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# UNIT 11: NEW REPRODUCTIVE TECHNOLOGY AND KINSHIP\*

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## 11.0 OBJECTIVES

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After reading this unit you will be able to:

- Discuss new reproductive technologies or NRT;
- Examine how NRT is transforming prior definitions in kinship;
- Explain how NRT is changing the meaning of maternity/paternity;
- Examine the application of NRT with reference to fertility clinics;
- Note the reception of NRT in Society.

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## 11.1 INTRODUCTION

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The innovations in reproductive technology are changing the meaning of concepts central to kinship such as motherhood, personhood and parenthood. As a consequence of reproductive technologies, the boundaries between the biological and social basis of kinship have become blurred. No doubt it has revolutionised the act of birthing. Birth is no longer only a biological event but is now a social event as it creates relationships. Reproductive technologies challenge previously held cultural constructions of kinship and bring about new kinds of social relations in that kinship boundaries are redefined. In this unit, we

will explore the new reproductive technology and how it has transformed the act of procreation thereby allowing for the recasting the understanding the meaning of reproduction, motherhood, maternity and son on.

In our first section we will try and understand what are New Reproductive Technologies (NRT). The development of NRT paved ways for formation of family and increased the possibility to reproduce beyond biology. It has led to a cultural understanding of family and kinship. So, in our subsequent sections we shall examine how some of the received notions of kinship which tend to be based on biological base have been debunked. In the sections following this we shall look at the nature of fertility clinics and their acceptance or rejections and the disadvantages and advantages of NRTs.

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## 11.2 UNDERSTANDING NRT IN KINSHIP STUDIES

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Reproductive technologies are a ray of hope for those unable to bear children by the process of natural conception or choose means other than biological conception to establish a family. Examples of the former include married infertile couples, while the latter includes queer community and those aiming at single parenthood. Thus, technology is changing notions of family, parenthood, gender roles and marriage within kinship studies under the influence of reproductive technologies. NRT have made it clear that descent and alliance are not the only basis of forging kinship.

While NRT demarcate the possibility of furthering biological kinship, despite procreative challenges, whether these are recognised as kin relations is a much more complex question. Their acceptance has not been uniform in societies where they are practiced. This is because in different cultures the strict codes for inclusion of the progeny as a legitimate member of society based on the manner of conception varies. While some societies lay emphasis on procreation concerning only biological parents, others incorporate technological innovation more readily, thereby accepting involvement of larger number of people in the process of conception and childbirth. Other than the biological parents, medical practitioners and the state become part of the system of reproduction.

Societal norms that restrict interaction between certain groups due to their perceived inequality in terms of class, ethnicity, race, caste, religion etc., do not take kindly to medical procedures that overlook these very considerations in regards to patients and donors. Those societies that allow use of NRT ensure strict checks and controls to avoid breakage of ethical and religious codes.

Reproductive technologies are not a new phenomenon—the world's first test tube baby, Louisa Brown, was born in the U.K. in 1978. But the development of these procedures as a specialised branch within biogenetics to correct or circumvent infertility is recent. Reproductive technologies are a result of developments in biotechnology. It marked a shift from nature to choose by opening up possibilities of parenthood to those otherwise hampered by biology. For example, infertility, same sex couples or singles, divorcees, widows/widowers, that is, those without a sexual partner. The development of NRT paved ways for formation of family and increased the possibility to reproduce beyond biology. It has led to a cultural understanding of family and kinship.

### 11.2.1 What is New Reproductive Technology (NRT)?

New Reproductive Technology refers to technologies that intervene in the biological act of procreation. It can facilitate, prevent or intervene in the process

of reproduction including birthing, contraception, abortion and antenatal testing. NRT is also referred as assisted reproduction.

NRT has been classified into three main categories: (Jary, David and Julia Jary, 2000:515)

- a) Managerial technologies, which includes the management of pre-pregnancy, pregnancy and birth
- b) Contraceptive technologies, which can be non-interventionist like diaphragm or condom, or involves use of hormone suppressants, intra-uterine devices and sterilisation
- c) Conceptive technologies, including artificial insemination, surrogacy, fertility drugs, embryo donation and in-vitro fertilisation.

The most prominent reference for understanding NRT is In-vitro Fertilisation (IVF). In this procedure eggs are surgically removed from one woman's ovaries and transferred into another woman's womb in order to create reproductive possibilities. NRT is not only a medical device, but also an institution that allows the "creation of parenthood, thus giving way to new forms of procreation (Heritier 1985). NRT requires the intervention of human, machine and medical professional to make reproductive choices available to individuals. The inherent requirement of third party in reproduction has impacted the understanding of kinship.

### **11.2.2 Shift in the Focus of Kinship Studies**

The cultural approach that emerged in the 1970s stressed on the fluid and ever-changing nature of kinship relations. In recent years, these changes have been furthered by developments in biotechnology based reproductive procedures. These are adding new dimensions of how kinship is understood differently in different cultures. Family no longer remains only biological, but rather is also defined by genetics and technology. Marriage is now an option rather than a compulsion in order to experience becoming a parent.

NRT show how the meanings of the terms motherhood and fatherhood depends on the way these are conceptualised in different societies. They are both social constructions, especially with reference to new reproductive technologies. Before these technologies became available, the facts of nature could not be denied. Fertilisation, gestation and parturition (birthing) could not be separated. NRT has separated conception from birth. It has brought to question not only who the child's father is but also who the child's mother is (earlier maternity was obvious although paternity could be suspect). If the egg belongs to one (mother) and womb to the other then the question arises as to who is the genatrix.

One of the key scholars leading the way in challenging the is David Schneider, who incorporated narratives from varied societies. He has been instrumental in shifting the focus of kinship from fixed and static assumptions of kinship; as defined by function, social structure and rules, to consideration of the diversity based on cultural variations in meanings from the perspective of people as they experienced kin relationships in their everyday lives.

In studying American kinship, Schneider's views reflect the fluidity in kinship he himself advocated. He stated that kinship was based on ideas about 'shared biogenetic substance' and 'enduring diffused solidarity'. According to him, American references to biology in discussions on family had no necessary

relation to biology as a natural process but rather to cultural constructs and were essentially symbolic. ‘In American cultural conception, kinship is defined as biogenetic. This definition says that kinship is whatever the biogenetic relationship is. If science discovers new facts about biogenetic relationship, then that is what kinship is and was all along, although it may not have been known at the time’ (Schneider 1980: 23).

Schneider makes room for innovations in biogenetics technology as having a place in redefining kinship. The manner in which relations are recognised as kin and accordingly nurtured over time need not be only based on biological links. Parenthood is not restricted to biological procreation. Options like adoption, foster care have always existed in various societies across time and place. But the biogenetic link missing from these options makes them seem like a compromise in the eyes of society emphasising on relationship of blood within social parameters of caste, race, ethnicity and religion. Certain procedures in technological reproduction result in biogenetic links with those other than the socially recognised parents, but parenthood is denied to the person contributing the biological factor in such cases.

According to Marilyn Strathern, instead of technology leading to less attention being given to societal considerations, the increased use of technology means increased social intervention through legislation on parenthood (Carsten, 2000: 10). Reproduction no longer remains within the personal realm. It is controlled and sanctioned with permission from the state, medical authorities and legislative mechanisms.

### 11.2.3 Redefining Meaning of Motherhood and Maternality

Reproductive technologies have changed the way we think about motherhood. Earlier, motherhood was seen as culturally and legally established through genetic kinship claims based on a nuclear family structure. Today reproductive technologies have allowed for a new legitimatisation of motherhood and thereby widening the scope of motherhood to include a wide range of possibilities that no longer rest on simple biological claims and the traditional nuclear family model.

This challenges the normative family model and destabilises societal understandings of motherhood because the “mother” may involve an egg donor or a surrogate, or be two fathers or a grandmother, or involve more participants than the intended parent. It is evident; therefore, that motherhood may no longer be defined solely by having birthing rights over the child.

The origin of maternity as a biological phenomenon is often challenged with the development of ovum-related technologies. By dividing biological roles of motherhood into genetic (eggs) and gestation (wombs), these new technologies force conceptual fragmentations of maternity as well. As soon as eggs are surgically removed from one woman’s ovaries and transferred into another woman’s womb, reproductive possibilities are created.

#### Check Your Progress 1

1. What are new reproductive technologies?

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2. What is In-vitro Fertilisation or IVF?

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### 11.3 UNDERSTANDING KINSHIP THROUGH NRT: THE CASE OF ISRAEL

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Susan Martha Kahn in her work, *Eggs and Wombs: The Origins of Jewishness* brings out the issue of NRT and how it has led to re-imagining of kinship. The work based on ethnographic study of fertility clinics in Israel. Israel has more fertility clinics than in other part of the world and has the world's highest per capita rate of in-vitro fertilisation procedures. These phenomena are not the result of unusually high rates of infertility in Israel but reflect the centrality of reproduction in Judaism and Jewish culture.

The study was carried out in a small religious Jewish hospital comprising of ultraorthodox Jews, Muslims, and Christians, where every procedure was carried out carefully under the purview of the Jewish law, thus making this 'hospital' religious. Unlike the other hospitals here one can see bookcases of prayer books rather than cafeteria, patient lounge. The procedures in the hospital were performed with the consideration of the Halakha (Jewish law and jurisprudence, based on the Talmud). Kahn's study of NRT in Israel depicts how local attitudes, efforts of the medical community, supportive government policies and rabbinic beliefs have affected the way this technology is received and used to incorporate new meanings of kinship.

#### 11.3.1 Making Mothers Through Technology

The doctor told Kahn "isn't it amazing? We're making her a mother!" With this comment Dr. Benjamin made the connection between the medical realm of the operating room and the symbolic realm of kinship. She made explicit what was implicit, that this technology created a new way to make mothers, a new origin myth, as it were, for the beginning of motherhood. Mothers are now something that doctors make women into...the technological creation of motherhood (Kahn, 2004: 369).

Kinship is recast through technological advancement, which is helping people reconstruct their Jewish identity and ensure continuity of the group. The balance between technology, health and society has to be carefully maintained, keeping within the religious tenets of the Jewish community in Israel. With the use of new reproductive technology, Israeli culture has embraced use of technology in the biological conception without disregarding the hold of religious laws. Medical procedures are carried out while upholding all religious beliefs associated with conception, that is, a carefully balanced coexistence between science and

religion in the conferring of motherhood. If the religious code is overlooked, the procedures may be stopped. This would be detrimental for the prospective mother, for the child to gain acceptance as a citizen, for the doctor's reputation and thus for development of the community as a whole.

### 11.3.2 Maternity, Identity and Nation

In Israel, maternity remains within the purview of religious laws because it not only defines belonging in terms of kinship, but also one's membership within the religious group and right to citizenship. Jewishness determines belongingness to a nation and acquirement of citizenship. Kinship identity is defined matrilineally, making the identity of the mother crucial if legitimacy is to be accorded to the child.

Since citizenship and identity is closely tied to maternity, procreation is closely managed under the rules given under religious codes, including in the use of NRT. The use of NRT is not imbibed smoothly. There are criticisms that such technologies challenge traditional beliefs about the origin of motherhood. Rabbis are confused whether to locate maternity in genetic substance of the egg, gestation environment of the womb or in both. These debates determine appropriate rules for conception of new Jewish citizens because Halakhic law regarding women's bodies has an impact on clinical protocol.

All procedures of assorted reproduction, extracting eggs from body, fertilising eggs and sperms and injecting embryo into women's womb, observed 'Jewishness'. The fertility clinic has a religious colour and helps in construction of Jewish identity. The clinic is regarded as religious because:

- All treatments and procedures are performed under careful consideration of Jewish law.
- The setting is not ostentatious with a bookcase full of prayer books in the waiting area.
- The laboratory workers working at the clinic are closely observed, monitored and supervised by Maschgichot---Halakhic inspectors, to ensure that no mixing of sperm and egg due to use of same syringe, pipette or catheter from a previous procedure, which may carry traces of someone else's genetic material. These inspectors consider their work to be "holy work".
- According to Halakha religious law, only married couples with fertility problems can avail of the treatment. It is not an option for unmarried women.
- Flowcharts along with medical details of the patient. They contain reports of hormonal treatments, blood tests, temperature, ultrasound results and the date of immersion in Mikveh--- the ritual bath undertaken to ensure a state of purity and avoid impurity or a state of "niddah" prior to the woman undergoing the procedure engaging in sexual relation with her husband. This is also crucial to Halakhic concerns regarding conception.

The different allowances for determining maternity pose a problem in determining kinship especially in Israel, where religious identity is determined matrilineally and automatically confers citizenship.

### 11.3.2 Concerns Resulting from use of NRT in Israel

There is an emerging contradiction in Israeli society, which, on one hand, prioritises motherhood as the defining factor for women’s standing in society and on the other hand puts conditions of legitimising the offspring by imposing expectations of conception within the purview of Halakhic laws.

The use of NRT is monitored and permitted under close scrutiny by upholders of religious laws. Those who opt for the use of NRT requires permission for undergoing the procedure. There are limitations on who can perform the procedure. Questions of motherhood with regard to whose egg and whose womb and thus who is the ‘real’ mother of the child born are challenges that remain unresolved and are contributing to the negative image of NRT. The religious parameters that may be required to be strictly observed during the procedure --- all depict the over-bearance of society over the couple opting for this procedure.

Manipulation of boundaries: keeping within the broad framework of religious codes under the traditional Halakhic ideas about purity- impurity overlooked in surgical protocol, there is considerable room for playing with the boundaries. For instance, the doctor may be under pressure to increase the number of IVF pregnancies in her unit in order to ensure getting clients to keep the business running. The doctor may be less forthcoming about the source of the bleeding during the IVF procedure. A patient undergoing treatment will not want to volunteer information to her Rabbi that may negatively impact her treatment. A rabbi may choose to give permission to a woman suffering from childlessness. It is also possible that Rabbis devise their own interpretation of who should be recognised as a mother. Determination of maternity has clearly been destabilised by ovum-related technology. But this technology is not looked at in the negative sense as posing a challenge to traditional orthodox beliefs. It is clear that the desire to attain motherhood plays a significant part in helping to overcome inhibitions regarding modern technology that may have emerged from Orthodox Jewish religious beliefs.

#### Check Your Progress 2

1. Discuss how citizenship and identity is closely tied to maternity in Israel.

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2. Mention any two challenges faced by fertility clinics in Israel.

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## 11.4 SOCIOLOGICAL RELEVANCE OF NRT

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With advances in reproductive technologies, the aspiration to establish a biological family does not have to be compromised due to problems of infertility and sterility. The sphere of reproduction as characteristic to the personal or domestic sphere of the home was challenged by feminist thought. Feminists have called attention to the wrongful but accepted binary between male/female, mind/body, culture/ nature, production/reproduction.

### 11.4.1 Technology and Patriarchy

The option of NRT is especially useful in the context of patriarchy, which defines women primarily in terms of her reproductive capacity with emphasis on a genetic and blood link with the child. Reproduction is seen as a natural process over which men exert control through technological intervention. They have been blamed for promoting patriarchy and equating motherhood with womanhood, thus enforcing linear progression from marriage to childbirth by playing on the stigma of childlessness. ‘Women’s bodies are anesthetised, surgically invaded and intruded upon in the name of conceiving children’ (Kahn, 2004:363)

NRT is regarded by feminist critics as gender-fragmentation of women’s bodies into eggs and wombs, which dehumanises and objectifies women by promoting a view of their bodies as detachable parts that can be combined and recombined to create motherhood. Women desperate to become mothers are given a chance to become “complete” by using reproductive technological procedures.

### 11.4.2 Enhance Women’s Access to and Control Over Technology

A positive viewpoint is that reproductive technology is liberating for women by helping them overcome their relegation to the domestic sphere by handing them control over their reproductive abilities—whether to conceive, when to conceive and how to conceive.

Those opting for NRT have to fend off social stigma as some individuals or social groups may consider NRT to violate certain conditions they feel are necessary for acceptance of the child as a member of their community. They may find uncertainty of traceable relatedness and social credentials of the donor parents involved and lack of commonality of religion, race and ethnicity unacceptable to carry out reproduction using technology that involves such persons.

There are mixed opinions about the appropriateness of using such technology. While some agree that technology is helpful to those facing problems in childbearing, others feel that reproductive technologies result in defamiliarising’ of the natural basis of human procreation and reproduction (Carsten, 2000:11) and are evidence of oversights of social norms surrounding cultural and religious beliefs, as seen in the case of Israel in dilemmas facing rabbis and the face of NRT.

### 11.4.3 Allows for Formation of 'Families by Choice'

Reproductive technologies have allowed formation of “families of choice” – same-sex, single parenthood and so on. The family by choice is an illustration of the fact that biology is not the only defining feature of kinship. People can be kin without sharing blood and marital relation.



Kinship is based on love and enduring solidarity expected to characterise these familial relationship. Further it also negates the ideas of procreation based on heterosexual identities.

Family is no longer seen only as unit for reproduction rather it can be a non-procreative unit.

Such family ties are based on ideology of choice and love, and stand in opposition to biological model of kinship. The families of choice therefore, emerge as an important basis to question biologically modelled heterosexual domain of kinship, which has failed to provide support and care to lesbian women and men.

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## 11.5 NEGATIVE IMPACTS OF NRT ON FAMILY AND KINSHIP

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Due to debates about the appropriateness of NRT, it is not guaranteed that they will be well received and accepted in positive terms by all members of the society that adopts them. NRT are sparking legislative debates about the ethical, social and legal consequences of its uses (Levine 2008: 381).

The unregulated proliferation of reproductive technologies brings in serious questions that force a rethinking of the idealness of reproductive technology. This technology is considered to promote capitalism by treating human bodies as commodities for sale-worthy economic capital and resorting to medical tourism. It results in an unethical but thriving 'fertility industry' where human reproductive parts like eggs, sperm, uteri and embryos can be 'bought', 'sold' or 'hired' (Marwah, 2011). It overrules health rights and concerns of gender by exploiting donors through low economic reward scales and health risks from unregulated frequency of procedures. It results in medicalisation of their reproductive bodies as both clients for treatment of their own infertility and also as donors facilitating others to have babies (Patel, 2013:69). NRT have received a mixed response because of problems bordering on their lack of affordability, accessibility in different countries and low success rates.

NRT is changing the existing understanding of how motherhood and identity is conferred upon the mother and child respectively at the cost of becoming a threat to religious beliefs regarding pollution, conception and determination of maternity. Older, unchanged, norms which make no provision for new innovations and procedures must be upgraded at the earliest. The contest between tradition and modernity is brought to the fore and is currently unresolved in the case of reproduction in Israel.

### Check Your Progress 3

1. State any two relevance of NRT for society

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2. Do you think use of technology for human reproduction has any negative consequence? Illustrate your answer with examples.

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## 11.6 LET US SUM UP

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In this unit we have comprehended the meaning of new reproductive technology and how it has redefined the understanding of parenthood. The use of technology for reproduction has challenged the traditional understanding of motherhood and maternity. We have learnt that NRT has led to de-naturalisation of reproduction, implying that birthing is no longer only a biological process but something that we constructed in medical laboratories. We have also seen that NRT has not only expanded the scope of kinship studies but has contributed significantly to enhance the status of women. It has given more reproductive choices to women and allowed them to come out of the trap of biology. Despite the advances made, there are some repercussion of the use of technology and it has generated questions of identity of children born through assisted reproduction

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## 11.9 SPECIMEN ANSWERS TO CHECK YOUR PROGRESS

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### Check Your progress 1

1. Reproductive technologies are a result of developments in biotechnology. They refer to technologies aimed at facilitating, preventing or intervening in the process of reproduction such as contraception, abortion, antenatal testing, birth technologies and contraceptive technologies.
2. NRT change the notion of motherhood in Israel by designating as separate genetic and gestation mother---one providing the egg to be fertilised and the other the womb for gestation.

### Check Your Progress 2

1. In Israel, maternity remains within the purview of religious laws because it not only defines belonging in terms of kinship, but also one's membership within the religious group and right to citizenship. Jewishness determines belongingness to a nation and acquirement of citizenship. Kinship identity is defined matrilineally, making the identity of the mother crucial if legitimacy is to be accorded to the child.
2. Two challenges faced by fertility clinics in Israel are:
  - i. Motherhood bound to religious conditions: There is an emerging contradiction in Israeli society, which, on one hand, prioritises motherhood as the defining factor for women's standing in society and on the other hand puts conditions of legitimising the offspring by imposing expectations of conception within the purview of Halakhic laws.
  - ii. Outdated religious codes and differences in opinion of Rabbis: Traditional rabbinic imagination does not mention any reference to ova. Thus, for rabbis, determining motherhood involves making an interpretation of something which according to the religious texts does not even exist. Rabbis devise their own interpretation of who should be recognised as a mother

### Check Your Progress 3

1. The two relevance of NRT for society are:
  - a) Reject technology as patriarchal
  - b) Gives freedom and agency to women
2. The use of technology for human reproduction can have negative consequences. It has added a monetary value to the biological process and this has created a divide between the rich and the poor. The women from economically weaker section have become victim of the commercialisation of surrogacy.