

1992

Sex Selection: Regulating Technology Enabling the Predetermination of a Child's Gender

Owen D. Jones

Follow this and additional works at: <https://scholarship.law.vanderbilt.edu/faculty-publications>

 Part of the [Law and Gender Commons](#), [Obstetrics and Gynecology Commons](#), and the [Sexuality and the Law Commons](#)

Recommended Citation

Owen D. Jones, *Sex Selection: Regulating Technology Enabling the Predetermination of a Child's Gender*, 6 *Harvard Journal of Law & Technology*. 1 (1992)

Available at: <https://scholarship.law.vanderbilt.edu/faculty-publications/1069>

This Article is brought to you for free and open access by the Faculty Scholarship at Scholarship@Vanderbilt Law. It has been accepted for inclusion in Vanderbilt Law School Faculty Publications by an authorized administrator of Scholarship@Vanderbilt Law. For more information, please contact mark.j.williams@vanderbilt.edu.

HEINONLINE

Citation: 6 Harv. J. L. & Tech. 1 1992-1993

Content downloaded/printed from
HeinOnline (<http://heinonline.org>)
Fri Jun 15 16:38:19 2012

- Your use of this HeinOnline PDF indicates your acceptance of HeinOnline's Terms and Conditions of the license agreement available at <http://heinonline.org/HOL/License>
- The search text of this PDF is generated from uncorrected OCR text.
- To obtain permission to use this article beyond the scope of your HeinOnline license, please use:

[https://www.copyright.com/ccc/basicSearch.do?
&operation=go&searchType=0
&lastSearch=simple&all=on&titleOrStdNo=0897-3393](https://www.copyright.com/ccc/basicSearch.do?&operation=go&searchType=0&lastSearch=simple&all=on&titleOrStdNo=0897-3393)



DiscoverArchive

Retrieved from DiscoverArchive,
Vanderbilt University's Institutional Repository

Please note that the copyright in the Harvard Journal of Law & Technology is held by the President and Fellows of Harvard College, and that the copyright in the article is held by the author.

SEX SELECTION: REGULATING TECHNOLOGY ENABLING THE PREDETERMINATION OF A CHILD'S GENDER

*Owen D. Jones**

INTRODUCTION

As technology allowing preselection of a child's gender has improved, observers have debated whether such practices should be prohibited. With sex selection, as with many issues of emotional appeal, political positions have antedated careful reflection, and legislative initiatives have marched well in advance of strategic planning. As a result, groups at either extreme of the issue have captured the critical thinking on the subject.

The debate over the prohibition of sex (or gender) selection (also known as "preselection" or "predetermination"), has focused almost exclusively on the context of aborting a "wrong-sex" fetus after a fetal gender-identification procedure. Despite the fact that sex selection *abortions* represent only a small subset of sex selection *procedures*, attitudes toward the former are driving general policy approaches to the latter. However, the issues are analytically distinct, and only during the former infancy of the pre-conceptive (and non-abortive post-conceptive) technology for sex selection were members on both sides of the debate afforded the economy of using one logic to support views on two issues. Consequently, the subsequent dramatic advances in sperm separation and artificial insemination technology challenge this unstable consolidation of views and require the context-specific division of the emotional reactions, analytic reasoning, and societal responses.

Divided by a line separating their resultant positions, commentators have grouped themselves into prohibitionists and non-interventionists. Yet a different division, along the perpendicular line separating them by their methods of analysis, would yield two different groups: those for

* Associate, Covington & Burling, Washington, D.C.; B.A., 1985, Amherst College; J.D., 1991, Yale Law School. The author gratefully acknowledges the invaluable comments and criticisms of Susan D. Daggett, Andrew and Ellen Quinn, Mark T. Quinlivan, Simon J. Frankel, and Eric Dodson Greenberg. The article also benefitted greatly from discussions with Judge Thomas Penfield Jackson, Patricia King Jackson, and Dr. Jay Katz, and from the assistance of John Wicks and Pamela McAlister. All were generous with time and insight, and none necessarily share the author's views.

whom sex selection is either *fundamentally* wrong or non-prohibitible (herein referred to as “absolutists”), on the one hand, and those for whom the *consequences* of sex selection or its prohibition dictate a normative position (herein referred to as “consequentialists”), on the other. The first division encourages combat, while the second suggests that consequentialists, at least, have room to negotiate the accommodation of their respective concerns.

Existing legal literature on sex selection has been principally limited to the abortion context¹ and argues simply either in favor of prohibition² or against it.³ To date, no significant efforts have been made to address the broader issue of the appropriate governmental approach, if any, to sex selection in general. This Article attempts to do so.

The way governments conceptualize and address sex selection will have serious implications for the future, regardless of the actual incidence of sex selection. Irrespective of one’s politics, for example, prohibitory legislation clearly alters the legal landscape, serving as collateral precedent for additional governmental intrusion into whatever reproductive liberties remain.

Consequently, Part I of this Article explains why legislators and policy-makers need to address sex selection now. It highlights accelerating technological advances, dramatic gender preferences that endure, and increasing willingness to supply and to use sex selection techniques. It also notes how the sharply polarized views on the subject may yield ill-considered legislation. Part II explores some reasons why people may want to use sex selection technology, along with arguments for, and against, allowing them to do so.

Part III examines why sex selection is such a uniquely difficult and divisive issue for feminist groups and considers the prominent policy approaches: non-intervention and prohibition. Part IV then exposes the limitations of these approaches by identifying separate and discernable

1. *But see* George Schedler, *Benign Sex Discrimination Revisited: Constitutional and Moral Issues in Banning Sex-Selection Abortion*, 15 PEPP. L. REV. 295 (1988) (the last sentence positing that the prohibitions therein proposed may be appropriate for future “home” sex-selection techniques).

2. *See* John R. Shaibley, *Sex Selection Abortion: A Constitutional Analysis of the Abortion Liberty and a Person’s Right to Know*, 56 IND. L.J. 281 (1981); Schedler, *supra* note 2, at 295. *See generally* Richard Delgado & Judith D. Keyes, *Parental Preferences and Selective Abortion: A Commentary on Roe v. Wade, Doe v. Bolton, and the Shape of Things to Come*, 1974 WASH. U. L.Q. 203 (1974).

3. *See, e.g.*, MARY ANNE WARREN, *GENDERCIDE: THE IMPLICATIONS OF SEX SELECTION* (1985).

categories of arguments proposed to justify them. Realigning these categories graphically isolates anti-abortion arguments that do not reach preconceptive technologies, and reveals significant methodological similarities between many of the remaining viewpoints previously thought disconnected and irreconcilable. Part V then makes a case for regulating sex selection, provides an action plan for doing so, and explores, for heuristic purposes, one possible example of such regulation.

The complexity of an issue such as sex selection, invoking both emotional responses and rational concerns, suggests that any effort to refine discussions is susceptible to misinterpretation of motive. So that it may be clear: This Article takes no moral position on sex selection. While it is certainly possible and important to consider the issue from perspectives ranging from moral or religious to social or sociobiological, this Article explores the range of *legal* approaches, if any, that are and are not appropriate.

I. SEX SELECTION IN CONTEXT

This Part explores the five reasons why sex preselection is worth serious attention. First, the enabling technology, which has already been employed for a number of years, has advanced at a rapid pace. Second, studies of the prevalence of gender preferences suggest an enormous market for the technology. Third, recent years have shown a dramatic increase in the acceptability to the public and to practitioners of using the technology. Fourth, people are already taking sides, without evidence of proper reflection. Fifth, and consequently, legislatures are taking action, without benefit of a thoughtful and complete discussion of all the options available.

A. Myth to Mechanism: The Evolution of Sex Selection Technology

Understanding the role of sex selection in society today requires knowledge of the long and rich history behind the development of the technology and the sophisticated techniques now available. As centuries passed, the unrelenting effort to control the sex of offspring, and the sometimes bizarre techniques employed, manifested a basic urge that spanned cultures and continents.

The earliest postconceptive method of sex selection, not surprisingly, was infanticide. Although the earliest records suggesting infanticide are

from the Tokugawa period in Japan (1600 to 1868 C.E.), with nine times as many male births as female births recorded,⁴ it is widely believed that the practice had already existed for thousands of years.⁵ Perhaps more common, and certainly more humane, were early efforts to affect the gender of a child prior to conception. These efforts, as diverse as gender preferences are strong, might be loosely grouped as the “biologic” and the “symbolic.” Biologic methods concerned behavior during copulation, the timing of copulation, and the diet of the female. Symbolic methods, in contrast, were mystical.

1. *Early Biologic Methods*

Aristotle taught the most rudimentary (and perhaps most self-serving) biologic method: The likelihood of having a male correlated directly to the vigor with which one copulated.⁶ Although there are, no doubt, some remaining disciples of this theory, it was largely unsuccessful in supplanting the more intellectually appealing theory of “sidedness.” Men have two testicles, women two ovaries, and humans two genders. Consequently it seemed logical that gender correlated to the “side” of the body involved in human reproduction. Thus, women were instructed to lie on this side or that during intercourse.⁷ Less pleasantly, the Greek philosopher Anaxagoras (500 to 428 B.C.E.) thought that males were born of sperm from the right testicle, and suggested tying off the left one just prior to copulation.

The left/right theory persisted for millennia. French noblemen, for example, were still advised, more than 2200 years later, that removal of the left testicle guaranteed male heirs.⁸ And Hindu Tantric texts (7th to 17th century C.E.) taught a variation of this left/right theory, declaring that if at the moment of orgasm the “solar breath,” taken via the right

4. See Paul W. Zarutskie et al., *The Clinical Relevance of Sex Selection Techniques*, 52 FERTILITY & STERILITY 891 (1989); see also Austin L. Hughes, *Female Infanticide: Sex Ratio Manipulation in Humans*, 2 ETHOLOGY & SOCIOBIOLOGY 109 (1981).

5. For discussion of more modern infanticide among Tahitians, Formosans, Indians, and North Africans, see LINDA GORDON, WOMAN'S BODY, WOMAN'S RIGHTS 34 (1976).

6. DAVID M. RORVIK & LANDRUM B. SHETTLES, CHOOSE YOUR BABY'S SEX: THE ONE SEX SELECTION METHOD THAT WORKS 27 (1976) [hereinafter RORVIK & SHETTLES, CHOOSE YOUR BABY'S SEX]; see also DAVID M. RORVIK & LANDRUM B. SHETTLES, YOUR BABY'S SEX: NOW YOU CAN CHOOSE (1970).

7. RORVIK & SHETTLES, CHOOSE YOUR BABY'S SEX, *supra* note 6, at 27.

8. Ronald J. Levin, *Human Sex Pre-Selection*, 9 OXFORD REV. REPRODUCTIVE BIOLOGY 161, 162 (1987).

nostril, dominates in man and the “lunar breath,” taken via the left nostril, dominates in woman, and conception occurs, the child will be male. The opposite formula supposedly yields females.⁹ Certain Talmudic scholars believe the Bible, too, offers a biologic method of sex preselection: the timing of orgasm. Interpreting *Leviticus*,¹⁰ Rabbi Isaac states in the Babylonian Talmud that if a woman “emits her semen” first she bears a male child; if the man “emits his semen” first she bears a female child.¹¹ Interpreting these words as a reference to orgasm, and attentive to all possibilities, the Talmud opines that if both man and woman “emit semen” simultaneously, a single offspring would be hermaphroditic, and twins would be one of each.¹²

Supporters of early dietetic theories attempted to capitalize on the role nutrition may play in influencing gender. In the middle ages, for example, a woman seeking to bear a boy was advised to drink a concoction of wine and lion’s blood (in proper proportions) and then copulate under a full moon while an abbot prayed for a boy (presumably from a safe distance).¹³ Later dietetic theories suggested eating various combinations of fish, seeds, sugars, peas, lettuce, cheese, salt, sweets, and even the testes of certain animals.¹⁴

2. Early Symbolic Methods

Symbolic methods for preselecting sex have involved, for example, making sure to hang one’s trousers on the appropriate bedpost (Pennsylvania) and keeping poppies or sugar on the windowsill for a boy or girl, respectively (Czechoslovakia and Hungary).¹⁵ Others have taught that,

9. *Id.* at 162-63. Hindus consider the sun the masculine, fiery energy, while the moon is considered the feminine, cooling energy.

10. See *Leviticus* 12:2.

11. Fred Rosner, *The Biblical and Talmudic Secret for Choosing One’s Baby’s Sex*, 15 *ISR. J. MED. SCI.* 784 (1979). Some have conjectured that this concept is functionally derived, encouraging men to practice restraint during intercourse by holding out the promise of male issue as reward. *Id.* at 787.

12. *Id.* at 785.

13. RORVIK & SHETTLES, CHOOSE YOUR BABY’S SEX, *supra* note 6, at 24.

14. SALLY LANGENDOEN & WILLIAM PROCTOR, THE PRECONCEPTION GENDER DIET: DIET A = BOY, DIET B = GIRL 13-19 (1982); RORVIK & SHETTLES, CHOOSE YOUR BABY’S SEX, *supra* note 6, at 24; ROBERT H. GLASS & RONALD J. ERICSSON, GETTING PREGNANT IN THE 1980S: NEW ADVANCES IN INFERTILITY TREATMENT AND SEX PRESELECTION 114 (1982).

15. RORVIK & SHETTLES, CHOOSE YOUR BABY’S SEX, *supra* note 6 at 30; LANGENDOEN & PROCTOR, *supra* note 14, at 18-19; GLASS & ERICSSON, *supra* note 14, at 114.

to conceive a male: women should dress like a man before intercourse (Palau Islands); a man should take an axe to bed with a woman while singing a prescribed song (Spessart Mountains of Germany); a young boy should be present in bed during intercourse (Yugoslavia); and the man should bite the woman's right ear before his orgasm (Italian Province of Modena).¹⁶ There are even reports that raping one's wife was recommended, as one of the various "superiority" theories that taught that the more "male" a man acted, the greater the likelihood of producing a male.¹⁷

3. *Modern Techniques*

Despite millennia of theorizing on the biological method of sex determination, and the implementation of more than five hundred theories worldwide,¹⁸ it was not until 1924 that researchers confirmed the existence of sex chromosomes.¹⁹ They learned that the sole factor determining the gender of an embryo is whether an X- or a Y-bearing sperm fertilized the already X-bearing egg. (Fertilization by a Y-bearing sperm results in a male, and by an X-bearing sperm, a female.)²⁰ Yet understanding the rudiments of biological sex determination and establishing a useful technology for sex predetermination proved to be different matters altogether.

Researchers early in this century scrutinized human existence for factors that might skew the gender ratio,²¹ and postconceptive and preconceptive technologies evolved side by side.

16. See generally RORVIK & SHETTLES, CHOOSE YOUR BABY'S SEX, *supra* note 6, at 24-30.

17. See ELIZABETH M. WHELAN, BOY OR GIRL?: THE SEX SELECTION TECHNIQUE THAT MAKES ALL OTHERS OBSOLETE 34 (1977). Other unusual theories prevalent at this time concerned the relative ages and weights of parents, variations in their temperament, complexion, and features, and even the use of pseudo-hypnotic suggestions to passive and reclining women. *Id.* at 32-37.

18. Levin, *supra* note 8, at 163.

19. See Theophilus S. Painter, *The Sex Chromosomes of Man*, 58 AM. NAT. 506 (1924).

20. Humans typically have 46 chromosomes. Human eggs and human sperm, predictably, each have 23. Each egg bears an X chromosome, while each sperm bears either an X or a Y chromosome. An egg fertilized by an X-bearing sperm produces a female (XX), while an egg fertilized by a Y-bearing sperm produces a male (XY).

21. See Levin, *supra* note 8, at 166. Such factors included birth order, sex of the first-born child, age of the respective parents, frequency of intercourse, occupation, weather, illegitimacy, and even local geography. *Id.*

a. *Postconceptive Techniques*

Postconceptive gender selection can be performed *in vivo* (in the body) or *in vitro* (out of the body). Current *in vivo* postconceptive methods of sex selection involve learning the gender of a developing embryo or fetus, followed by abortion if it is of the “wrong” sex. There are basically three techniques for learning gender: ultrasound, chorionic villi sampling, and amniocentesis.²²

Using the non-invasive ultrasound technique, a doctor directs a high-frequency sound source at the fetus. The echoes vary with the density of fetal morphology and are processed to generate a visual image of the fetus *in utero*. Looking for genital development, a doctor can detect sex fairly reliably nine weeks after conception. In chorionic villi sampling, a doctor inserts a suction tube transcervically or transabdominally during the first trimester of pregnancy and aspirates sloughed-off fetal cells. The cell DNA are then analyzed for indication of gender.

Amniocentesis uses similar analysis, but the doctor collects the cells through a hollow needle that is inserted through the mother’s abdominal wall. After subsequently passing through the uterine wall, the needle enables the doctor to draw a small portion of the amniotic fluid surrounding the fetus. Cells floating in this liquid are either analyzed directly or cultured for four to five weeks prior to study. This method is the most prevalent internationally.

The postconception *in vitro* method selects by gender one of several eggs fertilized in a laboratory and implants it in the mother. British fertilization specialists improved the technique measurably when, in 1990, they developed a procedure enabling the identification of the sex of a human embryo when it is *only eight cells old*, that is, a mere three days after conception.²³

22. A fourth method, which detects fetal cells in the blood of a pregnant woman, is still developing. See, e.g., Leonard A. Herzenberg et al., *Fetal Cells in the Blood of Pregnant Women: Detection and Enrichment by Fluorescence-Activated Cell Sorting*, 76 PROC. NAT’L ACAD. SCI. 1453 (1979).

23. Teri Randall, *Gene Scene: Earlier, Eventually More Specific, Prenatal Genetic Diagnosis in Realm of Possibility*, 264 JAMA 3113, 3113-14 (1990); see also Larry Thompson, *Cell Test Before Implant Helps Ensure Healthy “Test-Tube” Baby*, WASH. POST, Apr. 27, 1992, at A3.

b. Preconceptive Techniques

Preconceptive techniques can also be categorized as *in vivo* or *in vitro*. Preconceptive *in vivo* theories still prevalent today concern special diets, coital timing, hormonal and immunologic manipulation, and manipulation of cervical mucus acidity.²⁴ One prominent approach, for example, emphasizes the manipulation of sodium, potassium, and magnesium ions in a woman's body.²⁵

Preconceptive *in vitro* theories typically involve the separation of X- from Y-bearing sperm as much as possible, followed by artificial insemination of the woman using the "enriched" semen, that is semen in which the gender ratio has been skewed. Theories on what might separate the sperm, however, considerably antedated a method for evaluating the success of the various techniques. For obvious reasons, mass impregnation followed by observation of the gender ratio at birth was impractical. Yet in 1964, a researcher discovered that Y-bearing sperm, stained with quinacrine mustard, fluoresce under ultraviolet light.²⁶ Consequently, research in sperm-separation techniques increased.

Researchers discovered in 1971 that the X-bearing (or gynecogenic) sperm is three percent larger than the Y-bearing (or androgenic) sperm. This difference was later attributed to a greater quantity of DNA in the X-bearing sperm.²⁷ Although the X-bearing sperm swims more slowly

24. *But see* JACQUES BIRCHEN, CHOOSING THE SEX OF YOUR CHILD BY BIORHYTHMS (1986) (discussing biorhythms); ROBERT CHOY, THE NEW NATURAL ASTROLOGICAL WAY TO BIRTH CONTROL (1976) (planetary positions); VICTOR B. DADA, CHOOSE THE SEX OF YOUR BABY: A PSYCHOLOGICAL APPROACH vii, ix (1983) (child will be the gender of the parent who had the strongest sexual desire at the moment of conception). These works present modern, but less-accepted, theories of *in vivo* sex predetermination.

25. Joseph Stolkowski & Jean Choukroun, *Preconception Selection of Sex in Man*, 17 *ISR. J. MED. SCI.* 1061, 1065 (1981) (reporting 80% success in selecting a child of either gender); *see also* Kathryn McWhinter, *Children: The Gender Vendors*, *INDEPENDENT*, Oct. 27, 1991, at 54. Existing preconceptive *in vivo* techniques are still considered highly speculative, largely because of the myriad potentially significant variables involved and the difficulty of amassing reliable data. Were a "home remedy" technique to prove more successful, its regulation might raise liberty and privacy problems beyond the scope of this Article.

26. Another sophisticated but less frequently used technique, flow cytometry, uses lasers and computerized sensors to detect small differences in the amount of light refracted by sperm, correlating to their total DNA content. Joel H. Batzofin, *XY Sperm Separation for Sex Selection*, 14 *UROLOGIC CLINICS N. AM.* 609, 611 (1987).

27. *See* A.T. Sumner et al., *Distinguishing Between X, Y, and YY-bearing Human Spermatozoa by Fluorescence and DNA Content*, 229 *NEW NATURE BIOLOGY* 231, 232 (1971); Shirley F. Hartley & Linda M. Pietraczyk, *Preselecting the Sex of Offspring:*

than the Y-bearing, it can travel longer distances, and is more resistant to the acidic environments that periodically prevail in the female genital tract. These observations prompted techniques intended to separate sperm on the basis of size or weight, and others intended to exploit the differences in mobility.²⁸ The former techniques employ centrifugation (in which heavier sperm move from the center toward the wall of a rotating cylinder), sedimentation (in which heavier sperm sink further through a thick liquid), and differential filtration (in which sperm pass through a layer of cervical mucus, and then through a millipore filter).²⁹

The techniques differentiating sperm by mobility focus principally on speed (although there is also a technique availing of differing swimming patterns³⁰). In the most successful of these techniques, developed by Roland J. Ericsson, sperm is introduced to the top of a test tube containing three increasingly thicker layers of the protein "albumin." The faster-swimming Y-bearing sperm reach the bottom of the tube sooner, on average, and from this Y-enriched fluid a woman desiring a boy is inseminated.³¹

Clinicians report that this technique can yield a semen sample that is 90% Y-bearing, and that between 76% and 82% of the women who conceive after insemination will bear males.³² The same technique is

Technologies, Attitudes, and Implications, 26 SOC. BIOLOGY 232, 233 (1979).

28. Some believe that sperm may also be separated by a difference in electrical charge. In "counterstream convection galvanization" a weak galvanic current is passed through a low-temperature, fluid medium of glycine and alanine, causing X- and Y-bearing sperm to cluster around the cathode and anode respectively. The technique has thus far yielded mixed results. See generally PETER SINGER & DEANE WELLS, *MAKING BABIES: THE NEW SCIENCE AND ETHICS OF CONCEPTION* 151-52 (1985).

29. McWhinter, *supra* note 25, at 54; Levin, *supra* note 8, at 178.

30. In this "laminar flow" technique, sperm are separated by an apparatus creating a cylindrical flow of fluid that exhibits velocities differing with distance from the center. See Levin, *supra* note 8, at 177.

31. Ferdinand J. Beernink & Roland J. Ericsson, *Male Sex Preselection Through Sperm Isolation*, 38 FERTILITY & STERILITY 493-95 (1982); Lynn Smith, *For Many, Picking a Child's Gender is a Fertile Field*, L.A. TIMES, Sept. 5, 1990, at E1.

32. See generally Beernink & Ericsson, *supra* note 31, at 493-95 (79%-82%); Stephen L. Corson et al., *Sex Selection by Sperm Separation and Insemination*, 42 FERTILITY & STERILITY 756, 759 (1984) (80%); ROLAND J. ERICSSON, *GAMETRICS BULLETIN* (1984) (76%), cited in *id.*; W. Paul Dmowski et al., *Use of Albumin Gradients for X and Y Sperm Separation and Clinical Experience with Male Sex Preselection*, 31 FERTILITY & STERILITY 52-57 (1979) (80%); Zarutskie et al., *supra* note 4, at 891 (73%); Jonathon Hewitt, *Preconceptional Sex Selection*, 37 BRIT. J. HOSP. MED. 149 (1987). All studies have been somewhat limited by slight variations in technique, and by the relatively limited size of the database. One study, for example, purports to dispute Ericsson's findings using only 48 procedure-assisted pregnancies, but itself calls for a larger study group to enable more

successful for selecting females only 67% to 76% of the time.³³ An alternate method for achieving X-enrichment, developed in 1975, filters semen through a gelatinous material, Sephadex G50 fine.³⁴ Initial clinical studies using this technique have yielded 73% females.³⁵

To put these results in perspective, *increasing the likelihood of having a boy from roughly 50% to roughly 75% could change the male/female gender ratio at birth from roughly 1:1 to 3:1*, if those employing the technique consistently selected for boys. This abstract statistic would of course be of little predictive value were it not for the fact that there is an overwhelming preference for boys, both internationally and within the United States.

B. Dominant Gender Preferences

The strength and prevalence of gender preferences suggests a ready-made demand for the increasing supply and reliability of gender preselection techniques.³⁶

accurate assessment. Sharon B. Jaffe et al., *A Controlled Study for Gender Selection*, 56 FERTILITY & STERILITY 254, 257 (1991).

33. Barbara Altounyan & Leonie Jameson, *Would you Make a Baby with the Sperm Firm?*, INDEPENDENT, Nov. 7, 1991, at 16 (67%-70%); Zarutskie et al., *supra* note 4, at 891. The natural male-to-female sex ratio at birth is approximately 105:100, although this ratio reverses later in life, as women outlive men. Christina Ruegsegger Veit & Raphael Jewelewicz, *Gender Preselection: Facts and Myths*, 49 FERTILITY & STERILITY 937 (1988). Consequently, it is automatically slightly more likely to succeed in selecting for males than females, a technological deficit that some would like to see eliminated. See, e.g., J.P. Chaudhuri & W.B. Schill, *A Possibility of Unbiased Sex Preselection in Humans by Enrichment of X or Y Chromosome Bearing Spermatozoa*, 19 ANDROLOGIA 157 (1987). Lawrence Livermore Laboratory of the University of California has used a sperm-sorter that identifies "female" sperm because they have 3% more DNA. The technique has yielded 90% success, with either sex sought, in rabbits and pigs. However, their technique has not yet been applied to humans. McWhinter, *supra* note 25, at 54.

34. See O. Steeno et al., 7 ANDROLOGIA 95-99 (1975); see also Batzofin, *supra* note 26, at 612-14.

35. Steven L. Corson et al., *Preconceptual Female Gender Selection*, 40 FERTILITY & STERILITY 384, 385 (1983); see also Corson, *supra* note 32, at ¶58. See generally Zarutskie et al., *supra* note 4, at 891 (extensive compilation of studies, critiques, and relative successes); Batzofin, *supra* note 26; James F. Daniell, *Sex-Selection Procedures*, 28 J. REPROD. MED. 235 (1983); Barbara Simcock, *Sons and Daughters—A Sex Preselection Study*, 142 MED. J. AUSTL. 541 (1985); Jonathan Schaffir, *What are Little Boys Made Of? The Never-Ending Search for Sex Selection Techniques*, 34 PERSP. BIOLOGY & MED. 516 (1991); M. Ruth Nentwig, *Technical Aspects of Sex Preselection*, in THE CUSTOM-MADE CHILD? WOMEN-CENTERED PERSPECTIVES 181 (Helen B. Holmes et al. eds., 1981).

36. Some of the reasons for gender preferences are discussed below in Part II.A.

1. *Preferences Internationally*

Cultural factors, of course, strongly affect gender preferences. In those cultures, for example, in which a daughter's parents are expected to pay her groom a dowry, which frequently constitutes a year's salary, parents are often less enthusiastic about bearing a girl.³⁷ This preference is particularly present in cultures where a male has far greater earning opportunities and can substantially contribute to the family income and welfare, both as a young man and as the caretaker ultimately responsible for his parents.³⁸

Because women have traditionally been regarded as less "valuable" than men,³⁹ some cultures have a skewed gender ratio even without gender-selection technology. A 1991 United Nations report on global census information, for example, identified quite a number of countries in which the ratio is unexpectedly low. This was attributed, in part, to variances in the extent of resources devoted to sick girls, as contrasted with that afforded boys.⁴⁰ In India, for example, there are only about ninety-three females for each one hundred males.⁴¹

A change in the ratio, in many countries, can also be attributed to the

37. See Stephen R. Weisman, *No More Guarantees of a Son's Birth*, N.Y. TIMES, July 20, 1988, at A1, A9 (dowries in India). Although Indian legislation officially banned the dowry system, it is still customary in certain societal strata. *Saving the Daughters of India*, CHRISTIAN SCI. MONITOR, July 27, 1988, at 13.

38. See, e.g., M. Ali Khan & Ismail Sirageldin, *Son Preference and the Demand for Additional Children in Pakistan*, 14 DEMOGRAPHY 481-95 (1977).

39. In many cultures such gender preferences are unabashedly overt. This translation of a song from Bulgaria, for example, bespeaks not only gender preferences but also violence toward women who are not accommodating:

If the tenth too, is a girlchild
I will cut both of your feet off,
To the knees I'll cut your feet off,
Both your arms up to the shoulders,
Both your eyes too, I will put out . . .

Letty C. Pogrebin, *Bias Before Birth*, in GROWING UP FREE: RAISING YOUR CHILD IN THE 80's 85 (1980). Note also, for example, the German proverb that "a house full of daughters is like a cellar full of sour beer," and the Chinese proverb indicating that 18 goddess-like daughters do not equal one deformed son. See WHELAN, *supra* note 17.

40. Madhu Kishwar, *The Continuing Deficit of Women in India and the Impact of Amniocentesis* (food allocation), cited in GENA COREA, MAN-MADE WOMEN: HOW NEW REPRODUCTIVE TECHNOLOGIES AFFECT WOMEN 30 (1987).

41. Nicholas D. Kristof, *Stark Data on Women: 100 Million Are Missing*, N.Y. TIMES, Nov. 5, 1991, at C1 (reporting on the U.N. study, "The World's Women"); see also *The Grim Mystery of the World's Missing Women*, BOSTON GLOBE, Feb. 3, 1992, at 25; Kishwar, *supra* note 40.

confluence of strong preferences and access to sex selection abortions. One Chinese peasant was quoted as saying, "Ultrasound is really worthwhile, even though my wife had to go through four abortions to get a son."⁴² And postconception sex selection clinics in India, for example, have advertised that it is "better to spend 500 rupees now than 50,000 rupees later."⁴³

In 1987, Bombay alone had 258 clinics offering amniocentesis. A study of six hospitals by a local women's organization discovered that of 8000 abortions performed after amniocentesis 7999 were of female fetuses.⁴⁴ This statistic does not necessarily mean that all amniocenteses revealing female fetuses were followed by abortion. But it does suggest that amniocentesis may frequently be used for sex selection.

2. Gender Preferences in the United States

While gender preferences abroad are well-known, it is surprising how strong such preferences are in the United States. The results of studies in the U.S., spanning over fifty years, reveal a continuing preference for a male child as the only child, or, alternatively, as the first child.⁴⁵ An

42. Kristof, *supra* note 41, at C12; cf. John Gittelsohn, *It's a Bad Year for Baby Girls in Korea; Births Likely to Drop, Abortions to Rise*, BALTIMORE SUN, Jan. 16, 1990, at A2 (culture and gender preferences in Korea). See generally Lena H. Sun, *Year of the Sheep, Not the Kid*, WASH. POST, May 13, 1991, at A20; Sheryl WuDunn, *China's Castaway Babies: Cruel Practice Lives On*, N.Y. TIMES, Feb. 26, 1991, at A4.

43. Weisman, *supra* note 37; see also Kishwar, *supra* note 40; Viola Roggencamp, *Abortion of a Special Kind: Male Sex Selection in India*, in TEST TUBE WOMEN: WHAT FUTURE FOR MOTHERHOOD? 266 (Rita Arditti et al. eds., 1989).

44. Teesta Setalvad, *India: Daughters Have No Birth Right*, INTER PRESS SERVICE, Feb. 24, 1987. See generally Neelkamal Puri, *India: A Son is Born; Let the Daughters Hang*, INTER PRESS SERVICE, Mar. 20, 1989; Lara Heise, *The Global War Against Women*, WASH. POST, Apr. 9, 1989, at B1; Abha Pandya, *Prenatal Attack on Women*, CHRISTIAN SCI. MONITOR, Mar. 10, 1988, at 23; Edward A. Gargan, *Ultrasound Skews India's Birth Ratio*, N.Y. TIMES, Dec. 13, 1991, at A13. The clinic/hospital combination is common because sex determination tests were banned from government hospitals almost 20 years ago, requiring sex selectors, as a practical measure, to visit an amniocentesis clinic separately. Authorities established the ban after learning that, of 300 women requesting amniocentesis, every one indicated a desire for an abortion if the fetus were female. Stuart Auerbach, *Birth Test Said to Help Indians Abort Females*, WASH. POST, Aug. 25, 1982, at A24. A new law in the western Indian state of Maharashtra, of which Bombay is the capital, now prohibits prenatal tests to determine fetal sex. Steven R. Weisman, *No More Guarantees of a Son's Birth*, N.Y. TIMES, July 20, 1988, at A1; Alan Dershowitz, *Abortion Leads to 'Femicide'*, BOSTON HERALD, Aug. 23, 1988, at 29.

45. Hartley & Pietraczyk, *supra* note 27, at 232-46; see also Roberta Steinbacher, *Fuuristic Implications of Sex Preselection*, in THE CUSTOM-MADE CHILD? WOMEN-CENTERED PERSPECTIVES 187 (Helen B. Holmes et al. eds., 1981); NANCY E. WILLIAMSON, *SONS OR DAUGHTERS: A CROSS-CULTURAL SURVEY OF PARENTAL PREFERENCES* 29-

early study of U.S. natality statistics, for example, noted that the male/female sex ratio of the last child, i.e., that after which a couple had no more children, was 117.4 to 100. More families stopped having children after a boy, therefore, than after a girl.⁴⁶ In the 1950s, 92% of males and 66% of females surveyed wanted a boy if limited to one child.⁴⁷ This pattern held in the 1960s, at 91% and 66% respectively, as did the strong preference for boys as the firstborn,⁴⁸ held by nearly 80% of both sexes in the early 1970s.⁴⁹

A recent study of United States women indicated that, were their preferences actualized in a one-child-only context, they would birth 161 boys to every 100 girls.⁵⁰ Similarly, their preferences would result in a ratio of 171 to 100 firstborn males to females in a multi-child context.⁵¹ These results remained stable between 1970 and 1975,⁵² and there is evidence that preference for sons is quite pronounced even among many who are strong supporters of the women's movement.⁵³

Attempts to quantify the potential effects of gender preferences have

67 (1976).

46. Sanford Winston, *Birth Control and the Sex-Ratio at Birth*, 38 AM. J. SOC. 225 (1932) (database of 5466 families completed).

47. See Roberta Steinbacher, *Preselection of Sex*, 20 SCIENCES 6, 28 (1980).

48. Simon R. Dinitz et al., *Preferences for Male or Female Children: Traditional or Affectional*, 16 MARRIAGE & FAM. LIVING 128 (1964), cited in Ruegsegger Veit & Jewelewicz, *supra* note 33, at 939 n.18; CHARLES F. WESTHOFF ET AL., *FAMILY GROWTH IN METROPOLITAN AMERICA* (1961), cited in Ruegsegger Veit & Jewelewicz, *supra* note 33, at 939 n.17. See generally Ruegsegger Veit & Jewelewicz, *supra* note 33.

49. Gerald E. Markle & Charles B. Nam, *Sex Predetermination: Its Impact On Fertility*, 18 SOC. BIOLOGY 73 (1971). See generally Steinbacher, *supra* note 47.

50. Anne R. Pebley & Charles F. Westhoff, *Women's Sex Preferences in the United States: 1970 to 1975*, 19 DEMOGRAPHY 177, 184 (1982).

51. *Id.* at 179. In one sampling of 363 women, more than 50% preferred a first-born boy, while only 6% preferred a first-born girl. See Steinbacher, *supra* note 47. Interestingly, women in the Philippines prefer a family with a balanced gender ratio. William F. Stiner & Paul D. Mader, *Sons, Daughters or Both: An Analysis of Family Sex Composition Preferences in the Philippines*, 12 DEMOGRAPHY 67 (1975).

52. Pebley & Westhoff, *supra* note 50. In one study of 1500 married women under 40, twice as many women preferred boys to girls. It seems clear that one factor in this preference is a desire to accommodate a stronger preference of the husband. Thus this same survey reflected that among the reasons offered for son preference were desires: (1) to please husbands, (2) to carry on the family name, and (3) to provide a companion for the husband. Hoffman, *Social Change, The Family and Sex Differences* (1976), cited in John C. Fletcher, *Research Ethics*, 128 PROGRESS IN CLINICAL & BIOLOGICAL RES. 333, 342 (1983).

53. Clyda S. Rent & George S. Rent, *More on Offspring Sex-Preference: A Comment on Nancy E. Williamson's "Sex Preference, Sex Control, and the Status of Women,"* 3 SIGNS: J. WOMEN IN CULTURE & SOC. 505 (1977); Faith Gilroy & Roberta Steinbacher, *Preselection of Child's Sex: Technological Utilization and Feminism* 53 PSYCHOL. REP. 671 (1983).

ranged from male/female ratios of approximately 110:100⁵⁴ to as high as 122:100 or even 140:100.⁵⁵ Yet there is little doubt that one cannot accurately predict an actual gender ratio from a survey posing questions in the abstract. Surveys cannot easily incorporate contextual complications (including personal and financial costs of sex selection), the relative merits (including likelihood of success) of the technique to be used, and the frequent disjunction between what a person wants and what a person is willing to do to get it. Consequently, the mere existence of sex preferences is insufficient to drive policy conclusions; it is not obvious that every individual's sex preference will result in actual sex selection.

While preliminary clinical studies tend to confirm that some people will be willing to actualize their preferences (a 1991 survey of couples actually requesting sex-selection procedures, for example, revealed a nearly 2:1 preference for boys⁵⁶), an examination of changing attitudes toward both postconceptive and preconceptive technology will allow more reliable insights into the likelihood that women will actually use sex-selection technology.

C. *Changing Attitudes Toward the Use of Sex Selection*

A third reason why sex selection is worth immediate consideration is that attitudes toward the supply and use of sex selection procedures have become increasingly tolerant. Increased tolerance is not a problem in the abstract, but it does suggest increased use, which in turn indicates a potential exacerbation of any problems sex selection may generate. With respect to *postconceptive* sex selection, for example, recent years have seen a dramatic increase in the percentage of U.S. geneticists willing either to perform prenatal diagnosis⁵⁷ as a precursor to a sex-selection abortion unrelated to a gender-linked disease, or to refer a patient to

54. Amitai Etzioni, *Sex Control, Science, and Society*, 161 *SCIENCE* 1107, 1109 (1968).

55. See generally Steinbacher, *supra* note 47.

56. Sharon B. Jaffe et al., *A Controlled Study for Gender Selection*, 56 *FERTILITY & STERILITY* 254, 255, 257 (1991). Ninety-one percent of the couples pursuing the technique had only children of the opposite gender already, suggesting that most interested couples were attempting to actualize compositional, rather than sequential, goals. Twenty-nine percent had three or more children of the opposite sex. Only 3% had no children at all. And 2.4% requested sex selection for genetic reasons.

57. "Prenatal diagnosis" provides genetic information about a developing fetus. "Genetic counseling," on the other hand, is retrospective, typically following the birth of a genetically handicapped child. "Genetic screening" provides information to individuals about the normalcy of their own genotype.

another geneticist who would.⁵⁸ The percentage rose from roughly 1% in 1973⁵⁹ to roughly 20% in 1977.⁶⁰ Quite strikingly, that figure rose still further to 62% in 1985, and has remained stable since.⁶¹ This figure is higher than that reported for geneticists surveyed in India,⁶² and contrasts starkly with the 36% figure reflecting the combined results from 18 nations including the United States.⁶³

Notwithstanding all this, it is rather widely accepted that no one knows the actual extent of sex-selection abortions in the U.S.⁶⁴ Surveys

58. Note throughout this discussion that differing methodologies make comparison of results inexact. For one advocacy group's views, see SEX SELECTION ABORTION: AN INFORMATION PACKET PREPARED BY THE NATIONAL RIGHT TO LIFE COMMITTEE (1991).

59. Christopher Farley, *The Debate Over Uses of Prenatal Testing*, USA TODAY, Feb. 2, 1989, at 5D; see also F. Clarke Fraser & C. Pressor, *Attitudes of Counselors In Relation to Prenatal Sex-Determination Simply for Choice of Sex*, in GENETIC COUNSELING 109, 111 (Herbert A. Lubs & Felix de la Cruz eds., 1977); James R. Sorenson, *From Social Movement to Clinical Medicine - The Role of Law and The Medical Profession in Regulating Applied Human Genetics*, in GENETICS AND THE LAW 467, 481 tbl. 1 (Aubrey Milunsky & George J. Annas eds., 1976).

60. Fraser & Pressor, *supra* note 59. Not surprisingly, given the use of the word "simply" in the title, the authors operate from the assumption that a "purely personal" reason for gender preferences, contradistinguished from medical ones, are "trivial."

61. *Ethics and Medical Genetics in the United States: A National Survey*, 29 AM. J. MED. GENETICS 815 (1988), cited in Dorothy C. Wertz & John C. Fletcher, *Fatal Knowledge? Prenatal Diagnosis and Sex Selection*, HASTINGS CENTER REP. May/June 1989, at 21 [hereinafter Wertz & Fletcher, *Fatal Knowledge?*]. This report of a 1985 survey indicated that 34% of 295 U.S. geneticists would perform prenatal diagnosis for the purpose of sex selection, and an additional 28% would refer to another geneticist who would do so (62% combined). See also Dorothy C. Wertz & John C. Fletcher, *Ethical Problems in Prenatal Diagnosis: A Cross-Cultural Survey of Medical Geneticists in 18 Nations*, 9 PRENATAL DIAGNOSIS 145, 148, tbl. 2 (1989) (also reporting 62% combined) [hereinafter Wertz & Fletcher, *Ethical Problems*]. Of the 14 different hypothetical cases posed to the geneticists, that on a sex-selection abortion procedure unrelated to a sex-linked disorder was the most controversial, and seemed to present the greatest ethical conflict. *Id.* at 155; see also John C. Fletcher & Dorothy C. Wertz, *Genetics and the Law: Ethics, Law, and Medical Genetics: After the Human Genome is Mapped*, 39 EMORY L.J. 747, 772, 785, 789, 792 tbls. 1, 5 (1990). Note that while the percentage of geneticists willing to facilitate prenatal diagnosis for sex selection purposes has plateaued, the "supply," in absolute numbers, will increase if and as the number of geneticists in the country increases.

62. Wertz & Fletcher, *Ethical Problems*, *supra* note 61 (52% combined).

63. *Id.* Those countries are Australia, Brazil, Canada, Denmark, F.R.G., France, G.D.R., Greece, Hungary, India, Israel, Italy, Japan, Norway, Sweden, Switzerland, the United Kingdom and the United States. Interestingly, of the 605 persons from these countries who provided reasons for their decision not to facilitate sex selection, only 4.7% discussed the role of women in society, only 0.5% discussed maintaining a balanced sex ratio, and only 4.9% expressed concern for harm to the moral order. Fletcher & Wertz, *supra* note 61, at 773.

64. See, e.g., Mark J. Evans et al., *Attitudes on the Ethics of Abortion, Sex Selection, and Selective Pregnancy Termination Among Health Care Professionals, Ethicists, and Clergy Likely to Encounter Such Situations*, 164 AM. J. OBSTETRICS AND GYNECOLOGY 1092, 1098 (1991). Planned Parenthood Federation of America and the National Abortion Rights Action League take the position that the incidence of such procedures are *de minimis*.

conducted in 1991 and 1992 indicate that approximately 90% percent of respondents opposed abortion as a method of selecting the gender of a child.⁶⁵ A different poll indicated that 93% of Americans think it should be illegal.⁶⁶ An international survey in which 82% of respondents were U.S. health-care professionals, ethicists, or clergy indicated that 67.2%, 74.6%, and 92.5% opposed abortion generally for first-, second-, and third-trimester abortions, respectively.⁶⁷

Yet these statistics reveal little about attitudes concerning preconceptive sex selection. Available information suggests that the acceptance of preconceptive sex selection among both potential users and potential practitioners in the United States has increased dramatically in recent years.⁶⁸ A survey in 1968 of college students, who are part of that significant group of those in the early-to-middle stages of reproductive life, found that only 26% would consider using the technique.⁶⁹ A similar study in 1977, however, revealed that 44% may want to use preselection techniques.⁷⁰ Willingness to select seemed uncorrelated with social class, sex, or educational level.⁷¹ More recently, a 1988

PLANNED PARENTHOOD FEDERATION OF AMERICA, FACT SHEET 1 (1990); THE NARAL FOUNDATION, WHO DECIDES? A REPRODUCTIVE RIGHTS ISSUES MANUAL 2 (1990).

65. Larry Ruggiero, *Letter to the Editor*, WASH. POST, Nov. 2, 1991, at A22 (91.3%); *Results From a National Survey: Should Abortion Remain Legal?*, WASH. POST, May 17, 1992, PARADE MAG., at 4 (90%).

66. *Most in U.S. Favor Ban on Majority of Abortions, Poll Finds*, BOSTON GLOBE, Mar. 31, 1989, at A1.

67. Evans, *supra* note 64, at 1094-95 fig. 3. Interestingly, the study indicated no significant variation among medical specialties, country, sex, age, or religious affiliation of the respondents. *Id.* at 1097. Other studies indicate that frequency of church attendance proved the most dominant predictor. See, e.g., Richard N. Feil et al., *Attitudes Toward Abortion as a Means of Sex Selection*, 116 J. PSYCHOL. 269, 271 (1984). In a separate survey of 317 unmarried college students to determine the acceptability of *abortion* as a means of sex selection revealed 17.9% acceptance overall, with males more accepting than females. Again, frequency of church attendance proved the most dominant predictor. See also Hartley & Pietraczyk, *supra* note 27, at 232.

68. See generally Hartley & Pietraczyk, *supra* note 27, at 232-46; Wertz & Fletcher, *Fatal Knowledge?*, *supra* note 61; ROBERT H. BLANK, REGULATING REPRODUCTION 44-47 (1990). Even the term "sex preselection" has achieved index status in its own right, after being subsumed under "genetic engineering" for 15 years. *Medical Subject Headings*, 32 CUMULATED INDEX MEDICUS 529 (1991). This is significant because it is INDEX MEDICUS policy to have subject headings "follow—rather than anticipate—the usage in the literature." *Id.* at ix. Preference is given to "terminology that has the support of major professional organizations, with the realization that few such authorities attain universal acceptance." *Id.*

69. Hartley & Pietraczyk, *supra* note 27, at 234.

70. *Id.* at 237-38.

71. *Id.* at 239, 242. Yet Black and Asian women were more likely than their male counterparts to favor sex preselection strongly. And Blacks were the most likely to express strong willingness to use sex-selection procedures themselves, and to believe that refinement

survey by the Office of Technology Assessment found that 14% of practitioners of artificial insemination regularly offer sperm separation for preconceptive sex selection.⁷² Doctors writing on their experiences in New York City indicated that “a growing number of couples are interested in sex preselection.”⁷³ The trend toward smaller families, no doubt, contributes to the demand that has been described as “accelerating” by Robert Blank, a noted authority of policy approaches to reproductive technologies.⁷⁴ Significantly, at least 70 clinics in the United States already offer sperm separation for the purposes of sex preselection.⁷⁵

D. Polarizing Views on Societal Control of Sex Selection

The fourth reason for immediate consideration of how to address sex selection is that people are already taking sides. In fact, positions on the issue are becoming increasingly polarized, with diminishing numbers of neutral observers.⁷⁶ There have been numerous calls for the outright

of the technology should be a high priority. *Id.* at 239-41. There is some evidence from studies abroad that son preference becomes increasingly pronounced in proportion to the education of the parents. Vijaya Krishnan, *Preferences for Sex of Children: A Multivariate Analysis*, 19 J. BIOSOCIAL SCI. 367, 368, 375 (1987) (survey of 1045 Canadian women).

72. OFFICE OF TECHNOLOGY ASSESSMENT, *ARTIFICIAL INSEMINATION: PRACTICE IN THE UNITED STATES* 41 (1988).

73. Masood Khatamee et al., *Sex Preselection in New York City: Who Chooses Which Sex and Why*, 34 INT'L J. FERTILITY 353 (1989). In the author's study of 178 couples requesting sex preselection procedures, 58 couples were from foreign countries. Each of the 58 requested a boy, and the following reasons were offered: 14% stated that in their country it is the custom for male offspring to support their parents in old age, 15% thought a male essential for running a family business, 11% said it was important to have a male heir for inheritance purposes, 4% said the intellectual powers of females are less highly developed, and 30% said their culture preferred males. The remainder offered no explanation. The 120 remaining couples selected genders complementary to those they had at home, suggesting that balancing composition may be one of the biggest motivations for sex selection in the U.S. See also Jaffe et al., *supra* note 56, at 255-56 (reporting that all those of Indian, Asian, Mideastern, and African-American background that had daughters wanted to conceive sons). This fact raises the question of to what extent, if any, an extraterritorial effect of U.S. sex-selection procedures should affect domestic policy-making.

74. BLANK, *supra* note 68, at 46 (noting that the intrusiveness of post-conceptive sex selection has been holding the demand somewhat in check, and that preconceptive sex selection “seems to be an area where latent desires of many persons to control the gender of their progeny could be exploited by an industry that markets sex selection products and services. It takes little imagination to picture an advertising campaign designed to market these services to a public that embraces technologies promising to satisfy deep-seated goals.”).

75. *Id.* There are at least 61 clinics worldwide that use the albumin method of sperm separation alone. *Would You Make a Baby with the Sperm Firm?*, *supra* note 33.

76. For example, two surveys, five years apart, addressing the extent of approval of sex

prohibition of sex selection through criminal and civil penalties, as well as vociferous demands that government not get involved.⁷⁷ Although most of the contentiousness has been catalyzed by the abortion debate, the vehement justifications advanced for each policy position extend almost uniformly to preconceptive, as well as postconceptive technology. Sweeping efforts to ban or protect preconceptive sex selection may follow.

E. Premature Legislation

The fifth reason sex selection requires more careful attention is that some legislators have acted too quickly. All over the country, representatives are pushing bills, even amendments to state constitutions, that explicitly prohibit it.⁷⁸ While these efforts, explored further below, focus primarily on the postconceptive abortion context and are no doubt largely motivated by those principally opposing abortions for any reason, they appear to capitalize on, and inspire, general objections to sex selection. Otherwise, sex-selection abortion would not be such a big issue—especially given its low incidence. Since legislators, like most of the populous, may be currently unaware of advances of *in vitro* and preconceptive gender predetermination techniques, they are likely to adopt aggressive measures in the near future. Nevertheless, because certain legislative actions concerning unlikely reproductive matters may collaterally, even unintentionally, affect the legality of all such tech-

selection within a single set of women revealed such polarization. Of the 15% of the women who had indicated neutrality on the issue in 1970, almost all registered approval or disapproval by 1975. Pebley & Westhoff, *supra* note 50, at 181. There was little change in the proportion approving of sex selection (37.2% and 37.5% respectively), and the proportion disapproving increased from 47.8% to 59.1%. *Id.*

77. See *infra* Part III.

78. Laws prohibiting sex selection by abortion, for example, have been passed in Pennsylvania and Illinois. Abortion Control Act, PA. STAT. ANN. tit. 18., § 3204(c) (Supp. 1990); Illinois Abortion Law, ILL. ANN. STAT. ch. 38, para. 81-26, § 6(8) (Smith-Hurd Supp. 1990). More than 100 abortion bills have been introduced nationwide, most of which are based on the National Right-to-Life Committee's model, which forbids sex selection in the abortion context. N.Y. TIMES, Apr. 2, 1990, at A14. And sex selection has become a hot topic in election campaigns. The issue, for example, was the subject of much discussion in the 1990 California gubernatorial race. See, e.g., L.A. TIMES, May 20, 1990, at M1. Some in Congress have called it "a grotesque frivolity," 125 CONG. REC. 23,931 (1979) (remarks of Rep. Mazzoli), and "an appalling barbarity," 125 CONG. REC. 25,822 (1979) (remarks of Sen. Helms). In Virginia, one delegate remarked that women who abort pregnancies because they would prefer a baby of the other sex belong "on Dante's lower rung of hell." WASH. POST, Feb. 7, 1990, at B3.

niques, prospective legislation should be carefully examined for such effects. In Arkansas, for example, a recent amendment to the state constitution essentially defines the beginning of life as the moment of conception.⁷⁹ Since such a definition could provide a mechanism for justifying significant restrictions of *in vitro*, as well as abortive, sex selection, subsequent legislation might as easily proscribe sex selection for the purposes of avoiding a sex-linked disease, as for non-medical purposes.

II. SEX SELECTION: PROS AND CONS

This Part examines sex selection from angles of observation that range from the most affirmative to the most critical, providing a broad survey of potential arguments on the issue. Part III will subsequently explain how these initially independent views of the individual and social significance of sex selection have tended to accrete and cluster into two groups, each espousing a unified policy approach.

A. Arguments Supporting Sex Selection

The most extreme perspective on sex selection that favors non-intervention would be one that sees it as a fundamental right. One could, for instance, see sex selection as something so inherently and necessarily within the sphere of opportunities to which a human must have access that its denial is, in essence, a negation of humanity. An adherent to this natural-law view might argue that the evolution of humankind was only made possible by the human will's manipulation of the natural world through behavior reflecting a sophisticated understanding of cause and effect. Thus, freedom to use developing technology to pursue the fulfillment of desire, and to choose the manner and results of one's reproductive labors, would be seen as both a reflection of, and prerequisite for, the continuation and advancement of the species. This technique, like quests to cure cancer, to combat the vagaries of hazardous accidents, and to repair and replace vital organs, could be lauded as a hallmark of a successful and civilized society. Someone viewing sex selection as a

79. ARK. CONST. amend. 68 § 2 (1992), reads:

The policy of Arkansas is to protect the life of every unborn child from conception until birth, to the extent permitted by the Federal Constitution.

fundamental right could, in the preconceptive context for instance, believe that the uses to which a couple puts sperm is its own business—something so private that any effort by the state to intrude would be invalid.

A less extreme and more utilitarian perspective favoring non-intervention is one that emphasizes tangible benefits to parents, to selected children, and to society.⁸⁰ For example, parental preferences that drive the desire to sex select may derive from a variety of sources.

Parents may prefer a given gender for their next child because of either “sequential” or “compositional” goals. Sequential goals concern preferences to have offspring of one gender *before* the other gender. Compositional goals concern preferences concerning the ratio of genders within the family. These latter goals may include desires to have more, or to have exclusively, offspring of a given gender. Compositional goals may also include desires to complement a child of a given gender with a younger sibling of the opposite gender, or to have a child of a given gender after an unbroken string of children of the opposite gender.

Sequential or compositional goals may be motivated by parents associating different degrees of economic potential,⁸¹ status, or parent-offspring compatibility with each gender. The preference for boys, for example, may be rooted in the actual or subjectively perceived superiority of boys in earning potential (e.g., farm labor or business opportunities) or in the perceived prevalence in boys of parentally desired personality and behavioral traits (e.g., ambition and sports addiction). In other instances, parents may simply prefer the symmetry of having both a boy and a girl, or endeavor to reduce the chances of having a child with a sex-linked disease. To the extent that parents *perceive* a differential benefit in raising a boy or a girl, or a specific combination or sequence of boys and girls, the achievement of their preferred reality will convey “happiness” benefits. Whether the existence of such preferences is fact-based, irrationally prejudiced, or even socially undesirable does not affect the benefit to, and hence desire of, the individual parents.

Parents, of course, are not the only interested parties, and sex selection may afford some benefits to selected children and to society as well. While the approximation of benefits in this context must depend more on logical possibilities than empirical data, some commentators have

80. See generally WARREN, *supra* note 3, at 160-77.

81. See David Bloom & Guillermo J. Grenier, *The Economics of Sex Preference and Sex Selection*, in *SEX SELECTION OF CHILDREN* 113 (Neil G. Bennett ed., 1983).

plausibly argued that males and females that are preferentially selected will feel “especially” wanted, and that fewer children will endure the displeasure of their parents for being of the “wrong” gender.⁸² These are clearly benefits of a sort (although not unqualifiedly so, as will be discussed below).

Benefits thought to accrue to society include, for example, the reduction or elimination of certain sex-linked diseases, such as hemophilia, Cooley’s anemia, Down’s syndrome, and more than 400 others, that increase aggregate social anxiety, and tax society’s medical and financial resources.⁸³ There is also the logical possibility (of as yet speculative probability) that increased sex selection could offer society the benefits of a reduced birth rate in two ways.⁸⁴ First, parents seeking a compositional goal will stop “trying” for a particular gender of offspring and simply get one.⁸⁵ Indeed, survey results indicate that sex selection would probably produce smaller families.⁸⁶ Second, assuming males are preferentially selected, fewer female births in one generation will simply mean fewer overall births when these girls reach reproductive age.⁸⁷

82. Edward Pholman, *Some Effects of Being Able to Control Sex of Offspring*, 14 *EUGENICS Q.*, Dec. 1967, at 274, 275-77; see also WARREN, *supra* note 3, at 173-75.

83. Other prevalent diseases include Tay-Sachs disease, Trisomy 13, spina bifida cystica, Duchenne’s muscular dystrophy, Lesch-Nyhan Syndrome, Hunter’s Syndrome, and Fabry Disease. See generally VICTOR A. MCKUSICK, *MENDELIAN INHERITANCE IN MAN: CATALOGS OF AUTOSOMAL DOMINANT, AUTOSOMAL RECESSIVE, AND X-LINKED PHENOTYPES* 983 (1983); *Scientists Identify Sex of 3-Day-Old Embryo*, *N.Y. TIMES*, Apr. 19, 1990, at A19. Note that Great Britain’s Committee of Inquiry into Human Fertilization and Embryology concluded in 1984 that the “new techniques should not be used to provide parents with children of desired sex, *except* for the purpose of avoiding sex linked disorders.” Levin, *supra* note 8, at 184 (emphasis added).

84. It is not always the case that a reduction in birthrate is advantageous. Markets often benefit from increased numbers of consumers, and the elderly often benefit from larger numbers of young. The extent to which a reduction is an advantage will depend, in part, upon the existing birth rate, which varies widely internationally, and the degree of crisis associated with the provision for basic needs.

85. See PAUL R. EHRLICH, *THE POPULATION BOMB* 61 (1971) (“[I]f a simple method could be found to guarantee that first-born children were males, then population control problems in many areas would be somewhat eased.”); see also PETER SINGER & DEANE WELLS, *THE REPRODUCTION REVOLUTION: NEW WAYS OF MAKING BABIES* 170 (1984).

86. Deborah S. Freedman et al., *Size of Family and Preference for Children of Each Sex*, 66 *AM. J. SOC.* 144 (1960); Charles F. Westhoff & Ronald R. Rindfus, *Sex Preselection in the United States: Some Implications*, 184 *SCIENCE* 633 (May 1974).

87. See Clare B. Luce, *Only Women Have Babies*, *NAT’L REV.*, July 7, 1978, at 824, 826-27; John Postgate, *Bat’s Chance in Hell*, 58 *NEW SCIENTIST* 12, 14 (1973).

B. Arguments Against Sex Selection

The most extreme perspective on sex selection that criticizes its use is one that regards it as fundamentally evil, a wrong so intrinsically heinous that it violates all principles of fairness, equal love, and parenthood.⁸⁸ Adherents of this natural-law view oppose sex selection because they believe: it is unnatural, it is playing God, it is inherently sexist, and, if effected by abortion, it is altogether immoral.⁸⁹ These rigid moral perspectives have already inspired considerable debate.⁹⁰

A less extreme and more utilitarian perspective on sex selection that criticizes its use emphasizes deleterious effects. These views are focused primarily on what economists refer to as “spillovers” or “externalities,” that is, the costs of an actor’s behavior that typically do not accrue to the actor herself. In context, the costs to a parent of sex selection may include, among other things, purchasing the necessary technology and services, the time involved (particularly if repeated attempts are necessary), and the “psychic” costs of overcoming any residual guilt about

88. For some, sex selection is “the original sexist sin.” Tabitha Powledge, *Unnatural Selection: On Choosing Children’s Sex, in THE CUSTOM-MADE CHILD? WOMEN-CENTERED PERSPECTIVES* 193, 196 (Helen B. Holmes et al. eds., 1981).

89. For a survey of these criticisms, see WARREN, *supra* note 3, at 78-108.

90. See, e.g., Fletcher, *supra* note 52. In this thoughtful and probing work the author, who had previously espoused a less strident view, reconsiders, now arguing that “rational persons,” cognizant of the consequences of sex selection, must conclude that it is unethical. *Id.* at 337-39, 344-47. Fletcher gives three reasons. First, he argues that “prima facie examination of any argument for sex selection cannot overcome the unfair and sexist basis of a choice to select the sex of a child. The desire to control the sex of a child is not rational, since any claim that is made for the parents’ preference for one sex can be demonstrated to be provided also by the other sex.” Second, he states that “on an examination of the consequences of sex selection, if it were practiced by parents in significant numbers, the harmful consequences would far outweigh the few fleeting beneficial consequences. The hypothesis that sex selection might reduce population in less developed or overpopulated nations cannot be demonstrated without violation of ethical principles of fairness and beneficence.” *Id.* at 347. Third, the practice cannot stand the “test of loyalties required to sustain the oldest form of human altruism.” *Id.* at 344. Fletcher concludes, as well, that gender preferences are irrational desires. In this Fletcher receives support from Bayles, *Reproductive Ethics* (1982) (unpublished manuscript), cited in *id.* at 342-43. Yet this line of reasoning assumes that there are no gender-specific behavioral traits, something still hotly debated in social and biological circles. Moreover, it conveniently ignores that it may be rational to prefer a gender on the basis of that child’s probable development in a specific, albeit sexist, cultural context. While Fletcher and Bayles may quite rightly prefer that the world did not treat girls and boys differently, that normative desire cannot drive a practical assessment of rationality. While it may reciprocally contribute to the problem of gender-stereotyping to expect that a boy is more likely than is a girl to play football with the father, that does not make it irrational to do so.

preferring one gender over the other and actualizing that preference.⁹¹ The perspectives that criticize sex selection for imposing costs beyond those just enumerated may be usefully grouped into separate concerns for women, men, selected children, and society, and may be summarized as follows.

For women, some think the act of sex selection necessarily exacerbates already invidious sex discrimination, both because women are treated as machines to generate the perfect child, and because boys are preferred over girls. This might cause women to be more strictly confined, at a societal level, to subordinate roles.⁹² Moreover, and independently, if sex selectors actually skew the gender ratio in favor of boys, the decreased percentage of women in society may cause the same result.⁹³ In addition, increases in the percentages of male firstborns could leave more females with psychological and economic damage commensurate with "second child syndrome" and the concomitant disempowerment this yields.⁹⁴ Finally, some supporters of abortion rights argue that, since

91. A study of the amnio/abortion method, for example, attempted to aggregate economic, psychological, and time costs to successful sex selection, such as diagnoses, abortion procedures, and repeated pregnancies. It concluded that, at least in this context, the individual costs will deter most potential sex selectors from actualizing their gender preferences. Frances E. Kobrin & Robert G. Potter, *Sex Selection Through Amniocentesis and Selective Abortion*, in *SEX SELECTION OF CHILDREN* 47 (Neil G. Bennett ed., 1983). As other methods improve, these costs may be much less.

92. WARREN, *supra* note 3; Tabitha Powledge, *Toward a Moral Policy for Sex Choice*, in *SEX SELECTION OF CHILDREN* 201, 204-05 (Neil G. Bennett ed., 1983). This disempowerment may even make those women preferring not to sex select more vulnerable to a partner's pressure to do so.

93. WARREN, *supra* note 3, at 132-39. This effect may be quite difficult to predict, however, because one significant study concluded that the scarcity of women could actually increase their "dyadic" (two-person) power; they will have more options between suitors and may be able to maximize options and upward mobility. Nevertheless, studies of several modern and historical populations with sex ratio imbalances discovered cultures characterized by: "bride-price and bride-service, great importance attached to virginity, emphasis on the sanctity of the family, proscriptions against adultery[,] . . . marriage at an early age[,] . . . and women regarded as inferior to men in reasoned judgment, scholarship and political affairs." MARCIA GUTTENTAG & PAUL SECORD, *TOO MANY WOMEN? THE SEX RATIO QUESTION* 79 (1983). Thus, whether in fact a preponderance of males will benefit or harm women will probably depend, in part, upon the extent to which males monopolize structural power. Greater entrenchment may mean less power and fewer rights.

94. See Alder, *Characteristics of the First, Second and Third Child*, 3 *CHILDREN: THE MAGAZINE FOR PARENTS* 14 (1928); see also William Altus, *Birth Order and its Sequelae*, 151 *SCIENCE* 44 (1968) (girl born following a boy has lower self-esteem than if following an older sister); WARREN, *supra* note 3, at 132. The effects of birth order remain controversial, however. One exhaustive analysis of the past forty years of studies argued that nearly all conclusions of birth-order effects were due to errors in the design and analysis of the studies. CECILE ERNST & JULES ANGST, *BIRTH ORDER: ITS INFLUENCE ON PERSONALITY* 3-14 (1983).

abortion is sometimes used only for sex selection, the public perceptions of negative consequences of sex selection may tip the balance decisively in favor of the anti-abortion position, leading to the complete prohibition of abortion.⁹⁵

For men, these arguments are more attenuated, but no less fervently maintained. Fewer "available" women, it is argued, will mean either enforced celibacy or greater recourse to prostitution.⁹⁶ In addition, some believe that increases in polyandrous and homosexual relationships may ensue.⁹⁷ There would also be, some have surmised, a rise in aggregate male "unhappiness" due to widespread inability to pursue heterosexual relations or to marry.⁹⁸

For selected children, adherents of this perspective highlight the possibility of psychological burden. Parents may have had unreasonable expectations, overestimating the extent to which having a child of a particular gender would increase their happiness. Their disappointment may be taken out on the selected children.⁹⁹ Those children born consequent to unsuccessful efforts to select sex may incur similar hardship, either from learning that they were unwanted, or from experiencing parental resentment and hostility in the face of "failure."

Finally, societal consequences could be far-reaching.¹⁰⁰ Some have

95. See, e.g., Haig H. Kazazian, *Prenatal Diagnosis for Sex Choice: A Medical View*, THE HASTINGS CENTER REP., Feb. 1980, at 17; Mary Ann Glendon & George Weigel, *Viewpoints: The Abortion Dilemma*, NEWSDAY, May 8, 1990, at 61 (arguing that opposition to sex selection may valuably serve as a "beachhead" for those opposing abortions, even though many women seek these for reasons other than sex selection). Admittedly, some may view this as a benefit. Yet regardless of one's position on abortion, it seems intellectually disingenuous to achieve a sweeping prohibition of a form of behavior by playing on indignation against a proportionally tiny incidence of subjective *motivation* for that behavior.

96. WARREN, *supra* note 3, at 132.

97. *Id.* at 133; see also PAUL SINGER & DOROTHY WELLS, MAKING BABIES: THE NEW SCIENCE AND ETHICS OF CONCEPTION 153 (1985). Those who argue this betray unproven assumptions concerning the cause, and undesirability, of homosexuality. Note, in any event, that although Alaska has a gender ratio of 132:100 there has been no perceptible rise in homosexuality. Steinbacher, *supra* note 47, at 6.

98. WARREN, *supra* note 3, at 132.

99. Powledge, *supra* note 92, at 201-02. "Satisfying parental requests for sex would not satisfy their desires, because their desires are not really for a girl or a boy, but for a child that will carry out certain acts its parents believe will make them content: continuing the family business, becoming a doctor, winning at Wimbledon. It is the acts that are important, not the sex of the actor, and that matters only because cultural expectations associate particular deeds with one sex or the other." *Id.* at 203.

100. On possible effects of changes in the sex ratio, see RICHARD A. POSNER, SEX AND REASON 136-41 (1992). For examples of sophisticated analysis of sex selection, see generally P.A. Rogerson, *The Effects of Sex Preselection on the Sex Ratio of Families*, 82 J. OF HEREDITY 239 (1991); Dan H. Moore & Barton L. Gledhill, *How Large Should My*

argued, for example, that a greater percentage of males will result in both increased local and international violence.¹⁰¹ No less significantly, class conflicts could intensify to the extent that sex selection is a privilege for those most able to pay for it.¹⁰² Sex selection would also set a “dangerous” precedent for even more disastrous and more intrusive genetic engineering.¹⁰³ Finally, some argue that sex selection procedures that involve medical diagnosis or treatment, such as in the amniocentesis/abortion context, may create an “excessive” drain on an important medical resource at the expense of parents needing access to facilities or procedures for more medically compelling purposes.¹⁰⁴

III. EXISTING APPROACHES: NON-INTERVENTION OR PROHIBITION

The wide variety of views just sketched clustered and consolidated, leaving two principal camps: one advocating that governments not intrude on the issue of sex selection, and the other advocating governmental prohibition. Since most effective prohibitions require government intervention, the two camps are currently at loggerheads, presumed in the existing literature to be irreconcilable.

Study Be So That I Can Detect an Altered Sex Ratio?, 50 FERTILITY & STERILITY 21 (1988); Fred Arnold, *Measuring the Effect of Sex Preference on Fertility: The Case of Korea*, 22 DEMOGRAPHY 280 (1985); Radheshyam Bairagi, *A Comment on Fred Arnold's "Measuring the Effect of Sex Preference on Fertility"*, 24 DEMOGRAPHY 137 (1987); Fred Arnold, *The Effect of Sex Preference on Fertility: A Reply to Bairagi*, 24 DEMOGRAPHY 139 (1987).

101. Amitai Etzioni, *Sex Control, Science, and Society*, 161 SCIENCE 1107, 1109 (1968); see also WARREN, *supra* note 3, at 126-29. This argument is undercut, however, by the peaceful character of the Eskimos and the Arapesh, in both of which societies males decisively outnumber females. See KAJ BIRKET-SMITH, *THE ESKIMOS* 52 (1959); MARGARET MEAD, *SEX AND TEMPERAMENT IN THREE PRIMITIVE SOCIETIES* (1963).

102. WARREN, *supra* note 3, at 154-58.

103. See, e.g., Evans et al., *supra* note 64, at 1098 (opining that sex selection is a precedent for eugenics, and that “every precedent for eugenics in this generation should be prevented”); WARREN, *supra* note 3, at 132. See also Arthur R. Kroeber, *Eugenics Makes a Comeback*, VILLAGE VOICE, Aug. 1, 1989 (quoting medical sociologist Dorothy C. Wertz as stating that sex selection “is a slippery slope situation [opening] the door to selection on cosmetic grounds”).

104. *For Many, Picking a Child's Gender is a Fertile Field*, L.A. TIMES, Sept. 5, 1990, at E1 (“At a time when we still have tens of thousands of Californians who can't get health care, why spend resources to pick the sex of babies?”); AUBREY MILUNSKY, *KNOW YOUR GENES* 277 (1977). But see John C. Fletcher, *Ethics and Public Policy: Should Sex Choice Be Discouraged?*, in *SEX SELECTION OF CHILDREN* 213, 226-27 (Neil G. Bennett ed., 1983).

This polarity has dramatically divided the usually aligned, albeit not identical, feminist groups.¹⁰⁵ The debate over sex selection is particularly complex and volatile because it confronts feminists with a paradox that strains theory with the weight of consequence.¹⁰⁶ On the one hand, to prohibit sex selection is to compromise reproductive freedom, perhaps leading to further restrictions.¹⁰⁷ In the amniocentesis/abortion context, for example, allowing any substantive inquiry into the reasons for an abortion may permit additional normative scrutiny of a woman's justifications.¹⁰⁸ On the other hand, to allow sex selection, and the preponderance of males that may result, is quite possibly to cause disenfranchisement of women from the power structures of society.¹⁰⁹ At the moment, therefore, there is no unified, nor even centralized, feminist position. Feminists are as divided as is the general population.¹¹⁰

105. The term "feminist" is admittedly overgeneralizing, and is used with some regret. Although the author recognizes the extraordinary diversity of perspectives deemed "feminist," the term is intended as shorthand for a perspective that espouses increased control by women of their bodies and their professional and personal lives.

106. For focused analysis of the feminist perspectives, see Roberta Steinbacher, *Futuristic Implications of Sex Preselection*, in *THE CUSTOM-MADE CHILD? WOMEN-CENTERED PERSPECTIVES* 187 (Helen B. Holmes et al. eds., 1981). Of course, the diversity of feminist thought may preclude a unified critique. See generally Norma J. Wikler, *Society's Response to the New Reproductive Technologies: The Feminist Perspectives*, 59 S. CAL. L. REV. 1043 (1986).

107. "Feminist theory points to the conclusion that women will be the losers when reproductive power is controlled in important ways by a cadre of experts working in a patriarchal system." Wikler, *supra* note 106, at 1050.

108. Glendon & Weigel, *supra* note 95, at 61 (arguing that opposition to sex selection may valuably serve as a "beachhead" for those opposing abortions, even though many women seek these for reasons other than sex selection).

109. Empirical evidence from several modern and ancient populations composed of less than 50% females suggests that such proportions would further undermine women's perceived validity. See Helen Holmes & Bob Hoskins, *Prenatal and Preconception Sex Choice Technologies: A Path to Femicide?* (1984), cited in Wikler, *supra* note 106, at 1045 (paper presented at the Second International Interdisciplinary Congress on Women, *Women's Worlds: Strategies for Empowerment*, in Gronigen, Netherlands); see also Catharine MacKinnon, *Reflections on Sex Equality Under Law*, 100 YALE L.J. 1281, 1317 n.157 (1991). Similarly, the difficulty echoes the surrogacy dilemma; prohibition would restrict liberty, but surrogacy might as a practical matter create a caste of poor women servicing the childless rich.

110. There is, of course, no reason why feminist positions must be unified. For a variety of feminists' perspectives, see COREA, *supra* note 40. An international network has been formed to monitor reproductive technologies and to develop feminist policy on their use. Wikler, *supra* note 106, at 1057.

A. *The Non-Intervention Model*

There are three existing approaches to non-intervention. The first emphasizes the affirmative value of sex selection, and the latter two, which are not mutually exclusive, are more concerned with the significant disadvantages of government intervention.

1. *The Market Approach*

Adherents of the market approach, presumably, are those who want to allow individuals to pursue their own good in their own ways. These may include people who own or operate sex selection clinics, who are necessary for intermediate sex-determination procedures, or who themselves want to use sex-selection technology. At the moment, no one has openly championed this view, perhaps fearing that highlighting the issue will inspire more hostility than it already draws.

2. *The "Doctors Dissuade" Approach*

Adherents of what might loosely be termed the "Doctors Dissuade" approach oppose legal prohibition but advocate prevention of sex-selection behavior through deterrence from within the medical community. One collaboration of prominent doctors, for example, believing legal prohibition inadvisable, opined that sex selection was a precedent for eugenics¹¹¹ and that "every precedent for eugenics in this generation should be *prevented*."¹¹² This leaves one to wonder precisely who will be doing the "preventing."

Other writers, too, stopped short of advocating legal prohibition because

laws prohibiting abortion for sex selection are appropriate only where there is evidence that abuse of the medical indications for prenatal diagnosis. . . . Where abuse does not exist, laws prohibiting sex selection abortions are not only unneeded but may set harmful precedents restricting abortion choices.¹¹³

111. "Eugenics" indicates improvement of a race through breeding or genetic engineering.

112. Evans et al., *supra* note 64, at 1098 (emphasis added).

113. Fletcher & Wertz, *supra* note 61, at 789-90.

Many argue that doctors should combat sex selection by trying to dissuade would-be selectors, or even by intentionally withholding gender information. Two researchers on the subject, for example, not only proposed that prenatal diagnosis for sex selection “should be avoided” (except in the context of gender-linked diseases), but advised that

[i]f patients have a genetic reason for diagnosis and also show excessive interest in the gender of the fetus, geneticists can consider *delayed disclosure* of gender after timely disclosure of clinical findings.¹¹⁴

Reasoning that “[p]renatal diagnosis for a nonmedical reason makes a mockery of medical ethics,” these two espouse “judicious use of hospital and laboratory policy” to deter sex selection.¹¹⁵

The first way to do so, according to these researchers, is to enact “professional codes of medical ethics, including those of national specialty boards and state medical societies . . . to discourage private doctors from using prenatal diagnosis for sex selection.”¹¹⁶ This would involve controlling licensure, and disciplining or suspending physicians who violate such codes. “Such moral guidance by the profession would not prevent all sex selection, for codes would vary from state to state and it is likely that the most obvious violators would be disciplined. Nevertheless, a professional stand on the question could go a long way toward preventing widespread abuse.”¹¹⁷ Second, those considering sex selection would be invited to optimal sites to be lectured on physicians’ opposition to sex selection. There they would learn that, as a “general moral policy,” sex selection not medically indicated would “not be provided.”¹¹⁸ While doctors’ attention seems focused primarily on abortion, their opposition to sex selection seems to go beyond the abortion context, strongly suggesting antipathy to sex selection in general.

114. *Id.* at 789 (emphasis added).

115. Wertz & Fletcher, *Fatal Knowledge?*, *supra* note 61, at 21-26.

116. *Id.* at 21.

117. *Id.* at 26; see also Bernard M. Dickens, *Prenatal Diagnosis and Female Abortion: A Case Study in Medical Law and Ethics*, 12 J. MED. ETHICS 143 (1986) (medical profession should preempt state legislation by subjecting physicians to professional discipline for performing sex selection abortion); Schedler, *supra* note 1, at 313; SINGER & WELLS, *supra* note 85, at 154.

118. John C. Fletcher, *Is Sex Selection Ethical*, in RES. ETHICS (Kare Berg & Knut Tmeoy eds., 1983).

3. The "Social Exhortation" Approach

Like the Doctors Dissuade approach, proponents of the "Social Exhortation" approach believe that legal prohibition is a bad idea. Some, for example, while believing that sex selection "is the original sexist sin," simply find prohibition the greater of evils:¹¹⁹

To forbid women to use prenatal diagnostic techniques as a way of picking the sexes of their babies is to begin to delineate acceptable and unacceptable reasons to have an abortion. . . . To make it illegal to use prenatal diagnostic techniques for sex choice is to nibble away at our hard-won reproductive control¹²⁰

Left with a "perniciously sexist technology," the prohibition of which would also be "perniciously sexist," the prominent feminist author Tabitha Powledge, for example, counsels that:

We may want to turn to such time-honored measures as boycotts, and putting pressure on funders not to underwrite such research. We may also want to give some attention to a mechanism that appears weak, but may be undervalued: moral exhortation. We must say over and over again to friends and neighbors, in the pages of magazines and newspapers, on television and radio, that this technology, even if available, should simply not be used.¹²¹

Powledge also suggests eliminating funding for, and actively discouraging, studies on the very existence of sex preferences, which presumably both create as well as reflect sex preferences and provide valuable information to entrepreneurs.¹²²

119. Powledge, *supra* note 88, at 196. "To destroy an extant fetus [on the basis of gender] is more morally opprobrious than techniques aimed at conceiving a child of a particular sex, but they are both deeply wrong." *Id.*

120. *Id.* at 197.

121. *Id.* at 198; *see also* Powledge, *supra* note 92, at 201.

122. *Id.* at 209-11.

B. The Prohibition Model

Adherents of the prohibition model advocate legislative eradication of sex selection. Not surprisingly, most of the impetus for prohibition centers on sex selections using postconceptive abortion, the most widely known technique. One article on that subject, for example, makes an argument for punishing sex-selection abortions, and considers the only remaining debate to be over the form such punishment should take.¹²³

In fact, legislation has already been passed in Illinois and Pennsylvania outlawing sex selection abortions. Bills to do the same have been introduced in virtually every state in the nation.¹²⁴ Ninety-three percent of Americans, and fifty percent of U.S. geneticists think sex-selection abortions should be illegal,¹²⁵ and the two most prominent articles on the subject conclude that outright prohibitions are appropriate and would survive constitutional scrutiny.¹²⁶

Yet most of the reasons advanced for prohibiting sex selection in the abortion context extend equally to all sex-selection behavior, suggesting that one must consider this prohibition model as having prospective vitality for sex selection in general. The feminist scholar Catharine MacKinnon, for example, when explaining that sex selection "should not be permitted," writes:

[I]n a context of mass abortions of female fetuses, the pressures on women to destroy potential female offspring are tremendous and oppressive unless restrictions exist. While under conditions of sex inequality monitoring women's reasons for deciding to abort is worrying, the decision is not a free one, even absent governmental intervention, where a male life is valued and a female life is not.¹²⁷

123. Schedler, *supra* note 1, at 311-15.

124. See *supra* note 78.

125. *Most in U.S. Favor Ban on Majority of Abortions, Poll Finds*, BOSTON GLOBE, Mar. 31, 1989, at A1. Wertz & Fletcher, *Ethical Problems*, *supra* note 61, at 149 tbl. 3 (corresponding figure for the 17 other nations, excluding the U.S., is 89%); see also Evans et al., *supra* note 64.

126. John R. Shaibley, III, *Sex Selection Abortion: A Constitutional Analysis of the Abortion Liberty and a Person's Right to Know*, 56 IND. L.J. 282 (1981); Schedler, *supra* note 1.

127. MacKinnon, *supra* note 109, at 1317 n.157; cf. PRESIDENT'S COMM'N FOR STUDY OF ETHICAL PROBS. IN MED. & BIOMEDICAL & BEHAVIORAL RES., SCREENING AND COUNSELING FOR GENETIC CONDITIONS 57-59 (1983) (recommending that geneticists reject sex selection because it violates the principle of equality between females and males), *cited*

Although MacKinnon writes in the context of postconceptive sex selection, and recognizes the complexity of her position, her analysis of pressure and oppression in the sex selection abortion context is not logically distinct from one addressing sex-selection in general. Her concern that tremendous oppressive forces can improperly compel a woman to abort extends equally, perhaps even more easily, into the less emotionally wrenching preconceptive arena, where a woman's decision would be equally constrained.

IV. CRITIQUING EXISTING APPROACHES

The existing approaches to sex selection do not reflect the many and subtle distinctions among attitudes in a diverse population. The vocal minorities at the most extreme ends of issues such as animal rights and abortion dominate in the news, although not in the polls. Most Americans want to eat beef, but object to animal experiments that somehow cross the line. Most Americans believe abortion should be available to a woman in some contexts,¹²⁸ but would prefer that she not be allowed to treat the process cavalierly. It seems reasonable to conclude, similarly, that most Americans can conceive of circumstances in which sex selection should be allowed, but prefer that such procedures not reach mammoth proportions. The existing approaches, dominated by the antagonistic prohibitionists and non-interventionists, do not allow for this intermediate position.

While only prohibitory and non-interventionist models have evolved, it is apparent that supporters of these policy extremes are not all extremists themselves. Dividing them by the way they think (the process by which they reach a conclusion), rather than by what they think (the conclusion they actually reach), immediately erodes the basis for concluding that the positions are irreconcilable. Consequently, the remainder of this Article divides the supporters of each model into their constituent parts, assesses whether the models espoused are necessary consequents of the perspectives advanced to support them, and, concluding that they are not, addresses in Part V the prospects for regulatory compromises. Such compromises, while possibly leaving the extremists

in Wertz & Fletcher, *Fatal Knowledge?*, *supra* note 61.

128. Maralee Schwartz & Ann Devroy, *Women in Poll Voice Economic Concerns*, WASH. POST, Sept. 4, 1992, at A13.

as dissatisfied as before, could go a long way toward negotiating reduced hostility between the camps. At the very least, removing from the supporters of each model those whose concerns can be adequately addressed with alternative measures enables a more sophisticated view of the existing struggle. It highlights, as a tide receding, those aspects of the island-like opponents that enable a more precise estimation of their numbers, worth, and arguments, as well as of subsurface connections between them.

Consequently, this Part first examines two overarching failures that have characterized the debate over sex selection, and then critiques each approach individually.

A. Refining the Issues

Neither the non-intervention camp nor the prohibition camp is homogenous. Each contains individuals with varying strengths of conviction, and, more importantly, with varying reasons for their positions. The two overarching failures of these groups discussed below each involve the participants' inability to divide the issue of sex selection and its social critique into constituent parts, along the lines demarcated by their reasons. Such failures lead to hasty demands and ill-considered legislation that, even if necessary consequents of the extremist positions within the constituency, are dramatically overaggressive positions for those with more moderate views. This creates a situation in which the demands are, in effect, "overbroad," even if one were to assume that the logic buttressing those demands were irrefutable.

1. Separating Preconceptive from Postconceptive Contexts

First, as the earlier summary of existing approaches to sex selection makes clear, it is important to separate the question of abortion from the question of preconceptive sex selection. Too many have intertwined arguments for or against each, failing to recognize important distinctions.¹²⁹ Abortion is simply one form, the most prominent form, of postconceptive selection techniques.¹³⁰ Legal literature, of course,

129. See, e.g., Evans et al., *supra* note 64 (failing to differentiate sex-selection attitudes from abortion attitudes, lumping the two together).

130. A Venn diagram of abortion procedures and sex-selection procedures would show two circles overlapping slightly. Most abortions, undoubtedly, have nothing to do with sex

reflects a great deal on the subject of abortion, and even a little on the subject of sex-selection abortion. Little attention has been paid, however, to the separate but related issue of modern preconceptive sex selection. While there may be underlying motivations that may justify a similar attitude toward this and toward sex-selection abortions,¹³¹ the arguments from the abortion context simply cannot appropriately be transplanted without further reflection.

There are a number of superficial similarities that may suggest that the two can be addressed from the same perspective. Both concern reproduction, for example, and both involve exerting control over what may be born. Both are binary: boy or girl, born or not. Both are quintessentially products of the modern, technological age—non-natural and non-primitive. Both require professional procedures, implicating safety concerns and some sort of health regulation. Each implicates women more directly than men. And each can be characterized as helping an individual avoid the unwanted, or at least the lesser-wanted.

Yet the differences between abortion and preconceptive sex selection are more profound. Abortion terminates a process of development already started. The most promising sex-selection techniques prescribe what is about to begin. Abortion concerns life, while sex selection concerns a precise manifestation of life. One is about preventing a birth, and the other about controlling an aspect of it. Abortion *can* happen without human intervention, and sex determination *will* happen even without human intervention. Abortion requires destruction; sex determination involves creation. And, importantly, from a “state interests” perspective, the former is presently far more physically dangerous to women.

Significantly, most abortions negate a fetus that probably would have come to term. Yet one half of all the sex-selection results would have occurred anyway. None of the class disfavored by abortion (fetuses) lives to experience that prejudice. Yet many of the class disfavored by sex selection, principally women, may experience the prejudice the processes manifest.

From the perspective of those opposing abortion, the rights sought to be vindicated are those, asserted vicariously, of the existing-but-unborn.

selection, and the most promising sex-selection techniques have nothing to do with abortion.

131. For a study noting some correlation between approval of sex selection and general approval of abortion, see Pebley & Westhoff, *supra* note 50, at 182.

The consequentialists opposing preconceptive sex selection, on the other hand, can hardly assert standing to vindicate the rights of the as-yet-unconceived, and instead assert the rights of the living who are affected by another's birth.

2. *Separating the Absolutists from the Consequentialists*

Second, and most significantly, the absolutists (those for whom sex selection is either fundamentally wrong or fundamentally non-prohibitable) should be separated from the consequentialists (those for whom the ramifications of sex selection, or its alternatives, dictate a position).

Upon reflection, one can observe that the amalgam of those advocating prohibition of sex selection contains:

- (1) those opposing sex selection in any form for moral reasons;
- (2) those opposing it only because imbalanced gender preferences may create various social ills;
- (3) those opposing it primarily in the context of abortion, believing abortion objectionable *per se*, while sex selection itself is not; and
- (4) those only opposing abortions performed for reasons of gender.

Similarly, the group of those advocating non-intervention contains:

- (1) those believing the control of family composition, free from interference, to be a fundamental right; and
- (2) those fearing that government intervention in the context of sex selection will be a precursor to undesirable government intervention in other reproductive matters.

The absolutists in each camp, for whom the significance of sex selection is independent of the frequency with which it occurs, cannot be satisfied with compromise. Their reasoning adopts, in essence, a natural-law approach that by definition is capable of only one, and total, vindication.

Yet, there are those for whom sex selection or its deterrence presage undesirable consequences that are especially objectionable when widespread. This group may be satisfied by compromise. For the utilitarian-minded consequentialists, therefore, the existing models of prohibition and

non-intervention are consistent with consequentialist concerns, but not necessary to alleviate those concerns.

B. Sex Selection and Law

It is clearly impossible to prove, from any objective perspective, which of the absolutist groups, if either, is "right." Absolutists have at their disposal, in our democratic society, only the tools of persuasion and the vote to encourage enactment of the laws they support. Policymakers should give careful attention to consequentialist arguments about what the future would hold if either a non-interventionist or prohibitory policy were implemented.

We can start from the proposition that, whatever our own moral views on sex selection, both the consequentialist opponents and the consequentialist proponents have reasonable, if competing, concerns. The opponents of sex selection quite properly recognize that the pervasive preference for boys, coupled with the emergence of a promising technology enabling actualization of that preference, strongly suggests a large market for sex-selection services. The eventual incidence of sex selection could cause demographic shifts and commensurate disruption of unknown, but ominous, proportions.

The proponents of the freedom to sex-select, on the other hand, are properly concerned that heavy-handed attempts to rigidify the gender ratio status quo ignore preferences that do in fact exist and prevent individuals from pursuing their view of optimal family life. This portends massive governmental intrusions into reproductive matters and the infringement of existing liberties. Given the myriad justifications for and against sex selection (some of which are intuitively appealing, and some of which seem more fanciful than probable), it at first seems difficult to place this behavior on the continuum sweeping from fundamental rights to frivolous luxuries.

If the opportunity to use sex-selection procedures were a fundamental constitutional right, one protected from state government interference by the incorporation of the Bill of Rights through the Fourteenth Amendment's Liberty Clause, the applicable legal standard would typically require "strict scrutiny" of any law interfering with its exercise. Strict scrutiny, as it is currently formulated, asks whether the law is "neces-

sary” to protect a “compelling” state interest.¹³² To date, only a few select values, such as freedom of speech, press, association, and religion, have claimed such special consideration.

No one knows how to delineate precisely the boundary between general liberty interests and constitutionally protected liberty interests. Justice Harlan put it best, explaining that there is no formula, no code, and no shortcut to apt conclusions, when he stated that the full scope of liberty guaranteed by the Due Process Clause represents “a rational continuum which, broadly speaking, includes a freedom from all substantial arbitrary impositions and purposeless restraints . . . and which also recognizes, what a reasonable and sensitive judgment must, that certain interests require particularly careful scrutiny of the state needs asserted to justify their abridgement.”¹³³ We are left, then, with our reasoned judgment, and specific contexts in which the Court has struck a balance between individual liberties and “the demands of organized society.”¹³⁴

One initially suspects that gender preselection cannot be a fundamental and inalienable right. Rights do not spring into being by virtue of technological evolution. There is in our society, for example, no fundamental right to have a car, despite the enormity of business and pleasure opportunities that it affords.

Certainly sex selection is not a right enumerated in the Constitution. But is it, perhaps, some species of unenumerated right protected by the Constitution and the Supreme Court—as is the controversial right to privacy, which includes, for example, vague rights protecting certain reproductive matters and issues of “family?”¹³⁵ Scholars debate the propriety and mechanism of “discovering” unenumerated but judicially protectable rights. Yet current jurisprudence assumes that such rights do exist, despite the fact that there is no easily articulable criteria to enable definitive identification. Reiterating language typically used as an approximation of such criteria, for example, Justice Scalia recently observed:

132. See, e.g., *Korematsu v. United States*, 323 U.S. 214, 216 (1944); *Shapiro v. Thompson*, 394 U.S. 618, 627, 634-38 (1969); *New Orleans v. Dukes*, 427 U.S. 297, 303-06 (1976). For further discussion of the various levels of scrutiny, see Gerald Gunther, *Foreword: In Search of Evolving Doctrine on a Changing Court: A Model for a Newer Equal Protection*, 86 HARV. L. REV. 1 (1972).

133. *Poe v. Ullman*, 367 U.S. 497, 543 (1961); see *Griswold v. Connecticut*, 381 U.S. 479 (1965); *Planned Parenthood of Southeastern Pa. v. Casey*, 112 S. Ct. 2791 (1992).

134. *Ullman*, 367 U.S. at 542 (Harlan, J., dissenting).

135. See, e.g., *Moore v. City of East Cleveland*, 431 U.S. 494 (1977) (city cannot exclude grandchildren from a home zoned for “single family dwelling units”).

It is an established part of our constitutional jurisprudence that the term “liberty” in the Due Process Clause extends beyond freedom from physical restraint. . . . In an attempt to limit and guide interpretation of the Clause, we have insisted not merely that the interest denominated as a “liberty” be “fundamental” (a concept that, in isolation, is hard to objectify), but also that it be an interest traditionally protected by our society. As we have put it, the Due Process Clause affords only those protections “so rooted in the traditions and conscience of our people as to be ranked as fundamental.” Our cases reflect “continual insistence upon respect for the teachings of history [and] solid recognition of the basic values that underlie our society”¹³⁶

This line of reasoning suggests a useful two-part inquiry into: (1) historical evidence of our society’s traditional protection of sex selection; and (2) evidence indicating that sex selection is a basic societal value.

One might think that the first part of the inquiry could be handled with dispatch: since the technology enabling sex selection is of remarkably recent vintage, there can be no historical evidence of its “traditional” protection. Yet this reasoning fails for two reasons. First, only now, for the first time, is the concept of protection truly relevant. Only when an activity can be limited does its protection become an issue. The home methods of preconceptive sex selection (and, to a lesser extent, of postconceptive or post-birth sex selection), whatever their success rates, were never something that could, as a practical matter, be prevented. They were thus, in a certain sense, functionally, albeit not formally, shielded from government intrusion.

Second, the nature of an act does not vary as easily as does its method, and it is generally more appropriate that analysis of rights attend more to the former than to superficial vagaries of the latter. Were the home techniques, such as special diets, to become more widely accepted as successful, no one could seriously suggest that the government could appropriately infringe on a fundamental right considered too basic to explain: the right to eat the food one wants. If the nature of sex selection, then, involves matters typically regarded as private and bodily, it becomes difficult to draw a logical distinction that reconciles protecting

136. Michael H. v. Gerald D., 109 S. Ct. 2333, 2341 (1989) (citations omitted).

the right to sex-select at home, and curtailing the right that should attend to such behavior in a clinic. Consequently, the results of the first prong of the analysis are indeterminate.

The second part of the two-part inquiry, which looks for evidence indicating that sex selection is a basic societal value, requires more probing. Certain legal precedents suggest useful extrapolation. Few would disagree that an individual has the general right to remain free of government interference with her very ability to have a child. The Supreme Court, reflecting on that issue in *Skinner v. Oklahoma*,¹³⁷ found a particular scheme for the compulsory sterilization of certain classes of criminals violative of a "fundamental interest" protected by the Fourteenth amendment of the Constitution. Justice Douglas, writing for the majority, stated that "[w]e are dealing here with legislation which involves one of the basic civil rights of man. *Marriage and procreation are fundamental* to the very existence and survival of the race."¹³⁸ These words were later echoed when Douglas described marriage as "intimate to the degree of being sacred."¹³⁹ Thus, the marital relationship, in the context of which, obviously, many births occur, rests within a fundamental area of privacy protected, in part, by the Ninth Amendment¹⁴⁰ and by "penumbras" of the Bill of Rights generally¹⁴¹—an area that can be disturbed only to vindicate a "compelling state interest."¹⁴² Justice Douglas's comment reflects a popular intertwining of the very concepts of marriage and procreation that, although not technically necessary, may mean that the law on marriage could affect our analysis of sex selection.

Yet the modern age has begun to pry apart this link of marriage and procreation. Contraceptive technology has increasingly enabled previously and potentially procreative acts to be enjoyed outside of marital relationships. Similar advances in technology have demonstrated that even the traditionally procreative act is unnecessary for a woman to bear a child.¹⁴³ These scientific advances, as well as the changing social

137. 316 U.S. 535 (1942).

138. *Id.* at 541 (emphasis added).

139. *Griswold v. Connecticut*, 381 U.S. 479, 486 (1965).

140. "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people." U.S. CONST. amend. IX.

141. *Griswold*, 381 U.S. at 484-85.

142. *Id.* at 496 (Goldberg, J., concurring); see also *Roe v. Wade* 410 U.S. 113 (1973); *City of Akron v. Akron Ctr. for Reproductive Health*, 462 U.S. 416 (1983); *Thornburgh v. American College of Obstetricians & Gynecologists*, 476 U.S. 747 (1986).

143. One recent case has even held that a woman has a fundamental right "to become

contexts in which single parenthood is increasingly widespread, suggest that the analysis of childbearing is wholly separate from an analysis of marriage. A childbearing analysis is more likely to illuminate the sex-selection issues.

In *Meyer v. Nebraska*,¹⁴⁴ the Court concluded that the Fourteenth Amendment guaranteed the right to “establish a home and bring up children”¹⁴⁵ Similarly, in the oft-quoted language of *Eisenstadt v. Baird*,¹⁴⁶ the Supreme Court emphasized “the right of the individual, married or single, to be free of unwarranted government intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child.”¹⁴⁷ Yet the operative language in these cases is to “bring up” a child and to “beget a child,” not to “bring up” a *boy* or to “beget” a *girl*. No court has gone further. Clearly there is a distinction between being able to pass on one’s genes at all and being able to create a child of the gender one prefers. The former fulfills a basic drive to replicate, while the latter affords the additional power to dictate certain terms of replication. In this respect, sex selection seems closer to vindicating a want than a need. This distinction, alone, is probably of sufficient magnitude to suggest that sex selection is not currently within the realm of those things recognized as fundamental rights, and a reviewing court is unlikely to apply strict scrutiny to a state law posing formidable obstacles to sex selection.

The next tier of scrutiny, which finally achieved independent status in the Supreme Court’s decision in *Planned Parenthood v. Casey*,¹⁴⁸ renders unconstitutional any legislation that imposes an “undue burden” upon (in other words a “substantial obstacle” in the way of) someone seeking to vindicate certain special rights.¹⁴⁹ It is unclear whether this

pregnant by artificial insemination” if she so desires. *Cameron v. Board of Educ. of the Hillsboro, Ohio, City Sch. Dist.*, 795 F. Supp. 228 (S.D. Ohio 1991).

144. 262 U.S. 390 (1923).

145. *Id.* at 399.

146. 405 U.S. 438 (1972).

147. *Id.* at 453.

148. 112 S. Ct. 2791 (1992).

149. The “undue burden” standard, as previously articulated in Justice O’Connor’s dissent in *City of Akron v. Akron Ctr. for Reproductive Health*, 462 U.S. 416, 463 (1983), was originally formulated as a “*threshold* inquiry that must be conducted *before* this Court can require a State to justify its legislative actions under the exacting compelling state interest” standard. In other words, undue burden analysis, early in its development, served only as the gatekeeper of strict scrutiny. Undue burden, emancipated by *Casey*, now occupies a position in the hierarchy of rigorous analysis that leaves it less demanding than strict scrutiny, but somewhat more demanding than intermediate scrutiny. See *Planned*

undue burden standard applies most poignantly only in the context of the *sui generis* abortion right, or whether it might properly apply to sex selection as well. Were the Court to see sex selection as sufficiently similar to abortion, in its antagonism of reproductive liberties and state interests, to warrant application of the undue burden standard, one could conclude that legislation prohibiting sex selection would be unconstitutional.

Yet a careful reading of *Casey* suggests that the Court would not link abortion and sex selection in a determinative way. The Court uses, loosely, two planks upon which to construct the conclusion that a woman has the right to abort: one concerns protections afforded to family and procreative matters, and the other concerns matters of bodily integrity.

With respect to the former, we are counseled that it is "a promise of the Constitution that there is a realm of personal liberty which the government may not enter."¹⁵⁰ The Court thus justifies its qualified protection of the abortion right, in part, by placing the decision to abort within that category of things, "originating within the zone of conscience and belief," that involve "a person's most basic decisions," most "intimate relationships," and the "most intimate and personal choices" that are "central to personal dignity and autonomy," as well as to "bodily integrity."¹⁵¹ This category clearly includes, in the words of the Court, "a person's most basic decisions about family and parenthood,"¹⁵² including those about "procreation."¹⁵³ Consequently, this category of protected behavior could easily encompass the decision about what gender to beget.

The Court, of course, has not yet had cause to parse the meaning of the word "procreation," and it would be disingenuous to shoehorn sex selection too quickly into a pre-existing arena of protected behavior merely on the basis of the word's lack of precision. Yet even so, it is not apparent that the interests one vindicates in protecting procreation generally can be segregated, in a principled fashion, from those specifically involved in sex selection. If a person has the capacity to choose and

Parenthood of Southeastern Pa. v. Casey, 947 F.2d 682 (1991); see also *Casey*, 112 S. Ct., at 2866-67. (Rehnquist, C.J., dissenting) (referring to strict scrutiny and undue burden analyses, together, as "heightened scrutiny").

150. *Casey*, 112 S. Ct. at 2805.

151. *Id.* at 2806-10.

152. *Id.* at 2806; see also *id.* at 2807 (referring to the "private realm of family life," and citing *Carey v. Population Servs. Int'l*, 431 U.S. 678, 685 (1977)).

153. *Casey*, 112 S. Ct. at 2807.

control the number of children she begets as a consequence of procreative acts, and has this substantial and technologically facilitated control over the size of her family (and even the spacing between children), why should she not be as free affirmatively to compose the gender ratio of her family? And if at the heart of the liberty protected by the Fourteenth Amendment is the right to define one's own concept of "the mystery of human life,"¹⁵⁴ should an individual not be free to demystify procreation by manipulating its purely mechanical processes in such a way as to vindicate her personal desires?

At the same time, with respect to bodily integrity, abortion and sex selection cannot be thoroughly mixed. The holding in *Casey* was justified, in large measure, on the intrusiveness of forcing childbearing on a woman who wants to abort.¹⁵⁵ Justice Blackmun, writing in concurrence, described this graphically as "conscript[ing] women's bodies into service"¹⁵⁶ That degree of physical intrusiveness is far greater in the context of deciding whether a woman must bear a child or not than it is in the context of interfering with whether a child so born will be male or female. Consequently, and given the ideological struggle that tipped so slightly in favor of abortion protections in *Casey*, it would be imprudent to think the Court prepared to extend the same constitutional protection to sex selection that it did to abortion, and to adopt an undue burden analysis in evaluating legislation restricting its use.

Neither, however, would the Court be likely to use "intermediate scrutiny," which examines whether a law is "substantially related" to an "important" governmental interest. Courts reserve intermediate scrutiny to protect "quasi-suspect" classes of people, such as those treated differently because of gender or illegitimacy.¹⁵⁷ One could construct an argument that quasi-suspect classes should be expanded to include those discriminated against on the basis of *offspring* gender, because the impact of legislation prohibiting sex selection falls disproportionately on those preferring boys. But such an argument is at best attenuated.

154. *Id.*

155. *See, e.g., id.* at 2807-08.

156. *Id.* at 2846.

157. *See, e.g., Craig v. Boren*, 429 U.S. 190, 197-99 (1976); *Mississippi Univ. for Women v. Hogan*, 458 U.S. 718, 723-26 (1982). One could argue that sex selectors could invoke intermediate scrutiny because the activity they seek to protect is *about* gender. Yet this would diverge markedly from the line of cases protecting "quasi-suspect" classes, because these classes the courts want to protect *from* discrimination, not protect from interference with their own efforts to discriminate.

Consequently, any court hearing a challenge to a law prohibiting sex selection would almost certainly apply the familiar "minimum scrutiny" analysis, asking whether the law was "rationally" related to a "legitimate" state interest.¹⁵⁸ Such analysis asks, essentially, whether a law is irrational or arbitrary. Despite the fact that any societal consequences of sex selection are still largely speculative, they do seem at least plausibly deleterious, and thus of "legitimate" concern. Prohibition need not be the best approach, or even a sensible approach, to be rationally related. Thus, a law prohibiting the use of sex-selection techniques would probably be constitutional under minimum scrutiny, which offers a very low threshold indeed.

While sex selection is not a fundamental right, at least under the existing legal regime, common sense tells us that access to sex-selection technology involves a liberty interest of some kind, even if such does not formally rise to the level affording it legal protection. Although there may be no legal right to own a car, there is obviously an important liberty interest in being able to own a car if one chooses and can so afford. While the courts have not frequently been called upon to delineate between liberties that "cannot" be deprived and liberties that "should not" be deprived, the common sense that legislators should bring to bear upon their task indicates that such latter liberties do exist. While they may not invoke the "intermediate scrutiny" of the courts in formal fashion, legislators should nonetheless feel reluctant to restrict such freedoms more than necessary to achieve important state goals.

For while the sex-selection liberty may not legitimately invoke the same protection afforded the abortion liberty, because deprivation of the latter is undeniably more intrusive than deprivation of the former, denying sex selection is intrusive to some degree.¹⁵⁹ Before safe abortions, for example, one would never have talked of "forcing" a woman to bring a child to term. Similarly, before practicable sex selection one would never have spoken of forcing a woman to bear a male or female child, or of forcing her to take a 50/50 chance of having a child of a certain gender, instead of a 70/30 one. But technology has now made such language

158. See, e.g., *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 17 (1973); *U.S. Dep't of Agric. v. Moreno*, 413 U.S. 528, 533 (1973).

159. While the denial of sex selection is less intrusive than that of abortion, so is the state interest less significant. It would be difficult to argue that the state interest in maintaining a given gender ratio rises to a level equal with the "substantial state interest in potential life throughout pregnancy." *Casey*, 112 S. Ct. at 2820.

appropriate. If sex selection were prohibited, the state would essentially be conscripting a woman's body into the service of maintaining a state-preferred gender ratio. The inappropriateness of this would be more manifest if the state later developed an interest in a different gender ratio.

While minimum scrutiny can satisfy the courts, it should not satisfy the public. Reproductive matters, for example, from conception through childrearing, are never completely frivolous. People frequently devote a major part of their lives to raising a child and closely associate a sense of fulfillment with both the process and intermittent results of that effort. While simply having a preference does not make that preference non-frivolous, having a strong gender preference—a preference firmly seated in one's psychology and one's dreams for the future, a preference widely shared—is almost by definition non-frivolous. This is particularly true where, as in this context, the preferences reflect patterns of desires discernable through thousands of years of history. While such may not have ever inspired "traditional" protection, they are themselves, for better or for worse, sufficiently traditional to rebut allegations of frivolity.

As neither a fundamental right nor a frivolous luxury, gender selection deserves more careful attention than those arguing mere prohibition or non-intervention have thus far afforded it. Different approaches to sex selection may be legal though not sensible, and society should strive for the latter before considering the former. Gender selection is a form of behavior, of human activity, that should not be easily transgressed.

C. Assessing the Existing Approaches

By separating the absolutists from the consequentialists, by refining an understanding of the types of sex-selection behavior that are really at issue, and by taking stock of the relative nature and position of such behavior in our society, one thing becomes apparent: Government need not look only to prohibition or non-intervention as the sole strategies for addressing sex selection.

1. The Prohibition Model

Consequentialists should reject the prohibition approach because prohibition may have an undesired result. State intrusion into consumer access to technology may inappropriately interfere with the pursuit of happiness generally, and reproductive freedoms specifically. Each result

is disturbing, particularly since each may serve as precedent for increased government intervention.

Prohibition is overaggressive. It is logical to recognize, for example, that the consequences of sex selection are not yet manifest. Nor are they, in all probability, likely to accrue suddenly. As a temporal matter, then, it is not obvious that the consequences of sex selection can only be addressed effectively by immediate and aggressive governmental action. Moreover, the magnitude of the problem, as it develops, is not likely to be catastrophic in the first instance. While it may be technology-facilitated, sex selection need invoke no fears similar to those regarding self-replicating, genetically engineered organisms. The magnitude of the problem is apt to be considerably lessened, as well, by the rapid rise of the feminist movement, which will increase resistance to unabashed male-preference.

Moreover, the emerging laws prohibiting sex selection, most concerned for the moment with the postconceptive context, do little to allay the fear that government will overreach. Whether providing for criminal punishment, civil damages, or both, these statutes are ill-designed and inappropriate for several reasons: they are harbingers of more expansive restrictions, and they foreshadow equally inappropriate laws for other sex-selection contexts.

The laws are, for example, remarkably unsophisticated: None provides any guidance as to enforcement, although any serious reflection indicates that enforcement problems are numerous. The laws, in fact, are almost as difficult to enforce as prohibitions on the use of contraceptives or the practice of sodomy.

The existing statutes designed to prohibit sex-selection abortion, in Illinois and Pennsylvania, as well as those proposed statutes in other states, each exclude from the category of allowable abortions any sought "solely" on account of the sex of the fetus.¹⁶⁰ The "sole-purpose" requirement is unworkable, as much for its assumption that an action ever has a single purpose, as for its expectation that such could be divined, even were it to exist, from mothers or couples who have an interest in obscuring their motivations from the prohibiting state.

The laws passed or proposed typically prohibit any abortion that the performer knows is being requested solely for sex-selection purposes.¹⁶¹

160. See *supra* note 78.

161. See Illinois Abortion Law, ILL. ANN. STAT. ch. 38, para. 81-26, § 6(8) (Smith-Hurd

Proving "knowledge" in the context of a doctor-patient relationship, when the patient truly wants the prohibited result, is not only difficult, but unlikely. The Pennsylvania statute is even more expansive, extending criminality to such abortions performed "intentionally, knowingly, or recklessly."¹⁶² The "intentionally" and "recklessly" criteria are both vague in this context. How does one "recklessly" perform an abortion sought solely on the basis of gender if that fact is unknown? Does avoiding recklessness create an explicit or functional burden on those performing abortion to "inquire" of a woman's motivations? To inquire in a fashion "reasonably likely to uncover" a woman's motivations? The statutes leave this unspecified.

In addition, the penalties for statute violation are oddly skewed. Anyone performing an abortion in violation of the Illinois and Pennsylvania laws commits a class A misdemeanor or felony of the third degree, respectively.¹⁶³ Should the guilty party be a licensed physician, she may also lose her license.¹⁶⁴ In two bills, the woman upon whom an illegal sex-selection abortion was performed, as well as the father of the unborn child, may sue the person who performed the abortion in a civil suit for a multiple of damages sustained, and up to ten-thousand dollars in punitive damages.¹⁶⁵ This creates the absurd result that a woman may be able to receive a great deal of money, post-abortion, if she can credibly assert that the performer knew she wanted to abort the fetus because of its sex. Although the state allegedly wants to punish and deter sex selection, this scheme is analogous to outlawing the sale of illicit drugs, but not the purchase or use of drugs.

Supp. 1990) (class A misdemeanor; possible license suspension or revocation); Abortion Control Act, PA. STAT. ANN. tit. 18, § 3204(c) (Supp. 1990) ("unprofessional conduct;" possible license suspension or revocation). As examples of proposed legislation with similar provisions, see Conn. H.R. 5448, Reg. Sess. (1990) (\$10,000 punitive damages plus treble actual damages); Ind. H.R. 1088, 106th Leg., 2d Sess. (1990) (class C felony); Md. S. 834, 396th Leg., Reg. Sess. (1990) (\$1000 damages, plus up to \$5000 fine, and 5 years imprisonment); Md. H.R. 1416, 396th Leg., Reg. Sess. (1990) (same); R.I. S. 2232, Jan. Sess. (1990) (\$10,000 punitive damages plus treble actual damages); Tex. S. 421, 71st Leg., Reg. Sess. (1989) (third degree felony); Tex. H.R. 906, 71st Leg., Reg. Sess. (1989) (same).

162. Abortion Control Act, PA. STAT. ANN. tit. 18, § 3204(c) (Supp. 1990).

163. Illinois Abortion Law, ILL. ANN. STAT. ch. 38, para. 81-26 § 6(8) (Smith-Hurd Supp. 1990); Abortion Control Act, PA. STAT. ANN. tit. 18, § 3104(c) (Supp. 1990).

164. Illinois Abortion Law, ILL. ANN. STAT. ch. 38, para. 81-26 § 6(8) (Smith-Hurd Supp. 1990); Abortion Control Act, PA. STAT. ANN. tit. 18, § 3104(c) (Supp. 1990).

165. Conn. H.R. 5448, Reg. Sess. (1990); R.I. S. 2232, Jan. Sess. (1990). A bill introduced in California even gives a grandparent of the aborted child a cause of action. Cal. S. 1232 (1991).

Allowing a civil suit against the doctor seems to encourage, rather than discourage, requests for sex-selection abortion. If the drug laws allowed a user to recover punitive damages from the supplier, with complete impunity, the rational actor may go looking to buy drugs. Perhaps this may be a cost-effective way of identifying and prosecuting drug suppliers. Yet it is questionable whether such overzealous encouragement for patients to turn against their doctors, who perform many legal and life-improving functions, would yield a net good. Indeed, there is a financial incentive for any abortion patient to wage a low-risk/high-return battle of credibility against the doctor, conveniently subsidized by the plaintiff's bar. This may deter doctors from performing the otherwise legal abortion function, or make insurance premiums ever more prohibitive.

The gravity of the penalties and the uncertain contours of the crimes as defined may prompt many to refuse to perform abortions for these reasons alone. This chilling effect might have dramatic repercussions for those seeking legal abortions. This result, unrelated to the alleged purpose of the laws, exposes their unfitness. Moreover, punishing someone for performing an act that is otherwise legal simply because it is requested for an illegal reason seems misplaced; it puts all the risk upon the performer, instead of the requestor, and renders questionable whether such side effects were responsibly considered.¹⁶⁶

2. The Non-Intervention Model

Consequentialists should eschew the non-intervention approach because non-intervention could lead to social disruption and economic inefficiency. If sex selection were to become truly widespread (as assumed earlier for the purpose of analysis) it could dramatically alter gender proportions and profoundly affect our culture. Since sex preferences are both prevalent and non-random, sex selection is possible, and advances in technology make it ever more so, then if behavior correlates strongly with preferences, significant demographic and behavioral changes could ensue that may lead to diverse and significant cultural distortions. Consequently, a non-intervention approach might produce the need for more expensive remedies than the foregone preventions. Enormous expenditures of capital and energy would be necessary to protect minimum economic,

166. Indeed, since the prohibitions as written so obviously create a chilling effect on otherwise legal abortions, it is not so unreasonable to ask whether they may have been intended to do so.

political, and cultural stability. Non-intervention could generate more problems than it avoids. This inefficiency, if sustained by government policy, would result in the imposition of great costs to parties entirely unrelated to the sex-selection issue. The effects of non-intervention could ultimately require government intrusion to ameliorate matters at a time when the cure would be more dramatic than the prevention.

There are several troubling aspects, in particular, of the Doctors Dissuade approach, in which doctors attempt to convince one seeking sex-selection procedures not to employ the available technology. Admittedly, lawyers and doctors operate in entirely different social and professional arenas, often inflating their roles in society and incorrectly assuming that they are not only the proper repositories of society's values, but also the most appropriate group to give these values form. Each group is chronically suspicious of the other. Yet there are at least four reasons why sex selection should not be left to doctors alone.

First, it is nothing less than an ambush to hold oneself out as a doctor who may facilitate sex selection, all the while intending to conduct an opportunistic campaign of dissuasion upon the unwary.¹⁶⁷ True, doctors are not mechanics, and should provide information necessary for a patient to effect an appropriate decision. Yet there is a significant difference between informing and discouraging. This is particularly true where doctors are motivated not by potential harm to the patient in their care, but by the perception of speculative harms to society, or even by their own morality. In such a circumstance, doctors abuse their positions of trust, and practice ministry, not medicine.¹⁶⁸

Second, the suggestion that doctors should intentionally withhold information from a patient encourages a degree of paternalism unacceptable to, although perhaps unanticipated by, the patient herself.¹⁶⁹

167. This has arisen in the abortion context where pro-life doctors have attempted to persuade women patients not to have an abortion in order to save the fetus, inspiring an ethical debate over whether pro-life doctors have a duty to inform patients of the doctors' position.

168. Note that a doctor need not practice unethically in order to avoid dispensing ethics; she may simply and openly refuse to facilitate sex-selection procedures, or, for example, sex-selection procedures unrelated to gender-linked disease. People expect to adopt or confront the influence of obviously pressure-generating social structures such as church and family, whose power over them, if any, is more moral than tangible. Yet people do not expect doctors to exert such influence; they may not recognize it, and may be unfairly disadvantaged by a quiet ambush that is decisively tangible. By manipulating information provided, and by standing in a position directly and immediately to assist or impede access to necessary technology, doctors gain an unfair and inappropriate power over a citizen pursuing a legal activity.

169. See generally JAY KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* 50-51

Whether one views this from a legal perspective (breach of contract or of fiduciary duty), or an economic perspective (hiding information about the quality of services creates inefficiencies in the market), it is clearly inappropriate.

Third, the medical profession is intensely male-dominated. An issue that so fundamentally affects women should not be subjected to invisible decisionmaking by an excessively gender-skewed organization. While legislatures, certainly, may be equally male-dominated, at least their decisions are susceptible to democratic critique and pressure from women.¹⁷⁰

With respect to the Social Exhortation approach, which advocates informal but widespread criticism of sex selection, it is entirely obvious that it can coexist with any other approach whatsoever. Social mechanisms are often more appropriate than legal ones for addressing underlying prejudices. One cannot, for example, force people to love their children equally, despite the fact that it might be preferable if they did. One cannot successfully legislate desires, or repress them through prohibitions.

V. PROPOSALS: REGULATION FOR CONSEQUENTIALISTS

Any conflict between consequentialist prohibitionists and consequentialist noninterventionists is more artificial than real. Their debate over the magnitude of sex selection's consequences, and whether these dictate that sex selection should or should not be prohibited, ignores important alternatives.

(1974) (superior technical knowledge, sometimes leading to feelings of moral superiority, may tempt doctors to treat adult patients like children).

170. Viewed from this perspective, the Doctors Dissuade approach also appears inconsistent with principles of representative self-government. Doctors do not comprise a representative body, and policy decisions operating on the level of individual childbearing should not be determined and implemented by individuals who are not accountable to the general public. While no one will argue that legislatures or executive agencies are perfectly representative, it is hard to argue that they are not more representative than the American Medical Association. True, legislators may sport inferior understanding of certain principles of the technology, and their studies and subsequent regulation may lag significantly behind advancing science. Yet their decisionmaking processes are more open, at least affording the opportunity for community input and criticism. It is ironic that while many of the proponents of the Doctors Dissuade approach prefer to keep the law away from sex selection, for the precise reason that this would restrict female freedom, they argue that doctors are in the best position to decide how a woman may use her body.

No consequences will occur, obviously, unless people actually practice sex selection. Many assume that whether people will do so depends solely on the existence of sex-selection procedures and gender preferences. It does not. In fact, it is precisely this superficial reasoning, which characterizes the decision to select sex as merely binary, that has restricted the policy debates to the similarly mischaracterized "binary" choice of whether government should entirely prohibit or passively allow sex selection.

Individuals have gender preferences of varying strengths, and the choice of whether or not to sex-select depends upon a woman's unique balancing of perceived private benefits and private costs, as well as other considerations. Any appropriate governmental action should be sensitive to the complexity of this decisionmaking process.

A. *Proposals for Legislative Action*

Legislatures should establish sex-selection policy. Following is a suggested approach.¹⁷¹

First: Slow Down. A legislature should not rush to prohibit sex selection without further public discussion that clearly separates both the absolutist views from the consequentialist perspectives, and the postconceptive context from the preconceptive context. The absolutist-prohibitionists will be satisfied with nothing short of prohibition, while the absolutist-non-interventionists will be satisfied with nothing short of laissez-faire. Legislators would be unwise to attempt appropriate legislative strategies without attempting to assess the size of these two constituencies. While either of the absolutist positions may be vindicated in the future, at the moment they appear to command insufficient numbers to warrant an aggressive posture entirely curtailing liberty interests or entirely ignoring valid governmental concerns about a potentially harmful activity. In the meantime, legislators should turn their skills toward recognizing and reconciling the consequentialist perspectives.

Second: Monitor. It makes little sense to worry about dire consequences without a more accurate sense of where we are on the timeline of doom. That is not to say that we must be visited by disaster before

171. It has traditionally been left to the states to control familial relations (such as marriage, divorce, and adoption) and health care. Nevertheless, these matters are increasingly becoming federalized, to implement a comprehensive national policy, and the suggestions here discussed are appropriate at either the state or federal level.

being convinced of its imminence, nor that we should not prepare for the contingency of its visitation. As an initial matter, a legislature should establish a simple mechanism for monitoring gender ratio shifts. A shift would be probative of the existence and extent of sex selection, and might suggest when government involvement is advisable. A lack of a shift would indicate either that sex selection is rarely employed, or that gender preferences are offsetting each other. In either case, government involvement to alleviate consequentialist concerns would be largely unnecessary.

One such mechanism already exists at the federal level: The National Institutes of Health maintain national natality statistics. A more active form of monitoring might require facilities offering preconceptive sex-selection procedures to report their efforts and successes, as well as basic demographic information on the requestors, to a centralized databank. Such a monitoring mechanism has been proposed for the collection of medical and genetic histories of sperm donors,¹⁷² and a similar oversight effort requires the monitoring of silicone breast implants.¹⁷³ The Supreme Court's *Casey* decision makes it clear that such recordkeeping and reporting requirements are constitutional.¹⁷⁴

Third: Set a Threshold. While passively monitoring domestic sex-selection behavior, government should establish a commission to set a threshold level of gender ratio skew, beneath which they simply would not intervene. A ratio threshold is preferable to a threshold establishing absolute numerical limits on procedures selecting for males or females because the consequentialists opposing sex selection are principally concerned with the societal effects of the practice, and the "magnitude" of these effects is necessarily relative.¹⁷⁵ Considering the total number of births in our society, there must be some number of sex-selection births that the government would deem negligible.

The agency must decide the relevant population segment to which this ratio threshold would apply. It might choose, for example, to measure only the skew in the gender ratio of the entire population, of the child-bearing-age population, or of infants. If the state should want to establish

172. BLANK, *supra* note 68, at 139.

173. See, e.g., Marian Segal, *Silicone Breast Implants: Available Under Tight Controls*, FDA CONSUMER, June 1992, at 6.

174. *Planned Parenthood of Southeastern Pa. v. Casey*, 112 S. Ct. 2791, 2844 (1992).

175. If the converse obtained, then the magnitude of the principal effects would fluctuate as arbitrarily determined by population size.

a ratio sensitive to all of these factors, but recognizes that they may vary in relative importance, it could set different thresholds for each segment, weight each accordingly, and reduce them formulaically to an approximate ratio that would be used in implementing policy initiatives.

Fourth: Consider Regulatory Alternatives. Theorists assert that regulation, which necessarily interferes with the free market, is justifiable in extenuating circumstances, such as when monopoly conditions, "excess" profits, inadequate information, or "externalities" are present.¹⁷⁶ Sex selection involves the problem of externalities.

Should the threshold established by the previously contemplated commission be approached or transgressed, governmental policymakers should consider methods of regulation that would keep sex selection within acceptable quantitative limits. All the usual regulatory tools are available, in a bewildering, but rich, array of possibilities.

Government could, for example, reduce or eliminate any public funding of projects for discovering and improving sex-selection procedures. It could establish rigorous licensing procedures of facilities or practitioners. These procedures, quite intentionally, could limit entry into the field by establishing high minimum qualifications, or even high licensing fees.

Alternatively, government could issue a limited number of permits for sex selection, available either to doctors or to prospective parents. Such permits could be provided by lottery, for a flat or sliding fee, or even by auction. They could reduce deleterious effects of sex selection by limiting the aggregate number of attempts at sex selection or the aggregate number of births following sex selection. Moreover, permits specific for each gender might also be issued, enabling government control over both the number of sex selections and the gender ratio thereby produced. These could be limited to either one per woman, or to contexts in which parents want to balance the family gender ratio.¹⁷⁷

All these methods, of course, are designed to limit the supply of sex-selection procedures. There are also many ways to limit the demand for sex selection. A special form of regulatory tax, for example, may be

176. See STEPHEN BREYER, REGULATION AND ITS REFORM 15-35 (1982) (overview of justifications for regulation).

177. *Id.* at 261-84. Other regulatory mechanisms include cost-of-service ratemaking, historically based price regulation, allocation under a public interest standard, standard setting, historically based allocation, individualized screening, and a host of alternatives to these classical regulation schemes.

effective in reducing demand, especially if the proceeds were used both to combat the very prejudices driving the demand, and to mitigate the harm incident thereto. This idea is worth examination in more depth, because it serves to demonstrate how methods can exist to reconcile and manage consequentialist concerns.

B. A Simple Example: A Countercycle Earmarked Excise Tax ("CEET")

This Section explores, as one regulatory alternative to prohibition or non-intervention, a tax scheme herein referred to as "Countercycle Earmarked Excise Tax" ("CEET"). As explained in greater detail below, CEET can accomplish four things, corresponding to the existing demand, the causes of the demand, the results of that demand, and changes in demand.

First, it can reduce the demand for sex-selection procedures by driving up the costs with an excise tax. Second, it can further reduce demand by earmarking these excise tax revenues and "countercycling" them into programs designed to decrease the desire for sex selection. Third, CEET can use these revenues to counteract, to some extent, harms attendant to widespread sex selection.¹⁷⁸ Fourth, it monitors the extent of sex selection, because revenues are generated in direct proportion to its incidence.

CEET thus simultaneously alleviates the concerns of the consequentialist opposition to sex selection without dramatically restricting the liberties of those seeking sex selection or fighting government intrusiveness. It seeks that delicate balance of societal and individual interests.

To administer this strategy, a legislature would need to enact a CEET and either create an overseeing agency or include such oversight within the responsibilities of an existing agency.

178. The term "counter"-cycling is used here to distinguish this concept from "re"-cycling, in which a product or revenue is returned to the stream of commerce in furtherance of the activity from which it came. Countercycling, in contrast, uses an activity's own product or revenue against it.

1. Overview of CEET

a. Decreasing the Demand: Part One

Consider the cost/benefit analysis of a potential sex selector. The benefits were earlier discussed, as were the costs, which included, among other things, purchasing the necessary technology and services, the time involved (particularly if repeated attempts at sex selection are necessary), and the "psychic" costs of overcoming any residual guilt about preferring one gender over the other.

The benefits and costs suggest that if the strength of the gender preference is greater than the costs to the individual mother or couple (the "private" costs) of a given sex-selection technique, then sex selection may be attempted. The consequences that will befall others (the "social" costs) as a result of that action will not enter directly into the calculus of the mother or couple. Since neither provider nor consumer pay these costs, the demand for sex selection is greater than if consumers themselves had to bear the full cost of the adverse side effects. Driving up the cost of sex selection with an excise tax would, in part, force sex selectors to "internalize" some of these externalities, and reduce the demand.¹⁷⁹

Left alone, market forces would typically yield an equilibrium of supply and demand of sex-selection procedures. A tax increases the price above the equilibrium price. The number of consumers willing to pay this increased price then decreases (by "retreating," in economic terms, along the demand curve). This decrease is due, in part, to the variance between would-be sex-selectors in strength of desires and personal wealth.

179. The rate of decrease, and the extent to which the *effective* payment of the tax is divided between the supplier and the consumer, depends in large part on the elasticity of the demand curves. The increased cost to actors, however, is not necessarily equivalent to the actual cost to society. First, these costs may be impossible to quantify accurately. Second, the activity may be sufficiently beneficial to the economy, for instance, that government will choose to spread part of the cost of that activity among society. The size of the government-imposed tax, then, reflects a policy about the acceptable quantitative or qualitative occurrence of that activity. Cf. Gardner M. Brown, Jr. & Ralph W. Johnson, *Pollution Control By Effluent Charges: It Works in the Federal Republic of Germany, Why Not in the U.S.?*, 24 NAT. RESOURCES J. 929 (1984). Note that the tax attempts to approximate bargaining between parties that would occur in the absence of transaction costs. Whether the sex selectors pay to select, or society pays them not to, depends upon whether liability rights or property rights attach. See generally Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972). The tax is also decisively different from a fine, as the latter is intended to deter and punish in the manner of criminal sanctions.

Assume, for example, that no tax is currently imposed. Those who value the increased chance of having a child of the desired gender equal to or higher than the aggregate costs they will incur will sex-select.

If a non-exorbitant tax of a certain amount is added to the costs of sex selection, however, those whose personal calculation ascribed to sex selection a value equal to or barely exceeding the pre-tax cost will choose not to sex-select. It follows, then, that those who will choose to sex-select in spite of the tax personally "value" sex selection more highly than those who forsake sex selection. In sum, this ability to purchase sex selection, even if it is more expensive, protects the liberty interest of those who value sex selection most highly.¹⁸⁰

b. Decreasing the Demand: Part Two

CEET can be used to reduce demand further by earmarking the tax revenues to "boomerang," that is, to combat the parental perceptions that lead to gender preferences in the first place.¹⁸¹ This could involve information campaigns combatting sex stereotyping as well as public education and negative publicity about possible adverse consequences.¹⁸² It might consist of positive publicity about the desirability of girls, or about the difficulties of raising boys.¹⁸³ (Such efforts, of course, would have to be considered carefully, since they assume gender-linked differences, one of the assumptions many may seek to overcome.) Finally, the CEET revenues could be used to increase its own effectiveness, by funding research into how to target information to potential sex selectors.

In any event, the CEET yields revenues that can be used to decrease the demand even further, beyond the decrease attributable to the increased price itself. This means that even fewer sex selections would be sought and performed than would obtain if revenues from the tax were used for

180. The possibility that discrepancies in wealth will unfairly skew this result is explored below in Section B.3.

181. While the terms "countercycling" and "boomerang" may be cumbersome, alternatives frequently seem more so. For example, "I'd call it a Super Double Whammy Tax." Interview with Joseph Tsai, Tax Attorney, Sullivan & Cromwell, Washington, D.C. (June 14, 1992).

182. A California anti-smoking campaign, for example, which was funded in part by a tax on cigarettes, reduced the percentage of Californian smokers by 17% in three years. *Anti-Smoking Effort Working, Study Finds*, L.A. TIMES, Jan. 15, 1992, at B1.

183. See, e.g., BILL WATTERSON, CALVIN AND HOBBS: ATTACK OF THE DERANGED MUTANT KILLER MONSTER SNOW GOONS 1 (1990).

other purposes.

By counteracting in some measure the desire to sex-select, tax revenues reduce the quantity of purchased sex-selection procedures even further. (In economic terms, the demand curve shifts to the left.) Reducing the number of people desiring sex selection results in a corresponding reduction in sex-selection procedures actually performed.

c. Mitigating the Harm

Some of the CEET revenues can be countercycled to counteract some of the harm that sex selection may produce.¹⁸⁴ These efforts should concentrate on a societal rather than individual level because: (1) causation would be difficult to trace for individuals, but can be more readily inferred for large groups;¹⁸⁵ (2) the magnitude of the harm to an individual would be difficult to measure, given the multitude of possible reasons for most symptoms of the harm; and (3) injury is likely to be spread across society to a group so large that identifying a class of claimants may waste better-used resources, assuming that all persons are affected in some way.

Legislatures would have to explore carefully possible programs designed to mitigate the externalities, since some of these might reinforce existing stereotypes. Some of the programs to consider would be government-funded scholarships for girls and women, government-sponsored psychology studies about (and resultant strategies to combat) second-child syndrome, bolstered affirmative action hiring requirements,¹⁸⁶ and special job-training and leadership programs for girls and women. A parental-education program, too, could be very useful if it encouraged parents who did have girls to raise them to possess precisely the qualities for which the parents wanted a boy. Finally, the most extreme possibility would involve government actually creating financial

184. In California, for example, revenues from a special tax on cigarettes (25 cents per pack) are used, in part, to fund cancer care and research, as well as to fund local health departments and community groups involved in tobacco control. See George F. Will, *Tobacco Road*, WASH. POST, Feb. 16, 1992, at C7.

185. See *Basic v. Levinson*, 485 U.S. 224 (1988) (individual plaintiff investor, when demonstrating injury, is entitled under the "fraud-on-the-market" theory to rebuttable presumption of reliance on defendant corporation's material misstatements, since these almost inevitably affect the market price of defendant's stock).

186. This could take the form, for example, of offsetting certain tax breaks for complying organizations. The implications of this alone could yield a separate article.

incentives to bear females, thus compensating for increased male births.¹⁸⁷ This could involve subsidies to encourage those women currently carrying a female fetus and seeking an abortion, whether for sex-selection reasons or not, to carry the fetus to term.¹⁸⁸

Examining some of these logical, possible uses of CEET revenue is no guide to discovering the advisable ones. The question would immediately arise: On what basis could the government decide to allocate revenues? Revenue allocation would need to address both the method and the amount of funding. Obviously, choosing appropriate methods would require feasibility determinations, which depend on the total funding available. Similarly, determining appropriate funding amounts will depend on judgments about the suitability of the method to the long-range goal of decreasing demand. This depends in turn on assessments of how many individuals are harmed by sex selection (quantitative analysis), and in what relative magnitudes (qualitative analysis). Quantitative analysis, for example, might examine whether more people are harmed by sex discrimination in the fifty-and-over age group than those in the thirty-and-under group. Qualitative analysis might examine whether the psychological harm of belonging to the disfavored gender is greater for a ten-year-old than for a thirty-year-old.

No algebraic formula can determine the optimal influence of quantitative and qualitative conclusions, and a government's strategic decisions are inherently fact-bound. Yet this makes policymaking for sex selection no different than that for other more usual, complex social problems.

d. Monitoring Use

One significant advantage of CEET is that it generates revenues at the same time it monitors the potential problems. This distinguishes it from a government or grant-funded study of the problems. For example, if a study concludes that there is no problem, it has used resources arguably better spent elsewhere; if the study concludes that a problem exists, it has

187. *But see* Tamar Frankel & Francis H. Miller, *The Inapplicability of Market Theory to Adoptions*, 67 B.U. L. REV. 99 (1987) (commenting on the commingling issues of children and finances, as best elaborated in William Landes & Richard A. Posner, *The Economics of the Baby Shortage*, 7 J. LEGAL STUD. 323 (1978), and Richard Posner, *Adoption and Market Theory: The Regulation of the Market in Adoptions*, 67 B.U. L. REV. 59 (1987)).

188. The payments may be sufficient for the mother to choose to carry the baby to term, even if she were planning to give it up for adoption.

generated information but nothing else. With CEET, on the other hand, the tax revenues themselves both provide information on use and simultaneously generate revenues in rough proportion to the potential magnitude of adverse consequences. If the tax effectively reaches actual sex-selection procedures, then low revenues means low use. The consequentialist-prohibitionist's concerns would be disproved, and prohibition on that basis would be *de facto* untenable. If the revenues indicate that sex selection is widely used, or increasing over time, the tax measures thus increase with increased funds to address it.

Significantly, this ultimately puts the intrusive power of the government in lock-step with the ebb and flow of sex-selection use. It also ensures that the parties responsible for contributing to any consequences are contributing to alleviation of those consequences.

2. *The Object and Amount of the Tax*

For the tax to work, the government agency must specify both the object and the amount of the tax. Specifying the object determines the comprehensiveness of the regulation, while specifying the amount determines how frequently sex selection is practiced.

The tax revenues must closely reflect the actual incidence of sex selection. Obviously, the tax may attach to procedures, products, or a combination of these. Taxation of procedures might, for example, target each use of the various sperm-separation techniques, or even amniocenteses that were not medically indicated.¹⁸⁹ Considering possible alternatives, a legislature might choose to tax abortions of fetuses (or perhaps just female fetuses), that follow the conveyance of gender information.¹⁹⁰ Taxation of products might attach to either those available someday to consumers directly, or to those nonreusable products, chemicals, or components used for each sex-selection procedure.

While the government seeks to maintain a gender ratio beneath the threshold earlier established, it cannot control that ratio directly. Rather, it must attend to the use of sex-selection procedures. To determine the amount of the tax, therefore, the agency must set an approximate "range"

189. While the latter adds a subjective element less verifiable for purposes of enforcement, a statutorily mandated doctor's certificate's of medical necessity might reduce the incidence of evasion, were it a problem.

190. Of course, measures dependent on information transmittal are susceptible to evasion to the same extent as is "knowledge"-dependent criminalization, but certainly no more so.

of the acceptable incidence of sex-selection behavior that would keep the gender ratio skew beneath the threshold level. Because not every attempt at sex selection is successful, and not every successful sex selection differs from what would have occurred naturally, the agency, over time, must monitor the actual volume of sex-selection procedures (from revenues) and adjust the amount of the tax to ensure that it falls within the target "range."

The objects and amounts of the tax, as well as the range itself, should be reviewed periodically. Since the interaction of these variables will affect sex-selection behavior and the extent of its externalities, the government must adapt the regulation to adjust to cumulating information on the existence of harms that have historically been speculative, and changing patterns of actual use.¹⁹¹

Actual use will depend, in part, on the marketable technology. Variations in technology will challenge the agency in important respects. For example, the more dramatic of the possible consequences of efforts to sex-select only arise if those efforts are successful. Should the tax apply to only sex-selection efforts that are successful? If so, this may create an unduly burdensome problem of information-gathering, particularly for "at-home" sex-selection procedures. If not, the government would need to estimate success rates. This would require special attention to the variations in success rates among procedures. There is, for instance, a current discrepancy in success rates between preconception and postconception procedures, and between procedures for selecting a male or female.¹⁹²

The effects of preconception procedures are also substantively different than postconception ones. While each postconception procedure is intended ultimately to substitute a child of one gender for a child of the other, preconception techniques have only half that effect. Because a child of the desired sex might have been conceived without sex selection, the preconception sex-selection procedure only alters the gender outcome at most fifty percent at the time.¹⁹³ Thus the government could easily allow twice as many preconception as postconception techniques if attempting to establish limits based on equivalent effects.

191. It would make little sense, for instance, to have a large tax on sex-selection medical procedures if the inevitable sex-selection products were disproportionately preferred by consumers, and yet lesser-taxed.

192. With respect to the latter, see *supra* note 32 and accompanying text.

193. No commentator, it appears, has highlighted this significant distinction.

3. Possible Legal Objections to the CEET as Applied

Some might argue that the CEET would not survive an equal protection analysis: It discriminates against the poor by mandating *unequal* access to a technology that allows control over fundamental and protectable procreative liberties.¹⁹⁴ True, a person's assessment of her ability to pay for sex-selection procedures will include a practical assessment of those procedures as a percentage of her assets. The cost of the procedure may, therefore, affect her financial condition more dramatically than it would that of a wealthier person.

Also, because affluence will affect the relative magnitude of the personal costs of purchasing sex selection, the rich could thus actualize a weak gender preference more easily than could the poor a stronger preference. This might result in a disproportionate number of males born to rich families, thus altering the sex composition of the upper class and further exacerbating the problem of female disempowerment.

This reasoning fails to demonstrate unconstitutionality, however, even if it is otherwise accurate in its assessment. Wealth classifications do not ordinarily violate equal protection. The Supreme Court has, over the years, constructed doctrines to distinguish equal protection contexts requiring strict judicial scrutiny from those warranting deference. Admittedly, *de facto* effects may raise suspicions as easily as explicit classifications. Such suspicions prompted the Warren Court to scrutinize strictly legislation involving either suspect classifications, or an impact on fundamental rights or interests.¹⁹⁵

Yet that Court only hinted that things such as *de jure* or *de facto* wealth classifications might be suspect¹⁹⁶ (and, of course, left "fundamental rights or interests" unenumerated and undefined). Subsequent doctrinal evolution during the Burger Court years made clear that wealth

194. Some have argued that such a distinction will only reinforce the subordinate status of women. See, e.g., Steinbacher, *supra* note 45, at 188.

195. During the pre-Warren years, the Court employed "old" equal protection analysis by focusing on the "means" used by a legislature, and generally deferring to that branch. That is, the government could not impose differences in treatment without "some reasonable differentiation fairly related to the object of regulation." *Railway Express Agency v. New York*, 336 U.S. 106 (1949). During the Warren years the Court developed a two-tier approach to equal protection, focusing on the "ends" of legislation, as well as on the "means." Means had to be "necessary," not merely "reasonably related;" ends had to be "compelling," not merely "legitimate" state interests. See, e.g., *Williams v. Rhodes*, 393 U.S. 23 (1968); *Shapiro v. Thompson*, 394 U.S. 618 (1969).

196. See, e.g., *Harper v. Virginia Bd. of Elections*, 383 U.S. 663 (1966).

classifications, or the mere result of disadvantageous impact on the less wealthy, alone are insufficient to invoke strict scrutiny.¹⁹⁷ Indeed, wealth cannot typically be a suspect classification in a society by and large committed to a market-pricing system.¹⁹⁸

Thus, the fact that the poor may have unequal access to regulated sex-selection technology does not seem sufficient to make such regulation unconstitutional absent a showing that such technology enables a citizen to exercise a fundamental right. Such a showing cannot be made, as explained earlier.¹⁹⁹

Professor Michelman has recognized that even in a market economy people are entitled to "minimum protection" against severe economic deprivations in certain areas. He suggests that one can test these for "intolerableness" by asking which would be consensually deemed unacceptable in a "just society."²⁰⁰ Upon employing this test, however, it is difficult *not* to conclude that differential access to sex-selection technology would be acceptable, and consequently constitutional.

It is true that newly developed technology can create strong psychological needs for things previously considered unattainable.²⁰¹ Access to infertility treatment is a perfect example; it is more distressing to be infertile in an age of infertility treatments yet unable to bear their costs than it is to be infertile in an age when no treatment exists. One can argue, therefore, that needs change as a function of emotional development, which in turn is a function of perceptions of the available and the possible. If that were the case, a deep-felt and sincere emotional need to have a child of a given gender could be left unmet.

Nevertheless, sex-selection technology is distinguishable from infertility treatment, and a disembodied populous behind a veil of ignorance would probably so agree. There is a tremendous difference between asserting a fundamental right to procreate at all and asserting a similar right to procreate as one wishes, that is, to have a child of the gender one prefers.

197. See, e.g., *James v. Valtierra*, 402 U.S. 137 (1971); see also Gerald Gunther, CONSTITUTIONAL LAW ch. 9, §§ 1, 3 (11th ed. 1985).

198. See Frank I. Michelman, *Forward: On Protecting the Poor Through the XIV Amendment*, 83 HARV. L. REV. 7 (1986).

199. See Part IV.B.

200. Michelman, *supra* note 198, at 7; cf. JOHN RAWLS, A THEORY OF JUSTICE (1973).

201. See Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. S251 (1986); Kevin McKean, *Decisions, Decisions*, DISCOVER, June 1985, at 22 (each discussing how varying extrinsic factors often create differing subjective perceptions of the magnitude of a loss, even when the magnitude remains constant).

The first assertion concerns the very existence of a child, the second concerns mere manipulation of one characteristic of that child, namely its gender.

The manipulation of this characteristic of a child with money, which necessarily allows less opportunity for the poor similarly to control, is not very different from similar situations that currently obtain in which no equal protection argument is proffered. Wealthy parents, for example, can more easily and dramatically influence both the quality, extent, status, and exclusivity of their children's education than can poor parents. This control over education, then, typically is simply an unobjectionable opportunity to influence a characteristic or manifestation of a child with money. The use of sex-selection technology seems not to differ in any significant way: The emphasis is still one of the characteristics and not of the existence of the child.

Moreover, while limiting access to sex selection, in part, by raising prices may appear unfair, it is relatively less so than doing so for other goods. For example, inability to afford sex selection cannot present an actionable cause for alarm or subsidy when more tangibly important items such as homes, jobs, and even nutritious food remain unaffordable to many. In fact, states routinely employ a regressive tax on food.²⁰²

Thus, a regulatory mechanism such as the CEET is one constitutional tool available for decreasing the demand for, and consequences of, sex selection without jeopardizing the liberty to sex-select.

CONCLUSION

Gender preferences have spanned centuries, continents, and cultures. Reasonable people may differ on whether selecting the gender of a child is inhuman, as a barbaric act of discrimination and as a usurpation of God's intent, or quintessentially human, as an extension of mind and will over nature and as a technology-facilitated enhancer of happiness. Regardless, advances in the enabling technology, demonstrated and strong gender preferences, increasingly tolerant attitudes toward sex selection, and sharply polarizing views on the subject indicate that the controversial issue should be addressed promptly, fairly, and squarely.

Advocates of the existing approaches, prohibition and non-intervention, have failed to differentiate between postconceptive and preconceptive

202. A progressive tax is sensitive to differences in wealth.

contexts, and between absolutist and consequentialist arguments. These are the operative distinctions. So differentiating makes evident that the consequentialists, however split on sex selection, can agree on regulatory strategies sensitive to the concerns of each, preventing social dislocation without unnecessarily infringing upon reproductive liberties. The Countercycle Earmarked Excise Tax, which decreases demand in two separate ways and provides revenue to mitigate harmful consequences of sex selection, is but one example of many such regulatory strategies that creative legislators might design.