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Free Trade in Human Reproductive Cells: A Solution to Procreative Tourism and the Unregulated Internet

Lisa Hird Chung

INTRODUCTION

Imagine the frustration of being unable to have a child. The cause of such disappointment for millions of people is infertility,¹ which affects men and women with almost equal frequency.² Others might not procreate for fear of passing on a genetic disease or because the woman cannot physically carry a

^{*} J.D. Candidate, 2006, University of Minnesota Law School; B.S., 2002, Arizona State University. I would like to thank my friends and family for conveying infinite support, especially my mother, Teri Hird, who has always been in the front row. Thanks are also due to my insightful editors.

^{1.} Infertility is medically defined as "the inability to achieve a pregnancy after twelve months of unprotected intercourse." U.S. National Library of Medicine and the National Institutes of Health, MEDLINE PLUS, http://www.nlm.nih.gov/ medlineplus/ency/article/001191.htm (last visited Apr. 4, 2004).

^{2.} Approximately ten percent of the global reproductive-age population of women are unable to become pregnant or carry a pregnancy to term. MARCIA INHORN & FRANK VAN BALEN, INFERTILITY AROUND THE GLOBE: NEW THINKING ON CHILDLESSNESS, GENDER, AND REPRODUCTIVE TECHNOLOGIES 7 (2003). In the United States alone, "infertility affects ten percent of Americans of reproductive age (ages fifteen to forty-five), totaling six million Americans." Helen M. Alvare, The Case for Regulating Collaborative Reproduction: A Children's Rights Perspective, 40 HARV. J. ON LEGIS. 1, 7 (2003) (citations omitted). Infertility and the risk of miscarriage also generally increase with age as biological clocks tick away for those who postpone child rearing to pursue a career, education, or other goals. See Lars Noah, Assisted Reproductive Technologies and the Pitfalls of Unregulated Biomedical Innovation, 55 FLA. L. REV. 603, 612-13 (2003) ("Infertility represents a natural consequence of aging, and demographers have noted a trend of deferred childbearing."). Difficulties in conceiving a child may also be partially attributed to environmental factors that damage human reproductive systems. See Wayne Sinclair & Richard W. Pressigner, Environmental Causes of Infertility (Aug. 1998), http://www.chem-tox.com/infertility/download/InfertilityFacts.pdf. But see Ann Marie Barako et al., Infertility, WESTFIELD STATE COLLEGE, Nov. 6, 1999, http://biology.wsc.ma.edu/biology/students/posters/popmodel/infertility (finding infertility has decreased over time for four out of five age groups of women in the United States).

pregnancy to term.³ Some homosexual couples and single adults also feel the disappointment of being unable to reproduce.⁴ Desperate to start a family, potential parents sometimes turn to assisted reproductive technology (ART),⁵ which encompasses medical procedures such as artificial insemination (also known as donor insemination (DI))⁶ and in vitro fertilization (IVF).⁷ To use these procedures, some ART patients are required to obtain viable sperm or eggs from an outside donor.⁸

Increased reliance on ART compels a greater understanding of international trade in human gametes⁹ because laws that regulate gamete trade profoundly impact the personal lives of people around the world. Laws that shape this area of supply and demand are dictated by political, social, and ethical stan-

4. See, e.g., Women Order Sperm Over the Internet, AUSTRALIAN BROAD. CORP., July 31, 2000, http://www.abc.net.au/ worldtoday/stories/s151668.htm [hereinafter Victorian Women]. In the Australian state of Victoria, lesbians and single women are legally denied access to IVF and sperm donor services. More of these women are now ordering sperm over the Internet from California sperm banks and traveling to another state for fertility treatment. See id.

5. Adoption offers another solution, but the demand for healthy American infants is so great that many individuals choose to adopt children from abroad. Alison Fleisher, *The Decline of Domestic Adoption: Intercountry Adoption as a Response to Local Adoption Laws and Proposals to Foster Domestic Adoption*, 13 S. CAL. REV. L. & WOMEN'S STUD. 171, 172–75 (2003). Those who desire a genetic connection to their child might prefer ART. *Id.*

6. Artificial insemination requires that donated sperm be introduced into a woman's uterus to fertilize the woman's egg. Alvare, *supra* note 2, at 20. The mother still contributes her genetic material. *See id.*

7. This procedure requires eggs and sperm to be mixed in a petri dish to achieve extracorporeal fertilization. THE PRESIDENT'S COUNCIL ON BIOETHICS, REPRODUCTION AND RESPONSIBILITY: THE REGULATION OF NEW BIOTECHNOLOGIES 26 (March 2004), available at http://www.bioethics.gov/reports/

reproduction and responsibility [hereinafter President's Council on Bioethics]. One or more of the embryos, or fertilized eggs, is then transferred into the uterus. *Id.* at 30. In 2001, IVF was the most common method of artificial fertilization; it was used by ninety-nine percent of ART patients. *Id.* at 26. This procedure requires donated eggs, donated semen, or both, so the child may or may not be biologically related to its parents. *See* Alvare, *supra* note 2, at 19.

8. Some ART procedures, such as ovarian hyperstimulation, surrogacy, and the reimplementation of ovaries to postmenopausal women, do not require donor gametes. Baum, *supra* note 3, at 114 n.2. Another ART procedure is embryo donation, in which one or more fertilized eggs containing the genetic material of a third-party man and woman is implanted in a woman's womb. Although embryos are also objects of local and global trade, the focus of this Note will be the supply and demand of gametes for reproductive purposes.

9. Human reproductive cells are referred to as oocytes (eggs) or spermatozoa (sperm). Eggs and sperm are also called gametes.

^{3.} See Kenneth Baum, Golden Eggs: Towards the Rational Regulation of Oocyte Donation, 2001 B.Y.U. L. REV. 107, 115 (2001).

dards that are unique to each country. Some countries impose strict regulations on donor compensation and anonymity to satisfy ethical concerns over the commodification of human reproductive cells.¹⁰ Some potential parents have circumvented trade laws by purchasing gametes from less restrictive countries such as the United States, which has become the leading exporter of human sperm in the world.¹¹ In effect, certain gamete trade regulations foster "procreative tourism"¹² as well as illegal and potentially unhealthy Internet purchases of human sperm and eggs.¹³

This Note explores the global implications of gamete trade when confronted by ethics-based regulatory schemes. Part I briefly describes modern demand for human gametes and various ways that countries regulate the gamete market, including compensation laws and donor identity laws. This section also addresses the impact of the Internet on gamete trade. Part II weighs the costs and benefits of gamete commodification and procreative tourism from moral and economic perspectives. This part also contends that ethics-based laws inadvertently steer hopeful parents to inconvenient and potentially unsafe alternative markets. Ultimately, this Note concludes that an open reproductive market like that of the United States, with sufficient health regulations and reporting requirements, will ensure both personal choice and personal safety for gamete recipients worldwide.

I. TRADE IN HUMAN SPERM AND EGGS

A. ASSISTED REPRODUCTIVE TECHNOLOGY AND THE INCREASING DEMAND FOR GAMETES

Transferring sperm or eggs from a third party to someone else for assisted reproductive purposes is not a recent miracle. DI has been used since the early twentieth century in some parts of the world.¹⁴ The first successful IVF took place in 1978

^{10.} See infra Part I.C.

^{11.} See infra note 25 and accompanying text.

^{12.} See infra Part II.B. and accompanying footnotes.

^{13.} See infra Parts I.C., I.D.

^{14.} Katheryn D. Katz, Ghost Mothers: Human Egg Donation and the Legacy of the Past, 57 ALB. L. REV. 733, 734 n.4 (1994) (citations omitted); Australian Legislation on Donor Conception, DONOR CONCEPTION SUPPORT GROUP,

and has since become the "daily bread and butter of the ART industry."¹⁵ The first conception of a child from eggs donated by another woman did not occur until five years later.¹⁶ By the turn of the millennium, approximately five thousand egg transfers a year took place in the United States alone, though not every transfer resulted in a live birth.¹⁷

Reliance on donor eggs and sperm increased greatly with advances in reproductive technology.¹⁸ Today, gametes are capable of being frozen and shipped from one country to another without damage.¹⁹ Denmark's largest sperm bank, Cryos International, exports to twenty-five countries and emphasizes three grade qualities of sperm.²⁰ Canada, China, Australia, India, and many European nations have been known to import gametes, often because local supply does not meet local needs. China, for example, is representative of countries that have faced severe

15. Alvare, supra note 2, at 20. In 1999 approximately 300,000 IVF children were created in the United States. *Id.* The Centers for Disease Control and Prevention estimates the number of IVF efforts as more than 100,000 a year. Felicia R. Lee, *Driven by Costs, Fertility Clients Head Overseas*, N.Y. TIMES, Jan. 25, 2005, at A1. According to the Human Fertilisation and Embryology Authority (HFEA), there were approximately twenty-four thousand IVF cycles in the United Kingdom during the year ending March 2001. Of these treatments, 1,783 used donated eggs, while 190 used donated embryos. The cumulative result was 465 live births. Sheridan McCoid, *Review: Living: Donation: The Medical Facts*, THE OBSERVER, July 6, 2003, *available at* 2003 WL 4644235.

16. See Alvare, supra note 2, at 12.

17. Mary Lydon Shanley, Collaborations and Commodification in Assisted Procreation: Reflections on an Open Market and Anonymous Donation in Human Sperm and Eggs, 36 LAW & SOC'Y REV. 257, 264 (2002).

18. See generally Alvare, supra note 2, at 7–8.

19. Gametes can be stored in liquid nitrogen tanks and sent by airfreight. Sperm sent from California in this manner takes about five to six days to reach New South Wales, Australia. See Victorian Women, supra note 4. Successfully freezing eggs, however, remains more difficult than successfully freezing sperm. See Alvare, supra note 2, at 16.

20. Jim Hightower, Hightower: The Globalization of Sperm Sales (April 26, 2000), http://www.alternet.org/story/499. By keeping sperm in liquid-nitrogen tanks, "[c]ryos can deliver to almost any customer in the world within seventy-two hours." G. Pascal Zachary, Most Likely Industry Finds It Can't Resist Globalization's Call—Exporting—Human Sperm is a Fast-Growth Business, Banks in Denmark, U.S. Find, WALL ST. J., Jan. 6, 2000, at B1. Danish sperm may seem particularly desirable to parents craving genetic material for blond-haired, blue-eyed babies. See id.

http://members.optushome.com.au/dcsg/legislation/legistlation.html (last visited Sept. 18, 2005). See Ronald S. Jacobs & J. Peter Luedtke, Note, Social and Legal Aspects of Human Artificial Insemination, 1965 WIS. L. REV. 859, 859–62 (1965); Daniel Wikler & Norma J. Wikler, Turkey-Baster Babies: The Demedicalization of Artificial Insemination, 69 MILBANK Q. 5 passim (1991).

problems satisfying "voracious public demand" by means of local sperm donors.²¹ Many smaller countries, such as Ireland, rely on sperm imports because local demand is not great enough to support a domestic business.²² Mexico is one exception; although the government "has not banned sperm imports outright, ... strict federal standards and restrictions keep foreign semen out of the country.²³

Demand for human gametes has caused ART to become a multi-billion dollar industry worldwide.²⁴ The international sperm supply industry in particular is largely concentrated in the United States; four of the five largest sperm banks are based in the United States, and they control an estimated sixty-five percent of a burgeoning international business believed to be worth between fifty-million dollars and one-hundred-million dollars.²⁵ Indeed, Buck Wolf of ABC News once jokingly proclaimed: "Whatever economic problems America may have, we can at least raise our fists and tell the world with pride that we are the number one exporter of human sperm."²⁶

Although demand is great, only individuals with sufficient resources can partake in the gamete market. Recipients of ART often bear its hefty cost alone because few insurance companies cover fertility treatments, which are viewed as optional.²⁷

22. Zachary, supra note 20.

23. Michelle Guevara, Fertile Markets, 12 LATIN TRADE 5, 16 (2004).

24. See generally NANCY SCHEPER-HUGHES & LOIC WACQUANT, COMMODIFYING BODIES (2002).

26. Buck Wolf, Demand for U.S. Sperm: A Uniquely American Export is Becoming Popular Overseas, 2003, http://flatrock.org.nz/topics/men/ fertile_competition.htm.

27. See generally Dennis A. Hidlebaugh et al., Cost of Assisted Reproductive Technologies for a Health Maintenance Organization, 42 J. REPROD. MED. 570, 573

^{21.} China's Sperm Banks Face Shortage of Semen Donors, TERRANET, Oct. 19, 2004, http://www.terra.net.lb/wp/Articles/PrintArticle.aspx?ArticleId=186425& ChanneIID=19. South China's Guangdong Human Sperm Bank has attracted only about 350 qualified volunteer donors during its eighteen-month existence. The author suggests appealing to sperm donors is the main problem, noting strict health examinations and that "many men are still too shy to arrive at the sperm bank to donate their sperm." Id.

^{25.} Id. Within the United States, nineteen semen banks account for approximately ninety-five percent of the commercial production of donor semen and earn annual revenue averaging two million dollars per facility. Id. The ninety or so other semen banks are physician practice-based and generate approximately \$692,000 per year. Eligibility Determination for Donors of Human Cells, Tissues, and Cellular and Tissue-Based Products, 69 Fed. Reg. 29,786, 29,819, 29,822 (proposed May 25, 2004) (to be codified at 21 C.F.R. pts. 210–11, 820, 1271), available at http://www.fda.gov/cber/rules/suitdonor.pdf.

"Thus, as with cosmetic surgery or other elective procedures, patients assume almost all the costs—creating a market for services rather than a planned system for allocating a scarce resource."²⁸ In the United States approximately fourteen states mandate insurance coverage of IVF but set qualifications for provider reimbursement and fertility clinic certification.²⁹ Overall, the estimated cost per patient for ART amounts to thousands of dollars, depending on the procedure,³⁰ and yet only slightly more than thirty-four percent of treatments in the United States result in clinical pregnancy, with approximately eighty-three percent of pregnancies resulting in live births.³¹ For some individuals no price or uncertainty is unreasonable, even if they must circumvent their country's laws to enlist services where gamete trade regulations are more favorable.

B. THE PRICE PAID BY GAMETE DONORS

Donating sperm may seem straightforward and painless. Men often provide sperm within a relatively short period of time at a sperm bank or fertility clinic.³² No hormone injections or professional supervision is necessary, although a complete physical exam involving further donations of blood, urine, and semen may be required.³³ Nonetheless male donors incur time,

31. CTR. FOR DISEASE CONTROL AND PREVENTION, 2002 ASSISTED REPRODUCTIVE TECHNOLOGY SUCCESS RATES 18–19 (2004), available at http://www.cdc.gov/reproductivehealth/ART02/PDF/ART2002part1.pdf.

33. Id. at 9. Some sperm donors also undergo preliminary interviews and complete long questionnaires regarding the donor's health, hobbies, and sexual

^{(1997) (&}quot;[IVF] is not a standard benefit in the majority of health insurance programs except in a few states that have state-mandated laws."); Peter J. Neumann, *Should Health Insurance Cover IVF*? 22 J. HEALTH POL. POL'Y & LAW 1215, 1220 (1997) (forecasting increased utilization of ART if states mandate insurance coverage).

^{28.} Jeffery Kahn, The Ethics of Egg Donation, MINN. MED., Oct. 1998, at 12.

^{29.} See Baum, supra note 3, at 124-25 nn.48-49 (listing state statutes on the issue of insurance coverage of IVF procedures). California, for instance, explicitly rejects coverage of IVF. Id. at n.48; see also Lee, supra note 15.

^{30.} In the United States, the average cost of a single IVF effort is \$12,400. Lee, supra note 15. Successful IVF might require several attempts. Id. These high prices have driven many U.S. women to seek fertility treatment overseas in places like South Africa, Israel, Italy, Malaysia, Germany, and Canada. Id. Though less expensive, the clinics in foreign countries may not claim of as high a success rate as U.S. fertility clinics. Id. The vast majority of Americans opt to seek treatment from the 355 or so IVF centers in the United States. Id.

^{32.} Sperm donors are often taken to private rooms and asked to ejaculate their semen into a sterilized cup. See Alvare, supra note 2, at 10. Afterwards, the donor gives the cup to an employee of the facility. See id.

effort, and inconvenience costs.

Obtaining donor eggs is much more difficult.³⁴ A major difference between egg and sperm donation is that egg donation "involves invasive medical treatment for the donor, covering ovarian stimulation and the . . . retrieval of mature oocytes under local anesthesia."³⁵ Hemorrhaging, infection, and even death may result, though serious complications are rare.³⁶ Women donors also face side effects such as hot flashes, headaches, abdominal discomfort, and nausea.³⁷ Furthermore, longterm complications due to over-stimulating the ovaries and an increased risk of ovarian cancer pose serious concerns.³⁸ Nonetheless, donor eggs are needed by "women who cannot conceive using their own eggs, by women at risk of passing on a serious genetic disease, and most recently by older women, even into the postmenopausal years."³⁹⁹

While some gamete donors are motivated by an altruistic desire to help infertile or same-sex couples despite the health risks of gamete donation, such people tend to be the exception.⁴⁰ Attracting anonymous donors usually requires financial incentives, especially to persuade egg donors who must endure the negative aspects of egg extraction.⁴¹ Indeed, market supplies re-

orientation among other topics. Id. at 9–10. In some cases, the donor may be required to give many sperm samples over the course of several days or make a sixmonth to one-year commitment to provide samples two to three times per week. Id. at 10.

^{34.} Throughout this article *donor* sperm or eggs refers not to a free gift by a provider, who may be financially compensated in some way, but rather to the human source, whether living or deceased, of human reproductive cells.

^{35.} P. Baetens et al., Counselling Couples and Donors for Oocyte Donation: The Decision to Use Either Known or Anonymous Oocytes, 15 HUM. REPROD. No. 2, 476, 476 (2000), http://humrep.oupjournals.org/cgi/content/full/15/2/476. For a more thorough description of the oocyte donation process, see Baum, supra note 3, at 117–19.

^{36.} Baum, supra note 3, at 118.

^{37.} See McCoid, supra note 15.

^{38.} See id.

^{39.} Kahn, *supra* note 28, at 12; *see also* M. Rosenthal, Oocyte (Egg) Donation, http://aolsvc.health.webmd.aol.com/content/artcle/4/1680_51226 (last visited Sept. 15, 2005) (describing women who can benefit from donor eggs).

^{40.} Information on the number of unpaid gamete donors worldwide is sparse. See McCoid, supra note 15. One source estimates that in Britain there are probably a few hundred women each year who offer to donate their eggs for purely altruistic reasons. Jo Revill, *IVF Egg Donors 'Risking Their Health'*—*Experts Call for a Ban on Donations from Strangers*, THE OBSERVER, Feb. 9, 2003, at 6, available at 2003 WL 7092055.

^{41.} See McCoid, supra note 15 and accompanying text.

veal that unpaid women are less willing to endure gamete donation for the benefit of a stranger, which is why egg shortages are more common in countries that forbid compensation for egg sales.⁴²

C. RESTRICTIVE TRADE POLICIES EMPLOYED BY FOREIGN COUNTRIES⁴³ TEND TO INHIBIT GAMETE TRADE

Many people circumvent laws regulating gamete donation by obtaining donor eggs and sperm from places that allow greater access to ART resources.⁴⁴ Knoppers and LeBris coined the phrase "procreative tourism" to describe "traveling by candidate service recipients from one institution, jurisdiction, or country where treatment is not available to another institution, jurisdiction, or country where they can obtain the kind of medically assisted reproduction they desire.^{#45} Belgium, which has very little to no regulation of ART, is a prime example of a procreative tourism target.⁴⁶ In 1999, sixty percent of all patients requesting oocyte donation in Belgium were foreigners.⁴⁷

1. Foreign Laws Restrict Compensation for Sperm and Egg

42. Pip Morris of the National Gamete Donation Trust estimates that, on average, couples in the United Kingdom wait about two years to receive donated eggs. See Phil Corrigan, Women Asked to Donate Eggs to Help the Childless, THE SENTINEL, Aug. 31, 2004, at 7, available at 2004 WLNR 2078342. One explanation is that clinics do not have the time or money to launch recruitment campaigns. See id. Admittedly, the relationship between gamete shortages and capped compensation is based on circumstantial evidence rather than a proven direct correlation. Kenneth Baum acknowledges there may be other factors, such as local social norms and religious beliefs, to explain a low number of gamete donors where payment is regulated. However, like Mr. Baum, I will proceed based on the logic and evidence that gamete supply is affected by financial incentives. See Baum, supra note 3, at 158–60 ("The empirical evidence is clear: supply does not meet demand when donor compensation is regulated.").

43. This article will mainly focus on gamete trade restrictions within Europe, Canada, and to some extent Australia due to availability of data.

44. See G. Pennings, Reproductive Tourism as Moral Pluralism in Motion, 28 J. MED. ETHICS 337, 337 (2002).

45. Id. (citing B.M. Knoppers & S. LeBris, Recent Advances in Medically Assisted Conception: Legal, Ethical and Social Issues, 17 AM. J.L. & MED. 329, 329–61 (1991)).

46. Pennings, *supra* note 44, at 338. As noted later, Belgium does regulate some aspects of ART, such as restricting donor compensation to reasonable expenses. However, unlike other countries, Belgium does not discriminate on the basis of a recipient's sexuality, age, or marital status. This might explain why Belgium's ART services are in such high demand. *See infra* Part I.C.1.

47. Pennings, supra note 44, at 338.

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Donation

Ethical concerns about the exploitation of potential donors and commodification of human reproductive cells have motivated several countries to limit or otherwise regulate financial reimbursements to donors. On March 31, 2004, the European Union (EU) issued a directive to all Member States that they may "introduce requirements for voluntary and unpaid donation, which include the prohibition or restriction of imports of human tissues and cells to ensure a high level of health protection."⁴⁸ As of April 7, 2006, countries of the EU must ensure that procurement of tissues and cells will be carried out on a non-profit basis with compensation limited to the donor's reasonable expenses.⁴⁹ The Directive goes one step further by regulating publicity: advertising availability of or the need for human tissues and cells for financial gain is now prohibited.⁵⁰

Several European countries have already taken steps towards compliance with the EU directive. In the United Kingdom, rules set by the Human Fertilization and Embryology Authority (HFEA)⁵¹ provide that donors can only be reimbursed

49. "Member States shall endeavor to ensure voluntary and unpaid donations of tissues and cells. Donors may receive compensation, which is strictly limited to making good the expenses and inconveniences related to the donation. In that case, Member States define the conditions under which compensation may be granted." Directive of the European Parliament and of the Council, *supra* note 48, at art. 12.

50. See id.

51. HFEA is a UK governmental body that regulates and inspects all UK clinics providing IVF, DI or the storage of eggs, sperm or embryos. See Deech, supra note 48, at 425-26.

Council Directive 2004/23, art. 4, On Setting Standards of Quality and 48. Safety for the Donation, Procurement, Testing, Processing, Preservation, Storage and Distribution of Human Tissues and Cells, 2004 O.J. (L 102) 52 (EU) [hereinafter Directive of the European Parliament and of the Council]. "Tissues and cells" includes reproductive cells (eggs, sperm). See id. art. 3 (a)-(b). Ruth Deech argues that the EU directive, which allows members to prohibit gamete imports, conflicts with the Treaty of Rome, which prohibits restrictions on imports or exports between European countries except when prohibitions are justified on "grounds of public morality, public policy or public security, the protection of health and life." Ruth Deech, Reproductive Tourism in Europe: Infertility and Human Rights, 9 GLOBAL GOVERNANCE No. 4, 425, 428 (2003). Human gametes and embryos, especially when they are gathered as part of a commercial profit-making enterprise, probably constitute "goods" for the purposes of the Treaty of Rome. Id. Therefore, as a general rule, importing countries must accept the validity of sperm and egg screening in the exporting state unless the importing country can establish inadequate gamete screening and testing. Id. ("Quantitative restrictions on imports and all measures having equivalent effect shall, without prejudice to the following provisions, be prohibited between Member States.").

for expenses, despite the fact that monetary compensation might entice British sperm donations, which have declined nearly sixty percent in the past ten years.⁵² Although Belgium does not regulate ART specifically, most fertility centers will only allow donors to be reimbursed for personal expenses due to Article 1128 of the Civil Code, which states that bodies or parts thereof cannot be the object of a sales agreement.⁵³

Countries outside of the EU also impose limits on gamete donors' compensation. Effective April 22, 2004, Canada's Assisted Human Reproduction Act (AHRA) makes it illegal to purchase human gametes from donors except for reasonable reimbursement of expenses.⁵⁴ This law might correlate with Canada's ongoing decrease in human sperm and egg supplies.⁵⁵ Australia also prohibits the sale of human reproductive material,⁵⁶ while Israel limits payment to expenses the donor incurred by donating.⁵⁷

55. Canadians spent \$1.5 million to import "human glands and secretions" to Canada during the first nine months of 2000. Wolf, *supra* note 26. Xytex, a leading U.S. semen trade company, has met the demand by trading in Canada, as well as in several countries in Europe. For more information, visit http://www.xytex.com, where potential recipients can search for sperm donors by hair color, eye color, ethnic origin, blood type, height, weight, and religion. Site subscribers can view donor photographs. Xytex Corp. Homepage, http://www.xytex.com (last visited Sept. 15, 2005).

56. The Human Reproductive Technology Act governs Western Australia. South Australia enacted its own Prohibition of Human Cloning Act (PHCA), which makes commercial trade in human eggs, human sperm, or human embryos an offense with a maximum penalty of ten years imprisonment. Prohibition of Human Cloning Act, 2003, pt. 2, div. 2(19), S. AUSTL. STAT., available at http://www.parliament.sa.gov.au/Catalog/legislation/Acts/P/2003.17.htm.

57. The Ministry of Health oversees fertility practices by limiting donor eligibility and compensation. Baum, *supra* note 3, at 129 (citing Judy Siegel, *Groups Voice Support for Liberalizing Ova Donations*, JERUSALEM POST, Feb. 2, 2000, at 4). India does not seem to restrict compensation for egg donors. Rotunda Sperm Bank, one of India's largest sperm banks, advertises online for egg donors, stating, "We will be happy to pay generously for your generosity." See I Wanna Get Pregnant, http://www.iwannagetpregnant.com/wanted.shtml (last visited Sept. 15, 2005).

^{52.} Richard Willing, U.S. Sperm Banks to Give Gift of Life to the U.K., USA TODAY, Aug. 14, 2002, at 2A.

^{53.} See Baetens et al., supra note 35, at 476 (citing Belgian Civil Code 1128).

^{54.} Receipted expenditures include medical costs and other physical care expenses, including medication, gas and maternity clothes, but exclude payment for time away from work and family, or medical risk or inconvenience. See Assisted Human Reproduction Act, 2004 S.C., ch. 2, 5 (Can.).; Louisa Taylor, Making Law for Making Babies, TORONTO STAR, Feb. 21, 2003, available at 2003 WL 12874009; see also Canada Health Online, http://www.hc-sc.gc.ca/index_e.html (last visited Sept. 16, 2005).

2. Donor Anonymity

When friends or family members are utilized as gamete donors,⁵⁸ recipients typically know the names⁵⁹ of their children's biological parent(s) and vice versa. When the third-party donor is a stranger, however, donors may only offer to contribute their genetic material if they may do so anonymously. Other donors will permit their identity to be disclosed to the gamete recipient(s) and/or child conceived through ART. This decision is obviously personal and may have lasting repercussions for all parties involved.

Anonymous gamete donation can be beneficial to both donors and recipients. There is some indication that laws requiring donors to disclose their identities tend to discourage gamete donation.⁶⁰ Additionally, donors might prefer anonymity to avoid legal obligations or future contact with the child, the gamete recipient, or both.⁶¹ From a psychological perspective, gamete recipients might prefer anonymity to alleviate the sense of debt to the donor and allow the recipients to "construct their own parental status."⁶² Although the donor has a genetic attachment to the child, he might consider the gamete recipient the

59. For purposes of this Note, a donor is *anonymous* when the donor's name and identifying information are not disclosed to the gamete recipient or ART-conceived child. General characteristics of the donor, such as eye color, blood type and race, may be disclosed while maintaining the donor's anonymity.

60. Such has been the case in the Netherlands, where Dutch women facing a two-year wait list at Dutch sperm banks are now asking friends for sperm, buying sperm over the Internet, or applying for sperm donations in Belgium, where sperm donors have a choice to remain anonymous or be identified. Geraldine Coughlan, *Dutch Law Sparks Sperm Shortage*, BBC NEWS (The Hague), June 2, 2004, http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/europe/3769029.stm; see Baetens et al., supra note 35, at 476-77.

61. See Mary Louise et al., Committed Partners and Inheritance: An Empirical Study, 16 LAW & INEQ. 1, 94 n.280 (1998).

62. Baetens et al., supra note 35, at 477 (citing A. Raoul-Duval, et al., Anonymous Oocyte Donation: A Psychological Study of Recipients, Donors and Children, 7 HUM. REPROD. 51, 51-54 (1992)).

^{58.} For instance, in a study conducted by the Centre for Reproductive Medicine of the Free University of Brussels, the majority of egg donors were friends (35.4%) or sisters (27.7%) of the recipient women. Baetens et al., *supra* note 35. Despite obvious trends, the Ethics Committee of the American Society for Reproductive Medicine cautions against the use of family members as gamete donors and surrogates. Assisted Reproductive Technology; Ethics Committee Reports on Family Members as Gamete Donors and Surrogates, WOMEN'S HEALTH WKLY, Dec. 18, 2003, at 12, available at 2003 WL 8995625 (warning against the "appearance of incest or consanguinity, confused ideas of parentage for the resulting children, and undue pressure on family members to participate.").

true parent because the recipient actually carried, gave birth to, and raised the child.

Outside the United States, it has become increasingly common for the decision concerning anonymity to be imposed by law rather than left to donors and recipients. A recent EU Directive states that the identity of the recipient(s) should not be "disclosed to the donor or his family and vice versa, without prejudice to legislation in force in Member States on the conditions of disclosure, notably in the case of gamete donation."63 Recent trends in European domestic legislation, however, override the EU directive and penetrate anonymity by allowing genetic offspring to trace their biological parent. Dutch sperm centers, for instance, can no longer accept anonymous donations, and children conceived from a donation are legally entitled to their fathers' identities when they reach sixteen years of age.⁶⁴ Citizens of Great Britain who donate after April 1, 2005, will no longer be able to remain anonymous once the conceived child reaches eighteen years old.⁶⁵ Other countries have implemented similar standards.⁶⁶

Proponents of donor identification argue that ARTconceived children benefit from knowing their donors' names.

^{63.} Directive of the European Parliament and of the Council, *supra* note 48, art. 14.

^{64.} Coughlan, supra note 60.

^{65.} See Corrigan, supra note 42; Kate Leason, Potential Sperm Donors May Be Turned Off by Lack of Anonymity, COMMUNITY CARE, Jan. 29, 2004, at 16, available at 2004 WL 65354388. In order to help the transition from anonymous to identifiable donors, British government policy is that clinics will be able to use donations made anonymously before April 1, 2005 in treatment up to March 31, 2006. National Gamete Donation Trust. Donation and \mathbf{the} Law, http://www.ngdt.co.uk/donation law.php?section=default (last visited Sept. 15, 2005).

^{66.} Sweden, Canada, Germany, New Zealand and Australia have "moved toward greater openness" regarding donor identity, although several countries restrict information so that the exact donor cannot be identified. Shanley, supra note 17, at 273-74; NAT'L ETHICS COMM. ON ASSISTED HUMAN REPRODUCTION, GUIDELINES FOR THE PRACTICE OF EMBRYO DONATION FOR REPRODUCTIVE CONSULTATION DOCUMENT 8 (2004).available at PURPOSES: http:// www.newhealth.govt.nz/necahr/files/EmbryoDonation.pdf; DONOR CONCEPTION SUPPORT GROUP, supra note 14 (stating that within Australia, only the state of Victoria gives children the right to know the identity of their donor(s) when they reach the age of eighteen, and only if conception occurred after January 1998). France, on the contrary, requires compulsory "personalized anonymity." See Pennings, supra note 44, at 340 (quoting A. Rauol-Duval et al., Les Enfants Du Don D'ovocytes Anonyme Personnalise. Aspects Psychologiques, 20 J. DE GYNECOLOGIE, **OBSTETRIE ET BIOLOGIE DE REPRODUCTION 317-20 (1991)).**

First, children have a psychological need to know their "true" identity so far as genetics are concerned.⁶⁷ From a sociological perspective, "[s]tipulating that the provider's name can be disclosed at the request of the grown child precludes imagining the child as the genetic offspring of 'nobody' or of 'anybody'."⁶⁸ There are also practical benefits for cultural groups that emphasize being able to trace a person's exact genetic lineage.⁶⁹ Additionally, children might have a better chance of discovering their biological parents' medical history. In these respects, advocates of donor identification expect ART children to have the same right to information as adopted children.⁷⁰ Furthermore, most recipient couples seem to prefer knowing the donors' identities.⁷¹

3. Maximum Number of Live Births Per Donor and Other Obstacles to Gamete Purchase

Some countries restrict the maximum number of children that a sperm donor can sire in order to prevent the possibility of

70. See Sperm Donors to Lose Anonymity, BBC NEWS, Jan. 21, 2004, http://news.bbc.co.uk/1/hi/health/3414141.stm (supporting HFEA's decision to revoke gamete donors' anonymity and quoting Health Minister Melanie Johnson, who stated that "donor-conceived people should not be treated so differently from adopted people.").

71. In a study conducted at the Centre for Reproductive Medicine of the Free University of Brussels, 68.8% of 144 couples preferred to use eggs from a known donor as opposed to anonymous donation. Baetens et al., *supra* note 35, at 476. Almost one-third of the couples chose anonymous donation, however, to "establish boundaries between the two families involved." *Id.* Couples who chose known donors wanted to "avoid fears associated with anonymity, such as fear of the origin of unknown genetic material and the trust that couples had in 'their' donor." *Id.*

^{67. &}quot;It is the person who comes into being that has the right to know the identity of the provider, not the adult recipients of the genetic material." Shanley, *supra* note 17, at 268.

^{68.} Id. at 268-69.

^{69.} See generally Bernard M. Dickens, Ethical Issues Arising From the Use of Assisted Reproductive Technologies, in CURRENT PRACTICES AND CONTROVERSIES IN ASSISTED REPRODUCTION: REPORT OF A WHO MEETING 333 (Effy Vayena et al. eds., 2001), available at http://www.who.int/reproductive-health/ infertility/31pdf. Culture impacts the use of ART. For instance, Middle Eastern Muslim societies expect married couples to produce biological children. Assisted Reproduction: Religion Guides Views of Fertility Treatment in the Middle East, HEALTH & MED. WK., March 8, 2004, at 49, available at 2004 WL 71004795. Sunni Islam states that IVF is allowed, but the couple may only use their own gametes. Id. On the other hand, Shi'ite Muslim husbands may be required to do a muta'a, or temporary marriage with an egg donor, to ensure the child is not born out of wedlock. Id.

accidental incest by unknowing half-siblings.⁷² In Britain the number is ten live births, in Denmark the limit is twenty-five, and in France, five.⁷³ The impact of these laws is unclear. Future researchers may reveal the number of sperm donors who have been turned away after having sired the legal limit of children.

Aside from sire quotas, some countries impose additional safeguards. A new law in Italy bans sperm and egg donations and limits AI to married, heterosexual couples that demonstrate a stable relationship.⁷⁴ Other countries mandate counseling for the donor and recipient to curtail potential psychological impact and ensure both parties express informed consent.⁷⁵ French patients must travel outside their country to use fresh eggs versus frozen gametes.⁷⁶ Additionally:

Other streams of patients come from Germany, where neither oocyte donation nor IVF with donor sperm is allowed; from the Netherlands because of a maximum age limit for the recipient and because surgically obtained sperm cannot be used, and from France where lesbian couples and single women are denied access to assisted reproduction and where female recipients must be of "reproductive age."⁷⁷

75. One report indicates that "occasional" egg donors are psychologically fragile women looking for recognition or massive self-repair. Baetens et al., supra note 35, at 476 (citing Englert, Ethics of Oocyte Donation Are Challenged By the Health Care System, 11 HUM. REPROD. 2353, 2353–55 (1996)). Therefore, "extensive and careful psychological screening of potential donors is proposed in all cases." Baetens et al., supra note 35, at 473 (citing Collins A. Kennard et al., A Program For Matched, Anonymous Oocyte Donation, 51 FERTILITY STERILITY 655–60 (1989)). See generally Reis L. Schover et al., The Psychological Evaluation of Oocyte Donors, 11 JOURNAL OF PSYCHOSOMETRIC OBSTETRICS & GYNAECOLOGY 299–309 (1990)).

76. Pennings, *supra* note 44, at 338. Freezing of embryos typically reduces the success rate. *Id.*

77. Id. Recently, a sixty-six year old Romanian woman became pregnant through IVF using egg and sperm from an anonymous donor. See Romania: Mother, 66, and Baby Doing Well, NY TIMES, Jan. 18, 2005, at A8. She delivered a baby weighing three pounds, three ounces. Id. A law has been drafted in the Romanian Par-liament banning fertility treatment for women above "normal reproductive age." Id.

^{72.} Deech, *supra* note 48, at 428–29.

^{73.} See id.

^{74.} Italy Fertility Treatment Curbed, BBC NEWS, Mar. 9, 2004, http://news.bbc.co.uk/2/hi/world/europe/3545421.stm. The author predicts some Italian fertility clinics will relocate to neighboring countries. See also Italy Bans Donor Sperm and Eggs, BBC NEWS, Dec. 11, 2003, http://news.bbc.co.uk/ 2/hi/Europe/311031.stm; Robin Marantz Henig, On High-Tech Reproduction, Italy Will Practice Abstinence, N.Y. TIMES, Mar. 2, 2004, http://query.nytimes.com/ gst/health/article-printpage.html?res=9C01EFDE173FF931A357.

These hurdles limit free commerce within one's country and drive potential parents to alternative gamete markets.⁷⁸

D. U.S. REGULATIONS EMBRACE OPEN GAMETE TRADE

The United States regulates certain aspects of human egg and sperm use. Human cloning experimentation, for instance, is explicitly prohibited on ethical grounds.⁷⁹ Also, the U.S. Food and Drug Administration (FDA) recently passed regulations "to screen and test cell and tissue donors for risk factors for, and clinical evidence of, relevant communicable disease agents and diseases."⁸⁰ Effective May 25, 2005, these measures establish minimum health standards to promote public confidence in U.S. medical agencies and clinics using ART.⁸¹ Interestingly, most if not all U.S. clinics are already in compliance with impending FDA health regulations, even though rules the individual clinics presently employ are often based on voluntary guidelines proposed by professional organizations.⁸² Market incentives, such as a favorable business reputation, have already achieved the desired result: disease-free gametes.

Unlike the laws of foreign nations, however, U.S. federal laws do not address general social and economic practices of gamete donation such as donor anonymity, compensation, maximum children per donor, and other limitations. Instead, courts continue to recognize reproductive autonomy as a fundamental right with which the government must not interfere absent com-

80. Eligibility Determination for Donors of Human Cells, Tissues, and Cellular and Tissue-Based Products, 69 Fed. Reg., 29,789 (proposed May 25, 2004) (to be codified at 21 C.F.R. pt. 210-11, 820, 1271).

^{78.} See generally Pennings, supra note 44.

^{79.} On June 9, 1997, the National Bioethics Advisory Commission (NBAC) issued a report concluding that human cloning is "morally unacceptable." See NAT'L BIOETHICS ADVISORY COMM'N, CLONING HUMAN BEINGS 1 (1997). The NBAC recommended that President Clinton continue withholding federal funds from such research. See id. at 109; Shawn E. Peterson, A Comprehensive National Policy to Stop Human Cloning: An Analysis of the Human Cloning Prohibition Act of 2001 With Recommendations for Federal and State Legislatures, 17 NOTRE DAME J.L. ETHICS & PUB. POL'Y 217, 218 (2003).

^{81.} FDA analysts believe that all semen banks perform HIV screening. *Id.* at 29,819. Additionally, the twenty largest semen banks already followed American Association of Tissue Banks (AATB) proposed guidelines for screening and testing. *Id.* Implementation costs of the new FDA regulations will have the greatest impact on small semen banks, which typically function as a side business within a physician's fertility practice. *Id.*

^{82.} See Kahn, supra note 28, at 12.

pelling justification.⁸³ As this Note will explain, the lack of exacting regulations in the United States facilitates gamete trade, unlike the regulations of European and other countries that effectively limit trade and compel potential parents to obtain gametes elsewhere.

Where no state or federal regulation is in place, individual clinics are left to decide factors such as recipient age limits, the number of donations per donor, donor advertisement content, and the price for "donations." Most state statutes directly concerning ART address whether and to what extent ART will be covered by insurance benefits.⁸⁴ A handful of states actually regulate the business and medical practice of ART. Louisiana and Florida, for example, forbid the exchange of money for gametes or embryos,⁸⁵ while Virginia explicitly allows such sales.⁸⁶ In regards to gamete and embryo recipient qualifications, only New Hampshire statutorily imposes age and health requirements.⁸⁷ Whether states or the federal government will impose additional or more stringent rules is unknown.⁸⁸

^{83.} See Planned Parenthood v. Casey, 505 U.S. 833 (1992) (holding procreation involves an intimate and personal choice "central to the liberty protected by the Fourteenth Amendment"); Carey v. Population Servs. Int'l, 431 U.S. 678 (1977) (asserting that one's decision whether or not to bear a child is part of the right to privacy); Eisenstadt v. Baird, 405 U.S. 438 (1972) (recognizing right to access contraceptives); Skinner v. Oklahoma, 316 U.S. 535 (1942) (characterizing marriage and procreation as "basic civil rights"). Assisted reproduction might also be less regulated in the United States because of the political divide over abortion, stem cell research, and other controversial medical practices involving human embryos. See Elizabeth Olson, Bioethics Panel Recommends Limits on Assisted Fertility, N.Y. TIMES, Apr. 2, 2004, at A15.

^{84.} PRESIDENT'S COUNCIL ON BIOETHICS, *supra* note 7, at ch. 2 (providing summary of state oversight of ART).

^{85.} See FLA. STAT. ANN. §§ 873.05 (2000); LA. REV. STAT. ANN §§ 9:122, 9:130 (2000). Louisiana has the highest level of protection for human embryos of all the U.S. jurisdictions according to the President's Council on Bioethics. PRESIDENT'S COUNCIL ON BIOETHICS, supra note 7, at ch. 2.

^{86.} See VA. CODE. ANN §§ 32.1–289.1 (2004) (exempting "ova" from ban on sale of body parts).

^{87.} Alvare, supra note 2, at 30-31 n.216 (citing N.H. REV. STAT. ANN. § 168-B:13 (2001), which allows IVF or pre-embryo transfers only for women twenty-one years of age or older). As noted above, however, sperm banks and infertility clinics have voluntarily complied with health guidelines in the absence of state legislation.

^{88.} The American Society for Reproductive Medicine (ASRM) is considered one of the key sources of nongovernmental guidance for the practice of ART. See PRESIDENT'S COUNCIL ON BIOETHICS, supra note 7, at ch. 2. However, ART practitioners' decisions to comply with ASRM's published statements, opinions, and guidelines is entirely voluntary. *Id.* As another source of guidance, the President's Council on Bioethics issued a report last year addressing assisted reproduction.

1. U.S. Compensation Opportunities and Ethical Issues

In the United States, women are paid on average \$5,000 to \$8,000 per egg donation episode.⁸⁹ Men receive between \$25 and \$50 per sperm donation.⁹⁰ In an economy driven by financial incentives, however, a donor with desirable traits can command a much higher premium. One wealthy couple offered \$50,000 to an Ivy League egg donor who was 5'10" and scored at least 1400 on her SAT college entrance exams.⁹¹ A "Nobel Prize sperm bank" for parents who desire ultra-intelligent children also sparked dreams of profitability.⁹²

Treating gametes as commodities with negotiable prices has

[B]ecause the compensated giving of sperm is a long-established practice, and because payment to egg donors is now also fairly common, efforts to ban payment to gamete providers would likely prove controversial and untenable for purposes of actual legislation. Thus, we decline to recommend such a ban here... [although] many Council members have raised serious concerns regarding this species of commercialization in the domain of human reproduction.

PRESIDENT'S COUNCIL ON BIOETHICS, supra note 7, at ch. 10, n.ix.

89. Curtis E. Harris & Stephen P. Alcorn, To Solve a Deadly Shortage: Economic Incentives for Human Organ Donation, 16 ISSUES IN L. & MED. 213, 218 (2001) (citations omitted). Another source estimates average compensation for egg donors to range between \$2,500 and \$3,000. See M. P. Rosenthal, Oocyte (Egg) Donation, WEBMD (Oct. 25, 2004), http://aolsvc.health.webmd.aol.com/content/ article/4/1680_51226. No source pegged average egg donor compensation to be less than \$1000.

90. But see Jennifer Wolff, Sperm Donor Ruling Could Open Door for Offspring, USA TODAY, June 15, 2004, at 13A. ("Other sources estimate sperm donor payments to average \$50 to \$75 a 'shot.' Sperm banks... can divide a single ejaculate into four to six ampuls of marketable sperm that sell for as much as \$300 each.").

91. Christopher Hammond, For All We're Worth, ENDEAVORS (Winter 2000), http://research.unc.edu/endeavors/win2000/medical_ethics.htm.

92. Robert Graham, a millionaire inventor, created the "Nobel Prize sperm bank." David Plotz Post, *The Rise of the Smart Sperm Shopper*, SLATE, Apr. 20, 2001, http://slate.msn.com/id/104633. Graham's sperm bank helped to produce more than 200 children, although not a single baby was conceived from the sperm of a Nobel Prize laureate. *Id*.

Susan M. Wolf, Law & Bioethics: From Values to Violence, 32 J.L. MED. & ETHICS 293, 299 (2004) (citing PRESIDENT'S COUNCIL ON BIOETHICS, supra note 7). First, the Council recommended that Congress should amend federal statutes to encourage clinics to report assisted reproduction by imposing penalties on clinics which fail to report. Id. Second, the Council advised that professional societies create enforcement mechanisms to force compliance with ethics and practice guidelines. Id. Third, and most troubling to Professor Wolf, is the Council's proposal that Congress enact eight prohibitions on practices and research relating to ART. Id. One of these proposals is to prohibit the buying and selling of human embryos with an exception for reimbursement of reasonable expenses. Id. The Council qualifies this proposal in a footnote:

stirred ethical concerns in the United States.⁹³ It is argued that treating derivatives of the body like any other good "belittles the human existence."⁹⁴ Others contend that gametes should not be sold for the same reasons that bodily organs are not sold on the open market: poor individuals will be compelled to donate for the sake of money without weighing the consequences of their decision.⁹⁵

However, Kenneth Baum argues that the potential reasons to regulate egg donor compensation are outweighed by free alienability.⁹⁶ According to Baum, the policy rationales for the legal ban on the sale of transplant organs—such as life-or-death urgency—are highly speculative and not relevant to the human egg context.⁹⁷ Furthermore, Baum suggests that banning compensation is wrong because it creates a situation of scarcity by erecting barriers to gamete access.⁹⁸ Accordingly, donor compensation is the only way to protect "procreative liberty."⁹⁹

93. See Baum, supra note 3, at 134–35. Margaret Jane Radin, an "outspoken opponent of universal commodification of the human body," once wrote:

In our understanding of personhood we are committed to an ideal of individual uniqueness that does not cohere with the idea that each person's attributes are fungible, that they have a monetary equivalent, and that they can be traded off against those of other people. Universal market rhetoric... reduces the conception of a person to an abstract, fungible unit with no individuating characteristics.

Id. at 134 nn.87, 89 (quoting Margaret Jane Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849, 1851 (1987)).

94. Baum, supra note 3, at 134.

95. See *id.*; Shanley, *supra* note 17, at 271–72 ("[S]ome parts of the body should not be for sale either because of the significance of reserving aspects of the human body from commodification, or because economic need might lead poor people to sell body parts.").

96. Baum, *supra* note 3, at 162. Baum's arguments are also applicable to the sale of human sperm.

97. Id. at 144.

98. Id. at 150-51.

99. See id. Baum explains,

[P]rocreative liberty maintains that all individuals should have the right to decide whether or not to exploit their reproductive capacity and that, absent strong justification for limiting this right, such as clearly identifiable and tangible harms, they should have at their disposal all possible means of effectuating that choice. This is so because the decision whether or not to create is so *fundamental*, so personal, that its denial would be antithetical to the pursuit of life, liberty, and happiness.

Id. at 113 (emphasis added) (citing generally JOHN A. ROBERTSON, CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES (1994)); see also John A. Robertson, Technology and Motherhood: Legal and Ethical Issues in Human Egg Donation, 39 CASE W. RES. L. REV. 1 (1989). In this manner, procreative liberty Soliciting unpaid gamete donors through mass advertising might help to end gamete compensation. Just as blood donors are honored for their selfless contributions, so should charitable egg and sperm donors feel appreciated.¹⁰⁰ Others advocate capped payments to donors—a standard and consistent monetary incentive to encourage altruism.¹⁰¹ Alternatively, Dr. Jeffery Kahn, Director of the University of Minnesota Center for Bioethics, argues that donations should be allocated based on medical need and waiting time, much as solid organs are allocated for transplantation.¹⁰²

2. Choice of Donor Anonymity in the United States' Open Reproductive Market

Disclosure of donor identity is not regulated in the United States, leaving the decision of anonymity up to sperm banks, fertility clinics, and those who use their services.¹⁰³ Most U.S. sperm banks choose to make donors anonymous.¹⁰⁴ Sometimes outlets provide identity-release programs by which the donor may later be contacted by potential children.¹⁰⁵ Even then legal rights and responsibilities of fatherhood or motherhood do not attach unless the donor intended such consequences.¹⁰⁶

104. See id.

106. In a recent case, Brock v. Kepl, the Washington Court of Appeals interpreted a state statute to mean that sperm donors escape the legal obligations of natural paternity unless the donor and female recipient signed a specific contract

is a negative right—the right to be free from governmental interference. Id. at 113–14.

See Press Release, Human Fertilisation and Embryology Authority, Paid 100. Egg Sharing to be Regulated, Not Banned (Dec. 10, 1998). http://www.hefa.gov.uk/PressOffice/Archive/Paideggsharingtoberegulatednotbanned ("The HFEA believes that the donation of sperm or eggs to create new life should be a gift, freely and voluntarily given."); see also Walter Merrick, Comment & Analysis: Why Sperm Donors Must Step Forward, GUARDIAN, Apr. 21, 2004, at 24, available at WL 75661048.

^{101.} Kahn, supra note 28.

^{102.} Id.

^{103.} Wolff, supra note 90.

^{105.} See id. "Some outlets, such as the Sperm Bank of California, offer identityrelease programs that permit offspring to seek contact information about their biological fathers when they turn 18. Id. Others, such as California Cryobank in Los Angeles, offer to contact the donor on the offspring's behalf to see whether the father is willing to share more information about himself, or to meet his child. Id. But again, this offer is made only after the child turns 18, the legal age of emancipation, when rights of the parent—biological or otherwise—are considered terminated." Id.

Unsurprisingly, portions of the U.S. sperm and egg industry flourish due to *lack* of donor secrecy, as fertile individuals supply personal photographs, educational background, and family medical history in hopes of attracting buyers.¹⁰⁷ For instance, the New England Cryogenic Center (NECC) requests a family health history dating back three generations, a résumé, college grade point average, a three-page questionnaire on life goals, hobbies, TV and movie preferences, head-on and profile photos, and even favorite colors and flavors of ice cream.¹⁰⁸ Providing these details to clients has helped make NECC "North America's largest, full-service" sperm bank, shipping specimens to over twenty-eight countries.¹⁰⁹

3. No Sire Quotas in the United States

No U.S. governmental entity has ever imposed sire quotas to prevent inadvertent incest. Doctors have taken advantage of this regulation vacuum. According to a survey conducted in 1977, fertility doctors in the United States admitted to using the same donor repeatedly, sometimes fifteen or more times.¹¹⁰ An incredible case surfaced in 1992 when Dr. Cecil Jacobson, who ran his own fertility clinic in Virginia, was convicted of multiple counts of fraud for inseminating clients with his own sperm.¹¹¹ DNA tests later revealed that Dr. Jacobson fathered at least fif-

saying the donor will be the natural father. 121 Wash. App. 578, 89 P.3d 309 (App. Ct. 2004). In *Brock* the married defendant did not have to pay child support, even though he donated sperm to his girlfriend. *Id.* (interpreting former Washington statute RCW 26.26.050(2)); see also Jonathan Martin, *Sperm Donor is Not Liable for Children*, SEATTLE TIMES, May 7, 2004, at A1.

^{107.} Willing, supra note 52. U.S. gamete brokers and private suppliers tend to advertise numerous personal details except the donor's name and identifying information, which typically remains confidential. *Id.* Potential parents flock to this system when they want to know as much about the genetic material being passed on to their child as possible. *Id.* In all practical respects, the donor's name seems irrelevant. *Id.*

^{108.} See id.

^{109.} See NECC's website, http://www.necryogenic.com, for more information.

^{110.} Shanley, supra note 17, at 262. Doctors selected the providers, who were usually medical students, other university students, or hospital personnel. Id. at 261-62. The survey revealed that many doctors admitted to using a provider for no more than six pregnancies, although 5.7% had used a provider for fifteen or more. Id.

^{111.} Associated Press, *Fertility Doctor Sued for Using Wrong Sperm*, MSNBC.News, July 15, 2004, http://www.msnbc.com/id/5442808.

teen of his patients' children,¹¹² and some estimates range as high as seventy-five.¹¹³ His sentence included time in prison.¹¹⁴

If it is true that some men donate sperm several times a week over extended periods of time,¹¹⁵ a single donor may be responsible for more children than Dr. Jacobson fathered. Consider the impact of U.S. sperm exports; with no limit to the number of children beget by a single man, it may be possible to sire dozens of children across multiple continents. Difficulty in tracking the number of live births across such a wide geographic area might explain the futility of imposing sire quotas to avoid incest.

E. THE INTERNET

The Internet places global ART at one's fingertips.¹¹⁶ Potential parents can surf through a vast range of egg and sperm donors from around the world.¹¹⁷ "Gamete entrepreneurs" are readily found through Internet chat rooms and selfpromoting advertisements.¹¹⁸ Websites also have the potential of reaching a greater number of people within a target population; for instance, the controversial website ManNotIncluded.com focuses on selling "mail-order sperm" to

118. Websites, such as http://www.ronsangels.com, advertise online egg and sperm auctions where people from around the world can bid for the eggs of "struggling supermodels" for around \$30,000 with \$1000 bid increments. See Baum, supra note 3.

^{112.} See id.

^{113.} Cecil Jacobson, U.S. NEWS & WORLD REPORT, Mar. 16, 1992, at 18.

^{114.} See id. Federal or state regulation of repeat donors may not be needed so long as medical malpractice, fraud, and other criminal and civil penalties await dishonest fertility practitioners like Dr. Jacobson.

^{115.} See Alvare, supra note 2 (regarding requirement of multiple semen donations by some labs).

^{116.} See Connie Guglielmo, Editorial, The Messanine May Be Closed for Merchants, 5 INTER@CTIVE WEEK 44, Feb. 9, 1998 (highlighting the fact that sperm can be purchased over the Web, which has created a "global marketplace that makes an array of goods... readily available to cybershoppers.").

^{117.} One example of an Internet agency involved in gamete sales is the Londonbased Internet service WomenNotIncluded.com, which profits from the EU payment ban by charging British women who are determined to search for gametes abroad. Isabel Oakeshott, *Human Eggs for Sale on the Net*, EVENING STANDARD, Feb. 2, 2004, http://www.thisislondon.com/news/articles/9287505?source=EveningStandard. John Gonzales, who launched WomenNotIncluded.com, boasts that the website will "increase the global egg pool, clearing a vast backlog of eager, yet deprived women and reducing a waiting time of three to five years to mere weeks." *Id*.

single women and lesbian couples.¹¹⁹

Internet trade in human gametes elicits several dangers. Because most countries' regulatory authority specifically extends to infertility clinics but not the Internet, there is an absence of regulation to ensure quality management of Internet gamete vendors.¹²⁰ Thus, consumers assume the risks of false advertising and disease-carrying gametes.¹²¹ Legal claims such as false advertising and breach of contract are further complicated by international transactions.¹²²

People in countries where trade in gametes is highly regulated may use the Internet to bypass local laws. For example, as of the year 2000, lesbian and single women were denied access to IVF and sperm donor services under the laws of Victoria, Australia.¹²³ As a result, these women often ordered sperm over the Internet from California sperm banks and traveled to New South Wales, Australia, for fertility treatment.¹²⁴ Without sanctions for evading the regulation, Victoria's laws have little effect on some gamete cybershoppers. One can imagine similar conduct by Internet savvy donees worldwide.

II. COSTS AND BENEFITS OF GAMETE COMMODIFICATION AND PROCREATIVE TOURISM FROM MORAL AND ECONOMIC PERSPECTIVES

Gamete regulations that impact trade may be sorted into three categories. First, some countries enact laws that impede the acquisition of human gametes from donors, thus reducing the supply available for ART. These "supply hindrance" laws include compensation restrictions, anonymity preclusion laws, and sire quotas.¹²⁵ The second category consists of regulations that obstruct access to reproductive cells. These "recipient discrimination" laws disqualify potential recipients based on their

125. See supra Part I.C.

^{119.} See id.

^{120.} At least in Great Britain, governmental powers are limited because website companies are not subject to the same regulations as infertility clinics. See id.

^{121.} Guglielmo, *supra* note 116. The lure of money might induce some individuals to not disclose their true medical history and donate sperm or eggs that could harm or even kill the potential recipient. Baum, *supra* note 3, at 140.

^{122.} For instance, which country's laws should apply? Criminal or civil? Which court has jurisdiction and in what venue?

^{123.} See Victorian Women, supra note 4.

^{124.} See id.

social identity or traits such as homosexuality, age, or marital status.¹²⁶ The third category, mandatory health regulations, impacts trade by excluding clinics that fail to meet safety standards.¹²⁷ Health regulations also restrict providers from performing certain ART procedures or using certain types of gametes.¹²⁸

All three types of gamete regulations have the potential to force gamete seekers to peruse foreign markets. An absence of regulations, on the other hand, seems to attract those desperate to create a child. Above all, countries should protect gamete donors, recipients, and children born as a result of ART. While supply hindrance laws and recipient discrimination regulations might have negative consequences, reasonable health regulations must be enforced.

A. ANONYMITY AND PAYMENT: INFRINGING THE RIGHTS OF GAMETE DONORS, LEGAL PARENTS, OR CHILDREN

Before strategizing how gamete trade might safely and more efficiently operate, it is important to address at least two bioethical questions. First, is the commodification of gametes morally corrupt? Second, does a child, gamete recipient, or donor have a right to know the identity of the other parties? Recall that national policies that restrict donor compensation and prevent anonymity tend to lessen donors' willingness to supply their genetic material for ART purposes.¹²⁹ States will hopefully forgo enactment of supply hindrance laws upon realizing that the interests of donors, ART recipients, and the resulting child greatly outweigh any moral or legal rights allegedly violated by compensation and donor anonymity. Accordingly, gamete supplies will increase, and recipients will have the opportunity to more readily acquire gametes within their own country.

1. Compensating Gamete Donors is Acceptable

As noted earlier, empirical evidence suggests that gamete donors are enticed by financial compensation, and as a result,

^{126.} See supra notes 74-78 and accompanying text.

^{127.} See supra notes 80-82.

^{128.} See supra notes 76–78 and accompanying text describing countries that forbid the use of fresh gametes, donor gametes or surgically-obtained sperm.

^{129.} See supra Part I.C.

states that do not pay donors are more likely to suffer from sperm and egg shortages.¹³⁰ This causal relationship is repeated internationally.¹³¹ But is the effectiveness of a donor-paid system, which is said to treat gametes like commodities, outweighed by ethical concerns?¹³²

The free alienability argument advanced by Kenneth Baum and others is premised on the open-ended concept of "procreative liberty."¹³³ In the words of John Robertson, procreative liberty is the freedom either to have children or avoid having them.¹³⁴ It is a negative right, meaning that the government and persons have a duty not to interfere with procreative choice.¹³⁵ Robertson asserts that the "presumptive primacy of procreative liberty sets a very high standard for limiting those rights, tilting the balance in favor of reproducing but not totally determining its acceptability."¹³⁶ Those who want to regulate procreative choice therefore bear the burden of showing that the harms associated with ART override potential parents' liberty interest.¹³⁷

Robertson's stringent test, which places the burden of proof on opponents of evolving ART to demonstrate its dangerousness

132. Although the focus of this Note is global trade implications, ethical issues are unavoidable in such a highly controversial field as assisted reproduction. Ethics tend to influence policy and law, which is why bioethical issues are worth exploring here. For an excellent discussion of biomedical issues surrounding gamete trade, as well as policy proposals that might reconcile ethical concerns, see generally Pennings, *supra* note 44.

133. See supra note 99 and accompanying text.

134. John Robertson, CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES 22–26, 29–34 (1994), *reprinted in* MICHAEL SHAPIRO ET AL., BIOETHICS AND LAW: CASES, MATERIALS AND PROBLEMS 543–47 (2003).

135. It is not a right against private interference, nor is it a positive right to have the government or persons provide the means or resources necessary to have or avoid having children. See id. at 22–26, 29–34.

136. See id. Robertson points out that all individuals have a right to procreate, whether through coital or non-coital reproduction using ART. Id. at 33-34. Robertson's claim differs from the U.S. Supreme Court in this way; the Court draws the right to procreate from the sanctity of marriage and privacy in the bedroom. See id. Robertson contends that "infertility should no more disqualify [coitally infertile couples] from reproductive experiences than physical disability should disqualify persons from walking with mechanical assistance." Id.

137. See id.

^{130.} See Baum, supra note 3, at 159-60; see also supra notes 51-52 and accompanying text.

^{131.} Consider sperm and egg shortages in Israel and Victoria, Australia, where donor compensation is banned. Short supplies in the United Kingdom under the HFEA and Canada under the AHRA provide two additional examples. See supra Part I.C.1.

versus on proponents to demonstrate its safety, seems to have it backwards. Imagine what might happen if the U.S. Food and Drug Administration applied Robertson's philosophy: wonder cures would infiltrate the marketplace unless someone came forward with evidence that the drug is a disaster. The danger exists for ART as well; surely the evolving medical procedures of assisted reproduction are fraught with health risks that consenting patients might trivialize in their quest to become parents. An unbridled, laissez-faire schematic might jeopardize the safety of the initial participants even though they are exercising their procreative liberty.

However, in the context of international gamete trade, Robertson's approach reigns supreme. Paying gamete donors is not inappropriate because financial incentives increase supply and thus access to gametes, which in turn enables ART-seeking individuals to safely exercise their inherent right to procreate.¹³⁸ Using governmental powers to prevent donors from being compensated is wrong when the regulations interfere with procreative liberty;¹³⁹ the danger of donor compensation violating moral values, while an important philosophical issue, is a speculative harm for society that does not outweigh the choice to procreate. Also, the meaning of what is *ethical* sways with the political pendulum. Thus, government's limited responsibility should be to impose and enforce health guidelines on fertility clinics, which would diminish the danger to public safety.

Another line of arguments against the sale of human gametes is founded on abstract ethical concerns that gamete trade is wrong because gametes are part of the human body, and human body parts should not be assigned a monetary value and sold like ordinary goods.¹⁴⁰ This argument is said to be valid even though gametes are renewable, like hair and fingernails, as opposed to kidneys or other organs.¹⁴¹

141. See Baum, supra note 3, at 127. Baum argues that sperm and eggs are

^{138.} See id. Because this Note focuses on international gamete trade, the debate between bioethicists is only briefly stated. Other articles providing much greater insight into this debate should be consulted. See, e.g., id.

^{139.} Shanley suggests that gametes are not owned but rather "held in common with past and future generations." See Shanley, supra note 17, at 273 (quoting Donna Dickenson, Procuring Gametes for Research and Therapy: The Argument for Unisex Altruism—a Response to Donald Evans, J. MED. ETHICS, 92–95 (2002)). This argument has persuaded policy makers to forbid the sale of transplant organs. But see generally Baum, supra note 3 (debunking the similarities between organ and gamete trade).

^{140.} Shanley, supra note 17, at 272–73.

It is true that human eggs and sperm are not like ordinary goods because gametes can be used to create another living being. However, if legislators accept that procreative liberty is important and must not be interrupted absent compelling justification,¹⁴² the interests of hypothetically impoverished gamete donors, as well as the interests of ART-conceived children, do not outweigh the deeply-rooted right of adults to reproduce as they desire.¹⁴³ Furthermore, the fact that human gametes are renewable suggests that donors do not sacrifice their own reproductive capacity, nor should the human gamete market be regulated to the same extent as human organ exchanges. Ethical concerns against gamete commodification, therefore, are outweighed by the tangible benefit of an accessible reproductive market.

2. To Be or Not To Be Anonymous: That Is the Choice

Some parents want their child to know that she is only partially biologically related, while other parents keep ART a secret. A parent who tells his or her child may also encourage or allow the child to communicate with her donor, whereas another parent may choose not to reveal the donor's identity even if the parent knows such information. In the latter situation, can the child conceived through ART invoke a legal right to know his donor's identity? In the United States, the answer is no, due to a paucity of legislation on the subject.

In contrast to the United States, citizens of other countries may invoke a legal right to know a donor's identity. It is difficult to prove that the impetus behind anti-anonymity laws in foreign countries is a fundamental human right to know one's genetic progenitor. Rather, the justification appears to be based on ethical grounds and perhaps assumptions about the psych-

both renewable. Id. A woman is born with 400,000 eggs but loses approximately five hundred through menstruation during her life. Id. at 127-28 (citation omitted). While her supply of eggs is not literally renewed in the sense of new cell creation, the quantity of eggs is never naturally exhausted.

^{142.} See generally supra note 83 (cases finding procreation a right).

^{143.} If empirical research can establish some concrete harm to children born of ART, then that might outweigh the interests of procreative liberty. For instance, some studies estimate that two percent of children conceived by IVF are born with birth defects. However, that estimate must be compared to the general rate of birth defects for natural pregnancies. The same comparison must be made for potential psychological harms.

ological frailty of children who never learn their donor's name.¹⁴⁴ While well-intentioned, laws that require donors to reveal not just their medical history but also the donor's name have deterred donors who wish to remain anonymous, thus having a negative effect on gamete supplies and access.¹⁴⁵

Anti-anonymity laws hinder open reproductive markets and lack a solid justification. First, children do not have a fundamental right to know the exact name of the person from whom their genetic material originated. If governments recognized this right, anonymously giving one's child up for adoption would be illegal.¹⁴⁶ Nor do gamete recipients have a right to know the name or identifying information about the donor. The interests of recipients and ART-conceived children can be just as easily met by acquiring detailed medical histories, as well as physical or aptitude descriptions of the donor. Otherwise, the recipient should only buy gametes from a donor willing to reveal his identity.¹⁴⁷ Lastly, donors who feel they have a right to be known by the child they helped create can meet their goal by contracting for such rights or donating at a clinic that discloses such information to the child. In essence, no party of ART has a fundamental or insurmountable interest in exposing the donor's identity. Because laws that prevent donor anonymity hinder gamete supplies, free trade and procreative liberty, the choice of anonymity should be left to the donor or negotiated by donors and recipients.

^{144.} See supra notes 67-68.

^{145.} See supra Part I.C.2.

^{146.} For policy reasons, namely the endangerment of unwanted children, such a law should never pass. Laws and programs allowing anonymous abandonment exist in the United States and abroad, including France. See generally Adoption Network Law Center's homepage, http://www.adoptioninformation.com (last visited Sept. 16, 2005). These laws permit mothers to leave their babies at "safe havens" versus risk unsafely abandoning their children elsewhere. Id. The mothers suffer no criminal or civil penalties. Id.

^{147.} It may so happen that for some potential parents, no accessible donor is willing to disclose his or her identity. The potential parent will not be forced to give up on having a child; instead, he or she may choose to wait for the right donor to come along. Otherwise—unless gametes are not being donated for other reasons—there would still be access to sperm or eggs in case the potential parent decides to settle for an anonymous donor. The opposite law, requiring donor identity disclosure, would decrease gamete supplies so that the resource is not available for anyone.

B. THE PROS AND CONS OF "PROCREATIVE TOURISM"

Potential parents have an interest in obtaining gametes when and from whom they desire. Rather than wait years to acquire a gamete from the perfect local donor, couples and single adults increasingly turn to the international market for immediate satisfaction.¹⁴⁸ This might entail traveling to another state or purchasing gametes online.¹⁴⁹ The drawbacks overshadow the benefits of this market system.

1. Advantages

Advantages of resorting to another country are more relevant in situations where the hopeful recipient would not otherwise be entitled to buy or secure a third-party gamete. France, Italy, and Germany are among the countries with recipient discrimination laws based on age, sexual preference, and/or marital status.¹⁵⁰ Although some regulations are founded on legitimate health concerns, such as the inherent dangers of an older woman bearing children,¹⁵¹ most restrictions appear to derive from strong ethical opposition. Homosexual couples buying donor eggs or sperm, for instance, might be banned to prevent the creation of 'untraditional' families.¹⁵² When denied access to their local market, infertile or single-sex couples determined to exercise their procreative liberties have no alternative but the international market, so it is beneficial that one exists. Note, however, that disenfranchised adults would be less reliant on distant sources (if at all) if ethics-based trade regulations did not block access to affordable gametes at home.

Sperm banks, fertility clinics, and gamete donors financially benefit from international trade.¹⁵³ This holds most true for providers located in countries with less restrictive trade rules, such as the United States, because clients from around the world flock to these providers when local gamete access or

^{148.} See supra Part I.D.

^{149.} See, e.g., supra note 60 (regarding Dutch gamete purchasers).

^{150.} See supra notes 73-77 and accompanying text.

^{151.} See, e.g., supra note 77 and accompanying text.

^{152.} See, e.g., supra note 74 and accompanying text.

^{153.} See supra note 20 (providing an example of a dealer of gametes in Denmark); supra note 24 and accompanying text (noting international trade in gametes is a multi-billion dollar industry); supra note 55 (providing an example of a dealer of gametes in the United States); supra note 53 (providing an example of a dealer of gametes in India).

supply is obstructed. Attracting a greater number of clients thus stimulates the providers' economies by creating jobs and generating income for gamete clinics and donors. From a free trade perspective, the creation of businesses to meet demand seems to be economically logical and desirable.

A third advantage of procreative tourism is that the necessity of transporting gametes to non-local recipients has fostered technological and medical progress. The need to ship gametes to a recipient who lives on another continent, for instance, has encouraged experts to learn more about preserving human cells and creating transport containers that meet that end.¹⁵⁴ This knowledge is likely to assist in other important medical fields, such as the transport of human organs.

2. Disadvantages

Aside from ethics debates over the commodification of gametes, purchase of gametes or ART services between countries frustrates politicians and agency officials whose regulations are circumvented. Disenfranchised men and women invariably return to their countries after receiving ART services on their own terms, yet few if any states enact measures to punish border crossers. Indeed, past events and current European treaties reveal that politicians are practically helpless to take action.¹⁵⁵ For instance, around the year 1990, German border guards forced gynecological examinations upon women reentering Germany at the Dutch border in search of evidence of abortions, a medical practice Germany forbade by law.¹⁵⁶ Prosecutors brought criminal charges against women who obtained abortions in other countries.¹⁵⁷ The European parliament condemned Germany's examination practices in 1991.¹⁵⁸

Competitive international gamete commerce also has draw-

158. Id.

^{154.} See supra notes 19-20 (describing how sperm can be transported in liquid nitrogen tanks and remain viable).

^{155.} Presently, Articles 50 and 60 of the European Community Treaty guarantee the free movement of services, including medical services and thus infertility treatment, which implies that people have the right under community law to go to another country and receive the service they desire. Pennings, *supra* note 44, at 339.

^{156.} Id. at 339 (citing S.F. Kreimer, The Law of Choice and Choice of Law: Abortion, the Right to Travel, and Extraterritorial Regulation in American Federalism, 67 N.Y.U. L. REV. 451, 458 (1992)).

^{157.} Id. at 339.

backs for buyers who must expend travel or importation costs. The same expenses may also prevent less wealthy people from obtaining gametes from the country and donor of their choice, or else require that money be saved for years while the potential parents grow older. In light of the fact that only thirty-four percent of all ART procedures are typically successful,¹⁵⁹ spending so much money substantially raises the stakes. Also, one can easily imagine the added stress of having to return to a distant clinic for repeat treatments.¹⁶⁰ If ART is a gamble anywhere, it becomes an even greater risk when attempted globally.

Furthermore, companies that export human sperm or eggs are obligated to invest in technology and equipment that preserves the specimen until it reaches its destination. Maintaining the latest, most innovative technology requires a large on-going capital investment that may force smaller gamete suppliers out of business.¹⁶¹ The solution is likely to be consolidation, a chain of "McGametes" that are incorporated in legally favorable—i.e., less regulated—countries like the United States. Further economic analysis of consolidated industries with few competing businesses is beyond the scope of this Note. Suffice it to say, present ethical justifications against gamete commodification may be just the tip of the iceberg.

C. THE OPTION OF INTERNET TRADE UNDERCUTS TRADE REGULATIONS

The potential for unsafe Internet trade is one more reason to ensure local gamete supply and accessibility. As noted above, no health agency exists to screen World Wide Web donors, and countries are finding it difficult to interject their own safety regulations across cyberspace.¹⁶² As a result, people who meet online can exchange human gametes on their own terms with no

^{159.} See supra note 31 and accompanying text.

^{160.} Admittedly, not every overseas fertility treatment is a hassle. An exception might be spouses of those employed overseas on military duty or when one of the potential parents is a native of the destination country. Some U.S. Navy wives have flocked to countries such as Columbia, France, Belgium, South Africa, Malaysia and Singapore for IVF. See Lee, supra note 15.

^{161.} This has already become a reality; it is less common for doctors' offices in the United States to provide their own eggs or sperm for reproductive purposes. Instead, they often obtain gametes from the large suppliers. *See* 69 Fed. Reg. 29,786, 29,819 (proposed May 25, 2004) (to be codified at 21 C.F.R. pts. 210–11, 820, 1271).

^{162.} See supra Part I.D.

oversight.¹⁶³ However, to utilize the gametes, the recipient will probably consult a fertility clinic that imposes government standards.¹⁶⁴

Countries must acknowledge how the Internet has become a means of evading gamete trade regulations. All three gamete trade law categories can be avoided through Internet trade. First, supply hindrance laws are easily circumvented. Donors who wish to financially benefit from their reproductive cells, remain anonymous, or continue providing sperm or eggs despite sire quotas can simply advertise online. The Internet connects the donor with multitudes of interested recipients. The only obstacle is finding an Internet-based trade company, which governments have difficulty regulating,¹⁶⁵ to coordinate logistics. Second, recipient discrimination laws are avoided in much the same way: homosexuals, unmarried individuals, and those whose age would preclude them from local ART are free to shop online for donors and clinicians. Finally, health regulations may perhaps be avoided by soliciting gamete providers in countries with more favorable laws. For instance, citizens of France can shop online for fresh gametes instead of obtaining the frozen variety available within the country.¹⁶⁶ It is unclear, in each of these situations, whether the regulations of the recipient's country or the donor's country apply. One might assume that regulations will be enforced where ART services are obtained, since fertility clinics are typically subject to government oversight. However, it is possible that clinics would not refuse patients who obtained gametes through alternative means such as the Internet, so long as the clinic did not participate in the activity

^{163.} Of course, transportation of the gametes poses a problem, and eggs cannot be extracted without medical assistance. Hypothetically, however, a sperm donor might use overnight or priority mail to send his cells to a recipient he met online. The receiving woman might introduce the sperm to her body without medical assistance.

^{164.} One might argue that the consequence of Internet gamete trade is not so different from having sexual intercourse with a stranger met online in hopes of impregnation, though intimate physical contact obviously differs from an armslength business transaction. In both cases the Internet brought the donor and recipient together, and the gametes are not screened for the recipient's welfare. The parties might even cross state or national borders to meet. To interfere with the ingenuity of recipients avoiding coital reproduction, therefore, is a pointless battle that misses the big picture: if governments attempt to regulate Internet gamete exchanges, people will meet in person or find another way. Internet laws will become just another inconvenience.

^{165.} See supra Part I.D.

^{166.} See Pennings, supra note 44, at 338; supra Part I.C.3.

and the proferred gametes pass health screenings.

Suppose for a moment that the World Trade Organization (WTO) created an Internet regulating authority. People are unlikely to object to health and safety oversight of Internet gamete trade because such laws protect public welfare. Internet regulation might also prove collateral: potential parents who enlist online donors are likely to consult a fertility clinic for complex ART procedures, and the clinic would inevitably follow government-imposed safety regulations. **Opposition** might surface, however, if the potential Internet oversight authority supply hindering or gamete imposed either recipient discrimination laws.¹⁶⁷ The existence of such laws might result from political pressures, though it might be difficult for countries to reconcile necessary regulations and enforcement mechanisms. The concept of international oversight will soon be explored in more detail.

D. FREE MARKET INCENTIVES: WHY THE U.S. MODEL IS BEST

1. Allowing Profit from Gamete Sales is Beneficial

One critical distinction between the United States' gamete trade and other countries is that U.S. donors experience no limits to compensation. Donors are more than reimbursed for personal expenses; they make a profit. It is not unreasonable to believe that fewer U.S. residents would donate gametes for use by strangers if the financial incentive disappeared. The President's Council on Bioethics even concedes that monetary gain is imbedded in the U.S. gamete trade culture, though the Council prefers uncompensated donation.¹⁶⁸

The number of donations from individuals with popular traits, such as a clean family health history, might decline if donor compensation were limited. Rather than buy out the highest quality donor, potential parents will have to accept what is available based on a limited supply of selfless donors. Variety of donors might also decrease. In essence, certain types of gametes might become more difficult to obtain if financial incentives are eliminated. Because enticing donors with monetary

^{167.} See Introduction *supra* Part II for an explanation of three proposed trade law categories.

^{168.} See supra note 88.

incentives, which the United States does not regulate, can help to avoid gamete shortages and narrow selections, the U.S model of compensating donors is preferable.

2. Donor Anonymity as a Market Incentive

Under the U.S. model, donor anonymity is optional. No regulation dictates this outcome; free enterprise controls. Entrepreneurial donors will disclose many details to attract potential buyers and perhaps make greater profit.¹⁶⁹ Anonymous donors divulge minimal identifying information to avoid future legal and emotional responsibilities. Either way, the U.S. market caters to the diverse desires of its own population and those abroad.

Sperm banks in the United States "have a lot to lose should donor anonymity become threatened."¹⁷⁰ Recent disclosure trends in European countries reveal that men are less willing to donate sperm if their identity will not be shielded. Some sperm donors might be persuaded to forgo a secret identity in exchange for higher compensation. In countries where profitmaking gamete sales are banned, however, there may be less incentive to donate.

E. MARKET ALTERNATIVES: WTO/GATT REGULATION

So far the WTO has not attempted to create a treaty that imposes the same human gamete trade regulations on all countries. It is not difficult to understand why, given that gamete commerce touches upon controversial, bioethical issues. The first obstacle is to decide which standard to choose. A consensus between nations on topics such as anonymity and donor compensation may not be easily achieved. For instance, although most countries can agree that "respect for human dignity" and "inviolability of the human person" are important objectives, these principles may be "very broadly defined without checking whether people also agree on the implications of the principles in concrete cases."¹⁷¹

^{169.} See supra note 118.

^{170.} Wolff, *supra* note 90. Anonymity seems to be less controversial with egg donors, since their identity is more often disclosed.

^{171.} Pennings, *supra* note 44, at 339. "[T]he European Convention on Human Rights and Biomedicine is an indirect attempt to reduce diversity and to standardise legislation around a set of moral rules about which there was never a consensus to

A WTO directive would not succeed in enabling people to buy reproductive cells within their own countries unless fullscale regulations are implemented to coordinate gamete trade. It will not suffice that more people are granted equal access to third-party gametes, for instance, unless countries can offer donors incentives to donate, such as profits or the choice of anonymity. Otherwise, demand would surpass supply. Furthermore, under the same rubric, the WTO must not cap donor compensation or dictate anonymity rules without accounting for a reduction in gamete donations, which would impact accessibility.

Hypothetical WTO pact aside, it is important for policymakers in each country to anticipate and analyze the consequences of regulating gamete donors or recipients. Infertile individuals, same-sex couples, and others who wish to fill a nursery occupy every corner of human civilization. Willingness to donate eggs or sperm for ART purposes also crosses national boundaries. Every country must decide to what extent it will regulate the attainment and donation of gametes. These countries should ultimately conclude that a health conscious, open reproductive market strikes a fair balance between government control, ethics, and reproductive freedom.

CONCLUSION

When gamete trade is interrupted by supply hindrance and recipient discrimination laws, hopeful parents resort to the international economy, including the Internet. Free trade of gametes has proven more effective than domestic regulation in satisfying increasing demand for human eggs and sperm for ART purposes. Employing the U.S. model of independent clinic regulation and federally regulated health standards will attract a greater diversity of donors and satisfy the needs of recipients. Ultimately, international gamete trade should be a choice, not a last resort.