional Shari’ah norms. The legitimacy of anonymous egg and embryo donation without even a mut’a arrangement does not meet with the approval of most Shia scholars.

Fatwas must give consideration to the plight of the infertile couple in line with the Islamic maxim, ‘Necessity overrides prohibition.’ What is important that interpretations of all five schools of thought positions on ARTs need to be made available for infertile couples, ARTs physicians, and lawyers in the United Kingdom in a simplified manner, rather than them being faced with a complex of literature which is hard to digest. The significance of religion dictates that Islamic evaluation of ARTs that have been discussed in the past must continue to be placed on the agenda in the future, in order for their to be a meaningful intellectual debate to take place in the future to deal with new medical and technological advancements.525

525 ibid, pg. 91-92
Within the different schools of Islamic thought, it is the Shia school of thought that has been the most welcoming of modern innovations and evolved societal needs. One illustration is that the Shia school of thought has moved away from the 1980’s declaration against third party donation. Whereas the Sunni schools have allied with Christian (Catholic) thought against third party donation, the Shia twenty years later have taken the bold step of issuing Fatwas and declaring that third party donation is acceptable within Islam.

Arguably the pattern of societal evolution dictates that it won’t be long before the attitudes of the Sunni Muslims evolve, and thus the Sunni scholars will follow suit, and third party donation will become a legitimate reproductive technique within Islam. The Sunni scholars have remained static for the last 35 years following the 1980 Fatwa, with time and space we have seen significant developments in science and medicine and therefore it is essential that the Sunni scholars re open the doors of *ijtihad* and follow the examples of the Shia scholars.

English law enacted the Surrogacy Act following the emergence of the practice, similarly the Human Fertilisation and Embryology Act 1990 was enacted following a need and it was later revised following changes in the attitude of society in 2008. Societal attitudes towards same sex couples and single mothers have evolved during the 21st Century, hence the HFEA was amended.

Islamic jurisprudence on the other hand has put a halt for the time being in accepting same sex relationships due to certain interpretations of Qur’anic injunctions but it is my belief that with the passage of time we will see a change in their position. In my thesis I have used analogical reasoning as a means to establish that Islamic jurisprudence is not rigid and that with bold *ijtihad* we can achieve the desired outcome to meet the needs of the current society we live in. One can draw comparison with the English legal system and its use of analogical reasoning in order to derive at judgments, analogical reasoning is the conventional method of the lawyer; it plays a major role in our everyday thinking process.

In most instances English law has come about after, to retrospectively address needs, essentially playing catch up. Laws are often developed as a ‘knee jerk’ reaction to fulfil gaps
in what is essentially a legal vacuum. In contrast Islam has provided a higher degree of flexibility. Although the Shia school provides the most flexible interpretation of Islamic decree, the Sunni school too offers room for manoeuvre. One example is the permissibility of a husband to marry again to resolve the issue of infertility. This is not only religiously acceptable, but also morally acceptable and actually addresses the need to have children.

In the United Kingdom, we see that the law of the land stipulates that an individual can only be married once at any one time, so a Muslim having a second wife would be in breach of English law. The desire to procreate has to be balanced with the laws of the land and for Muslims, the Fatwas from different Scholar’s may be valid religiously but not legally applicable in the United Kingdom. This may result in Muslims going underground and getting married religiously under a ‘Nikkah’ (Islamic Marriage) or Mut’a and not declare their first or second marriage to the authorities in the United Kingdom in order that they benefit from various assisted reproductive technologies.

For example wife (A) enters into an Islamic Nikkah but does not register her marriage according to English law, so technically she could be considered as a ‘unmarried partner’, after a period of time within her Islamic marriage she realises that she is unable to carry the egg within her uterus and thus requires a surrogate to carry the egg for her. Her husband decides to enter into a mut’a arrangement with wife (B) to enable wife (A) to fulfil the desire of having a child.

In these circumstances wife (B) is also an ‘unmarried partner’ and the authorities are sometimes deceived in believing that the surrogate mother, wife (B) is simply a family friend or relative who is willing to offer her services to act as a surrogate. This deception results in a child being born to a father who has two wives, wife (A) who has provided the egg and wife (B) who as acted as the surrogate. This loophole is not addressed in English law but due to the religious acceptance within Muslim countries of having up to four wives and the acceptance of mut’a within Shia Islam, and ‘misyar’ in Sunni Islam, Mufti’s have addressed these issues within their Fatwas.
The implications of this will be severe in the United Kingdom as the Muslim couple feel that they are abiding by their religious code but are not fully disclosing the facts to the healthcare professional's. It is therefore essential that medical and legal practioners in the United Kingdom are trained and briefed in relation to the various religious and legal conundrums facing Muslim couples and to be able to deal with the issues effectively. A protocol setting out the various religious positions of the main five schools of thought, along with the English legal position will assist many Muslims to stay within the remit of their religion but also to abide by the laws of the United Kingdom. Let there be no doubt that English law will take precedent of other religious laws in the United Kingdom.

On a practical level from this thesis, we can see that stereotypes exist with many couples believing Islam to be a very archaic, barbaric religion which is very restrictive in ‘its’ approach to adapting to advancements in science and medicine. My thesis illustrates the complete opposite; Islam is a very flexible and adaptive religion, which meets the needs of the Muslims society at large. Sunni Islam represents the majority of Muslim throughout the world and in matters of assisted reproduction they are broadly in agreement. The Islamic Fiqh Academy of the Organisation of the Islamic (OIC), based in Jeddah, Saudi Arabia and Al-Azhar University in Cairo represent some of the definitive bodies on jurisprudential issues within Sunni Islam, however within Sunni Islam there is no hierarchical structure as compared to Shia Islam. Most of the matters debated related to ARTs date back to the 1980’s when these issues were discussed in detail. The salient points of the Sunni consensus is as follows:

1. Islam is pro-medicine and pro-science, and favours any advance that does contradict fundamental religious principles.

2. Fertility treatment can be resorted to in case of necessity, but should be confined to married couples.

3. Procedures involving the couple’s sperm and egg are not prohibited in themselves, in so far as they do not contravene other Islamic regulations; due caution must be observed regarding the sight and touch of the private parts of others, for example. Children of such procedures are considered legitimate.

4. No techniques that involve a third party are permissible; that is, paradigmatically, artificial insemination by donor, and also IVF using donor sperm, egg donation and surrogacy arrangements, i.e. the use of gestational carriers.
5. With regard to the latter two proscriptions, the possibility of polygamy in Islam raised the question whether it might be permissible where both women are married to the same man; although initially allowed by some, this ruling was subsequently altered to prohibition.

6. Such arrangements involving third parties are analogous to, if not identical with, illegal sex zina; children born of them are illegitimate, hence have no paternal relation; the maternal relation is ascribed to the birth mother by most, but not all, Sunni authorities.

7. Such arrangements, like zina in general, are pernicious because they upset and confuse the clear genealogical relations that God has laid down as the basis for the organisation of human society, underpinning such important institutions as, for example, inheritance law. 526

Shia scholars share the Sunni commitment to science and medical progress. Shia authorities likewise for the most part find assisted reproductive procedures involving a husband and (one) wife unproblematic. However, there is a diversity of opinion regarding the use of third parties in assisted reproduction, and the consequent relations. Some of these opinions are strikingly less restrictive than the Sunni consensus.

The permissibility of polygamy in Islamic law raises the possibility of procedures involving two wives, one providing the egg, the other carrying the resulting embryo in her uterus. The Sunnis have, by and large, decided that such procedures are not to be allowed. These are more readily allowed by the Shia authorities. The institution of temporary marriage in Shia law allows, under some opinion, the legitimization of egg donation and surrogacy arrangements by contracting temporary marriages between husband and the donor or the surrogate for the required time period. Ayatollah Khamenei'i holds the most unrestricted position of all, and allows AID, along with egg donation, surrogacy arrangements and the post-mortem use of gametes, IVF procedures using donor sperm (as opposed to direct insemination) may be allowed by some Shia authorities, who find that it is the insemination of the sperm itself, rather than an embryo constituted from it, that is the problem, but the majority of opinion, Sunni and Shia finds such procedures dubious.

Within Islamic law generally there seems to be wide scope for variation in opinion and interpretation, a scope fully exploited by the Shia authorities, supposedly less constrained in

526 Inhorn, M, Local babies, global science: Gender, religion and in vitro fertilization in Egypt. (Routledge, 2003) pg. 97-98
this regard than the Sunni. Theoretical debate is open in both cases, and legal opinion is clearly not static; positions have changed and are still changing.

Using Islamic law, Shia authorities have made great strides to understand the modern needs of society. We are awaiting bold Sunni scholars to take a brave leap, to make a change, and, like their Shia counterparts, start a revolution. Islam is often misrepresented as being an archaic religion that was relevant centuries ago. However one thing to be noted is that Islamic religious decree is on par with the English legal system, and in some cases such as within the Shia school is ahead of English law.

The Judiciary in the United Kingdom need to keep apace with the medical and scientific advancements and provide judgements according to the needs of the modern age. We need to be brave in addressing these concerns but be careful that we don’t go down the slippery slope where we could end up with an un-balanced society.

We must hold back in certain areas as practices such as sex selection, designer babies and eugenics take us beyond providing a solution for infertility and, into a dangerous realm of aesthetics in an image conscience society. There is also an element of ‘playing God’ where assisted reproduction does not become a need, but a want and a desire for perfection.

Drawing the various strands together it becomes abundantly clear that IVF is the most acceptable form of reproductive technology whereas surrogacy is still contentious. Genetic engineering is something, which has drawn headlines throughout the world and is arguably the most beneficial innovation of this century, but at the same time if it is not legislated properly could lead to an un-balanced society.

Whether it is English law, Islamic law or our morality it is without doubt that over the century, views and legal opinions have changed with the ever evolving, advancement in science and medicine. What is evident from these systems of law is that they are open and willing to adapt to change, in order to meet the needs of individuals, which they govern.
It is without doubt that further research and debate needs to take place to develop a better understanding of these reproductive technologies and how it impacts upon ordinary lives. Further, how these reproductive technologies can be better legislated with the ultimate goal of understanding the needs of those who have desperate searched to find a solution to their infertility? Time will tell.
BIBLIOGRAPHY


*Abu Dawud Vol 2*


Agar N, *Perfectcopy, unravelling the cloning debate*, (Icon Books Ltd 2002)


Al-Hibri AY, ‘Islamic constitutionalism and the concept of Democracy’ (1992), Case Western Reserve Journal of International Law, Vol.24, No.1

Alaro MARA, *Islam and Bioethics; a publication of Ankara University*


Al Milal Wa’n-Nihal, Vol.4 (1968)

Al-wajiz Borno, Fi Qawa’id al-Fiqh al-Kulliya (1998)


Almond B and Parker M, Ethical issues in new genetics: Are Genes Us, (Ashgate Publishing 2003)


Anderson WF, ‘Genetic and Human Malleability’; (1990), Hastings Centre Report 20

Anderson WF and Fletcher JC, ‘Gene Therapy in Human Beings: when is it ethical to begin?’, (1980), New England Journal of Medicine, 303


Ballantyne A, ‘Dr Dolly plans the clones that will save lives’, The Sunday Times, 16 May (1999)


Brazier M, ‘Regulating the Reproduction Business?’, (1999), Medical Law Review, 7, Summer


Corea G, *The mother machine; reproductive technologies from artificial insemination to artificial wombs*, (Harper Collins 1985)


Cruz DP, *Comparative Healthcare Law*, (Cavendish Publishing Limited 2001)


Davis SD, *Genetic Dilemmas, Reproductive technology, Parental Choices and Children’s Futures*, (Routledge 2001)


Doi IRA, *Shariah The Islamic Law*, (Ta-Ha Publishers Ltd 2008)


Eich T, 'Muslim Voices on Cloning', (2003), *ISIM Newsletter*, 12 June


Eijkholt M, 'Commentary: The right to procreate is not aborted', (2008), *Medical Law Review* 16

Eijkholt M, 'The right to founded a family as a stillborn right to procreate?', (2010), *Medical Law Review* 18,


Ethical Issues in the Creation and selection of pre-implantation embryos to produce tissue donors – delivered by the HFEA Ethics Committee, *Opinion of the ethics and law committee of the HFEA*, (2001)


Fadel EH, ‘Assisted Reproductive Technologies; An Islamic Perspective’, (1993), Journal of Islamic Medicine

Farrelly C, ‘Genes and social Justice’ A Rawlsian reply to Moore’, (2002), Bioethics, 16 (1)

Fatwa al-Majma al-Fiqhiyya, Jeddah, Saudi Arabia, 14-20 March (1990), Decision No (58/7/6) concerning the use of embryo for transplantation; recommendation of the meeting in Kuwait 23-26 October, in Majalat al-Buhuth al-Fiqhiyya.al-Mu’asara contemporary jurisprudence research Journal, second year, No.6, August September October 1990.


Feinberg J, Harm to Others. The Moral limits of Criminal Law, (Oxford University Press 1987)


Fletcher JC, ‘Ethical issues in and beyond prospective clinical trials of human gene therapy’, (1985), Journal of Medicine and Philosophy, 10(3)

Franklin S and Roberts C, Born and Made: Ethnography of Pre-Implantation Genetic Diagnosis, (Princeton University Press 2006)

Friend T, ‘Report; Medical potential is huge’, *USA Today* (24th May 1999)


Government response from the House of Commons Science and Technology Committee, Presented by the Secretary of State for health by command of her Majesty, Publications on the internet- Science and Technology Publications August (2005)


Harris J, *The Value of Life*, (Routledge 1985)


Hathout H, *Islamic perspective in Obstetrics and Gynaecology*, (The Islamic Organization for Medical Sciences 1986)


House of Commons Select Committee on Science and Technology: *The cloning of Animals from adult cells* (1996-1997)

*Human Fertilisation and Embryology (Research Purpose) Regulations*, (2001)


Human Genetic Commission, *Making babies; reproductive decisions and genetic technologies*, January 2005


Husaini A and Waqar S, *Islamic Sciences: An Introduction to Islamic ethics, law, education, politics, economics, sociology and system planning* – (Goodword Books 2002)


Ibn Majah Vol 2


Kadri S, Heaven on Earth, A journey through Shari’ah Law,(The Bodley Head 2011)


Kant I, Grounding for the Metaphysics of Morals, (Hackett 1993)

Kamali HM, ‘Methodological Issues in Islamic Jurisprudence’, Arab Law Quarterly

Kass LR, ‘The wisdom of Repugnance; Why we should ban the cloning of humans’, (1998), Valparaiso University Law Review, 32(2)

Kennedy I, Treat Me Right’ Essays in Medical Law and Ethics, (Oxford University Press 1991)

Kennedy I and Grubb A, Medical Law, (3rd edn, Butterworth’s 2000)


Khan MM, The transaltion of the meaning of summarized Sahih-al-Bukhari, (Kazi Publications 1994)


Kolata G, *The Road to Dolly and the path ahead*, (Rebound by Sagebrush 2001)


Krimsky S, ‘Human Gene Therapy: Must we know where to stop before we start?’, (1990) Human Gene Therapy 1(2)


*Law, Medicine and Ethics, Essays in Honour of Lord Jakobovits*, (Cancerkin 2007)


Madkour, Al-Madkhal (1966)

McCall Smith RA and Mason JK, Law and Medical Ethics, (5th edn, Butterworth’s 1999)


McCarthy D, ‘Why sex selection should be legal’, (2001), Journal of Medical Ethics, 27


McHale and Fox, Healthcare Law: texts, cases and materials, (2nd edn, Sweet & Maxwell 2006)


Marba‘ah Mustafa al-Babi al-Habibi, Vol 2, Cairo (1952)


Mason JK, Laurie TG, *Law and Medical Ethics*, (9th edn Oxford University 2013)


Mohammed MA, *Contemporary Topics in Islamic Medicine*, (Saudi Publishing House 1985)


Morgan D, *Issues in Medical Law and Ethics*, (Cavendish Publishing Limited 2001)


Nasr HS, *Islam Life and Thought*, (Suhail Academy 1999)


Norgren A, *Responsible genetics; the moral responsibility of geneticists for the consequence of human genetic research*, (Kluwer Publishers 2001)

Nyazee KAI, *Theories of Islamic Law*, (Islamic Research Institute Press 1991)


Omran AR and Serour GI, *Ethical guidelines for Human reproduction Research in the Muslim World*, International Islamic Centre for Population Studies and Research, Al Azhar University, (1992)

Omran AR and Serour GI, *Proceedings of the first international conference on bioethics in human reproduction researching the Muslim world*, International Islamic Centre for Population Studies and Research, Cairo (1992)


‘Out of one cell, many’, *USA Today*, (24th May 1999)


Raymond J, Women as wombs: reproductive technologies and the battle over women’s freedom, (Spinifex Press 2003)

Recommendations 10, Government Responses to the Report from The House of Commons Science and Technology Committee: Developments in Human Genetics and Embryology, November (2002)

Report of the Committee on the Ethics of gene Therapy (cm 1788) (1992)

Rifkin J, The biotech century: Harnessing the Gene and remaking the world, (Tarcher 1999)

Rispler-Chaim V, Islamic Medical Ethics in the Twentieth Century, (Brill Academic Pub, 1993)

Roberta MB, The Ethics of Genetic Engineering, (Routledge 2007)


Robson J, trans Sh. Muhamamd Ashraf, Mishkat Al Masabih, (Kashmir Bazar 1975)


Sheikh Ata’ullah, Iqbal Nama, (M Ashraf)


Schacht J, ‘Problems of Modern Islamic Legislation’, (1960), Studia Islamica 12


Serajuddin MA, Shariah Law and Society, Tradition and change in the Indian subcontinent, Asiatic Society of Bangladesh (1999)
Serour GI, ‘Bioethics in reproductive health: A Muslim’s Perspective’, (1996), Middle East Fertility Society Journal 1


Sheikh H A M, Islamic Principles on Family Planning, (Darul-Isha’at 1999)

Sheldon S and Horsey K, ‘Still hazy after all these years; the law regulating surrogacy’, (2012) Medical law Review, 20

Shirbini –Al, Mughni al-Muhtaj ila Ma’rifatil Ma’ani alfadh al-Minhaj; Arabic, Dars al-Hadith, (2001)


Sorensen K, ‘Genetic enhancement and expectations’, (2009), Journal of Medical Ethics 35,


Suzuki D and Knudtson P, Genetics: The clash between the new genetics and human values, (Harvard University Press 1990)

Surrogacy – Review for the Health Ministers of Current Arrangements for Payments and Regulation (CM 4068)


*The Sunday Times* – 16th May (1999)


Tirmidihi Vol iv


Tufail M, Sunnan Ibn Majah Kitab, (Bhavan 2000)


Wael BH, ‘Was the gate of ijtihad closed?’, (1984), International Journal of Middle Eastern Studies 16

Wael BH, Sharia, Theory, Practice, Transformations, (Cambridge University Press 2009)

Wang et al, 'Body mass and probability of pregnancy during assisted reproduction treatment: retrospective study', (2000), British Medical Journal 137


Weaver CJ., Christianity and Science, (SCM Press 2010)


Yacoub AAA, The Fiqh of Medicine, (Ta Ha Publishers Ltd 2001)

Z. Mehri and L Pal, ‘Gender tailored conceptions: should the option of embryo gender selection be available to infertile couples undergoing assisted reproductive technology?’, No8. (2008)

Zimmermann WF, *Al Farabi’s commentary and short treatise on Aristotle’s De Interpretatione* (Oxford University Press 1981)

Zyl VL and Neirkerk VA, ‘Interpretations, Perspectives and Intentions in Surrogate Motherhood’, (2000), Journal of Medical Ethics 26


WEBSITES

www.al-islam.org, ‘New techniques in human reproduction’ Chapter 5

www.bioethics.org.au

www.cin.org

ww.cmf.org.uk

www.doh.gov.uk

www.fertility.org.uk

www.britishfertilitysociety.org.uk


http://www.bioethics.org.au/resources/online%20articles/opinion%20pieces/1901


http://oxforddictionaries.com/definition/english/moral
http://oxforddictionaries.com/definition/english/ethics

http://news.bbc.co.uk/1/hi/health/4328919.stm


http://poynter.indiana.edu/publications/m-lauritzen.pdf


www.iim.org/islamed3.html

www.islam101.com – Muzammil H Siddiqi

www.islamicvoice.com – Islamic Answers cloning concerns, Mustafa Abid

www.islamset.com – Islamic organization for Medical Sciences


www.islam-usa.com