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Mary V. Rorty

JoAnn V. Pinkerton

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ELECTIVE FETAL REDUCTION: THE ULTIMATE ELECTIVE SURGERY

Mary V. Rorty, Ph.D. and JoAnn V. Pinkerton, M.D.

Case:

A thirty-three year old woman presents with a ten week pregnancy. Ultrasound examination reveals two gestational sacs. The mother expresses great distress at the thought of multiple pregnancy. Although this third pregnancy is an intended and desired one, she claims that the financial and emotional stress of two babies at a time when she is still responsible for the care of two young children at home will exceed family resources and potentially lead to a breakup of her marriage. She has heard of fetal reduction procedures and requests that her obstetrician abort one of the two fetuses.¹

I. INTRODUCTION

Fetal reduction surgery is both technically possible and increasingly common in the context of infertility treatments for multiple fetal pregnancies. Fetal reduction procedures "reduce" the number of potential live births in order to improve outcomes. Because of greater risk of preterm delivery in multiple fetal pregnancies, some commentators have argued that social, economic, and personal costs make it desirable to "reduce" multiple pregnancies whenever possible.² Indeed, in the case presented above, the mother requested the procedure to reduce naturally conceived, apparently normal twins to a singleton birth.

The nature of contemporary medical practice is that interventions that are discovered and perfected in one context are readily transferable to others. If a specialist develops a high degree of skill in a procedure, the decision to invoke the skill in a different context might be: "I can do it."

^{1.} The case is a hypothetical composite based on cases described in the literature and calls to our Ethics Consultation Service.

^{2.} Emile Papiernik, Financing Multiple Births: A Personal Point of View, 35 INT'L J. FERTILITY 330, 330-32 (1990); L. G. Keith et al., The Costs of Multiple Pregnancy, 36 INT'L J. GYNECOLOGY & OBSTETRICS 109, 109-14 (1991).

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In the context of fetal reduction, however, the first question ought to be: "Should I do this?"

The ethical import of selective reduction varies with the differing clinical situations, and raises difficult issues for our society. Although some sources suggest that "the ethical issues involved in multifetal pregnancy reduction or in selective fetal termination are somewhat different from those involved in abortion,"³ much of the ethical controversy surrounding such procedures exists because of the similarity between such procedures and elective abortion.⁴ The above case raises the question of whether selective reduction should be limited to those cases involving strictly medical or genetic reasons for the procedure, or whether the procedure is appropriate electively, upon the mother's request, for the same reasons that elective abortion is available, including maternal autonomy and reproductive rights.

A. Origin of Fetal Reduction

Multiple pregnancies are associated with a high risk of preterm delivery. According to one source, in 1990, although only 9.7% of singleton births were pre-term, 47.9% of twin births, and 87.9% of triplet and larger multiple births, were premature.⁵ As a side effect of fertility treatments, including ovulation-inducing drugs and assisted reproductive technologies such as in vitro fertilization ("IVF"), gamete intrafallopian transfer ("IFT"), and zygote intrafallopian transfer ("ZIFT"),⁶ there has

5. See B. Luke, The Changing Pattern of Multiple Births in the U.S.: Maternal and Infant Characteristics 1973 and 1990, 84 OB-GYN 101 (1994).

^{3.} ACOG Committee on Ethics, Multifetal Pregnancy Reduction and Selective Fetal Termination, Opinion 94, 38 INT'L J. GYNECOLOGY & OBSTETRICS 140, 140-42 (1992).

^{4.} Marian A. Ormont & Peter Shapiro, Multi-fetal Pregnancy Reduction: A Review of an Evolving Technology and Its Psychosocial Implications, 36 PSYCHOSOMATICS 522, 528 n.23 (1995) (citing D. A. Greenfield & V. N. Walther, Psychological Considerations in Multifetal Pregnancy Reduction, 4 INFERTILITY & REPROD. MED. CLINICS OF N. AM. 533, 533-543 (1993)).

^{6.} In vitro fertilization procedures fertilize ovae outside of the woman. The ovae are collected from the ovaries or fallopian tubes after hormone stimulation, fertilized by collected semen in a petrie dish (in vitro), and then returned to the uterus for implantation. The procedure sometimes is referred to as IVF-ET, in vitro fertilization and embryo transfer. A later development, appropriate only for cases where the fallopian tubes are not blocked, is gamete intrafallopian transfer. This is where extracted ovae are returned to the fallopian tubes along with collected semen, and the fertilization takes place within the body, instead of externally. Zygote intrafallopian transfer is another variation, where a fertilized egg is returned to the fallopian tubes, rather than to the uterus. Although some centers report higher rates, the success rate for pregnancies is about one in ten, with a lower rate of live births. See generally A TEXTBOOK OF IN VITRO FERTILIZATION AND

been an increase in multifetal pregnancies. In England, for instance, there was a fourfold increase in quadruplets from 1946 to 1985,⁷ and in Germany, a twenty-three fold increase from 1950 to 1980—primarily associated with assisted reproduction techniques.⁸ Since the first selective delivery in 1978, doctors have developed various techniques to reduce the number of fetuses in a pregnancy to improve the chances of a live birth. The procedure, which has become standard, reduces the number of fetuses in a multiple pregnancy to two.

Commonly used terms for this procedure of selective reduction include: selective feticide, selective birth, selective abortion, pregnancy termination, and pregnancy reduction.⁹ The terminology adopted by University of Michigan researchers,¹⁰ clearly distinguishes the procedures allowing us to discuss the different ethical implications.

B. Multi-fetal Pregnancy Reduction

The term multi-fetal pregnancy reduction ("MFPR") is preferred by the University of Michigan researchers¹¹ and the American College of Obstetricians and Gynecologists ("ACOG") Committee on Ethics for first trimester procedures performed as a result of "sheer fetal number."¹² Other terms include "embryonic reduction,"¹³ "selective embryo reduction"¹⁴ (used by French researchers), "selective reduction of multifetal pregnancies" (used by an Indian group),¹⁵ and "selective abor-

7. Marilyn C. Frederiksen et al., Fetal Reduction: Is This the Appropriate Answer to Multiple Gestation?, 37 INT'L J. FERTILITY 8, 37 (1992) (citing Three, Four and More: A study of Triplet and Higher Order Births, in OPCS BIRTH STATISTICS SERIES FMI (B. Botting et al. eds., HSMO 1990)).

8. Id. (citing H. Grutzner et al., Hohergradige Mehrlinge in Wandel der Zeit, 50 GBURTSH FRAUENH 368 (1990)).

9. Id. at 9.

10. See Mark I. Evans et al., Multiple Gestation: The Role of Multifetal Pregnancy Reduction and Selective Termination, 19 CLINICS PERINATOLOGY 345, 345-57 (1992).

11. Evans et al., supra note 10, at 347.

12. ACOG Committee on Ethics, supra note 3, at 142.

13. P. Boulot et al., Obstetrical Results After Embryonic Reductions Performed on 34 Multiple Pregnancies, 5 HUMAN REPROD. 1009, 1009 (1990).

14. J. Salat-Baroux et al., Is There an Indication for Embryo Reduction?, 7 HUMAN REPROD. 67, 68-69 (1992).

15. Sadhana K. Desai et al., Selective Reduction of Multifetal Pregnancies in the First Trimester Using Colour Doppler Ultrasonography, 8 HUMAN REPROD. 642, 642 (1993) (other terms utilized by the Indian group include: "selective termination," "selective termination of multiple pregnancy," "selective transabdominal multifetal reduction," and "selective fetal reduction").

Assisted Reproduction (Peter Brinsden & Paul Rainsbury eds., 1991) (providing details about recent aided reproduction techniques).

tion in multiple pregnancy" (used by an Israeli group).¹⁶ At least three basic procedures exist with some variations: transcervical embryo suction (eight to eleven weeks), transvaginal embryo aspiration (six to seven weeks), and transabdominal cardiac puncture with KCl injection (ten to twelve weeks); the latter is the preferred method.¹⁷ Earlier procedures involved cardiac puncture or air embolization with injections of calcium gluconate or formaldehyde. The development of ultrasound imaging has been crucial to the possibility of the procedures. Although losses of the entire pregnancy were common in the early uses of these techniques, series in the last five years suggest that improved techniques and greater familiarity with the procedures have decreased such losses.¹⁸

C. Selective Termination

Selective termination ("ST") is the term used by the University of Michigan researchers for second trimester procedures dealing with fetal abnormalities.¹⁹ ST involves fetal reduction of a targeted fetus in a multiple pregnancy, usually for genetic reasons rather than for reduction as a result of "sheer fetal number."²⁰ When ST procedures are used, the pregnancy is usually further advanced than in the case of MFPR. Fetal abnor-

18. See generally Mark I. Evans et al., Multifetal Pregnancy Reduction and Selective Termination 7 AM. J. OBSTETRICS & GYNECOLOGY 126, 127 (1995) (referencing two summary articles: Evans et al., Efficacy of Transabdominal Multifetal Pregnancy Reduction: Collaborative Experience Among the World's Largest Centers 82 AM. J. OBSTETRICS & GYNECOLOGY 61, 61-66 (1993), and Evans et al., Transabdominal Versus Transcervical and Transvaginal Multifetal Pregnancy Reduction: International Collaborative Experience of More Than One Thousand Cases 170 AM. J. OBSTETRICS & GYNECOLOGY 902, 902-09 (1994)). "[T]he outcome of MFPR in over 1,000 cases shows an 87% take-home baby rate for experienced centers over the past few years. There is a steep leaning curve for the procedure." Id. at 129.

19. See Evans et al., supra note 10, at 354.

20. See Evans et al., supra note 10; See also Richard L. Berkowitz et al., The Current Status of Multifetal Pregnancy Reduction, 174 AM. J. OBSTETRICS GYNECOLOGY 1265 (1996) (specifying that selective reduction is the appropriate terminology).

^{16.} Joseph Itskovitz et al., Transvaginal Ultrasonography-Guided Aspiration of Gestational Sacs for Selective Abortion in Multiple Pregnancy, 160 AM. J. OBSTETRICS & GYNE-COLOGY 215, 215, 217 (1989).

^{17.} The methods of fetal reduction are distinguished: (1) by route of access through the cervix, the vaginal wall, or the abdomen; and (2) by means chosen to terminate the life of the fetus-through suction aspiration, which disrupts the fetal structure, or by injecting something, air, or a chemical toxin like calcium glutonate, or potassium chloride. Although a variety of techniques were attempted in the first years of the procedure, the literature suggests that transabdominal injection of potassium chloride is becoming the standard procedure. See Mitchell S. Goldbus et al., Selective Termination of Multiple Gestations, 31 Am. J. MED. GENETICS 339, 340-45 (1988). See also Evans et al., supra note 10, at 348. See also Itskovitz et al., supra note 16, at 216.

malities that lead to such procedures could be chromosomal, biochemical, molecular, or structural.²¹ The first ST procedure in 1978 by Aberg was a cardiac puncture of a twin fetus with Hurler Syndrome.²² In 1981, the literature reported termination of a twin with Down's Syndrome.²³ In both of these cases, the termination decision was based on medical or genetic indications.

D. Selective Abortion

Selective abortion is a term reserved for abortions of singleton pregnancies due to genetic or severe medical indications.²⁴ This procedure can be performed at varying gestational ages depending upon when the diagnosis is made.

E. Elective Abortion

Elective abortion involves pregnancy termination that is based upon reproductive choice, either in response to an unplanned, unwelcome, or forced pregnancy, or as a personal decision of the pregnant woman.²⁵ In jurisdictions where elective abortion is allowed, any of the following conditions may be indications of a need for this procedure: risk to the life of the mother; risk to the mental or physical health of the mother; pregnancy caused by rape, incest, or other sexual crimes; effect of another

22. Anders Aberg et al., Cardiac Puncture of Fetus with Hurler's Disease Avoiding Abortion of Unaffected Co-twin, 2 LANCET 190, 190-91 (1978). Hurler's syndrome is an example of a molecular problem where all the cells of the body lack an important enzyme. The baby develops progressive and irreversible respiratory problems and other physical problems; few of the organs develop normally and before the age of eight, death by heart failure usually occurs.

23. See Thomas D. Kerenyi & Usha Chikara, Selective Birth in Twin Pregnancy with Discordancy for Down's Syndrome, 304 New ENG. J. MED. 1525 (1981) (reporting "a case of twin pregnancy with discordancy for trisomy 21, in which aggressive approach was undertaken for selective termination of the abnormal fetus by intracardiac puncture and exsanguination at 20 weeks gestation").

24. Mark I. Evans et al., Selective First-Trimester Termination in Octuplet and Quadruplet Pregnancies: Clinical and Ethical Issues, 71 OBSTETRICS & GYNECOLOGY 289, 293 (1988).

25. Malcolm N. Beck, Eugenic Abortion: An Ethical Critique, 143 CAN. MED. Assoc. J. 181, 181 (1990).

^{21.} Peter G. Pryde et al., Triply Discordant Triplets: Probability, Management Options, and Risks, 44 AM. J. MED. GENETICS 361, 361-63 (1992); Z. Appelman & B. Caspi, Chorionic Villus Sampling and Selective Termination of a Chromosomally Abnormal Fetus in a Triplet Pregnancy, 12 PRENATAL DIAGNOSIS 215, 215 (1992). See generally Goldbus, supra note 17 (among the indications for terminations reported include: trisomy 18; trisomy 21 (down's syndrome); acephaly, hydrocephaly or microcephaly; limb-body wall disruption; meningomyelocele; and spina bifida).

childbirth upon the health and welfare of the existing children and family; jeopardy to the social position of the pregnant woman or her family; failure of contraception; and occasionally, although usually only during first trimester, upon request.²⁶

In contrast to the selective terminations described earlier in this article, it is the request of the mother that makes an abortion elective, not the characteristics of the fetus. Gestational age of the fetus is relevant, however, because as the gestational age increases, the number of acceptable indications decreases. Current convention allows first trimester abortions for a number of reasons, and abortions after twenty-two to twenty-four weeks for very few reasons.²⁷ Not all jurisdictions that permit abortion acknowledge all of the indications listed above, and various restrictions, including second physician's opinions or permission of third parties (including parents or husbands), have been imposed at various times upon the woman seeking the abortion. Currently, the United States has fairly liberal legal limitations on abortion, although funding issues are problematic. The type of procedure used is based primarily on gestational age of the fetus and skill of the physician, and involves either "Suction Dilation and Evacuation"²⁸ to evacuate the uterus, or installation of an abortifacient (such as prostaglandin, urea, or saline) which leads to loss of pregnancy.29

F. Ethical Issues Involved with Fetal Reduction

Ethical variables of fetal reduction with potentially different moral implications include the following:

(1) What is the gestational age of the fetus (first trimester, early second trimester, previable)?

(2) Does one technique of reduction involve more or less possible pain and suffering to the fetus, the pregnant woman, the physician, or to all?

(3) Is the pregnancy a "natural" one or resulting from third-party interventions: (a) as a result of fertility enhancing drugs; or (b) as a result of

^{26.} Rebecca J. Cook, Abortion Laws and Policies: Challenges and Opportunities, 3 INT'L J. GYNECOLOGY & OBSTETRICS 61, 68-69 (1989).

^{27.} See generally id. (Cook groups indications, and indicates in her article, which countries follow which grouping: risk to life of woman; risk to physical health of woman; risk to mental health of woman; risk to fetal health or handicap; unwanted pregnancy by rape or other sexual crimes; social, socio-medical or socio-economic; and on request.).

^{28.} LEON SPEROFF & PHILLIP DARNEY, A CLINICAL GUIDE FOR CONTRACEPTION 283-290, 286 (1992).

^{29.} Id.

IVF procedures,³⁰ some of which include implantation of more than one fertilized embryo?

(4) If one or more fetuses in a multiple pregnancy is to be reduced, how is that fetus selected? Should the choice be based on characteristics of the fetus, or by characteristics of the pregnancy (for instance, by location within the uterus)?

(5) What is the intention of the action? (The usual proximate goal of the intervention is to disrupt the natural course of pregnancy for some or all of the uterine content.)

(6) What is the role of parental (especially maternal) wishes in decisions to reduce a pregnancy? Is it by request of the parents, or by recommendation of a physician with informed consent of the parents, including information about possible risks to the rest of the pregnancy?

(7) Are there morally relevant differences between the various procedures that have been described above, or should they all be viewed as equally problematic because they all involve an explicit intervention intended to bring about the death of a fetus?

This article will review the history of multifetal pregnancy reduction, and explore the patient's and physician's perspectives. Further, this article will review ethical analogies in order to develop a framework in which to consider the request for fetal reduction in the case outlined at the beginning of this article.

II. MULTIFETAL PREGNANCY REDUCTION

Many contemporary multiple pregnancies, with their inherent risk of prematurity and disability, are iatrogenic.³¹ "There would be no wide-spread need for fetal reduction if various treatments for infertility were not so successful."³² For fertility specialists, the complications of multifetal pregnancy are both technological and social. The presence, in previously infertile women, of more fetuses than can safely be brought to term is one of the ultimate ironies in medical care.³³ It marks a failure of the fertility procedure; in curing the deficiency of being unable to con-

- 32. Frederiksen et al., supra note 7, at 8.
- 33. Evans et al., supra note 25, at 292.

^{30.} See discussion infra Part I "Options."

^{31.} Iatrogenic problems are those caused by the treatment. Multiple pregnancies are iatrogenic because they are most frequently the result of medical fertility treatments-fertility enhancements or reimplantation of more ovae or embryos than can be safely carried to term. Other examples of iatrogenic problems include: infections that an ill patient catches while in the hospital, or infections from foreign objects left in the body after surgery.

ceive, the procedure goes too far by producing multifetal pregnancy. Drastic measures possibly can save the fertility intervention; but, unlike the "ethically positive" process of assisting infertile couples to conceive, the means required to bring only one or two members of a multiple gestation to term, though perhaps justified, comparatively are "negative."

A. Options

Three options are available in the face of the failure of the fertility procedure that results in multifetal pregnancy: (1) terminate the entire pregnancy; (2) accept the situation and hope for a natural resolution of some of the multiple gestations; or (3) invoke currently available techniques for pregnancy reduction. Presented with these options, only the third offers a good probability of achieving the intended goal of the fertility treatment. Thus, it seems appropriate to consider pregnancy reduction in connection with fertility treatments not as a separate procedure, but as an unfortunate and sometimes necessary part of the fertility treatment. This medical justification for MFPR is the strongest argument in its favor.

A second argument for MFPR is the iatrogenic nature of the problemwith the potential obligation-and potential guilt, implicit in third-party interventions: "You broke it, you fix it!"³⁴ The two most common sources of iatrogenic multiple pregnancies are rather different in nature. High doses of fertility drugs can over-stimulate the infertile woman's ovary to produce more fertilized embryos than she safely can carry. The physician, as the provider of the fertility drugs, is of course implicated in the result, but the degree of involvement is very different than in IVF procedures. Multiple fetuses are anticipated as a complication in a small number of cases. However, the multiple fetuses are not the intended result of the fertility drugs, and only occur indirectly as a result of the fertility drugs.

The IVF procedure typically involves fertilizing large numbers of ova, and then choosing from among the pre-embryos an intentionally larger number for return to the host than are expected to implant. A larger number of pre-embryos are selected based on the assumption that not all of the fertilized ova actually will implant. The pregnancy complication of

^{34.} Because the multifetal pregnancy is a result of a desire for a live birth, an excess zeal toward that end can lead to an overabundance of embryos being implanted. From the standpoint of the treating physician, there may be a strong incentive to reduce the pregnancy to increase the chances of a live birth.

multiple fetuses is, therefore, a direct result of the implantation of the multiple embryos. As with over stimulation of the ovary, the result is an unintended, but direct, result of the IVF procedure. Furthermore, even in cases where only a viable number of pre-embryos are implanted, the IVF procedure typically involves extra fertilized but unrematriated ova.³⁵ The moral status (and disposal) of the leftover pre-embryos is also problematic. Thus, the physician involved in fertility procedures is: (1) the proximate agent for the fertilization of the pre-embryos, (2) an intervening agent in the otherwise randomly "natural" selection of which among them would have a chance to implant, and (3) directly co-responsible for the specific form of failure of the procedure which multifetal pregnancy represents.

It is important to stress the differing degrees of involvement of the physician as causal agent in multifetal pregnancies in order to show how the death of a fetus in MFPR is an integral part of a specific, and often lengthy, chain of inter-related actions, all occurring because of one intervention. The causal context of the multiple pregnancy can be an important ethical variable.

Guidelines for multifetal reduction vary among practitioners. The researchers at the University of Michigan rely on medical grounds in arguing against reducing below twins in multiple pregnancies. This position is widely, though not universally, followed. Other practitioners have recommended conserving triplets, while some physicians are willing to reduce to singleton fetuses upon an informed patient's request. Most discussion of number limits occurs in the context of iatrogenic, as opposed to natural, multiple pregnancies, and invokes statistical outcome

^{35.} Successful IVF procedures typically require more precision than natural cycles can provide. Thus very early on, assisted reproduction involved several stages. First, oocyte maturation and ovulation is timed precisely by injection of the hormones that accompany ovulation in normal cycles, so as to be able to predict accurately the best time for harvest. Second, natural cycles have been replaced by superovulation cycles-the maturation and ovulation of more than one ovum at a time. A successful IVF treatment requires the implantation of at least three or four ovae; in order to guarantee three or four undamaged ovae, sometimes as many as twelve are encouraged to develop simultaneously. The ripe ovae are removed from the ovaries by laproscopic surgery and then fertilized. Not all of the ovas are fertilized, and of those that do not successfully fertilize, not all can be returned to the uterus, least all be implanted. Because of high failure rates for implantation, the standard number has become three or four. Many of the higher multiples are the result of superovulation drugs without IVF procedures. See generally M.C. MACNAMEE & P.R. BRINSDEN, Ultrasound in the Monitoring of Assisted Conception, in A TEXTBOOK OF IN VITRO FERTILIZATION AND ASSISTED REPRODUCTION 111-126 (P.R. Brinsden & P.A. Rainsbury eds. 1992) (discussing the use of superovulation strategies in assisted conception).

data as to justify one decision or another.³⁶

According to one group of researchers: "The approach . . . has been to allow the patient to participate in the decision, permitting the couple to choose whether 1 or 2 or 3 fetuses are left, while fully informing them of the potential risks and possible overall pregnancy outcome of their choice."³⁷ "The patient and her family, rather than the physician, should make the decision."³⁸ This approach is slightly less directive than the recommendation of the University of Michigan researchers that all multifetal pregnancies should be reduced to two fetuses with post delivery mortality and morbidity as the deciding factor; it may be more appropriate for natural, rather than iatrogenic, multifetal pregnancies.³⁹

The literature on the subject of multiple pregnancies is rife with moralistic tales about the perils of high order multiple births in contemporary health care. According to Frederiksen:

[O]ur last surviving quadruplets cost \$1.2 million for maternal and neonatal care after a delivery at 27 weeks gestation. All children survived and are being followed in our developmental clinic. The payment of this bill engendered enormous arguments between the respective maternal and paternal insurance carriers, and a document thicker than the Chicago telephone book. Moreover, with more employers self-insuring their employees for health care costs, the occurrence of one higher order multiple birth can endanger both the livelihood of the business and that of the employee.⁴⁰

Live birth of sextuplets in California was heralded by the press as a triumph, although the death of three of the six received less publicity. Two of the survivors are disabled, and the family supposedly is considering a malpractice suit.⁴¹

Comparing differing sources on the question of the optimal number of fetuses, it seems clear that various practices or centers have adopted different standards for that decision. If a patient in one center requests reduction to singleton, which may constitute a breach of local practice standards, then it seems justifiable for practitioners to refuse to perform the reduction and to refer the patient to another center that will comply

^{36.} See, e.g., ACOG Committee on Ethics, supra note 3; Frederiksen et al., supra note 7; Evans et al., supra note 10; Evans et al., supra note 24.

^{37.} Frederiksen et al., supra note 7, at 12.

^{38.} Id.

^{39.} Evans et al., supra note 10, at 350.

^{40.} Frederiksen et al., supra note 7, at 13.

^{41.} Evans et al., supra note 24, at 289-90.

with the patient's request. The rationale invoked to justify practice standards is that the mortality/morbidity rates for twins are considerably lower than triplets or quads but not significantly higher than for singleton births. This is a completely defensible rationale and does not require any further ethical justification. Medical professionals are not, and need not be, in Evans' words, "merely technicians to our patients' desires."⁴² It is possible that within the changing health care environment, third-party funding will play a part in such decisions in the future.

Not all MFPR occur in the context of assisted reproduction. Unassisted multiple pregnancies, though rare, do occur, and it is common in the prenatal care of the 1990's to monitor pregnancies for early diagnosis and early intervention if necessary or desired, of multiple pregnancies. Diagnosis typically is made by ultrasound, and less commonly by clinical examination of size greater than dates.⁴³ Multifetal pregnancies do not constitute a "failure" in the context of normal reproduction and most physicians do not offer MFPR in these cases. A multifetal pregnancy is considered a high risk pregnancy for the health of the mother and for the survival and health of the potential offspring. Statistically, the risk rises in direct proportion to fetal number. Does the high risk nature of natural multiple pregnancy to the health of the fetuses constitute an ethically justifiable reason for opting for fetal reduction? For twins, triplets, quadruplets, quintuplets? How many is too many?

The choice of MFPR in this context is one resolution to a variant of the "rationing" dilemma common to other health care contexts. Fetal reduction is a "lifeboat" intervention, a procedure intended to increase the likelihood of survival of some of the fetuses to birth, rather than the death or significant pain and suffering of all the fetuses.

Mary Faith Marshall suggests that while "choosing between individuals . . . is both tragic and terrifying[, t]he alternative is not to choose—thereby condemning all to death or to circumstance when not all can live."⁴⁴ In other words, refusing to choose essentially is equivalent to

^{42.} Mark I. Evans et al., Selective Termination: Clinical Experience and Residual Risks, 162 AM. J. OBSTETRICS GYNECOLOGY 1568, 1575 (1990).

^{43.} The terminology "size greater than dates" is a standard expression suggesting that a clinical search for twins or multiples is indicated when the uterine distention is unexpectedly large for a pregnancy of a given estimated gestation.

^{44.} Mary Faith Marshall, *Patient Selection: Tragic Choices, in* INTRODUCTION TO CLINICAL ETHICS 195-205, 196-97 (John C. Fletcher et al., eds. 1995). See also Berkowitz et al., *supra* note 20 (citing a similar justification: "The medical justification for performing multifetal pregnancy reduction is philosophically similar to the 'lifeboat analogy,' which is that some drowning individuals can be legitimately denied access to an overcrowded life-

choosing the death of all concerned. Although the context of infertility treatments creates a predisposition towards MFPR in order to increase the chances of a live birth of a healthy infant, in the context of naturally occurring multiple pregnancies, the risk to the pregnancy and parental preference seem to be the only considerations. Following informed parental preference within the existing guidelines seems to be the best option. Although few physicians would offer parents the option of MFPR for twins, they might mention it for spontaneous triplets.

B. The Patient's Perspective

From the standpoint of the person embarking upon infertility treatments, considering multiple pregnancies as a potential side effect of the treatment involves: (1) receiving explicit counselling about the possibility of multiple fetal pregnancies before the fertility treatment is begun; (2) reaching an explicit agreement in advance regarding what procedural options will be available to the parents, and (3) obtaining information about the possibility or necessity of pregnancy reduction in the event that a multiple pregnancy occurs.

A poignant story, recounted by Frederiksen, and making a comparison to Hester Prynne's situation in Hawthorne's *Scarlet Letter*,⁴⁵ illustrates the dangers of failing to prepare in advance for all contingencies. An assisted reproductive technology resulted in an iatrogenic multifetal pregnancy:

[The] patient came from a small community with a strong religious orientation which prohibited abortion and viewed fetal reduction as such. When [the woman] adopted an independent stance and requested fetal reduction, she was disowned by her family and thrown out of her home. The physician declined to intervene at this point, thinking it best to "let nature take its course." The family then reconsidered, returned with the patient, and supported her through the procedure only to have the entire pregnancy lost three days later.⁴⁶

The physician's reversal of his or her initial decision reveals the physician's surprise and confusion at the family's reaction. The family's reversal was a response to a form of emotional blackmail by the physician

boat if bringing them aboard will cause it to sink and result in the loss of additional lives"). *Id.* at 1266.

^{45.} NATHANIEL HAWTHORNE, THE SCARLET LETTER (1850) (Hester Prynne is the heroine of the Scarlet Letter.).

^{46.} Frederiksen et al., supra note 7, at 11.

rather than an abandonment of their moral position. The outcome, loss of pregnancy, probably added a sense of betrayal to their guilt for supporting the woman in what they viewed as an immoral action.

Honest and explicit discussion of the possible results of infertility treatment would have illuminated the possible conflicts in this situation, and might have helped to avoid the turmoil and suffering that this story depicts. Some religious groups avoid possible conflicts of this sort by preemptive prohibitions of assisted reproductive technologies and infertility interventions. In addition, many groups that do not object on principle to infertility treatments nonetheless object on principle to abortion, and might object to MFPR for the same reasons. If the modern Hester of Frederiksen's case had been counselled adequately, then the physicians, the family, and "Hester" herself would have been spared a great deal of anguish.

C. The Physician's Perspective

From the standpoint of physicians offering infertility treatments, there seems a general consensus: that (1) pregnancy reduction is, while possibly defensible, morally troubling; (2) many multiple pregnancies are preventable; and (3) "the first approach to this problem should be prevention."⁴⁷ The great involvement of the physician in the production of the multiple fetuses increases the quantity, but not the quality, of physician responsibility. The risk of a bad outcome in multiple pregnancy is the major justification given by these physicians for intervention in both natural and assisted pregnancies.

III. SELECTIVE TERMINATION

Selective termination differs from MFPR in two important ways. First, the choice of which fetus will be reduced is not arbitrary. Instead, a particular fetus is targeted for termination on the basis of characteristics of that fetus. Second, the termination is not intended to increase the chances of a live birth (although it is hoped it will not reduce those chances). Rather, it is intended to prevent the birth of an abnormal child. Thus, selective termination is not a "lifeboat" decision; it is justified by

^{47.} ACOG Committee on Ethics, *supra* note 3, at 140; Frederiksen et al., *supra* note 7, at 13 ("We echo the plea of Papiernik and Evans for a swift and marked reduction in the number of times multifetal pregnancy reduction must be thrust into our collective consciousness.").

the principle that it is wrong to bring avoidable suffering into the world.⁴⁸ Selective termination is a specific variation of eugenic abortion, and the earliest reduction procedures fit in this category.

The permissible reasons for selective termination were quite strict when the procedure was first developed. Today, the permissible indications for selective termination are more liberal because the risks of the procedure are better known and the procedure is more common. Chromosomal, biochemical, molecular, or structural characteristics of particular fetuses are among the justifications for targeting them for selective reduction.

Sherman Elias and George Annas have suggested that in order to target a fetus for selective reduction or termination, the disease involved must be so serious as to make life not worth living for the affected fetus.⁴⁹ It is not clear how widely this recommendation has been accepted. This view clearly constitutes a more stringent test for selective termination than any test currently utilized in our society for elective abortion in general. The relative stringency of this approach may be explained in terms of the risk facing the whole pregnancy of fetal reduction procedures in multiple pregnancies. Although the risk varies depending on the center's experience, the risk remains considerably higher than general rates of spontaneous abortion.

There seems to be a well-established tradition in contemporary obstetrical practice of abortion to prevent the birth of a deformed or seriously abnormal child.⁵⁰ Like an ethical ski lodge, this tradition is perched on an intersection of a number of rather slippery slopes. The major problems with this approach include:

(1) What are the characteristics of a fetus that justify intervention to prevent its birth?

(2) Are there any conditions of the pregnancy-multiple versus single-

^{48.} See generally JOHN HARRIS, WONDERWOMAN AND SUPERMAN 71 (1992); See also JOHN HARRIS, VALUE OF LIFE (1985) (giving this justification for selective termination or what we have termed eugenic abortion).

^{49.} Sherman Elias & George J. Annas, Reproductive Genetics and the Law 128 (1987).

^{50.} Beck, supra note 25, at 181:

Since 1967 few articles have addressed the rationale and indications for eugenic abortion, and even fewer have questioned whether eugenic abortion should be performed at all. The medical literature has betrayed a widespread, usually unstated assumption by the profession that fetal life should be terminated whenever a serious congenital abnormality is strongly suspected.

ton, artificial versus natural, desired versus undesired—that increase the justifiability of intervention?

(3) Is there any ethical relevance to the conditions of diagnosis?

The diagnosis of fetal abnormalities is based on rapidly expanding technologies. Fetal imaging techniques, genetic screening and testing, and chorionic villus and amniocentesis tests provide critical information to assist in making judgments about the fetus' progress earlier in the course of a normal pregnancy.⁵¹ Any of these technologies can produce more information than is necessarily relevant for judgments about the health of the future child. Any of this information could be used to judge the quality of life of the future child. Not all of the indications for which members of multiple pregnancies are aborted are "such as to make life not worth living" for the affected fetuses. Aberg's technique of cardiac puncture in 1978 made selective abortion in multiple pregnancies possible. It is inevitable, although none the more desirable for its inevitability, that additional characteristics of the fetus identifiable by the prenatal tests, may serve as a possible indication for abortion. Once a single rationale beyond severe pain and suffering is accepted, where does one stop?

There is widespread agreement in the literature regarding which characteristics are and are not a valid basis for selective termination. Foremost among the forbidden reasons is gender choice, a "[reason] that cannot be justified by ethical principles and that violate[s] respect for fetal life."⁵² Although there is a great deal of resistance in the medical profession against gender selection abortion, it is probably fair to note that this resistance is much stronger in the western European societies where the technology first developed. It is not so strongly argued in many of the non-western societies into which that technology is expanding. As increased educational and economic opportunities for women arise in other cultures, feminism may eventually have the same effect in other cultures that are currently less than equitable in their treatment

52. Evans et al., supra note 24, at 294.

^{51.} Ultrasound scanning of embryo development has been a constantly improving technique for detecting physical abnormalities since 1970. Currently ultrasound imaging of fetal development has become a standard part of prenatal care in industrialized nations. It has been judged to have no effect on fetal development, unlike x-rays which are not recommended for pregnant women. The first technique of genetic analysis was amniocentesis, available from 12 to 14 weeks of fetal development, which analyzed amniotic fluid for genetic abnormalities. Its main advantage was the late date; sometimes the results of the test were available only in the second trimester. Chorionic villis sampling utilizes material from the placenta and can test for anomalies in the pregnancy. See generally BRINSDEN & RAINSBURY, supra note 35, at 127-38 (ultrasound in the monitoring of assisted conception).

of women and are prone to allow gender selection.53

"Abnormality" varies among cultures, and is a conceptually vague notion. Normalcy is a statistical category, a variable range within a population, and everyone is aware that by picking the paradigm, narrowing the population, or shifting the range, practically anything can be termed "abnormal."

There are several concerns about the use of selective abortion to prevent the birth of an abnormal or different fetus. First is the fear that parents might be driven by an unrealistic quest for a "perfect" baby and abort a potential child who falls short in some trivial respect—eye color or body type. The "healthy normal baby" that represented the obstetrician's success in the past may cease to be good enough. Another concern expressed is the fear of stigmatizing existing individuals if the fetus' physical or mental traits are considered inadequate. The idea of choosing to abort a fetus because of characteristics of that fetus, however central or trivial, is itself morally questionable to some. For these people, the very idea of eugenic abortion—of choosing who is "worthy" of being born and who is not—is arrogant or immoral.

A. The Patient's Perspective

Selective termination in the case of the multiple fetal pregnancy is medically more complicated and riskier to the mother. The procedure also poses an additional risk to the surviving fetus or fetuses. Although selective termination presents greater risks, the procedure poses ethical issues similar to those associated with eugenic abortions in singleton pregnancies.

Any fetal imaging or testing technologies raise the possibility of eugenic abortion. Ultrasound imaging has become part of standard prenatal care in middle-class America. For statistically at-risk populations, additional tests routinely are recommended.

Eugenic abortion is associated implicitly, and often explicitly, with

^{53.} As we write this paper there is a furor in the news media about China, where we learn to our horror that eugenic abortions are practiced. The moral outrage surrounding these accounts about the medical practices of the "barbarians" is rather notably lacking in the articles in the medical literature that discuss the same practices in western societies, where, as in Canada since 1967, abortions have officially been approved by physicians when there is "a substantial chance that the child would be born with grave mental or physical disability." Transactions of the General Council at the One Hundredth Annual Meeting of the Canadian Medical Assoc. 69, (June 9-10, 1967) (CMA, Ottawa, 1967) (on file with author).

some of the currently available tests for fetal characteristics. In some societies the physician and the parents agree, as a condition for receiving amniocentesis, that if certain genetic abnormalities are revealed, the fetus will be aborted. This is partially an economic issue (the tests are expensive), and partially a matter of simple logical (and medical) consistency: why subject yourself to the expense and risk unless you are going to act on the results?

There is strong evidence that parents are glad to have the information provided by such prenatal technology. Decisions to abort are directly correlated with the severity of the anticipated defect, and the method or timing of the diagnosis is not an important variable in the decision to abort. In one study of eighty cases of prenatal detection of abnormal chromosomes, ninety-three percent of those with severe prognosis and twenty-seven percent of those with questionable prognosis opted for termination of pregnancy.⁵⁴ These results have been confirmed by other studies.⁵⁵ The results of such studies, of course, apply to the population of people who have chosen to undergo chromosomal diagnosis of their pregnancies. This is already a much smaller group than those who are exposed to ultrasound examination, and to some extent they represent a self-selected population with a predisposition to act on the results.

B. The Physician's Perspective

Even physicians who question elective abortions find it easier to accept the idea of selective abortions, in the severe prognosis cases, where preventing the birth of a severely damaged child will reduce the suffering of both the parents and the child.⁵⁶ If the justification for selective termi-

56. An interesting exception in the medical literature is the passionate plea by Beck: "What is technologically possible is not always right." Beck, *supra* note 25, at 183. As considerations against the practice of selective terminations, Beck cites, with special reference to the role of doctors in Germany in the 30's: the "proclivity of mankind to evil;" the gestational age at which eugenic abortions are done, which approaches the (constantly lowering) age of viability; the danger of contributing to the stigmatization of handicapped people; the increasing tendency in law, which he decries, to accord legal autonomy to the fetus; and the importance, to the credibility of the medical profession that its practitioners "continue to demonstrate concern for the preservation of the lives of the sick and the

^{54.} Arie Drugan et al., Determinants of Parental Decisions to Abort for Chromosome Abnormalities, 10 PRENATAL DIAGNOSIS 483, 484, 486 (1990).

^{55.} Dorothy Wertz, Ph.D., has proposed an international comparison of selective abortion decisions following diagnosis of about ten different disorders, noting wide national variation in abortion rates. She concludes that parents make their decisions not on the basis of medical information alone, but in a context of perceived social consequences. See DOROTHY C. WERTZ, HOW PARENTS OF AFFECTED CHILDREN VIEW SELECTIVE ABORTION, 161-189 (1994).

nation is the moral principle that it is wrong to bring avoidable suffering into the world, then the value achieved by selective abortion is directly proportional to the severity of the defect. Thus, for easily correctable defects there would be little justification for a selective abortion.

If the parents agree to receive information about possible genetic defects, and in some cases agree to act upon such information if the prognosis is severe disability, the physician has little primary moral onus. Physicians with objections to performing selective terminations, however, would be well advised to avoid prenatal testing.

The social justification for selective abortion can be calculated in terms of cost/benefit analysis. The costs to society of severely disabled citizens are considerable, even if those costs are made the responsibility of the particular family into which the child is born. As several commentators have remarked, our society, although generally pro-natalist, is extremely neglectful of children; the life of a disabled child born to a family of modest means will be difficult and burdensome. In societies with strong social welfare policies that provide for their disadvantaged individuals, it is appropriate that society has a larger say in the decision to terminate pregnancy. It is further appropriate that counselling be more directive than is the norm today in the United States.

In several cases of selective termination, reports of the procedure were accompanied by various disclaimers suggesting that the physicians were responding to "threats" on the part of the parents that unless the targeted fetus was "reduced" the entire pregnancy would be terminated.⁵⁷ This rhetoric seems to be an attempt to justify selective termination on the same basis as MFPR—an artifice by which the "lifeboat" analogy can be invoked, and the physician can claim that here too, even in a less crowded womb, it was necessary to kill some to save some. This convoluted rhetorical device is both unnecessary and inadequate. The justification for intervention in the two procedures is not the same, nor need it be. The analogy between the physiological improbability of all members of a quadruplet pregnancy surviving to term and a parental decision seem far fetched. The desire to make the two situations look analogous may speak

weak." Id. at 183-84. "Eugenic abortion," he concludes, "does not fall within the usual rigors of good medical practice." Id. at 184.

^{57.} Evans et al., supra note 10, at 354 (quoting T. Kerenyi & U. Chitkara, Selective Birth in Twin Pregnancy with Discordancy for Downs Syndrome, 304 New ENG. J. MED. 1525-27 (1981)). The mother asked for the termination of one twin, and the authors "acceded to the mother's threat to abort both the normal and the abnormal twins." Id.

more to the professional commitments of the physicians than to the ethical demands of the situation.

When summarizing the ethical considerations, the question was raised regarding whether any characteristics of the pregnancy were morally relevant. It has been suggested that with selective abortion, there is no morally relevant difference between intervention in a multiple or singleton pregnancy. Selective termination, selective abortion in the context of multifetal pregnancy, and eugenic abortion of singleton birth are virtually equivalent on a moral and medical level, with the following qualifications: (1) the danger to surviving fetuses constitutes an additional risk to be weighed in the balance of benefits and burdens when considering the procedure utilized in a multiple pregnancy; and (2) if the pregnancy in question results from fertility procedures, the investment of the parents in a given pregnancy probably is much higher, and will make the personal costs of a decision in favor of selective abortion much greater.⁵⁸

The later an abortion is performed, the greater the cost of the procedure in terms of suffering—of the physician, of the mother, and possibly of the targeted fetus. Amniocentesis as a diagnostic technology typically does not provide results until late in the second trimester. For that reason, although the literature prefers to address the ten to twelve week old fetus, many selective terminations or selective abortions probably occur much later in gestation and thus are more dangerous and more traumatic.

We have addressed selective terminations as a variety of eugenic abortion, and have considered eugenic abortion as a procedure occurring in the context of desired pregnancy. The hope, and in many cases the justified expectation, is that an interrupted pregnancy will be followed by a successful pregnancy that will not increase the suffering, and will not, therefore, need to be interrupted. Selective abortions in the context of fertility treatments can not have such optimistic prognoses, and thus combine tragedy with failure in a particularly poignant way.

IV. ELECTIVE ABORTION

What about the undesired pregnancy? Elective abortion raises a different set of issues. Though not entirely without justification, elective abortion is justified on different grounds than eugenic abortion, as no characteristics of the particular fetus are relevant to the decision. Some characteristics of the pregnancy, however, are relevant to the decision,

^{58.} ACOG Committee on Ethics, *supra* note 3, at 38. See also Evans et al., supra note 24, at 292.

most notably, the gestational age of the fetus. Generally speaking, the earlier in the pregnancy that abortion is requested, the fewer impediments to abortion, the lower the risk of undesirable side effects, and the lower the amount of suffering to all concerned.

In contemporary society, elective abortion is controversial. Although the case described at the beginning of this article necessitates a discussion of elective abortion, we do not wish to conflate elective abortion and elective fetal reduction. We also do not wish to overshadow the discussion of fetal reduction by opening that discussion to the larger abortion debate. Our view is as follows: abortion is a bad option, where all other options are worse, and always conjoined with some suffering; the suffering of involved health professionals, which is inevitable considering their knowledge of the course of normal fetal development, is morally relevant, if not morally determinative; every abortion represents a failure of contraception, education, or social support, and sometimes all three. Women have a right to determine their reproductive choices, but that is conjoined with an obligation to take responsibility for their sexual behavior and health. Sexual activity, contraception, pregnancy, abortion, and birth occur in a larger social context; physicians are not, and should not be, sole reproductive resources, sole agents of social responsibility, or sole arbiters of individual destinies.

V. CASE

Which of the procedures described above is most analogous to the request of the woman in the case described at the beginning of this article?

This case is confusing as the mother appears to be seeking either a fetal reduction, or an elective abortion. She wants to be pregnant, but not this way; she wants one baby, but she may well have two. On the other hand, her "lifeboat" is not so crowded that the "reduction" of one twin medically is indicated. In fact, intervention would increase considerably her chances of losing both fetuses.⁵⁹

The difficulty of this situation is that one is tempted to think: "You can not lose either way. If you intervene successfully she gets what she wants. If you intervene and the pregnancy is lost, she might have chosen to abort both instead of bearing both, and she will not be worse off. If you inter-

^{59. &}quot;For all 1074 pregnancies the pregnancy loss rate, defined as loss of the entire gestation at up to 24 weeks of gestation, was 16.2% in 1988-1991; this dropped to 8.8% in 1991-93, showing a very steep, dramatic learning curve." Mark I. Evans et al., *Multifetal Pregnancy Reduction and Selective Termination*, 7 OBSTETRICS & GYNECOLOGY 126, 126-29 (1995).

vene and she gets what she asks for and feels bad about it later, it's her own fault."

The mother's psychology of the situation exemplifies why maternal threat to abort both twins often is mentioned in the literature. The threat provides the physician with the justification of saving one as an excuse for terminating the other; the physician as "technician to the patient's desires"⁶⁰ is off the hook.

But if "you can not lose either way," it is also very likely you can not win, either. From the mother's point of view, the fetal number has become an excuse for any ambivalence she feels about the pregnancy. If she can not afford two more children, then it is very possible that she can not afford one. Entering this complicated lottery, she may be able to avoid confronting that question, and blame someone else for the outcome. If the pregnancy is lost, it would be the doctor's fault, not her choice. If the pregnancy is saved, but the child is a behavior problem, it would be because the doctor chose the wrong twin to abort.

A. The Patient's Perspective

This mother needs to decide whether she wants to be pregnant. This pregnancy—with two gestational sacs—is the pregnancy she has, and if the emotional and financial strain will be too much, then she should elect to end the pregnancy. If she decides she wants to remain pregnant, then she should be advised that any intervention would threaten her pregnancy and would be irresponsible. It is possible that in the course of the pregnancy one, or both fetuses, will die without intervention. The emotional and financial stress of twins is not a new problem, and there is a time-honored solution to it, adoption. Studies reveal that many twins are raised apart.⁶¹ Adoption is not an easy choice for a woman, but then neither is an abortion.

B. The Physician's Perspective

There is a modern solution, with the procedure developed in selective

^{60.} Evans et al., supra note 42, at 1575.

^{61.} Genetic researchers attempting to establish genetic links to various characteristics often take twins separated at birth and raised in different families and environments as their research population. Characteristics occurring more frequently in separated twins than in unrelated pairs provide the basis for the hypotheses about genetic explanations for those characteristics. Because such studies require statistically significant numbers, the researchers suggest that there are considerable numbers of twin pairs separated at birth, for whatever reason, and raised in different families.

terminations. Aberg, originator of the procedure, chose to use it for eugenic abortion. Once Aberg's invention of the technique was widely available, it became very useful in the context of fertility treatments; however, not without considerable ambivalence in the minds of the physicians dedicated to live births who were embarrassed by multiple pregnancies with bad prognosis. This available procedure, fetal reduction, could be extended to elective abortion, and it is likely that it will eventually be so extended. At the moment, however, such extension is not standard practice. What ethical considerations are relevant to the physician?

First, not all patient desires must be gratified. Elective abortions can be done by idealistic, professionally responsible physicians who are providing an intervention that acknowledges women's reproductive responsibilities and reduces human suffering. The considerations, maternal circumstances, and gestational age, which are relevant medically, legally, and morally in singleton elective abortions, may be appropriate here, but if one considers the list, few of them apply in the same way to this case. In terms of risk to maternal health, twins are not much riskier than singleton births, which is why many physicians are willing to reduce to twins in multiple fetal pregnancies. It is unlikely that the procedure would be requested for cases of pregnancy from rape or incest. In particular, elective abortion "upon request" is very hard to justify in this case.

Second, it seems important that the physician understand that what he or she is doing is an elective-not a eugenic-abortion, and not a "pregnancy reduction." Medically, this is not a pregnancy that needs to be reduced. Calling it a reduction instead of an abortion would only contribute to the confusion and self-deception. In our case, there is no medical indication. Rather, the request originates with the woman, who confronting her reproductive choice, questions whether this is one of her options.

Third, one danger of this situation is to turn an elective procedure into a eugenic procedure. Because both fetuses are apparently normal, there is no medically indicated reason for choosing between them; but a choice nevertheless will have to be made. A physician who has agreed in principle to perform such a procedure must find some characteristic, any characteristic, by virtue of which he or she could choose between the two fetal sacs. The assumption in this case is that although one might be male and one female, one blue eyed and one brown eyed, one blond and one brunette, there are no morally relevant differences between the two fetuses. Any characteristic that is a determinant is a discriminator. Size might be a morally neutral difference; location in the womb might be as well. Gender, in our society, is not a moral difference and neither is hair or eye color.

Fourth, moral problems, like medical problems, are often iatrogenic. In the case of innovative or experimental procedures, few patients know about them in advance and are responsible for introducing them into conversations with their physicians. Instead, the physician is typically the initiator of such discussions. The forced option of choosing between apparently normal fetuses, which may present a moral dilemma to a parent asked to make the decision, is a complication of, as well as a solution to, a different situation. Often patients who request various procedures have been told that there is an experimental technique, but they have not been counselled responsibly about costs, risks, disadvantages, and proportion of benefit to burden of the technique. Often "this experimental technique" is presented to the patient just as a technique or technology, stripped of its moral trappings. Moral implications, however, are part of medical practice. Unless the moral cards are on the table, everyone will end up feeling betrayed.

VI. CONCLUSION

It is difficult to justify pregnancy reduction in the naturally occurring pregnancy described at the beginning of this article. First, this is not a fetal reduction, which is justified on the "lifeboat" principle of sacrificing some to save others. Twin pregnancy is not considered a "lifeboat" risk. Further, the pregnancy is a natural, not an artificial, one so no third party is responsible for "fixing" failures.

Second, this is not a selective termination, which is justified as a method of preventing suffering. There are two apparently normal fetuses that have a good chance of developing into normal births. Any justification for aborting one fetus would count as a justification for aborting both. Any justification for keeping one fetus would count as a justification for keeping both. There is no morally justified reason for choosing to abort one rather than the other. An arbitrary decision to abort one fetus over another is contrary to good medical practice.

Third, this situation is closest to an elective abortion, which is a response to a maternal decision to interrupt a pregnancy. The request originates from the pregnant woman rather than a medical recommendation to improve potentially the outcome for the fetuses.

Fourth, the considerations that are indications for elective termination of pregnancy are much weaker when applied to reduction of pregnancy. At the same time, the considerations that have been raised against elective abortion are much stronger against reduction of pregnancy. The balance weighs against elective fetal reduction. The social discomfort surrounding genetic screening and prenatal testing, despite strong medical support, suggests that selective abortions generally are perceived as an undesirable social practice and dangerous social precedent; and in this case, any elective reduction would be a de facto selective reduction.

Fifth, there is currently no precedent for extending the procedures developed in the context of selective termination to elective abortion. Any physician who has developed policies in his practice concerning minimum numbers of fetuses to be reduced, has no obligation to breach practice standards to meet the arbitrary request of a patient. We endorse heartily Evans' resistance to becoming "technician to our patients' desires,"⁶² and think Beck was well advised to warn "this great and historical, learned profession should not . . . [allow] itself to become either the unwitting agent of public policy or the automatic servant of popular demand."⁶³

Sixth, although no individual patient request justifies breaching current standards of practice, it may be appropriate to ask whether any reason could arise in the future to establish elective fetal reductions of the sort exemplified by our case as approved social and medical practice. The kind of justification that would be appropriate includes considerations of reproductive control of the sort that has led, in recent years, to increasing acceptance of elective abortion. Should we acknowledge a reproductive "right" for a woman to determine not only whether to become pregnant and to carry to term, but also how many, and possibly what kind, of child to bear? What limits are appropriate for a society to place on a woman's power to decide? Are there improvements in the safety and availability of current procedures for the mother and for the surviving fetus that would be necessary prior to any widespread acceptance of this procedure on a purely elective basis?⁶⁴

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^{62.} Evans et al., supra note 42, at 1575.

^{63.} Beck, supra note 25, at 184.

^{64.} The extension of fetal reduction to an elective procedure recently has been explicitly recommended, as in Frank A. Chervenak et al., *Three Ethnically Justified Indications for Selective Termination in Multifetal Pregnancy: A Practical and Comprehensive Management, Strategy*, 12(8) J. ASSISTED REPROD. & GENETICS, 531, 531-36 (1995). The authors argue that a woman's desire to achieve a pregnancy that results in a singleton birth is an ethically justifiable ground for reduction, claiming it is "consistent with existing public policy in the United States and in Great Britain." *Id.* at 535. Alison Hall, however, denies that elective reduction is legal in Great Britain, and claims that there is a disparity between current medical practice in Great Britain and current law in that jurisdiction. Alison Hall,

The case at the beginning of this article appears, on its face, to be a case for MFPR for medical reasons, but turns out to be a maternal request for an elective reduction for social reasons. This is simply using technology to perform an elective abortion, in this instance, on only one fetus while attempting to not interfere with the second fetus. There are no significant medical or genetic threats to the fetuses or the mother that would justify selective termination. In naturally occurring multiple twin pregnancy, there is no predisposition to assist a complication from an iatrogenic intervention. Although it is technically possible to perform a reduction, it is not ethically preferable to do so. Current standards of practice recommend reducing to twins, and until more information has been gathered on the safety and efficiency of this relatively novel and experimental procedure, it seems premature to extend it to an elective procedure. Selective abortion or reduction (for fetal anomalies) currently is accepted as one subset of elective abortion, but respecting the issues of autonomy and responsibility involved in elective abortion do not remove the onus on medical professionals to encourage responsible decision making.

Our fear is that if selective reduction becomes available upon maternal request for naturally occurring twins, the rationale for performing eugenic abortion would fail because the procedure would be available for cosmetic or trivial reasons. We would recommend this woman's choice be to terminate the pregnancy or continue the pregnancy. She does not have the option of selective reduction unless her life or health, or the lives of the fetuses, are at risk. Others will argue that because elective abortion is legal and widely available, why not elective, selective abortion?

As elective abortion is legal and widely accepted, why not elective fetal reduction? Our rationale is based on: the lack of iatrogenic nature of the multiple pregnancy; the lack of problematic characteristics of the fetus to allow the choice of one fetus over the other; the risk to the surviving fetus where there is not a risk from fetal numbers; and, the slippery slope to eugenic abortion for trivial reasons.

Selective Reduction in Pregnancy: A Legal Analysis, 22 J. of MED. ETHICS 304, 304-08 (1996).