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Brave New Babies

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BOOK REVIEW:

REPRODUCTIVE TECHNOLOGIES AND THE LAW

Authored by: *Judith Daar* *

Reproductive Technologies and the Law explores the burgeoning practice of assisted conception from the perspective of law, medicine, public policy and ethics. As the first casebook in this field, the book is designed to both describe and analyze a wide variety of topics covered within the rubric of assisted reproductive technologies. Beginning with artificial insemination, the book tracks each advance in reproductive medicine - from in vitro fertilization to prenatal genetic testing to human reproductive cloning - to display the full panoply of existing and potential resources available to prospective parents. Armed with an understanding of the workings, safety and efficacy of each reproductive technique, the reader is encouraged to consider the social and moral implications of producing offspring in ways that replace nature with technology.

Man's ability to achieve and manipulate conception in the laboratory raises unique concerns that are simply not attendant to natural conception. Questions of parentage arise when a child is

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conceived using donated sperm or egg, or gestated by a woman paid for her services. Questions of disposition arise when divorcing couples disagree over the future of frozen embryos, or when a spouse dies leaving gametes or embryos in storage for future use. Finally, questions of public policy arise when researchers discover that human embryos contain stem cells that could lead to medical cures and therapies for countless patients, but the research itself presents a moral dilemma for many. These and other topics are explored through a combination of cases, statutes, policy statements, academic and scientific commentary, organized with the goal of instructing and inspiring the reader.

BRAVE NEW BABIES

Reviewed by: *Lori Andrews*[**]

Law professor George Annas once proposed that the entire last semester of law school should be made up of health law courses.[1] He said that health law is applied law – like physics is applied math – and that it provides a way to review the entire law school curriculum.[2]

Professor Judith Daar's new casebook, Reproductive Technologies and the Law,[3] shows the merit in the Annas proposal. By focusing on reproductive technologies, Daar presents a fascinating application of myriad areas of law: from constitutional law to tort law, from disability law to insurance law, from family law to probate law, from human research law to international law. She also helps the reader undertake a reasoned legal analysis of the implications of living in a society where there are volatile disputes over the legal, social, and moral status of the human embryo.

The reviewer of a casebook is in a unique position because she reads, all at once, an entire volume that students generally read over the course of a semester. Such a thorough reading can reveal problems in a casebook, such as repetition, or unevenness in spots where it is clear the author personally knows less about a particular topic and thus is giving it short shrift. Daar's book, though, is engaging and thorough throughout. I read it as one would read a novel and, indeed, it has some of the characteristics of good fiction. It relates situations of desperation

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[1] George J. Annas, *Health Law at the Turn of the Century: From White Dwarf to Red Giant*, 21 CONN. L. REV. 551, 553-4 (1989).
[2] *Id.*
[3] *See generally* JUDITH DAAR, REPRODUCTIVE TECHNOLOGIES AND THE LAW (2006).

as people try to achieve their lifelong desire of becoming parents. It provides a view of the culture as the reader contemplates practices such as paying egg or sperm donors who have favored traits like physical attractiveness, athletic ability, and high SAT scores.[4] The book addresses the ethical implication of a biotechnology revolution that allows people to treat human embryos and even children as a source of medical treatments, such as when parents conceive a "savior sibling" – a child who will donate bone marrow or other tissue to an existing ill child.[5] Profound social and economic issues are described – from the concerns about racial disparity in fertility treatment[6] to concerns about a practitioner in India who has perfected the practice of fatally snapping the spinal cords of infant girls for families who cannot afford the high tech approach to sex selection before birth.[7]

The legal conflicts at the heart of the casebook are intensely personal. They reflect the moral aspirations and judgments not only of the litigants but also of the judges and lawmakers. As a way of reinforcing that point, Daar does something remarkable in the casebook genre. She includes photographs of the people we have heard about and read about for years. Thus we get a chance to view a grown-up Louise Brown (the world's first "test tube baby") and her parents.[8] But we also get to see Justice Oliver Wendell Holmes[9] in the context of the *Buck v. Bell*[10] decision, Harry Blackmun[11] in the context of *Roe v. Wade*,[12] and Justice Sandra Day O'Connor[13] in the discussion of *Planned Parenthood v. Casey*.[14] Daar also provides profiles of sperm and egg donors who are selling their gametes,[15] and she gives compelling information about what happened to some of the families *after* they won or lost a landmark case.[16]

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[4] *See id.* at 224-25.
[5] *Id.* at 329-330.
[6] *Id.* at 197 (excerpting Dorothy E. Roberts, *Race and the New Reproduction*, 47 HASTINGS L. J. 935 (1996)).
[7] DAAR, supra note 3, at 322 (reprinting Mary Carmichael, *No Girls Please*, NEWSWEEK, Jan. 26, 2004, at 50.
[8] DAAR, *supra* note 3, at 38.
[9] *Id.* at 97.
[10] 274 U.S. 200, 47 S.Ct. 584 (1927).
[11] DAAR, *supra* note 3, at 118.
[12] 410 U.S. 113, 93 S.Ct. 705 (1973).
[13] DAAR, *supra* note 3, at 130.
[14] 505 U.S. 833, 112 S.Ct. 2791 (1992).
[15] DAAR, *supra* note 3, at 201-204.
[16] *See, e.g., id.* at 513-14 (updating the reader about the Lesbian couple in Adoption of Tammy, 619 N.E.2d 315 (1993)).

Also like a novel, Daar gives us occasional reprieves from the serious, emotional context of many of the cases. At key points, the casebook includes cartoons, such as a young girl telling her friend, "I told my parents that if grades were so important they should have paid for a smarter egg donor."[17] Or a wife telling her husband, as he opens the freezer, "[d]on't knock over the frozen embryos."[18]

Even some of the decisions themselves involve a dark humor. You can always count on Judge Kozinski of the Ninth Circuit for a clever or shocking analysis. In his dissent in a case about whether prisoners have a reproductive liberty right to ship their sperm to their wives for insemination, Kozinski opines, "[t]hat the package contains semen, rather than a book or an ashtray or some other such object, would seem to make no rational difference from the prison's point of view. ...Nor, I would think, does the prison have a legitimate interest in what the recipient does with the package. Whether it is used to inseminate Mrs. Gerber, to clone Gerber or as a paperweight has no conceivable effect on the safe and efficient operation of the California prison system."[19]

Daar puts the reader in the hot seat with a series of interesting hypotheticals. In one, she asks you to assume that you have just been elected to the state legislature.[20] A constituent whose daughter is considering donating her eggs is worried the daughter will be harmed in the process and wants you to introduce a bill banning egg donation. Would you do it?[21]

In another hypothetical, Daar asks you to imagine that you are a physician practicing assisted reproductive technology.[22] An HIV-seropositive gay couple who registered with the state as civil partners want to create a child. The sister of one of the men will carry an embryo created with her egg and the other man's sperm. Would you do it? If not, why not? And, asks Daar, "[w]ould you give the same answer to Brian and Rochelle, a married couple who are both carriers of the recessive Tay-Sachs gene, meaning that...their offspring face a 25% chance of ... suffering an early and painful death?"[23]

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[17] DAAR, *supra* note 3, DAAR, supra note 3, at 250.
[18] *Id.* at 614.
[19] *Id.* at 179. Gerber v. Hickman, 291 F.3rd 617 (2002).
[20] *Id.* at 229.
[21] *Id.*
[22] DAAR, *supra* note 3, at 274.
[23] *Id.*

As someone who has co-written a casebook,[24] I know firsthand how much work is involved and how many hundreds, if not thousands, of choices are made in the process.[25] Which topics should go first? How do you discuss cases that touch on multiple topics? How much information about science and medicine is necessary for the reader to be able to understand the key issues in the field? What types of questions will stimulate the best class discussion? And, will anyone really read the additional cases and law review articles cited in the Notes sections?

As might be expected with any 880-page volume, there are a few areas in which I have minor quibbles. For example, I would have preferred a separate section on malpractice law, rather than having the issues spread out, unevenly, through the book. Along those lines, it would have been useful to have a discussion of the *Stiver v. Parker*[26] case, in which the Sixth Circuit held that the lawyers, doctors, and psychologists in infertility settings have particularly high duties, saying, "[t]his special relationship gives rise to affirmative duties to act on the part of the surrogacy broker and program participants in order to reduce the risk of harm to the child and to the surrogate mother and the contracting father."[27]

But my quibbles pale in comparison to the massive strengths of the book. Besides, where else would I have learned that there is a History of Contraception Museum near Toronto with a "display of over 600 different IUDs, sponges, condoms and other contraceptive devices"?[28] Or that "[f]or the price of one I.V.F. cycle in the U.S.A. the patient can come to South Africa, have the treatment done here in Cape Town and have a lovely holiday at the same time and still take some cash home."[29]

While reproductive technologies may seem like a narrow niche for a casebook, the legal system is constantly dealing with these cases.

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[24] LORI B. ANDREWS ET AL., GENETICS: ETHICS, LAW AND POLICY (West Publishing, 2006).

[25] The fact that Daar was able to complete a casebook single-handedly is remarkable. It is also a testament to the fact that Daar has been closely involved with the reproductive technology field since the beginning. Her articles on whether and how techniques such as in vitro fertilization and embryo research should be regulated are classics in the field.

[26] Stiver v. Parker, 975 F.2d 261 (6th Cir. 1992).

[27] *Id.* at 270.

[28] DAAR, supra note 3, at 110.

[29] *Id.* at 189 (quoting Felicia R. Lee, *Fertility Clinics Overseas Draw More From U.S.*, NEW YORK TIMES, Jan. 25, 2005, at A1).

Daar provides major excerpts from 232 cases. The decisions in this area cast long shadows over family law, constitutional law, and human research law more generally.

Just as the 1960's brought sex without procreation, now we have technologies like *in vitro* fertilization that allow procreation without sex. Assisted reproductive technologies, while helping couples who might not otherwise be able to become parents, have created a series of legal tangles. Some of the legal questions include:

- Parentage: Who should be considered the legal parents of any resulting children?
- Excess Frozen Embryos: What should be done with excess embryos created through in vitro fertilization in the event of divorce, disagreement, or death?
- Posthumous Reproduction: Should a wife, girlfriend, or parent be able to take sperm from dead men or men in comas to create children?
- Preimplantation Diagnosis and Embryo Research: How do state and federal laws influence what clinics do with embryos?

The assisted reproductive technology industry, with annual revenues of nearly $7 billion,[30] is growing to serve an estimated 1 of 6 couples who are infertile.[31] A big area of concern for infertile couples is whether their insurance will cover any of the costs they may incur as they seek assistance. Currently, only 15 states require some sort of insurance coverage for infertility treatments.[32] If insurance does not cover the treatment, couples take out second mortgages on their homes and take on additional jobs to be able to pay for reproductive technologies, yet not all are helped.[33] Seventy-five percent of in vitro

[30] Deborah Hope, *I Forgot to Buy a Baby*, THE AUSTRALIAN, May 4, 2006, *available at* http://www.theaustralian.news.com.au/story/0,20867,18338276-28737,00.html.
[31] Dolores Kong, *What Price Pregnancy?* THE BOSTON GLOBE, August 4, 1996, at A35.
[32] They are Arkansas, California, Connecticut, Hawaii, Illinois, Louisiana, Maryland, Massachusetts, Montana, New Jersey, New York, Ohio, Rhode Island, Texas, and West Virginia, *available at* http://www.resolve.org/site/PageServer?pagename=fmed_mcpr20050707.
[33] Regarding the in vitro statistics, the CDC report has success rates for IVF broken into two categories: IVF without intracytoplasmic sperm injection (ICSI) and IVF with ICSI. Success rates for the former is 34.0%, and for the latter are 31.9%. See Centers for Disease Control and Prevention, 2002 Assisted Reproductive Technology Success Rates: National Summary and Fertility Clinic Reports 38 (2004), *available at* http://www.cdc.gov/ART/ART02/PDF/ART2002.pdf

fertilization (IVF) cycles do not lead to a live birth.[34] Despite these difficulties, over 100,000 children are born yearly in the United States through assisted reproductive technologies.[35] Contrast these numbers with the number of healthy infants available for adoption – only about 30,000.[36] One of the most striking things about this comparison is that every state has an elaborate regulatory mechanism in place for adoption while only a few states have enacted legislation to comprehensively address assisted reproductive technologies.[37]

Rather than regulations addressing the safety of reproductive technologies or the informed consent of participants, most states with laws in this area focus on paternity. In over half the states, the husband of a consenting recipient of donor sperm is the father of the resulting child.[38] Currently, only a handful of states specifically address parentage in egg donation.[39] Each of these statutes irrebuttably presumes that a child resulting from egg donation is the child of the couple who consented to receive the donated egg.[40] Yet, in many other states, the egg recipient in these states would have a strong claim to the resulting child as well. The law generally recognizes the woman who gives birth as the legal mother, [41] so the woman who gestates an embryo created with a donor egg will be presumed to be the mother. In states without an egg donation statute, there is nonetheless a small chance that the donor of an unfertilized or fertilized egg would be able to sue to claim parental rights to the resulting child. This might happen, for example, if an Ivy League undergrad in a state without a statute were paid $100,000 for an egg, but the procedure of egg removal was negligent and left her infertile.

About half the states have adopted statutes regulating surrogate parenting, but few adequately address issues of legal parenthood. Michigan and Washington, for example, decide issues of custody based

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[34] *See id.*

[35] At least 60,000 infants are born each year as a result of AID and 1,000 as a result of surrogates. See ISLAT Working Group, *ART into Science: Regulation of Fertility Techniques*, 281 Science 651 (1998). In addition, 48,756 infants were born as a result of ART cycles carried out in 2003, the last year for which statistics are available. See Centers for Disease Control and Prevention, 2003 Assisted Reproductive Technology Success Rates: National Summary and Fertility Clinic Reports 13 (2006), *available at* http://www.cdc.gov/ART/ART2003/PDF/ART2003.pdf.

[36] NATIONAL COUNCIL FOR ADOPTION, HOTLINE INFORMATION PACKET 1 (1997).

[37] DAAR, *supra* note 3, at 691-92.

[38] *See, e.g.*, 750 ILCS 40/2 to 40/3.

[39] *See, e.g.*, FLA. STAT. ANN. § 742.12.

[40] *Id.*

[41] *See, e.g.*, 750 ILCS 45/4.

on an evaluation of each individual case and a determination of what is in the best interest of the child.[42] Other states differ in whether they presume that the contracting couple is the legal parents, that the surrogate and her husband are the legal parents,[43] or that the legal parents are the surrogate and her husband unless the child is the genetic offspring of the contracting couple.[44]

And, what of the widow or widower who wants to procreate after their better half has died? According to a survey of fertility clinics by researchers at the University of Pennsylvania, there have been at least 82 requests made by wives, girlfriends, or parents for post-mortem sperm procurement from deceased individuals who ranged in age from the early 20s to late 30s, two who were minors and one 60-year-old man.[45] In the majority of cases for which data is available, a physician alone made the decision about whether to honor the request.[46]

Another set of legal issues arises when couples try to decide the fate of any excess frozen embryos they may have created. As of 2002, there were 396,526 frozen embryos in the United States.[47] According to one state legislator, the future of over 10% of them is in dispute.[48]

Since so many infertile couples must make a decision about what to do with any excess embryos, the option of whether to donate them for research purposes is something many couples will face. Currently there has been a tremendous amount of focus on embryonic stem cell research. In fact, President George W. Bush decided that federal research funds may be used only for stem cell research on the approximately 60 existing cell lines (so that no additional embryos would be terminated).[49] But this leaves the private sector free to use excess embryos from IVF clinics for research purposes.

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[42] *See* MICH. COMP. LAWS ANN. § 722.861; WASH. REV. CODE ANN. § 26.26.260.
[43] *See, e.g.*, N.D. CENT. CODE § 14-18-05.
[44] 750 ILCS 45/6(i).
[45] Susan M. Kerr et al., *Post Mortem Sperm Procurement*, 157 J. UROLOGY 2154, 2155 (1997).
[46] *Id.* at 2156.
[47] David I. Hoffman et al., *Cryopreserved Embryos in the United States and Their Availability for Research*, 79 FERTILITY & STERILITY 1063, 1066 (2003).
[48] *See* LORI B. ANDREWS, THE CLONE AGE: ADVENTURES IN THE NEW WORLD OF REPRODUCTIVE TECHNOLOGY at 62 (Henry Holt 2000) (providing further information on embryo disputes).
[49] "Remarks by President George W. Bush on Stem Cell Research, August 9, 2001," ANDREWS, *supra* note 24, at 173-175 (West Publishing, 2006).

The states, as well as the federal government, play a role in regulating research on embryos and fetuses. Some states have chosen to ban embryo research entirely.[50] Others have enacted legislation to specifically allow embryo stem cell research, and even so-called therapeutic cloning.[51] There is also considerable state legislation affecting the commercialization of embryonic tissue.[52] Certain states include within their abortion laws or embryo and fetal research laws bans on payment.[53] Other states have adopted versions of the Uniform Anatomical Gift Act, the law governing donation of tissue and organs from a deceased individual for transplantation or treatment.[54]

Another way infertile couples may some day be able to create children is through cloning. The U.S. Congress is considering several bills[55] to ban the creation of children through cloning and it remains to be seen whether such a ban will also include the creation of cloned embryos solely for research purposes. However, at least thirteen states have already moved ahead to prohibit human reproductive cloning.[56]

As technology evolves, parents-to-be will have even more control over the traits of their offspring. In a Louis Harris poll sponsored by the March of Dimes, 42% of potential parents surveyed

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[50] *See, e.g.*, Fla.Stat. Ann. § 390.0111(6).

[51] The states include California, CAL. HEALTH & SAFETY CODE § 125300 (West 2006); Massachusetts, MASS. ANN. LAWS ch. 111L, § 3 (West 2005); and New Jersey, N.J. STAT. ANN. § 26:2Z-2 (West 2006).

[52] Lori B. Andrews, "State Regulation of Embryo Stem Cell Research," in NATIONAL BIOETHICS ADVISORY COMMISSION, ETHICAL ISSUES IN HUMAN STEM CELL RESEARCH:
COMMISSIONED PAPERS, A-8 to A-9 (2000).

[53] *Id.*

[54] *See id.*

[55] For example, proposed bills to ban reproductive cloning included: Human Cloning Prohibition Act of 2005, S. 658, 109th Congress (2005); Human Cloning Prohibition Act of 2005, H.R. 1357, 109th Cong. (2005); Human Cloning Ban Act of 2005, H.R. 3932, 109th Cong. (2005); Human Cloning Ban Act of 2005, H.R. 1520, 109th Cong. (2005).

[56] These states include Arkansas, ARK. CODE ANN. § 20-16-1002 (Michie 2005); California, CAL. HEALTH & SAFETY CODE § 24185 (West 2006); Connecticut, CONN. GEN. STAT. § 19a-32d (2006); Indiana, IND. CODE ANN. § 35-46-5-2 (Michie 2006); Iowa, IOWA CODE § 707B.2 (2006); Maryland, MD. ANN. CODE art. 83A, § 5-2B-13 (2006) (effective July 1, 2006); Massachusetts, MASS. ANN. LAWS ch. 111L, § 8 (West 2005); Michigan, MICH. COMP. LAWS ANN. § 750.430a (West 2006); New Jersey, N.J. STAT. ANN. § 2C:11A-1 (West 2006); North Dakota, N.D. CENT. CODE § 12.1-39-02 (2005); Rhode Island, R.I. GEN. LAWS § 23-16.4-2 (2006); South Dakota, S.D. CODIFIED LAWS § 34-14-27 (Michie 2005); and Virginia, VA. CODE ANN. § 32.1-162.22 (West 2005).

said they would use genetic engineering on their children to make them smarter; 43%, to upgrade them physically.[57] Another survey found that over a third of people wanted to tweak their children genetically to make sure they had an appropriate sexual orientation.[58]

The very boundaries of what is human could be changed by reproductive and genetic technologies. Yet hardly anyone in the public or the legislatures is paying attention. The designing of children is occurring subtly, as a result of individual choices through an open market. How are we, as a society going to judge such desires? Should certain genetic manipulations be allowed and others not? Should parents be able to buy height-enhancing genes for their embryos? Will that be viewed more like cheating in sports or more like signing your child up for private tennis lessons? Is giving a child a gene protective against a deadly disease appropriate but manipulating genes for cosmetic purposes not? Should the government intervene or should couples be free from any intrusion in this type of decision-making? These are the next generation of legal questions that infertility clinics will face.

Daar's book comes at a crucial time. The law students of today are the ones who are going to undertake the legal cases and write the laws that address the frontier questions in the biotechnology realm: Will we soon live among cloned human beings? Should parents be permitted to give their infants genes for traits that humans never had before, like the running speed of a cheetah? And if the designer babies did not turn out the way the parents had planned, should lemon laws for children allow them to get their money back?

With questions such as these, the wisdom of Solomon might be needed once again. And Judith Daar's casebook can help this generation of lawyers attain that wisdom.

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[57] *See* ANDREWS, *supra* note 48, at 143..

[58] Public Opinion Survey Sponsored by Harpers Magazine (Nov. 1997) (on file with author).