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SURROUNDING EMBRYOS: BIOLOGY, IDEOLOGY, AND POLITICS

Janet L. Dolgin[†]

INTRODUCTION

When Kristin Luker wrote *Abortion and the Politics of Motherhood* in the early 1980s, she chose the word “embryo” to refer to “the form of life between conception and birth” because “embryo” was a neutral term. Luker explained that the term “embryo” did not carry the political and ideological connotations of the words “fetus” or “baby.”¹ “[T]o use either the word *fetus* or the word *baby*,” wrote Luker, “is to make a political judgment.”²

Two decades later, disputes about embryos were at the center of partisan politics. In early 2005, a piece in the *National Review* referred to embryos as Microscopic Americans.³ A court in Chicago concluded that frozen embryos are “human beings” and that their destruction provided the basis for a wrongful death suit.⁴ And President Bush announced that he would veto a bill, passed by the House and under consideration in the Senate,⁵ which would allow federal funding for embryonic stem-cell research.⁶ The President referred to embryos

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¹ KRISTIN LUKER, *ABORTION AND THE POLITICS OF MOTHERHOOD* 2 (1984).

² *Id.*

³ Deroy Murdock, *Where's the Leave-My-Money Alone Coalition?*, NAT'L REV. ONLINE, May 24, 2005, <http://www.nationalreview.com/murdock/murdock200505240807.asp>.

⁴ *Miller v. American Infertility Corp*, No. 02 L 7394 (Cir. Ct. Cook County Feb. 4, 2005) (Alison Miller and Todd Parrish sued a Chicago infertility clinic which had mistakenly thrown out an embryo created from Miller's egg and Parrish's sperm).

⁵ By the end of July 2005, it seemed unlikely that the Senate bill, comparable to the one passed in the House in May, would come to a vote before the summer recess. In part, that appeared to be the result of various Senators introducing six alternative stem cell bills. *US Stem Cell Bill Stalls in Senate*, BIONEWS, July 24, 2005, <http://www.bionews.org.uk/new.lasso?storyid=2671>. See *infra* notes 150-52 and accompanying text.

⁶ Stem Cell Research Enhancement Act of 2005, H.R. 810, 109th Cong.

as “our society’s most vulnerable members”⁷ and pledged to protect them. An opposing perspective was portrayed in a widely syndicated cartoon strip.⁸ The first window of the cartoon presents two men considering the negative “ripple effects” of U.S. involvement in Iraq. One concludes that Bush (“the man who caused [the war in Iraq]”) “doesn’t seem to have lost a wink of sleep over it.” The cartoon’s final window pictures the White House at night. One voice, apparently that of Laura Bush, asks her sleepless husband “what’s wrong?” “It’s the [embryonic] stem cells,” he explains. “I hear their cries.”

Clearly, between Luker’s research in the late 1970s and early 1980s,⁹ which focused on the socio-cultural implications of positions in the debate about abortion, and the start of the twenty-first century, the implications of the term “embryo” shifted dramatically in the United States. By 2005, the notion of an embryo raised as many controversial questions as did the notion of a fetus in the context of the debate about abortion three decades earlier. Moreover, virtually all voices in the current debate about embryos appeal to biological “truth,” but that appeal fails to mediate among the panoply of conflicting moral assessments of embryonic status.

This article considers why the notion of the embryo has become controversial. This will involve reviewing developments in science, the history of the debate about abortion, and shifting meanings attributed to the term “embryo.” The next Part (I) of this article begins that review. It focuses on the ideological context within which debate about fetuses has been broadened (and perhaps in part displaced)¹⁰ by debate about embryos. This Part includes a short summary of developments in medicine and biotechnology that have altered perceptions of embryos. Then Part II reviews shifting, often conflicting, understandings of “embryo” that reflect a more pervasive social debate about family, personal relationships, and personhood in the United

(2005); See Ricardo Alonso-Zaldivar, *House Defies the President on Stem Cells*, L.A. TIMES, May 25, 2005, at A1; Julie Hirschfeld Davis & David Kohn, *Showdown Looms on Stem Cell Research*, BALT. SUN, May 21, 2005, at 1A.

⁷ Press Release, Pres. George W. Bush, President Discusses Embryo Adoption and Ethical Stem Cell Research (May 24, 2005), available at <http://www.whitehouse.gov/news/releases/2005/05/20050524-12.html>.

⁸ Gary Trudeau, *Doonesbury*, July 10, 2005 available at http://doonesbury.com/strip/dailydose/index.html?uc_full_date=20050710. The cartoon’s reference to “stem cells” is to human embryonic stem cells. Embryonic stem cell research involves destruction of research embryos. See *infra* notes 47-79 and accompanying text.

⁹ LUKER, *supra* note 1, at 251 (noting early interviews done between 1977 and 1980).

¹⁰ How, ultimately, the debate about embryos will alter the debate about fetuses cannot yet be known.

States. Part II concentrates on three efforts to establish the personhood of embryos by parties connected with the pro-life movement or, for some other reason, opposed to embryonic research. Finally, Part III reviews some of the wider social implications of the present debate about embryos.

I. WHY AN EMBRYO?: SCIENCE AND IDEOLOGY¹¹

The term “culture war”¹² refers to a late twentieth- and early twenty-first-century debate in the United States about ethics, politics, and ideology that broadly separates the political right from the political left. Its development has involved, among other things, an unprecedented division in partisan politics between those committed to theological orthodoxies and those not so committed.¹³ At least initially, the term was used primarily by conservative commentators¹⁴ to suggest an active social alternative to liberal agendas in public life.¹⁵

¹¹ As used here, the term “ideology” does not refer to a system of false political beliefs. Rather it refers to the underlying beliefs (often unstated) in terms of which a group of people understand themselves and their world. This meaning of the term follows that of the French anthropologist Louis Dumont:

Our definition of ideology thus rests on a distinction that is not a distinction of matter but one of point of view. We do not take as ideological what is left out when everything true, rational, or scientific has been preempted. We take everything that is socially thought, believed, acted upon, on the assumption that it is a living whole, the interrelatedness and interdependence of whose parts would be blocked out by the a priori introduction of our current dichotomies.

LOUIS DUMONT, *FROM MANDEVILLE TO MARX* 22 (1977).

¹² John Woestendiek and Robert Little have defined the term “cultural war,” used in reference to the contemporary United States., as “the idea that the nation is increasingly divided into increasingly entrenched camps that are increasingly at odds over whether the government should legislate moral values.” John Woestendiek & Robert Little, *Looming Fight*, *BALT. SUN*, July 3, 2005, at 1A.

¹³ See PEW FORUM ON RELIGION & PUB. LIFE, *RELIGION & PUBLIC LIFE: A FAITH-BASED PARTISAN DIVIDE 2-4* (2005), available at <http://pewforum.org/publications/reports/religion-and-politics-report.pdf>. The Pew study found a surprising correlation between people in the United States who both hold traditional religious views and attend religious services and support for Republican candidates, and, on the other side, support for Democratic candidates among people who do not hold traditional religious views and who do not attend religious services. *Id.* at 2.

¹⁴ STEPHEN L. CARTER, *GOD’S NAME IN VAIN: THE WRONGS AND RIGHTS OF RELIGION IN POLITICS* 205 n.13 (2000).

¹⁵ *Id.* at 44.

At the 1992 Republican National Convention in Houston,¹⁶ Patrick Buchanan referred to an American “religious war” and a “cultural war.”¹⁷ There is, he declared, “a religious war going on in our country for the soul of America. It is a cultural war, as critical to the kind of nation we will one day be as was the Cold War itself.”¹⁸ Buchanan distinguished his camp in the cultural war from its ideological opponent, which Buchanan associated with Bill and Hillary Clinton. Buchanan linked the Clintons with a political program committed to “radical feminism,” “abortion on demand” and “homosexual rights.”¹⁹

To a limited extent, the issues of central concern in the “culture wars” have shifted since Buchanan addressed the Republican National Convention.²⁰ On the whole, however, the ideological controversies that continue to engage public attention implicate family structure and relationships within familial contexts. Moreover, even if the majority of people are actually less polarized ideologically than public rhetoric

¹⁶ Robin Toner, *The Culture Wars, Part II*, N.Y. TIMES, Feb. 29, 2004, §4, at 1.

¹⁷ *Id.* The term “culture war” was used in the title of James Davison Hunter’s 1991 book, *Culture Wars: The Struggle to Define America*. JAMES DAVISON HUNTER, *CULTURE WARS: THE STRUGGLE TO DEFINE AMERICA* (1991).

¹⁸ James Sterngold, *Culture War Being Reshaped, Conservatives Lower Expectations*, S.F. CHRON., Feb. 29, 2004, at A-1.

¹⁹ Toner, *supra* note 16, at 1. In 2003, Michael Goldman, a political consultant and professor at Tufts, identified about twenty-seven issues relevant to the American cultural wars. Among the issues he identified were: abortion, affirmative action, assisted suicide, the death penalty, gay marriage, same-sex civil union, public funding for non-public schooling, and the distribution of condoms in public schools. Michael Goldman, *America’s Great Cultural Divide*, LOWELL SUN (Lowell, MA), Sept. 13, 2003.

²⁰ Perhaps more accurately, the issues that Buchanan identified have now coalesced into a set of somewhat more concrete political and ideological battles. So, for instance, disagreement within society about “homosexual rights” is now being played out in legal and political fora where the right to same gender marriage is variously advanced and limited.

In May 2004, Massachusetts permitted same-gender couples to marry. The right to marry for same-gender couples followed the decision of the state’s highest court in *Goodridge v. Dep’t of Pub. Health*, 798 N.E.2d 941, 969 (Mass. 2003) (holding that state constitution precludes denying same-gender couples right to marry).

In November 2004, eleven states passed constitutional amendments that prohibit gay marriage. Elvia Diaz, *Gay-Nuptial Foes Gear Up*, ARIZ. REP., May 17, 2005, at A1. The states include Arkansas, Georgia, Kentucky, Michigan, Mississippi, Montana, North Dakota, Ohio, Oklahoma, Oregon, and Utah. *Id.* (relying on National Conf. of State Legislatures). Groups opposed to same-gender marriage are working to have similar referenda in other states. *Id.* (describing petition filed with Arizona Secretary of State in May 2005; the proposed amendment defines marriage as a relationship between a man and a woman).

suggests,²¹ issues such as same-gender marriage²² and the status of prenatal life²³ continue to stimulate disputational responses that suggest, if not a “culture war,” at least a “culture gap.”²⁴

A. The Debate About Abortion

Several decades ago, especially in the years surrounding the Supreme Court’s decision in *Roe v. Wade*, which granted women a limited right to abortion,²⁵ the “culture gap” was reflected and hardened in the debate about abortion. At its center, that debate involved dispute about the status of life after conception and before birth. After *Roe*, explained Kristin Luker, “[a]bortion was no longer a technical, medical matter controlled by professionals; it was now emphatically a public and moral issue of nationwide concern.”²⁶ As Luker documented, that debate was about much more than abortion. In fact, debate about abortion served as a context for debate about “the roles of the sexes, about the meaning of parenthood, and about human nature.”²⁷

During the 1970s and 1980s, pro-life adherents worked effectively, through words and through images, to focus attention on the fetus-as-a-person. That focus has been useful to the pro-life movement

²¹ Morris Fiorina, co-author of *Culture War? Myth of a Polarized America* (2004), explained in a 2004 interview: “I’m willing to grant that 10 [percent] of people are highly polarized and it’s always been that way.” Josh Gerstein, *Dispute Emerges on How Deeply U.S. is Divided*, N.Y. SUN, July 6, 2004, at 1. Samuel Abrams, one of Fiorina’s co-authors, explained the perception that the country is deeply divided by noting that pollsters typically ask respondents for “yes” or “no” answers to complicated questions about their underlying perspectives on social issues. Abrams noted that one survey that relied on open-ended questions, revealed the average interviewee to be mildly pro-choice with regard to a right to abortion. *Id.*

²² Jonathan Rauch, *A More Perfect Union: How the Founding Fathers Would Have Handled Gay Marriage*, 293 ATLANTIC MONTHLY 88, 88 (2004).

²³ William L. Saunders, Jr., *Lethal Experimentation on Human Beings: Roe’s Effect on Bioethics*, 31 FORDHAM URB. L.J. 817, 822 (2004) (noting importance of status of fetus in reviewing abortion laws); Suzanne E. Skov, *Stenberg v. Carhart: The Abortion Debate Goes Technical*, 14 J. CONTEMP. LEGAL ISSUES 235, 240 (2003) (noting legal changes in status of embryos).

²⁴ Prof. Richard Dahl assessed the American culture gap as real, but not likely to produce serious disorder. Dahl explained: “I don’t think we’re anywhere near the type of conflict that threatens the stability of the country. . . . I do think it’s a rather difficult period we’re passing through.” Gerstein, *supra* note 21, at 1.

²⁵ *Roe v. Wade*, 410 U.S. 113 (1973).

²⁶ LUKER, *supra* note 1, at 127. Luker reports that more people became part of the movement opposing abortion in the year following Jan. 22, 1973 (the day on which *Roe* was decided) than in any other year before or after. *Id.* at 137.

²⁷ *Id.* at 158.

in its effort to limit the right to abortion.²⁸ Images of fetuses resembling babies are often so troubling that even pro-choice feminists have become reluctant to entertain questions about the status of fetal life.²⁹

The pro-life movement's concentration on the personhood of fetuses has framed and has often stood in for³⁰ a larger social debate about gender, families, and "moral values."³¹ That larger debate has been harder for those affiliated with the pro-life movement to shape and control than has the debate about abortion. By the last decades of the twentieth century, demographic changes in the shape of the American family³² and new legal rules that encouraged, supported, and reflected those changes,³³ had, as a practical matter, resulted in

²⁸ After *Webster v. Reproductive Health Serv.*, 492 U.S. 490 (1989) (upholding provisions of Missouri statute that banned the use of public facilities to perform abortions not necessary to save the mother's life, and banning the participation of public employees in performing abortions not necessary to save the mother's life), and *Planned Parenthood v. Casey*, 505 U.S. 833 (1992) (replacing Roe's reliance on pregnancy as defined through three trimesters with notion of "undue burden"), the number of abortions per live births in the United States declined. The cause of the decline in the rate of abortion has been debated. However, some, including the director of Pennsylvania's Pro-Life Federation, attributed the decline to the educational effect of the rules the Court upheld in *Casey*. Some pro-choice advocates concluded that the rules upheld in *Casey* were being used to convince pregnant women not to abort their pregnancies. N.E.H. HULL & PETER CHARLES HOFFER, *ROE V. WADE: THE ABORTION RIGHTS CONTROVERSY IN AMERICAN HISTORY* 268-69 (2001).

²⁹ See Marsha Saxton, *Disability Rights and Selective Abortion*, in *ABORTION WARS: A HALF CENTURY OF STRUGGLE, 1950-2000* 374, 390 (Rickie Solinger ed., 1998).

³⁰ The opening sentences of a Washington Post news article about the nomination of John G. Roberts to the United States Supreme Court reads: "A clear majority of Americans say John G. Roberts Jr. should be confirmed to serve on the Supreme Court but want him to state his views on abortion before the Senate votes on his nomination, according to a new Washington Post-ABC News poll." Richard Morin & Charles Babington, *Roberts Supported by a Majority in Poll*, WASH. POST, July 23, 2005, at A06. The article reports that almost two out of three people polled want Roberts to make his views on abortion public during the confirmation process. In part, the media may be responsible for having pinpointed abortion as the central issue faced by the Court. Whether or not that is so, the public does appear to interpret views about abortion as a barometer of a political actor's social and moral mettle. *Id.*

³¹ See Janet L. Dolgin, *Embryonic Discourse: Abortion, Stem Cells, and Cloning*, 31 FL. ST. U.L. REV. 101, 121-28 (2003) (delineating broader social implications of debate about abortion).

³² See *Troxel v. Granville*, 530 U.S. 57, 63 (2000) (reporting that "demographic changes of the past century make it difficult to speak of an average American family").

³³ See, e.g., *Griswold v. Connecticut*, 381 U.S. 479, 485-86 (1965) (invalidating Connecticut birth-control law on basis of constitutional right to family privacy); *Eisenstadt v. Baird*, 405 U.S. 438, 454-55 (1972) (invalidating Massachusetts statute that prohibited distribution of contraception to unmarried people); and *Roe* itself, *Roe v. Wade*, 410 U.S. 113 (1973) (declaring limited right to abortion).

replacement of the traditional family of the 1950s with a new form of family. It had become difficult to argue successfully, as a practical (and even as a moral) matter, that couples should not divorce or that women (or even women with children) should not enter the workforce. Most people had chosen patterns of life that provided for choice in family settings. For instance, by the end of the twentieth century, every state provided for at least a limited form of no-fault divorce,³⁴ single-parent families had become familiar,³⁵ and most women with children were in the workforce.³⁶

In a universe in which the demographic incidents of the traditional family had largely been abandoned,³⁷ it became much easier to oppose the legality of abortion than to oppose the notion of family members (or at least of adults within families) as equal, autonomous individuals, free to reach their own choices about the contours of family life and about familial relationships.³⁸ Thus, during the last decades of the twentieth century, the debate about abortion forged ahead, with pro-life voices concentrating on the sanctity of fetal life, and pro-choice voices concentrating on a woman's right to choose the terms of her own familial bargains.

In short, after *Roe*,³⁹ focus on fetal personhood served the pro-life movement in the effort to limit abortion, and served the political, and more particularly, the religious right more broadly as a rallying point for a variety of aims, including opposition to laws precluding discrimination against gays and lesbians.⁴⁰ In this effort, the pro-life

³⁴ Doris Jonas Freed, *Grounds for Divorce in the American Jurisdictions (as of June 1, 1974)*, 8 FAM. L.Q. 401 (1974); Veryl Victoria Miles, *The Nondischargeability of Divorce-Based Debts in Bankruptcy: A Legislative Response to the Hardened Heart*, 60 ALB. L. REV. 1171, 1172 n.3 (1997).

³⁵ See NAT'L COMM'N ON CHILDREN, BEYOND RHETORIC: A NEW AMERICAN AGENDA FOR CHILDREN AND FAMILIES 15 (1991).

³⁶ See Thomas C. Kohler & Matthew W. Finkin, *Bonding and Flexibility: Employment Ordering in a Relationless Age*, 46 AM. J. COMP. L. (SUPP.) 379, 397 (1998) (reporting that 77 percent of women whose youngest child was of school age were in the workforce and that 55 percent of women with children under one year of age were in workforce).

³⁷ See, e.g., *Troxel*, 530 U.S. at 63-64 (2000) (plurality opinion) (noting "demographic changes of the past century" that "make it difficult to speak of an average American family").

³⁸ See, e.g., *Roe*, 410 U.S. at 164-66 (extending limited right to abortion); *Eisenstadt*, 405 U.S. 438, 454-55 (declaring unconstitutional ban on distribution to contraceptives to unmarried people); *Griswold*, 381 U.S. at 485-86 (declaring unconstitutional ban on distribution of contraceptives to married people).

³⁹ 410 U.S. 113 (1973).

⁴⁰ HULL & HOFFER, *supra* note 28, at 187-88. The pro-life movement enjoyed more success in its opposition to abortion than in the larger underlying effort to supplant modern families-of-choice with more traditional families. This was true even

movement's focus on the fetus—as, variously, a baby or a murder victim—displaced, and substituted for, more direct discourse in public arenas on family values. It had become less controversial in the society broadly to support a wide variety of non-traditional family forms⁴¹ than openly to deny the personhood of fetuses.⁴² As a strategic matter, therefore, focus on fetal status served the pro-life movement's anti-abortion agenda along with an encompassing agenda that favored tradition in family settings. That strategy faltered, however, at the end of the twentieth century.

B. A New Focus: The Politicization of the Embryo

Embryos came into social consciousness as the result of medical and technological developments. The first among these developments was increasingly accurate and inexpensive pregnancy tests that could be used soon after conception,⁴³ followed by the development of ultrasonography which permitted pregnant women, their partners, and their health care providers to visualize the progress of a pregnancy before the start of the fetal stage.⁴⁴ The appearance of an industry in infertili-

though these two efforts were linked openly, at least since the years surrounding the Court's decision in *Roe*:

Because abortion law repeal embodied the autonomy and independence of the new woman, it had become the centerpiece of the women's rights movement. In the reverse mirror image, because abortion law repeal seemed to assault traditional values of family and religion, it politicized the religious right. For example, Jerry Falwell, an evangelical minister and, in 1979, the founder of the Moral Majority movement, recalled that *Roe* had awakened him from his slumbers.

Id. at 187.

⁴¹ See, e.g., MILTON C. REGAN, JR., *FAMILY LAW AND THE PURSUIT OF INTIMACY* 34-35 (1993) (describing contemporary family through reference to autonomy as central value among family members).

⁴² See, e.g., Saxton, *supra* note 29, at 383 (noting feminists' reluctance to consider status of fetuses).

⁴³ The first pregnancy tests were available through laboratories in the middle of the twentieth century. In the 1930s, several laboratories offered bioassays. The tests were expensive, slow, and insensitive. In addition, they necessitated the death of animals. By 1970, laboratory pregnancy tests could be performed as soon as four days after a missed menstrual period. In 1976, the FDA granted approval to Warner-Chilcott for the "Early Pregnancy Test" (e.p.t.), a test that could be used without laboratory assistance. By 1978 e.p.t. was being advertised in a variety of women's magazines, including *McCall's*, *Redbook*, and *Vogue*. The Office of NIH History, *A Timeline of Pregnancy Testing*, <http://www.history.nih.gov/exhibits/thinblue/timeline.html> (last visited Sept. 12, 2005).

⁴⁴ Ultrasound was introduced for diagnostic purposes in the 1960s. Anant S. Mashankar, *Technological Advances in Radiology*, *EXPRESS HEALTHCARE MGMT.* (Oct. 16-31, 2003), available at <http://expresshealthcaremgmt.com/20031031/>

ity care in the late 1970s and early 1980s played a major role in society's reconceptualization of the notion of embryo.⁴⁵ Then in the late 1990s, the successful cloning of a mammal altered the implications of reproductive technology by offering the possibility of reproduction that required an ovum and a somatic cell but not sperm.⁴⁶ Finally, the isolation of embryonic stem cells in 1998 transformed the implications of the debate about embryos for almost everyone.⁴⁷ This section reviews each of these developments and their implications for shifts in social understandings of embryos.

Effective pregnancy tests made it possible to confirm a very early pregnancy. The tests also allowed women to choose abortion, even before the appearance of most symptoms of pregnancy.⁴⁸ The use of ultrasonography in obstetrics made embryos real and relevant in concrete terms by making it possible to literally picture developing embryonic life.⁴⁹ Embryos, unlike fetuses, do not resemble babies. At base, images of embryos remain images of cells. This has made it difficult for the pro-life movement to fashion sympathy for embryonic life as effectively as it garnered sympathy for fetal life, through use of placards and photographs of both aborted and presumptively beloved fetuses.⁵⁰ The elusive quality of images of embryos has proved

technologytrends04.shtml. By 1965 a five-week gestational sac was seen on ultrasound. Joseph Woo, *A Short History of the Development of Ultrasound in Obstetrics and Gynecology*, <http://www.ob-ultrasound.net/history2.html> (last visited Sept. 12, 2005).

⁴⁵ In the United States, infertility care was a multi-billion dollar industry by the end of the twentieth century. Lori B. Andrews, *Reproductive Technology Comes of Age*, 21 WHITTIER L. REV. 375, 382 (1999). At that time, the cost of a successful IVF treatment ranged from \$44,000 to \$200,000, and infertility doctors had become the highest earning group of doctors. *Id.*

⁴⁶ I. Wilmut et al., *Viable Offspring Derived from Fetal and Adult Mammalian Cells*, 385 NATURE 810, 810 (1997) (describing the scientific steps taken to create a mammalian clone).

⁴⁷ See James A. Thomson et al., *Embryonic Stem Cell Lines Derived from Human Blastocysts*, 282 SCI. 1145, 1145 (1998) (reporting on the derivation of embryonic stem cell lines from human blastocysts).

⁴⁸ See generally The Office of NIH History, *supra* note 43 (citing women's magazine article discussing how pregnancy tests allowed women to consider early abortion without having to wait for doctor's confirmation of pregnancy).

⁴⁹ See Carol A. Stabile, *The Traffic in Fetuses*, in FETAL SUBJECTS, FEMINIST POSITIONS 133, 144-46 (Lynn M. Morgan & Meredith W. Michaels eds., 1999) (describing how the anti-abortion movement has utilized representations of the fetus since the late 1960s).

⁵⁰ See, e.g., Bill Torpy, *Marchers Back Right to Abortion: New Laws a Threat, They Say*, ATLANTA J. CONST., Apr. 18, 2005, at 1D (describing pro-life protesters who responded to a pro-choice rally in Georgia by holding placards picturing aborted fetuses; one protester is described as having held a placard bearing a picture of a fetal arm, emerging from a stack of bloody garbage).

important in facilitating various social images of embryos as future babies and children, as clumps of cells, as clumps of “special” cells, and as the embodiment of the promise of medical cures for illness and debility.⁵¹

The third major set of scientific and technological developments that raised social consciousness about embryonic life began, as a public matter, with the birth in 1978 of a baby conceived *in vitro*.⁵² Within five years, a baby was born from an embryo that had been frozen and thawed before implantation,⁵³ and the following year (1984) a baby, conceived through use of a donor egg, was born in Australia.⁵⁴ The possibility of freezing embryos for use in subsequent IVF cycles has been of particular consequence for the debate about embryos. At present, more than 400,000 frozen embryos are being preserved in the United States.⁵⁵

For several decades, pro-life responses to IVF and embryo cryopreservation in the United States were muted. The Catholic

⁵¹ The consequent debate about embryos in the context of stem-cell research is complicated because, among other things, embryos can be used to represent the sanctity of family relationships as easily as they can be used to represent the promise of embryonic research and regenerative medicine. See e.g., Thomas B. Okarma, *Human Embryonic Stem Cells: A Primer on the Technology and its Medical Applications*, in *THE HUMAN EMBRYONIC STEM CELL DEBATE: SCIENCE, ETHICS, AND PUBLIC POLICY* 3, 3 (Suzanne Holland et al. eds., 2002) (describing regenerative medicine to include the “restoration of lost organ function.”). At least for non-scientists, the non-specific appearance of embryonic life, pictured through ultrasonography, allows people to invoke images of embryos to serve a wide array of ideological ends. Even more, some pro-life adherents have supported embryonic stem-cell research, largely because of the force of arguments about the promise of that research in medicine. See *infra* notes 63-73 and accompanying text. Stories of sick children and the promise of embryonic stem cell research to cure them apparently convinced Senator Orrin Hatch (R-Utah), a pro-life advocate, to support non-reproductive cloning for the purpose of stem cell research. Hatch described such research as “pro-life and pro-family.” Ceci Connolly, *Waging the Battle for Stem Cell Research: As Senate Vote Approaches, Coalition Intensifies Year-Long Lobbying Effort*, WASH. POST, July 9, 2002, at A6. See *infra* notes 74-79 and accompanying text.

⁵² See *The First Test-Tube Baby*, TIME, July 31, 1978, at 58 (describing the impending birth of baby conceived outside a woman’s body). See also Howard W. Jones, Jr. & James P. Toner, *Current Concepts: The Infertile Couple*, 329 NEW ENG. J. MED. 1710, 1712 (1993) (describing *in vitro* fertilization).

⁵³ PBS, Bloodlines, Timeline, http://www.pbs.org/bloodlines/timeline/text_timeline.html (last visited Sept. 24, 2005) (providing a timeline of discoveries and advances in reproductive science).

⁵⁴ *Id.*

⁵⁵ Jessica Berg, *Owning Persons: The Application of Property Theory to Embryos and Fetuses*, 40 WAKE FOREST L. REV. 159, 159 (2005).

Church has consistently opposed IVF, embryo cryopreservation,⁵⁶ and other forms of infertility care that separate reproduction from sexuality.⁵⁷ However, for the most part, neither the Catholic Church nor evangelical and fundamentalist Protestant churches actively opposed the development of the industry in infertility care, probably because the aim of assisting couples, often with few other reproductive options, to have children seemed praiseworthy.⁵⁸

One important institutional response to the destruction of “excess” embryos produced for infertility treatment did appear in 1997 with the creation of the Snowflakes embryo “adoption agency.” That was, perhaps not coincidentally, the year in which Ian Wilmut and his team at

⁵⁶ CONGREGATION FOR THE DOCTRINE OF THE FAITH, INSTRUCTION ON RESPECT FOR HUMAN LIFE IN ITS ORIGIN AND ON THE DIGNITY OF PROCREATION: REPLIES TO CERTAIN QUESTIONS OF THE DAY, http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19870222_respect-for-human-life_en.html [hereinafter INSTRUCTION] (last visited July 14, 2005) (discussing the Catholic Church’s position on IVF and embryo cryopreservation). The INSTRUCTION expressly banned both *in vitro* fertilization and embryo cryopreservation:

Techniques of fertilization *in vitro* can open the way to other forms of biological and genetic manipulation of human embryos, such as attempts or plans for fertilization between human and animal gametes and the gestation of human embryos in the uterus of animals, or the hypothesis or project of constructing artificial uteruses for the human embryo. *These procedures are contrary to the human dignity proper to the embryo, and at the same time they are contrary to the right of every person to be conceived and to be born within marriage and from marriage. . . . The freezing of embryos, even when carried out in order to preserve the life of an embryo—cryopreservation—constitutes an offence against the respect due to human beings by exposing them to grave risks of death or harm to their physical integrity and depriving them, at least temporarily, of maternal shelter and gestation, thus placing them in a situation in which further offences and manipulation are possible.*

Id.

⁵⁷ *Id.* The INSTRUCTION declares:

Conception *in vitro* is the result of the technical action which presides over fertilization. *Such fertilization is neither in fact achieved nor positively willed as the expression and fruit of a specific act of the conjugal union. In homologous IVF and ET, therefore, even if it is considered in the context of ‘de facto’ existing sexual relations, the generation of the human person is objectively deprived of its proper perfection: namely, that of being the result and fruit of a conjugal act in which the spouses can become ‘cooperators with God for giving life to a new person.’* These reasons enable us to understand why the act of conjugal love is considered in the teaching of the Church as the only setting worthy of human procreation.

Id. (citations omitted).

⁵⁸ Robin Toner, *Contrast to Abortion Issue is Discerned*, N.Y. TIMES, Mar. 12, 1987, at B10 (noting the absence of a “powerful consensus” among Catholics, fundamentalist and evangelical Christians about “surrogacy and test-tube fertilization” as compared with those groups’ responses to “the issue of legalized abortion”).

the Roslin Institute in Scotland announced⁵⁹ that they had successfully cloned a mammal.⁶⁰ The Snowflakes Frozen Embryo Adoption Program, operated by Nightlight Christian Adoptions in California, responded to concern for embryos produced in fertility treatment but not used or wanted for future use by the progenitors.⁶¹ The program arranges for such embryos to be donated (given up for “adoption”) to couples anxious to experience some of the biological incidents of reproduction but not able to reproduce using their own gametes. As discussed in Part III, a peculiar ideological conflict rests at the heart of this program in that its services are more likely to increase, than to decrease, the number of “excess” embryos produced as a result of infertility care.⁶²

The notion of “embryo adoption” was not foreign to the world of reproductive care. Those freezing embryos for future use could earmark those embryos for a variety of ends should they not be used by the progenitors for reproduction: the embryos could be stored long-term; destroyed after a specified period of cryopreservation or after the progenitors so directed; they could be donated to researchers; or they could be donated to other people, unable to produce healthy gametes. The last option could be framed as “donation” or as “adoption,” but, at least initially, the practical difference between “donation” and “adoption” did not seem very different.

Only after the isolation of human embryonic stem cells and the consequent promises of regenerative medicine⁶³ did society begin to focus on the ideological implications of “embryo adoption.”⁶⁴ This

⁵⁹ See Gina Kolata, *Scientist Reports First Cloning Ever of Adult Mammal*, N.Y. TIMES, Feb. 23, 1997, at A1.

⁶⁰ Wilmut et al., *supra* note 46, at 810-13.

⁶¹ Linda Feldmann, *Another Stem-Cell Showdown*, CHRISTIAN SCI. MONITOR, May 26, 2005, at 1.

⁶² See *infra* notes 132-49 and accompanying text.

⁶³ See *infra* notes 64-73 and accompanying text.

⁶⁴ After the House passed a bill (H.R. 810) that provided for federal funding of human embryonic stem cell research using “excess” embryos from infertility care, President Bush announced that he intended to veto the bill should a comparable provision be passed in the Senate. See *infra* notes 140-49 and accompanying text. At the time of his announcement he hosted what he called an “event” at the White House. He brought together a number of babies born after their parents “adopted” embryos through the Snowflake Frozen Embryo Adoption Agency. Bush explained: “As you know, I also had an event here at the White House with little babies that had been born as a result of the embryos that had been frozen—they’re called snowflakes—indicating there was an alternative to destruction of life.” *CNN Live Today: Presidential News Conference* (CNN television broadcast May 31, 2005). Bush then noted the importance of biomedical research and the cures to which it might lead. But, he explained, “it’s important in this society to balance ethics and science.” *Id.* See also

chapter of the embryo story began, as a matter of public concern, in 1998 when James Thomson at the University of Wisconsin isolated human embryonic stem cells⁶⁵ and John Gearhart at Johns Hopkins isolated human germ stem cells from fetal tissue.⁶⁶ Immediately, these developments promised a new age in medicine. Embryonic stem cells are unique in their capacity to develop into almost every kind of cell in the human body.⁶⁷ Moreover, they can, in theory at least, continue to divide endlessly,⁶⁸ and have been described as a “biological repair system.”⁶⁹ The most glorious promise of stem cell research suggests the creation of “whole organs to replace those that fail through disease, accident or old age.”⁷⁰ Insofar as embryonic stem cell research depends on the availability of embryos,⁷¹ non-reproductive cloning and the use of “excess” frozen embryos offered two sources of human embryos.

The startling and far-reaching promises of embryonic stem cell research reverberated through a society that had long envisioned health as tantamount to salvation.⁷² Suddenly, the central strategy of the pro-life movement—the portrayal of fetuses and embryos as people with moral rights—came up against an astonishing stumbling block. Even some well-known and influential pro-life advocates were willing to support research that involved the creation and destruction of embryos if that research could protect young children from lifelong illnesses and save sick, debilitated adults from a wide panoply of conditions, such as Alzheimer’s disease, Parkinson’s disease, cancer, and spinal cord injuries.⁷³

infra notes 142-49 and accompanying text.

⁶⁵ See Thomson et al., *supra* note 47, at 1145.

⁶⁶ See Michael J. Shambloot et al., *Derivation of Pluripotent Stem Cells from Cultured Human Primordial Germ Cells*, 95 PROC. NAT’L ACAD. SCI. 13276, 13276 (1998).

⁶⁷ Clive Cookson, *Special Report: The Future of Stem Cells: Mother of All Cells*, SCI. AM., July 2005, at A1, A6.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ Recently, some scientists have suggested that non-embryo, but embryo-like, cell clumps may provide an alternative source for the derivation of embryonic stem cells. See *infra* notes 73, 148-49 and accompanying text.

⁷² MICHEL FOUCAULT, *THE BIRTH OF THE CLINIC: AN ARCHAEOLOGY OF MEDICAL PERCEPTION* 198 (1975).

⁷³ See, e.g., Rick Weiss, *Hatch to Support Bill Allowing Stem Cell Study: Decision on Embryo Cloning is a Setback for Conservatives*, WASH. POST, May 1, 2002, at A2 (noting pro-life support for embryonic research); Adriel Bettelheim, *Divided Senate Examining Research Value, Moral Issues as it Ponders Vote on Cloning*, 60 CQ WKLY. 1154 (2002) (noting that Orrin Hatch, (R.-Kan.) and Strom Thur-

The ensuing controversy about embryonic stem cell research has transformed the debate about abortion. For many pro-life advocates, acknowledging that embryos—even two-day old embryos—were not people seemed wrong; moreover, it seemed to create a slippery slope that could affect social views of fetuses.⁷⁴ Pro-life adherents feared that if society widely conceptualized embryos as cells rather than as people, it might become easier (or even inevitable) that fetuses would soon be similarly conceptualized.

Voices on all sides of the issue have invoked science to justify particularistic understandings of embryonic status.⁷⁵ Many pro-choice

mond (R.-S.C.), both pro-life advocates, favored non-reproductive cloning for creation of embryos for use in embryonic stem cell research).

Three years later, Orrin Hatch continued his support for embryonic stem cell research in committing himself to support a Senate bill that provided for federal funding of that research rather than alternative bills that favored research aimed at developing embryonic stem cells from embryo-like cells that some defined as non-embryonic. See Sheryl Gay Stolberg, *G.O.P. Lawmakers Offer Alternative Bill on Stem Cells*, N.Y. TIMES, July 13, 2005, at A17 (discussing a Republican-drafted bill “that promotes new, unproven methods of obtaining stem cells without destroying embryos”).

And in mid-2005, Senate Majority Leader Bill Frist (R-Tenn.) announced that he was separating himself from President Bush’s stem cell policy and would, in the future, support federal funding for stem cell research on “excess” embryos produced in the course of infertility care. Frist declared that “the limitation put into place in 2001 will, over time, slow our ability to bring potential new treatments for certain diseases.” *Shift Brings New Hope*, USA TODAY, Aug. 4, 2005, at 10A.

⁷⁴ See generally Farhad Manjoo, *Everything You Always Wanted to Know About the Stem Cell Debate*, SALON.COM, June 8, 2005, http://archive.salon.com/news/feature/2005/06/08/stem_cells/print.html. Manjoo notes that those opposing federal funding for embryonic stem cell research “counter [those who argue that embryos aren’t people by noting] that their lack of development does not mean embryos are not human beings.” *Id.*

⁷⁵ Irving Weissman, a biology professor at Stanford, compares restrictions on human embryonic stem cell research to Lysenkoism, the notion, instituted as state policy by Stalin in the 1920s, that the theory of evolution associated with Charles Darwin, is incorrect. “The Russian way,” explains Weissman, “held that ideology trumps science, leading to the loss of good science for generations.” Irving Weissman, *Special Report: The Future of Stem Cells: The Ghost of Lysenko*, SCI. AM., July 2005, at A1, A27.

On the other side, many who either oppose or ask for caution in moving forward with human embryonic stem cell research invoke science to support claims about the respect owed to embryos and about embryonic personhood. Leon Kass, Chair of the President’s Council on Bioethics, who expresses innocence about the “moral status of the embryo,” explained in a radio interview: “I mean, one has to also acknowledge on biological rather than religious grounds that a five-day-old blastocyst is exactly what a human being looks like at that stage of development. You and I were at that stage. If we had been desegregated at that point, we wouldn’t be having this conversation.” Interview by Ira Flatow with Leon Kass, *Talk of the Nation/Science Friday* (N.P.R. radio broadcast May 27, 2005).

advocates and some others view early embryos as clusters of cells.⁷⁶ To some those cells are mere biological entities; to others they have some sort of moral value.⁷⁷ But, in either case, those favoring stem cell research deny that early embryos carry the status of persons.⁷⁸ In contrast, pro-life adherents have located a variety of legal and social contexts within which to present the case for the personhood of embryonic life.⁷⁹

II. WHAT'S AN EMBRYO?

Disputes about frozen embryos and disagreements about whether and how to regulate non-reproductive cloning⁸⁰ and embryonic stem

A statement opposing embryonic research and signed by dozens of signatories (many of them scientists and health care providers) concluded that "human stem cell research requiring the destruction of human embryos is objectionable on legal, ethical, and scientific grounds." Elliott Abrams et al. signatories, *On Human Embryos and Medical Research: An Appeal for Ethically Responsible Science and Public Policy*, 16 ISSUES L. & MED. 261, 261 (2001). The statement further reported that "the term 'pre-embryo,' and all that it implies, is scientifically invalid. The last century and a half has been marred by numerous atrocities against vulnerable human beings in the name of progress and medical benefit. . . . Of all human beings, embryos are the most defenseless against abuse." *Id.* at 265.

⁷⁶ One news report quoted bioethicist George Annas as having explained: "The anti-abortionist will say that the embryo has the same status as a child and taking an embryo apart for harvesting the stem cells is the equivalent of taking a child apart for its organs. That's the most anti-science argument I've ever heard."

"Imagine instead," he adds, "if an in vitro fertility clinic were on fire. Is there anyone who would save the fertilized eggs in the freezer instead of a child?" Ellen Goodman, *Stem Cells Give Democrats a Wedge Issue*, BALT. SUN, Aug., 9, 2004, at 11A.

⁷⁷ See, e.g., *Davis v. Davis*, 842 S.W.2d 588, 596-97 (Tenn. 1992) (noting "special respect" owed to embryonic tissue).

⁷⁸ Ron Reagan, Jr., presented this position at the 2004 Democratic National Convention: "Surely we can distinguish between these undifferentiated cells multiplying in a tissue culture and a living, breathing person—a parent, a spouse, a child." Goodman, *supra* note 76, at A11.

⁷⁹ See *infra* notes 80-149 and accompanying text.

⁸⁰ At present in the United States there is little disagreement about reproductive cloning—cloning for the creation of a child. The majority of scientists and politicians who had reviewed the question have concluded that society should not provide for reproductive cloning. See, e.g., Letter from Harold T. Shapiro, Chair, National Bioethics Advisory Commission to President George W. Bush (Mar. 16, 2001), http://bioethics.georgetown.edu/nbac/cloning_letter.pdf (explaining that NBAC members all found that allowing cloning for purposes of reproductive would be "premature" and "unacceptably dangerous"). See Paul Root Wolpe & Glen McGee, "Expert Bioethics" as Professional Discourse: The Case of Stem Cells, in *THE HUMAN EMBRYONIC STEM CELL DEBATE: SCIENCE ETHICS, AND PUBLIC POLICY* 185-88 (Suzanne Holland et al. eds. 2001) (discussing the controversial issue of human embryonic stem cell research).

cell research have fueled social discourse about the meaning of embryos. Thus, by the start of the twenty-first century, the debate about abortion was being energized and in part reinterpreted or displaced in public discourse by a sometimes parallel, sometimes intertwined debate about the status of embryos in the context of stem cell research.

Even basic terminology appropriate to discussions of embryos and their status is not firmly established. Linguistic disputes about words to be used in discussing embryos suggest the breadth of social disagreement about what embryos are and about how they should be treated. In one of the first disputes about the fate of frozen embryos, for instance, judges and litigants disagreed about the appropriateness of the term “pre-embryo”⁸¹ to refer to fertilized eggs developed to the eight-cell cleavage stage.⁸² A Tennessee trial court judge, entertaining a dispute about the fate of seven frozen embryos concluded that the embryos at issue in the case were “human beings, *in vitro*.”⁸³ He described the term “preembryo” as “a false distinguishing term in this case.”⁸⁴ A second linguistic disagreement about embryos arose out of the creation of so-called “embryo adoption” programs. Some commentators, such as Sean Tipton of the American Society for Reproductive Medicine, balked at the notion of “adopting” an embryo.⁸⁵ “You adopt a *child*,” Tipton explained. “Embryo donation is a donation of medical tissue.”⁸⁶ Still another terminological dispute about

During Summer 2005, Senators Dianne Feinstein (D-Calif.), Orrin Hatch (R-Ut.), Edward Kennedy (D-Ma.), Arlen Specter (R-Pa.), and Tom Harkin (D-Ia.) introduced a bill that bans reproductive cloning. The bill makes reproductive cloning a federal crime, punishable by ten years in prison and a fine of \$1 million or three times profits made from reproductive cloning. Political Desk, *Bill Introduced to Ban Human Reproductive Cloning*, AM. CHRON., July 28, 2005, <http://www.americanchronicle.com/articles/viewArticle.asp?articleID=1438>.

⁸¹ See, e.g., *Davis v. Davis*, No. E-14496, 1989 WL 140495, at *1 (Tenn. Cir. Ct. Sept. 21, 1989).

⁸² *Id.* at *3. The Tennessee trial court reported that three experts relied on a report of the Ethics Committee of the American Fertility Society to conclude that “preembryos” are distinct from embryos. *Id.* at *5. The guidelines of the American Fertility Society, published in 1986, defined a “preembryo” as a “product of gametic union from fertilization to the appearance of the embryonic axis. The preembryonic stage is considered to last until [fourteen] days after fertilization. This definition is not intended to imply a moral evaluation of the preembryo.” *Id.* at *5 (citing Am. Fertility Soc’y, *Ethical Considerations of the New Reproductive Technologies*, 46 FERTILITY & STERILITY 5, 6-7 (1986)).

⁸³ *Id.* at *1. See *infra* notes 97-131 and accompanying text (discussing *Davis v. Davis*).

⁸⁴ *Id.* at *6.

⁸⁵ Lynn Harris, *Clump of Cells or “Microscopic American”?*, SALON.COM, Feb. 5, 2005, <http://www.salon.com/mwt/feature/2005/02/05/embryos>.

⁸⁶ *Id.*

embryos has been developing around cells that might yield embryonic stem cells and that, depending on one's point of view, might or might not be embryos. Dr. William Hurlbut, a member of the President's Council on Bioethics, has recently argued in favor of deriving embryonic stem cells from cellular "artifacts" created after the removal of a gene for embryogenesis from a somatic cell before nuclear transfer to an egg.⁸⁷ Others have queried whether Dr. Hurlbut's "artifacts" might not, in fact, be embryos.⁸⁸ Moreover, in an apparent effort to soften the implication of language used to discuss stem cell research, scientists from South Korea, who claimed to have cloned human embryos in 2005 in order to harvest embryonic stem cells,⁸⁹ shied away from use of the word "clone."⁹⁰ They explained their research by declaring that they had used "somatic cell nuclear transfer" to create "human NT blastocysts."⁹¹ Such linguistic disagreements and ploys are suggestive of the concerns at stake in the encompassing social debate about embryonic status.

This Part considers that debate by reviewing three sets of responses to ex utero embryos by individuals or groups either aligned with the pro-life movement or opposed to research on human embryos. Court decisions occasioned by disputes between progenitors about the fate of frozen embryos form the first set of responses. The second involves the institutionalization of "embryo adoption" in response to large numbers of stored "excess" embryos. The third set of responses considered in this Part involves various, often conflicting, assessments of the science and morality of human embryonic stem-cell research. In each case, this Part examines the concerns and strategies of those anxious to ensure that society recognizes the personhood of embryos or to ensure, at least, that embryos (whether persons or not) are safeguarded through the extension of legal rights to them.

⁸⁷ The President's Council on Bioethics, Session 6: Seeking Morally Unproblematic Sources of Human Embryonic Stem Cells (Dec. 3, 2004), <http://www.bioethics.gov/transcripts/dec04/session6.html> (statement of Council Member Dr. William Hurlbut).

⁸⁸ *Id.* (statement of Richard Doerflinger of the United States Conference of Catholic Bishops).

⁸⁹ In late December, 2005, the National University in South Korea announced that Hwang Woo-suk (who resigned from the university several days earlier) had fabricated all of the results about human embryonic stem cells that he and colleagues had reported in *Science* (May 2005). *Egg on His Face; Scientific Fraud*, *ECONOMIST*, Jan. 7, 2006, at § Science & Technology.

⁹⁰ Gina Kolata, *Name Games and the Science of Life*, *N.Y. TIMES*, May 29, 2005, §4, at 12.

⁹¹ *Id.*

A. Disputes About Frozen Embryos

A number of legal cases predating the isolation of embryonic stem cells provided a frame that shaped the legal debate about the status of embryos.⁹² Most of those cases involved disputes occasioned by reproductive technology, including disputes about the fate of cryopreserved embryos.⁹³

These cases have involved disputes between progenitors⁹⁴ or between progenitors and fertility clinics storing frozen embryos.⁹⁵ In deciding who among various claimants has a right to determine the fate of frozen embryos, courts have considered the status of embryonic life. But judicial assessments about the status of embryos in these cases have often not provided concrete direction as courts have struggled to resolve actual conflicts about cryopreserved embryos.⁹⁶ Courts' conclusions about embryonic status, however, have established a frame within which the social debate about embryonic status has been voiced, amended, and elaborated.

This section reviews *Davis v. Davis*,⁹⁷ one of the early disputes about frozen embryos. The first such case entertained by a state's highest court, *Davis* was especially suggestive of the dimensions of the developing legal and social debate about embryonic status. Each of the three state courts that rendered decisions in the case reached a

⁹² Judicial disputes about frozen embryos followed Congress's promulgation in 1974 of the National Research Service Award Act of 1974, Pub. L. No. 93-348, §201(a), 88 Stat. 342 (1974). That Act placed a moratorium on federal funding of fetal research. The moratorium was removed a year later. See Protection of Human Subjects, 45 C.F.R. §46.202(c) (2004) (defining a "fetus" as "the product of conception from implantation until delivery").

⁹³ See *infra* notes 94-131.

⁹⁴ See, e.g., *Litowitz v. Litowitz*, 48 P.3d 261, 262 (Wash. 2002); *Kass v. Kass*, 696 N.E.2d 174, 175 (N.Y. Ct. App. 1998); *Davis v. Davis*, 842 S.W.2d 588 (Tenn. 1992) (divorcing couple dispute fate of frozen embryos).

⁹⁵ See, e.g., *York v. Jones*, 717 F. Supp. 421, 422 (E.D. Va. 1989) (discussing dispute between progenitors and infertility clinic over right to control fate of frozen embryos).

⁹⁶ *Davis*, 842 S.W.2d 588, is illustrative. The state's highest court considered the status of the *Davis*' embryos at some length, and concluded that embryos enjoy an intermediate status between that of property and that of people. *Id.* at 596. That status, the court explained, necessitated that special respect be paid to embryos. *Id.* Yet, the same court sided with the husband who wanted to discard the embryos created from his sperm and his ex-wife's ova. *Id.* at 604 (balancing wife's interest in "donating preembryos to another couple" against husband's interest in "avoiding parenthood"). The decision of the trial court in *Davis*, however, suggests that a court's commitment to the notion of embryos as people would seem to limit the court's options in deciding the fate of those embryos. See *infra* notes 103-04.

⁹⁷ *Davis*, 842 S.W.2d at 588.

different conclusion about the status of a divorcing couple's frozen embryos.⁹⁸ The decision of the Supreme Court of Tennessee in *Davis* has also been important because the court's reasoning has provided a model in light of which other courts have assessed the parameters of other similar disputes.⁹⁹

Davis developed out of divorce proceedings between Mary Sue and Junior Davis. During their marriage the couple sought infertility care, but that care was not successful. When the Davises divorced, they had seven embryos stored at an infertility clinic in Knoxville, Tennessee where the couple had been treated.¹⁰⁰ Originally, Mary Sue wanted the embryos thawed and implanted in her uterus for gestation and birth and Junior asked that the embryos remain in a frozen state.¹⁰¹ Later, after both parties had remarried, Mary Sue wanted to have the embryos donated to another couple and Junior wanted them discarded.¹⁰²

The trial court relied on the testimony of a French geneticist, Dr. Jerome Lejeune,¹⁰³ to conclude that the Davis embryos were "human beings, *in vitro*." The court further concluded that the "manifest best interest of the children, *in vitro*" would be served by its granting "temporary custody" of the embryos to Mary Sue Davis.¹⁰⁴ The intermediate appellate court overturned the decision, describing the Davis embryos in terms that seemed to define them as property.¹⁰⁵ Finally,

⁹⁸ *Davis v. Davis*, No. E-14496, 1989 WL 140495, at *1 (Tenn. Cir. Ct. Sept. 21, 1989), *rev'd*, No. 180, 1990 WL 130807, at *1 (Tenn. Ct. App. Sept. 13, 1990), *aff'd*, 842 S.W.2d 588 (Tenn. 1992), *cert. denied*, 507 U.S. 911 (1993). The trial court concluded that the frozen embryos were human beings. The court stated: "Mr. and Mrs. Davis have produced human beings, *in vitro*, to be known as their child or children." 1989 WL 140495, at *1. The intermediate appellate court relied on the model established in *York*. 1990 WL 130807, at *3. In *York*, the federal district court invoked a bailor-bailee relationship to settle a dispute about frozen embryos between progenitors and an infertility clinic. 717 F. Supp. at 421, 425. The intermediate appellate court in *Davis* thus suggested that the embryos were akin to property and concluded that "[j]ointly, the parties share an interest in the seven fertilized ova." 1990 WL 130807, at *3. Finally, the state Supreme Court concluded that the Davis embryos were neither persons nor property but that they enjoyed an intermediate status worthy of "special respect." 842 S.W.2d at 596.

⁹⁹ *See, e.g., Kass*, 696 N.E.2d at 174.

¹⁰⁰ *Davis*, 842 S.W.2d at 592, 593.

¹⁰¹ *Id.* at 589.

¹⁰² *Id.* at 590.

¹⁰³ *Davis*, 1989 WL 140495, at *4. Dr. Lejeune's most well-known work in science involved the discovery of the cause of Down's syndrome. Obituary, Professor Jerome Lejeune, *TIMES* (London), Apr. 7, 1994, at 21 [hereinafter Obituary, Lejeune].

¹⁰⁴ *Davis*, 1989 WL 140495, at *11.

¹⁰⁵ *Davis v. Davis*, No. 180, WL 130807, at *1 (Tenn. Ct. App. Sept. 13, 1990) (relying on bailor-bailee model established in *York v. Jones*, 717 F. Supp. 421

the state supreme court determined that the Davis embryos were neither children nor property, but that they occupied an intermediate category “that entitles [the embryos] to special respect because of their potential for human life.”¹⁰⁶ As a group, the three decisions in *Davis* suggest the breadth of disagreements within society and the law about the ontological and moral status of early embryos.

This section focuses on the trial court’s conclusion that the Davis embryos were to be accorded a status resembling that accorded children in the context of parental divorce.¹⁰⁷ The most remarkable aspects of the trial court’s reasoning were suggested by the testimony of Dr. Jerome Lejeune, who had been named to the Pontifical Academy of Scientists in 1974 by the Pope,¹⁰⁸ and who flew to Tennessee from Paris, apparently at his own expense, to testify for Mary Sue at the trial.¹⁰⁹ Lejeune’s testimony offered unequivocal claims about the biological (and thus ontological) status of embryos and about a host of other matters, including inborn gender differences (thus suggesting some of the broader implications of the debate about embryos).

Whether conceived *in vitro* or *in vivo*, Lejeune explained, “each of us has a unique beginning, the moment of conception.”¹¹⁰ He rejected the term pre-embryo as one suggesting, inaccurately in his view, that an early embryo “does not have the same significance” as a later embryo.¹¹¹ To the contrary, Lejeune explained, “a first cell knows more and is more specialized, if I could say, than any cell which is later in our organism.”¹¹² This first cell, explained Lejeune, is unique and original.¹¹³ Cryopreservation, Lejeune continued, takes “these tiny human beings” inside a “very chilly space” where “they are deprived of any liberty, of any movement, even they are deprived of time, time is frozen for them. . . .”¹¹⁴

For Dr. Lejeune, personhood, as well as social roles associated with gender, commence irrefutably at conception because from that

(E.D. Va. 1989)).

¹⁰⁶ *Davis*, 842 S.W.2d at 597.

¹⁰⁷ *Davis*, 1989 WL 140495, at *1.

¹⁰⁸ Transcript of Proceedings at 59, *Davis v. Davis*, 1989 WL 140495 (Tenn. Cir. Ct. Sept. 21, 1989) (No. E-14496) [hereinafter *Davis Trial Transcript*]; Obituary, Lejeune, *supra* note 103, at 21.

¹⁰⁹ Reid Campbell, *Mary Sue Davis . . . Fight to the End Frozen Embryos ‘Children’ or Just Property?* SUNDAY TASMANIAN, Aug. 13, 1989.

¹¹⁰ Isaiah Flair, *What ‘Choice’ Do Fathers Have?* MENSNEWSDAILY.COM, Dec. 24, 2003, <http://mensnewsdaily.com/archive/f/f-misc/flair122403.htm>.

¹¹¹ See *Davis Trial Transcript*, *supra* note 108, at 31.

¹¹² *Id.*

¹¹³ *Id.* at 36-38.

¹¹⁴ *Id.* at 34.

moment a person's genetic individuality is defined¹¹⁵ and a human being exists:

I cannot see any difference between the early human being you were and the late human being you are, because in both case[s], you were and you are a member of our species. What defines a human being is: He belongs to our species. So an early one or a late one has not changed from [one] species to another species. It belongs to our kin. That is a definition. And I would say very precisely that I have the same respect, no matter the amount of kilograms and no matter the amount of differentiation of tissues.¹¹⁶

Jerome Lejeune's testimony provided a scientific scaffold on which the Tennessee trial court in *Davis* relied in concluding that "the age-old common law doctrine of *parens patriae* controls these children, in vitro, as it has always supervised and controlled children of a marriage at live birth in domestic relations cases in Tennessee."¹¹⁷

¹¹⁵ Dr. Lejeune then described discoveries about differences between the "X" and "Y" chromosomes. In a remarkable effort to support and justify gender roles (thereby suggesting at least part of a broad agenda underlying his testimony), Lejeune compared the difference between information carried by sperm and information carried by ova to the difference between "male" social roles and "female" social roles. Lejeune suggested that scientists were discovering:

At this extraordinarily tiny level of information built into the chromosomes, that paternal duty was to build the shelter and to make the gathering of the food, to build the hut and the hunting. And that the maternal trick was household and building of the spare parts so that the individual can build himself. And it's a kind of admiration that we have for nature that since we have seen in the grown up that the man is going hunting and the mother is doing the kitchen, it is just the same deeply written inside our own chromosomes at the very beginning of the moments the first human constitution is spelled out.

Id. at 46.

¹¹⁶ *Id.* at 77. When counsel for Junior Davis asked Dr. Lejeune if he was suggesting that "the zygote should be treated with the same respect as an adult human being," Dr. Lejeune responded that questions about rights were to be resolved by courts, not scientists. Lejeune explained:

I'm telling you, he is a human being, and then it is a Justice who will tell whether this human being has the same rights as the others. If you make difference between human beings, that is, on your own to prove the reasons why you make that difference. But as a geneticist you ask me whether this human being is a human, and I would tell you that because he is a being and being human, he is a human being.

Id. at 79. Dr. Lejeune added that to kill a zygote intentionally is "no good, it's killing a member of our species." *Id.*

¹¹⁷ *Davis v. Davis*, No. E-14496, 1989 WL 140495, at *10 (Tenn. Cir. Ct. Sept. 21, 1989).

Judge Young rejected the testimony of three other experts,¹¹⁸ each of whom disagreed with Dr. Lejeune's reading of embryonic development¹¹⁹ and with Lejeune's conclusion, so central to the court's holding, that "upon fertilization, the entire constitution of the man is clearly, unequivocally spelled-out."¹²⁰

Although Judge Young's decision was overturned on appeal,¹²¹ his opinion and the testimony of Lejeune, on which Judge Young grounded his legal conclusions, framed future arguments of pro-life adherents and of some others about the sanctity of embryonic life. Dr. Lejeune's view of embryonic development was relied on centrally in a 1999 case in which the plaintiff was a frozen embryo.¹²² The case, brought by the National Association for the Advancement of Preborn Children (NAAPC) on behalf of a frozen embryo,¹²³ was predicated on the claim that the constitutional rights of frozen embryos¹²⁴ were

¹¹⁸ These experts included Dr. Ray King, a physician and "a well qualified specialist in the field of Infertility/Reproductive Endocrinology;" Dr. Charles Shivers, an embryologist and expert in the areas of IVF and embryo cryopreservation; and Prof. John Robertson, a law professor. *Id.* at *4, App. B.

¹¹⁹ *Id.* As a group, the other experts concluded that the frozen embryos at issue in the case were "at a stage in development where they simply possess[ed] the potential for life." *Id.*

¹²⁰ *Id.* at *8.

¹²¹ *Davis v. Davis*, No. 180, 1990 WL 130807, at *1 (Tenn. Ct. App. Sept. 13, 1990), *aff'd*, 842 S.W.2d 588 (Tenn. 1992).

After *Davis*, most legal disputes between progenitors after the control or fate of frozen embryos almost all involved contracts into which the progenitors had entered. *See, e.g., Kass v. Kass*, 696 N.E.2d 174 (N.Y. Ct. App. 1998) (relying on contractual agreement into which divorcing couple had entered with infertility clinic); *But see A.Z. v. B.Z.*, 725 N.E.2d 1051, 1059 (Mass. 2000) (finding consent agreements not to be contracts and concluding that, in any event, court would not enforce a contract requiring a progenitor to become a parent against his or her will).

When the Davises were treated for infertility, clinics had not yet realized the importance of having gamete donors enter into contracts that would determine the use of frozen embryos should the progenitors decide not to, or not be able to, use the embryos for their own reproductive purposes. *Davis*, 1989 WL 140495, at *3 (noting absence of contractual agreement about fate of embryos in *Davis*).

¹²² *See Doe v. Shalala*, 122 F.App'x 600, 601 (4th Cir. 2004). Dr. Lejeune's description of embryonic life is featured on the National Association for the Advancement of Preborn Children (NAAPC) website, the organization that initiated *Doe* in 1999, http://www.naapc.org/mary_bill.asp (last visited Sept. 24, 2005). Dr. Lejeune had himself died five years earlier, in 1994. Obituary, Lejeune, *supra* note 103, at 21.

¹²³ The group's name is an obvious play on NAACP (National Association for the Advancement of Colored People). The home page of the organization's website, headed "A Symphony of the Preborn Child," refers to Jerome Lejeune's testimony in *Davis v. Davis*. Lejeune is referred to as the "World Dean of Genetics." *Id.*

¹²⁴ The complaint identifies "Plaintiff Mary Doe" as [a] human embryo 'born' (produced or brought into life) in the United States, as that term is defined in the Fourteenth Amendment to the United

threatened by the possibility of human embryonic research.¹²⁵ Mary Doe was described as a “human embryo ‘produced or brought into life’ by the new science of in vitro . . . fertilization” which science would “allow[] Mary Doe to be returned to the warmth of life, after storage for months or years in a frozen state, and implanted in the womb of an adopting mother as a ‘child in vitro.’”¹²⁶ The court was asked to afford Fourteenth Amendment rights to the embryo¹²⁷ and thereby save it from “human embryo experimentation” which would result in “[the embryo’s] certain sudden and instant death.”¹²⁸ The Fourth Circuit affirmed a lower court decision to dismiss the case on the ground that President Bush’s stem-cell policy, announced in August 2001, precluded federal funding for research on an embryo¹²⁹ such as Mary Doe.¹³⁰ The attempt by the National Association for the Advancement of Preborn Children to shape the law and to extend constitutional rights and personhood to cryopreserved embryos reflects the assumptions underlying Lejeune’s testimony in *Davis* and it reflects the institutionalization of “embryo adoption” in 1997.¹³¹

States Constitution (and specifically as the word ‘born’ is defined in Webster’s Dictionary, Complete and Unabridged, of 1857, contemporaneous with the passage of the Fourteenth Amendment (1868)[]).

Bill of Complaint, *Doe v. Shalala*, No. JFM 99-2428 (D. Md. Aug. 10, 1999), http://www.naapc.org/mary_bill.asp [hereinafter *Doe Bill of Complaint*].

¹²⁵ *Doe*, 122 F.App’x at 601.

¹²⁶ *Doe Bill of Complaint*, *supra* note 124.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ In August 2001, President George Bush precluded federal funding for embryonic stem-cell research on stem cell lines not already in existence as of the date of his announcement. Press Release, White House Office of the Press Sec’y, Remarks by the President on Stem Cell Research (Aug. 9, 2001), <http://www.whitehouse.gov/news/releases/2001/08/20010809-2.html>, reprinted in LORI B. ANDREWS ET AL., GENETICS: ETHICS, LAW AND POLICY 142 (2002).

¹³⁰ *Doe*, 122 F.App’x at 601 (stating that President Bush limited federal funding for stem-cell research to funding for work on stem-cell lines that had been derived as of the date of his August 2001 announcement).

¹³¹ The Snowflakes Embryo Adoption Program was developed by Nightlight Christian Adoptions in 1997. Nightlight Christian Adoptions, <http://www.toadoptkids.org> (last visited Sept. 20, 2005); Embryo Adoption Awareness Campaign, <http://www.embryooption.com> (last visited Sept. 20, 2005). In fact, Nightlight Christian Adoptions, along with others, commenced a suit in 2001 in a D.C. District Court that asked the court to declare “that the NIH Guidelines authorizing the funding of research involving human embryonic stem cells are contrary to law within the meaning of [U.S. law];” or “[i]n the alternative, declaring that the NIH Guidelines authorizing the funding of research involving human embryonic stem cells are arbitrary and capricious within the meaning of [U.S. law].” Complaint for Declaratory and Injunctive Relief, *Nightlight Christian Adoptions v. Thompson* (D. D.C. Mar. 8, 2001), <http://www.clsnet.org/clrfPages/litigation/hlaComplaint.pdf>. The suit was in

B. Embryo "Adoption"

The website for the Snowflakes Embryo Adoption Program describes the program's purpose:

In 1997, Nightlight began the Snowflakes Frozen Embryo Adoption Program, which is helping some of the more than 400,000 frozen embryos realize their ultimate purpose—life—while sharing the hope of a child with an infertile couple. In addition to your physician, you need to trust the people you choose to help you in these important decisions.¹³²

The website appeals to people who have stored frozen embryos, but no longer want to use them for procreative purposes, as well as to those interested in "adopting" such embryos. It presents three presumptions to those who might consider providing embryos for "adoption": first, that frozen embryos are "pre-born children,"¹³³ second, that progenitors want to give frozen embryos "a chance to be born;"¹³⁴ and third, that progenitors want "some control over [the] destiny [of the embryos]."¹³⁵ The needs suggested by those presumptions can be satisfied, the website advises, by working with Nightlight Christian Adoptions through its Snowflakes program. Nightlight promises to treat embryo adoption as it treats the adoption of children and to give embryo donors (referred to as "genetic parents") the opportunity to "select . . . adopting parents from among families that have completed a homestudy with a licensed adoption agency."¹³⁶

response to a ruling during the Clinton administration that would have provided for federal funding of human embryonic stem cell research. Kathleen Kerr, *Battle Over Stem Cell Research, Ethics, Potential Medical Benefits Take Center Stage*, NEWSDAY (N.Y.), June 1, 2001, at A05. Five months after the complaint was filed, President Bush limited federal funding for such research to stem cell lines in existence. See *infra* notes 138-49 and accompanying text. The court stayed the case pending the federal government's review of NIH's guidelines for funding human stem cell embryonic research. See Samuel B. Casey & Nathan A. Adams, *Case Studies: Specially Respecting the Living Human Embryo by Adhering to Standard Human Subject Experimentation Rules*, 2 YALE J. HEALTH POL'Y L. & ETHICS 111, 114 (2001) (quoting *Nightlight Christian Adoptions v. Thompson*, No. 1.01 CV 00502 (D.D.C. May 4, 2001)).

¹³² Nightlight Christian Adoptions, Description of the Program, http://www.nightlight.org/snowflakes_description.asp (last visited Nov. 10, 2005).

¹³³ Nightlight Christian Adoptions, Message to Genetic Parents, http://www.toadoptkids.org/message_genetic.asp (last visited Jan. 6, 2005).

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

Nightlight compares “embryo adoption” through the Snowflakes program with “embryo donation” through an infertility clinic. The process of embryo adoption is portrayed as familial; in contrast, the process of embryo donation is portrayed as medical. Correlatively, Nightlight explains that it views embryos as people and treats them “as precious pre-born children,” while others, presumably some infertility clinics, view embryos as “property.”¹³⁷

The rhetoric of embryo adoption presumes that embryos are children. That rhetoric served President George W. Bush in 2001 as he announced that federal funds could be used only for stem cell research on stem cell lines existing as of the date of that announcement (August 9, 2001). Bush acknowledged American pride in the country’s contributions to science and medicine and in its commitment to uphold “the highest standards of ethics.”¹³⁸ That commitment, he then suggested, necessitated safeguarding embryonic life. Then, echoing the language of Nightlight’s Snowflake program, Bush explained that each embryo is “like a snowflake, [and] each of these embryos is unique, with the unique genetic potential of an individual human being.”¹³⁹

¹³⁷ Nightlight Christian Adoptions, Snowflakes Frozen Embryo Adoption Program: Frequently Asked Questions, http://www.toadoptkids.org/snowflakes_faqs.asp (last visited Sept. 20, 2005).

¹³⁸ Press Release, White House Office of the Press Sec’y, *supra* note 129.

¹³⁹ *Id.* The Bush administration further supported the work of Nightlight’s embryo adoption program with a \$506,875 grant aimed at increased awareness of embryo adoption. Embryo Adoption Awareness Campaign, Grant Details, <http://www.embryoadooption.com/GrantDetails.asp> (last visited Sept. 20, 2005). Nightlight’s projects funded by the federal money included creation of the embryo adoption awareness campaign website, *Id.*, and creation of a video series for the public, the medical community, the public media, and prospective embryo donors and recipients. Embryo Adoption Awareness Campaign, Video Clips, <http://www.embryoadooption.com/presentations.asp> (last visited Jan. 6, 2006). The money was part of about \$1 million that Congress approved for the purpose. Kathryn D. Katz, *Snowflake Adoptions and Orphan Embryos: The Legal Implications of Embryo Donation*, 18 WIS. WOMEN’S L.J. 179, 196 (2003) (citing *Department of Health and Human Services Office of Public Health and Science Announcement of the Availability of Financial Assistance and Request for Applications to Support Development and Delivery of Public Awareness Campaigns on Embryo Adoption*, FEDNET GOV’T NEWS, July 26, 2002). The relevant law, PL 107-116 (enacted January 2002) had authorized funding for three to four projects as part of a “public awareness campaign to educate Americans about the existence of frozen embryos available for adoption.” See Nightlight Embryo Adoption Awareness Campaign, Grant Details, *supra*.

Other groups receiving federal money as part of the embryo adoption awareness campaign included Women & Infant’s Hospital of Rhode Island and Resolve: The National Infertility Association in Mass. See *id.* Both of these groups proposed using the funds to carry out surveys. *Id.*

Bush concretized and elaborated that reference in May 2005 when he promised to veto a bill (passed by the House and under consideration in the Senate) that would have provided for federal funding of research on human embryonic stem cells, regardless of the date on which the stem cell lines were derived from embryos.¹⁴⁰ Bush objected to the bill because it eliminated the restriction he had placed on funding for human embryonic stem cell research four years earlier.¹⁴¹

At the start of his remarks promising to veto¹⁴² such a bill,¹⁴³ Bush introduced “[twenty-one] remarkable families” who “answered the call to ensure that our society’s most vulnerable members are protected and defended at every stage of life.”¹⁴⁴ The children of the twenty-one “remarkable families,” all participants in the Snowflakes Embryo Adoption Program, were present, the President explained, as “reminders that every human life is a precious gift of matchless value.”¹⁴⁵ Using such embryos for research rather than for the creation of children would, President Bush suggested, “cross a critical ethical line.”¹⁴⁶

¹⁴⁰ Stem Cell Research Enhancement Act of 2005, H.R. 810, 109th Cong. §498D(a)(2005). The bill amends the Public Health Service Act to Provide for Human Embryonic Stem Cell Research “regardless of the date on which the stem cells were derived from a human embryo.” *Id.*

¹⁴¹ See *supra* notes 138-39 and accompanying text.

¹⁴² See, e.g., Sheryl Gay Stolberg, *House Approves a Stem Cell Bill Opposed by Bush*, N.Y. TIMES, May 25, 2005, at A1.

¹⁴³ Stem Cell Research Enhancement Act of 2005, *supra* note 140, §498D(b). The bill provides for federal funding of research using human embryonic stem cells provided that:

- (1) The stem cells were derived from human embryos that have been donated from in vitro fertilization clinics, were created for the purposes of fertility treatment, and were in excess of the clinical need of the individuals seeking such treatment.
- (2) Prior to the consideration of embryo donation and through consultation with the individuals seeking fertility treatment, it was determined that the embryos would never be implanted in a woman and would otherwise be discarded.
- (3) The individuals seeking fertility treatment donated the embryos with written informed consent and without receiving any financial or other inducements to make the donation.

Id. The bill adds Section 498D after Section 498C to Part H of title IV of the Public Health Service Act (42 U.S.C. 289 et seq.). *Id.* at §2.

¹⁴⁴ *Bush’s Remarks on Bioethics and Stem Cell Research*, N.Y. TIMES, May 24, 2005, <http://www.nytimes.com/2005/05/24/politics/24bush-text.html>.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

Explaining that each embryo was “unique and genetically complete,”¹⁴⁷ Bush echoed the sentiment of his remarks four years earlier when he restricted federal funding for human embryonic stem cell research to existing stem cell lines. In 2005, as in 2001, Bush applauded advances in science and medicine,¹⁴⁸ but indicated his readiness to limit that work if morality so ordained. Moreover, he suggested that “alternative sources of stem cells . . . as well as different ethical ways of getting the same kind of cells now taken from embryos without violating human life or dignity” should be explored.¹⁴⁹ The last of Bush’s suggestions for deriving human stem cells is at the center of a recent twist in the debate about the scope and meaning of embryonic life.

C. Stem Cell Research, “Artifacts,” and Embryos

After President Bush announced that he would veto the bill passed in the House that provided for federal funding of embryonic stem cell research on excess frozen embryos created in the course of infertility care,¹⁵⁰ it seemed that the Senate would likely pass the bill (sponsored in the Senate by Arlen Specter (R-Pa.) and Tom Harkin (D-Ia.)).¹⁵¹ Instead, a variety of competing bills, some introduced by Senators opposed to federal funding for human embryonic stem cell research, became the focus of debate.¹⁵²

¹⁴⁷ Stolberg, *supra* note 142, at A22. The response of Tom DeLay (R-Tex.), then-majority leader of the House, complemented Bush’s response to passage of the House bill providing for embryonic stem cell research. In language that combined references to science and to religion, DeLay castigated the bill. DeLay explained that “[a]n embryo is a person, a distinct internally directed, self-integrating human organism. . . . We were all at one time embryos ourselves. So was Abraham. So was Muhammad. So was Jesus of Nazareth.” *Id.*

¹⁴⁸ President Bush asserted: “The rapid advance of science presents us with the hope of eventual cures for terrible diseases, and with profound moral and ethical dilemmas. The decisions we make today will have far-reaching consequences, so we must aggressively move forward with medical research while also maintaining the highest ethical standards.” *Bush’s Remarks on Bioethics and Stem Cell Research*, *supra* note 144.

¹⁴⁹ *Id.* Bush illustrated such “alternative sources of stem cells” by referring to adult bone marrow and umbilical cord blood. *Id.*

¹⁵⁰ See *supra* notes 138-49 and accompanying text.

¹⁵¹ Rick Weiss, *Contentious Hearing Focuses on Stem Cells: Senators Debate Merits of Different Bills*, WASH. POST, July 13, 2005, at A19; Stolberg, *supra* note 142, at A22.

¹⁵² By mid-July at least six competing bills were being drafted. *Id.* Among these bills were a proposal to fund stem cell research on existing frozen embryos but none not yet created, a proposal to fund work on umbilical cord stem cells; a bill prohibiting cloning, and a bill proposing “alternative” methods of deriving embryonic stem cells. *Six Stem-Cell Measures Might Come to Senate Floor Soon*, NAT’L J’S

One proposal¹⁵³ promotes funding of alternative methods of obtaining stem cells that might allow the derivation of stem cells from cells that resemble embryos but that are different in some essential dimension.¹⁵⁴ Some scientists have suggested, for instance, that it may be possible to create a cell or set of cells that would be defined as something other than a viable embryo but from which embryonic stem cells might be derived.¹⁵⁵ That suggestion was described in detail in a

CONGRESSDAILY, July 13, 2005. Just before the Senate recessed for the summer, Sen. Norm Coleman (R-Minn.) announced plans to introduce a seventh bill about embryonic stem cell research to the Senate. *National Politics & Policy | Sen. Coleman Crafting Seventh Embryonic Stem Cell Research-Related Bill; Other Stem Cell Bills Likely Delayed*, KAISER DAILY REPROD. HEALTH REP., July 25, 2005, http://www.kaisernetwork.org/daily_reports/rep_index.cfm?hint=2&DR_ID=31594 (last visited Jan. 6, 2006).

Senator Specter, undergoing treatment for cancer, described himself as “madder than hell” at efforts to take support from his bill by convincing senators that it may be possible to actualize the medical promise of stem cell research without using human embryos. Stolberg, *supra* note 73, at A17. Specter announced his readiness to present the narrative of his own treatments, framing debate “in intimate terms.” Laurie Kellman, *Stem Cell Study Backers Criticize Alternatives*, SUN-SENTINEL (Ft. Lauderdale), July 13, 2005, at 8A.

In late July 2005, Senate Majority Leader Bill Frist (R-Tenn.) declared that he had changed his position and had decided that he favored expanded federal funding for human embryonic stem cell research. Frist explained his shift in position: “It isn’t just a matter of faith, it’s a matter of science.” *Frist Backs Stem Cell Research, Angers Abortion Foes*, CNN.COM, Aug. 2, 2005, <http://www.cnn.com/2005/POLITICS/07/29/frist.stem.cells.ap/index.html>. Frist’s explanation is bewildering in that it explains nothing. The response of Rev. Patrick J. Mahoney of the Christian Defense Coalition to Frist’s change of position reflected that of other religious conservatives: “He [Senator Frist] cannot be pro-life and pro-embryonic stem cell funding.” *Id.*

¹⁵³ *Stem Cell Research: Senate Panel Holds Hearing on Alternative; Legislation*, AM. HEALTH LINE, July 13, 2005, § Pol. & Pol’y. This proposal was introduced in the House by Rep. Roscoe Bartlett (R-Md.); Senator Frist was expected to introduce a similar measure in the Senate before he shifted his position on the morality of embryonic stem cell research. *Id.*

¹⁵⁴ Ceci Connolly & Rick Weiss, *Stem Cell Legislation Is at Risk*, WASH. POST, July 9, 2005, at A03.

¹⁵⁵ One option developed at Advanced Cell Technology in Massachusetts involves extracting one cell from an embryo created as a result of infertility care. *Id.* The rest of the embryo would develop normally. The extracted cell would be used to create a colony of stem cells. Concern about the method derives from the possibility that the single cell extracted from the days-old, developing embryo might itself be able to grow into an embryo. *Id.*

The President’s Council on Bioethics has also questioned the claim that the embryo itself could be harmed in some way by the extraction of a cell for research. Dr. William Hurlbut, a member of the Council and a professor at Stanford, has suggested that “[y]ou might find that late in life, there are some strange differences between those people and others.” *Id.*

2005 report drafted by the President's Council on Bioethics.¹⁵⁶ The suggestion may elide the debate about embryonic status, but it does not elide moral concern. Discerning the ontological status of such embryo-alternatives reproduces the effort to discern the status of embryos.

The proposal to fund research on embryo-alternatives was championed before a Senate committee by Dr. William Hurlbut, a member of the President's Council on Bioethics.¹⁵⁷ Dr. Hurlbut suggested that non-embryos from which embryonic stem cells might be obtained can be produced through "alternative nuclear transfer" (ANT). That would result in embryo-like cells, altered genetically so that they cannot become a fetus or a child.¹⁵⁸ Dr. Hurlbut explained,

[W]ithout all of the essential elements, the necessary complement of chromosomes, proper chromatin configuration, the cytoplasmic factors for gene expression, et cetera, there can be no living whole, no organism and no human embryo. Recent scientific evidence suggests incomplete combinations of the necessary elements, failures of fertilization, are the fate of many, perhaps most early natural initiations in reproduction. Altered nuclear transfer proposes the artificial construction of such a cellular system mimicking these natural examples, a system that lacks the essential elements for embryological development but contains a partial developmental potential capable of generating embryonic stem cells.¹⁵⁹

¹⁵⁶ THE PRESIDENT'S COUNCIL ON BIOETHICS, A WHITE PAPER: ALTERNATIVE SOURCES OF HUMAN PLURIPOTENT STEM CELLS (2005), http://www.bioethics.gov/reports/white_paper/alternative_sources_white_paper.pdf.

¹⁵⁷ Stolberg, *supra* note 73, at A17.

¹⁵⁸ Connolly & Weiss, *supra* note 154. Dr. Hurlbut explained during a session of the President's Bioethics Council:

Drawing on our increasing understanding and control of developmental biology, the techniques of altered nuclear transfer may allow us to generate embryonic stem cells even apart from the organismal system that is their natural origin. In order to evaluate the potential solutions and allow forward progress within moral consensus, we have to understand the perspectives and address the concerns of those who believe that life begins at conception. By this view, the most fundamental principle on which all other moral principles are built is the intrinsic dignity and inviolability of human life across all of its stages.

The President's Council on Bioethics, *supra* note 87 (statement of Council Member Dr. William Hurlbut).

¹⁵⁹ *Id.* Dr. Hurlbut reported that other scientists have caused the parthenogenic development of monkey eggs and have extracted embryonic stem cells at the blastocyst stage. *Id.*

More particularly, Dr. Hurlbut has suggested that embryonic stem cells might be derived from cells created after a gene needed for embryogenesis is deleted from a somatic cell nucleus before that nucleus is transferred into an ovum.¹⁶⁰ The proposal depends on the manipulation of the somatic cell before transfer. That possibility, in Dr. Hurlbut's view, allows for the creation of cells which would not be defined as embryos but from which embryonic stem cells could be extracted. Dr. Hurlbut refers to the cells, not as embryos, but as "a biological artifact, a human creation for human ends." In his view, that artifact would have "no claim on the moral status due to a developing human life."¹⁶¹

Dr. Hurlbut's suggestion adds a remarkable twist to the debate about the meaning of embryos. It entails manipulating embryonic development so as to create a set of cells that might or might not be defined as "embryos," depending on one's perspective. Both those opposing and those favoring embryonic stem cell research have queried Dr. Hurlbut's ethical conclusions. Richard Doerflinger, of the United States Conference of Catholic Bishops, questioned the presumption that the "artifacts" would not be embryos.¹⁶² While acknowledging that the derivation of embryonic stem cells absent the creation and/or destruction of embryos would not pose theological problems for the Catholic Church, Doerflinger was less certain that deleting a gene for embryogenesis from a somatic cell before transfer to an egg would create an "artifact" rather than an embryo:

Regarding . . . the deletion of the *cdx2* gene, I for one am not convinced it fulfills my criterion for saying the resulting entity is never an embryo. Surely, it is not enough to say the genetic defect preventing organismal development was introduced into the genome from the very beginning. Any adult who develops Huntington's disease at the age of [forty] had the genetic defect *ab initio*. But it also matters what development has taken place in the meantime.¹⁶³

In contrast, Dr. Diana Schaub, a political science professor and member, along with Dr. Hurlbut, of the President's Council, agreed that the "artifacts" Hurlbut described would not be embryos and that

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.* (statement of Richard Doerflinger of the United States Conference of Catholic Bishops).

¹⁶³ *Id.*

ANT would not result in the creation of a human being.¹⁶⁴ However, she wondered whether the process might entail “doing something even more radical than that, namely, that you’re tampering with the organizing principle of, I don’t know of life itself.”¹⁶⁵ That sentiment was echoed by one senator who wondered “[i]f it’s not an embryo, what is this Frankenstein-like thing we’re creating?”¹⁶⁶

Still other commentators have worried that attempts to find alternative methods of deriving pluripotent embryonic stem cells “that would be ethically acceptable to all” could “delay[] the pursuit of medical research on existing human embryonic stem cell lines while these more speculative methods are tested.”¹⁶⁷ George Daley, a professor of biological chemistry and molecular pharmacology wondered, in testimony before a Senate committee:

[H]ow to rule out whether a totipotent and therefore morally significant cell might be created by [at least some of the alternative] procedure[s]. In my view, [some proposals for alternative modes of deriving embryonic stem cells] raise a curious and challenging question: can we distinguish the moral value of a human cell based on its particular gene expression pattern? Can humanity really be diagnosed at the level of a single cell?¹⁶⁸

¹⁶⁴ *Id.* (statement of Council Member Dr. Diana Schaub).

¹⁶⁵ *Id.*

¹⁶⁶ Weiss, *supra* note 151, at A19 (quoting Senator Tom Harkin (D-Iowa)). Ronald Green, director of a bioethics institute at Dartmouth College said that some alternative modes of creating embryo-like cells could lead to “babies without brains as sources of organs for transplantation.” *Stem Cell Research: Senate Panel Holds Hearing on Alternative; Legislation*, *supra* note 153 (citing the WASH. POST, July 13, 2005).

¹⁶⁷ *Hearing on An Alternative Method for Obtaining Embryonic Stem Cells Before the Appropriations Subcomm. on Labor, Health and Human Services, Education*, 109th Cong. (2005) (statement of George Q. Daley, MD, PhD), available at <http://appropriations.senate.gov/hearings/DALEYTestimony.htm>.

Daley described four alternative methods that might provide for the derivation of embryonic stem cells considered by the President’s Council. They include use of embryos considered “dead” because they have stopped dividing; the use of biopsied cells from early embryos; Hurlbut’s method and a transformation of Hurlbut’s method, proposed by Marcus Grompe, based on “reprogramming of the donor somatic cell;” finally, Daley refers to a method involving “direct de-differentiation of somatic cells to an embryonic stem cell-like state using chemical treatments or cell culture manipulation alone.” *Id.*

¹⁶⁸ *Id.* (providing that the two alternative procedures that raised this “thorny issue” included Hurlbut’s alternative and an alternative that would involve cellular de-differentiation).

The comment is instructive. Daley, committed to embryonic stem-cell research and to the conclusion that it is “morally justified to derive benefit from [excess] embryos [produced during infertility treatment] through medical research,”¹⁶⁹ here openly entertained the debate about embryonic status and about the “moral value” of an embryo. That mode of discourse suggests the frame of debate constructed by (though obviously not the conclusions reached in) the trial court’s decision in *Davis*, and therein suggests that the pro-life perspective has succeeded in delineating the central social questions at issue in the debate about embryos and embryonic research.¹⁷⁰

III. SOCIAL IMPLICATIONS OF THE DEBATE ABOUT EMBRYONIC STATUS: TEXT AND PRETEXT

Each of these responses to early embryos and to embryo-like alternatives is based on a set of presumptions about the biological and thus moral underpinnings—or sometimes, perhaps, the moral and thus biological underpinnings—of embryonic life. Yet as one commentator has observed, “[t]he question of the moral status of the embryo was not resolved during the abortion debate nor during the debates about various forms of assisted reproductive technologies. It is unlikely to be resolved during the current debates about stem cells, since no really new arguments seem to be forthcoming.”¹⁷¹ To the extent that that conclusion is correct—and at the moment it seems that it may well be¹⁷²—the continuation of the debate about embryonic status, marked

¹⁶⁹ *Id.*

¹⁷⁰ In *Davis*, the trial court concluded that frozen embryos were “children, in vitro” on the basis of Jerome Lejeune’s testimony that “upon fertilization, the entire constitution of the man is clearly, unequivocally spelled-out.” No. E-14496, 1989 WL 140495, at *8 (Tenn. Cir. Ct. Sept. 21, 1989). See *supra* notes 97-131 and accompanying text.

¹⁷¹ Søren Holm, *Going to the Roots of the Stem Cell Controversy*, 16 *BIOETHICS* 493, 497 (2002) (footnote omitted).

¹⁷² A number of commentators sympathetic to religious teachings about embryos have pointed to the difficulty of identifying the “moment” of conception. Thomas Shannon and Alan B. Wolter, O.F.M., note that “conception biologically speaking is a process” that “takes at least a day. This raises a question of how one ought to understand the term ‘moment of conception’ frequently used in church documents.” Thomas A. Shannon & Allan B. Wolter, *Reflections on the Moral Status of the Pre-Embryo*, 51 *THEOLOGICAL STUDIES* 603, 610 (2001). Moreover, they suggest that “[b]iologically understood, conception occurs only after a lengthy process has been completed and is more closely identified with implantation than fertilization.” *Id.* at 611 (footnote omitted).

Ronald Cole-Turner (who favors “carefully regulated and limited” embryo research) has concluded that it is not “likely that Christians, at least, will ever agree on a theological and moral assessment of the human embryo or even that a strong

by widespread appeal on all sides of the debate to biological facts, raises a meta-question: why does this detailed debate, that assesses morality against biology and biology against morality, continue to flourish when no resolution seems likely to flow from this mode of discourse? And why, more specifically, do all sides in the debate about embryos continue to invoke presumptive biological truths to support positions that elude biological assessment? And most important, what, at base, is the embryo debate about?

These questions raise at least two discrete issues. The first concerns the widespread appeal in the debate about embryonic status to biological “facts.” The second concerns the larger implications of the debate about embryonic status. These issues are addressed in turn.

The invocation of biology by those representing virtually every position in the debate about embryos follows straightforwardly from a broad understanding within society that good science produces truth. So, those committed to a view of frozen embryos as children¹⁷³ invoke science to demonstrate that case; equally, voices arguing that embryos are cells, not persons, invoke science to demonstrate *that* case. In *Davis v. Davis*, for instance, Dr. Lejeune framed his testimony around the genetic constitution of early embryos to argue for their personhood.¹⁷⁴ Dr. Charles Shivers, who also testified as an expert in *Davis*, rejected the notion that early embryos enjoy personhood and described embryos as “undifferentiated cells.”¹⁷⁵ These experts argued past each other. Each framed his description of biological develop-

majority position will emerge.” Ronald Cole-Turner, *Principles and Politics: Beyond the Impasse Over the Embryo*, in *GOD AND THE EMBRYO: RELIGIOUS VOICES ON STEM CELLS AND CLONING* 88 (Brent Waters & Ronald Cole-Turner, eds. 2003). Cole-Turner acknowledges that “conception is one of the ‘bright lines’ of human development.” However, he continues, “so is birth, and it is not the brightness of the line that commands our recognition of value or status as much as a careful and informed assessment of the actual state of the developing organism.” *Id.* at 89-90. He adds:

The trouble is that our biological development is subtle and gradual, but morality wants clarity and sometimes forces it where biology does not permit us to find it. It is better to recognize that, biologically, the overwhelming portion of our human development is gradual. It is not characterized by well-marked developmental break points, like conception or birth, that clearly mark the boundary between before and after. We must perform our moral assessment of human development in view of the reality of our gradual development.

Id. at 90.

¹⁷³ See *Davis v. Davis*, No. E-14496, 1989 WL 140495 (Tenn. Cir. Ct. Sept. 21, 1989); and *supra* notes 97-131 and accompanying text.

¹⁷⁴ *Id.* at *28.

¹⁷⁵ *Id.* at *24.

ment in tune with his moral assessment of the status of embryonic life. Yet, voices representing virtually every side in the debate about embryos continue to invoke scientific “truth” in support of moral and political agendas.

Increasingly, it has become apparent that the debate about embryos is fueled, rather than resolved, through the invocation of biological facts. The debate is not, at base, about those facts and, for the most part, its development eludes those facts. But the embryo debate touches matters of deep concern to most people. This debate has captured public attention and concern because, at base, the debate implicates contrasting ideological visions of the proper way to live and to relate to other people.

Insofar as the debate about embryos has developed out of the debate about abortion, the underlying issues at stake in each debate are similar. More particularly, insofar as the pro-life movement has committed itself to safeguard embryonic rights, the embryo debate has come to define and implicate a wide array of social issues associated with the debate about abortion, including gender roles, family structure, and the scope of relationships among people within families.¹⁷⁶

In the wake of the new importance given to embryos in public discourse, the debate about abortion has not so much abated as it has changed course. At one end, the elusive character of embryos and the promise of regenerative medicine through embryonic stem cell research are proving to be a difficult stumbling block for the pro-life agenda. But at the other end, the pro-life movement’s focus in recent years on partial-birth abortion proves a stumbling block for pro-choice adherents.¹⁷⁷

¹⁷⁶ See Dolgin, *supra* note 31, at 121-28 (analyzing implications of debate about abortion for society broadly).

¹⁷⁷ The pro-life movement has had some success, in both popular and legal fora, lobbying against partial birth abortions. Partial birth abortions involve fetuses in the second or third trimester of pregnancy. In sharp contrast with images of embryos, images of late-term fetuses look human. Descriptions of fetuses extracted through the so-called “partial birth abortion” procedure are often gruesome. For instance, in his dissent in *Stenberg v. Carhart*, Justice Kennedy detailed the procedure at issue in the case:

The D & X [procedure] can be used, as a general matter, after [nineteen] weeks’ gestation because the fetus has become so developed that it may survive intact partial delivery from the uterus into the vagina. In the D & X, the abortionist initiates the woman’s natural delivery process by causing the cervix of the woman to be dilated. . . . The fetus’ arms and legs are delivered outside the uterus while the fetus is alive; witnesses to the procedure report seeing the body of the fetus moving outside the woman’s body. . . . With only the head of the fetus remaining in utero, the abortionist tears open the skull.

The underlying issues (what one might call the text) that society interprets and reshapes—more often perhaps unself-consciously than self-consciously—as it debates the status of fetal and embryonic life have flowed openly into the political arena in the last several years. The focus is on a set of issues relevant to family life. Those who favor tradition in the domestic domain, including fixed roles and status differences based on gender and age, tend as well to oppose abortion and embryonic stem-cell research.¹⁷⁸ They also tend to oppose same-gender marriage.¹⁷⁹ For the most part, those in this group identify with religious communities and attend religious services.¹⁸⁰ And for the most part, those in this group voted Republican in the 2004 presidential election.¹⁸¹ In contrast, those favoring choice rather than tradition in the domestic arena tend to favor the right to abortion, same-gender marriage, and gender equality in family settings. Those in this group tend to be less involved with theological orthodoxies and are less likely to attend religious services than those in the first group.¹⁸² Correlatively, among those defining themselves as conservative Republicans in 2004, 35 percent favored embryonic stem cell research, while among those defining themselves as liberal Democrats, 72 percent favored such research.¹⁸³

530 U.S. 914, 959 (2000) (Kennedy, J., dissenting) (internal citations omitted). The Court held that Nebraska's statute prohibiting partial birth abortion was unconstitutional. *Id.* at 922. However, Congress passed a statute in 2003 that prohibits partial birth abortions. The statute includes an exception to save the mother's life, but does not contain an exception to safeguard the mother's health. The statute is being challenged. *See, e.g.,* Planned Parenthood Fed'n of Am. v. Ashcroft, 320 F. Supp. 2d 957 (N.D. Cal. 2004).

¹⁷⁸ *See* PEW FORUM ON RELIGION & PUB. LIFE, *supra* note 13, at 3.

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* at 2. The Pew Foundation study found that the divide in American politics is not a "God gap" because many Democrats "believe in God and consider themselves religious." *Id.* Moreover, the study states that "[w]hat has occurred in recent elections is better described as a 'church attendance gap' because it is closely tied to levels of religious engagement, notably church (or synagogue or mosque) attendance and theological orthodoxy." *Id.*

¹⁸¹ *Id.* The Pew Foundation study found:

This divide [between those who attend religious services and hold to theological orthodoxies and those who do not] was very much in evidence in the 2004 presidential election. Voters who attend church more than once a week (an estimated 16 [percent] of the electorate) supported President George W. Bush over Sen. John Kerry by a margin of 64 [percent] to 35 [percent], according to the National Election Pool, the exit poll that was conducted for a consortium of major news organizations.

Id.

¹⁸² *Id.*

¹⁸³ *Id.* at 6. The study also found that among moderate/liberal Republicans, 54 percent favored embryonic stem cell research; among independents 57 percent did;

That “a majority of the most religiously engaged voters . . . gravitate toward one party while a majority of the most secular gravitate toward the other”¹⁸⁴ suggests the intensity of Americans’ bifurcated commitments. On the one hand, they (or a large group of them) are committed to a universe that values tradition and community, and on the other hand, they (or a large group of them) are committed to a universe that values choice and autonomous individualism. Both commitments can be entertained and justified through debate about the ontological status of embryos.

CONCLUSION

Positions in the debate about embryos mark discrepant visions of society, family, and relationships among people. The more contained debate about embryos provides a context within which society dissects and develops those larger social issues.

This debate about embryos abounds; it is often intense and acrimonious; it provides fodder for academic analysis, religious admonition, and partisan politics. Yet, surrounding or perhaps underlying sharp public disagreements that punctuate conversation about embryos, a shared frame of reference may, oddly, be emerging. That is suggested, at least in part, by the extent to which opposing groups in the debate about embryos are reluctant openly to dismiss the central tenet of the other’s position. Those favoring support for human embryonic stem-cell research often echo (or at least invoke) positions about the value of individual embryos that seem more likely to be voiced by those opposed to such research.¹⁸⁵ For instance, Senator Arlen Specter (R.-Pa.), a strong supporter of federal funding for human embryonic stem cell research, explained during a media interview that if he had his druthers, all of the 400,000 frozen embryos being stored in the United States would be “adopted.”¹⁸⁶ In Specter’s

and among conservative/moderate Democrats 58 percent did. *Id.*

¹⁸⁴ *Id.* at 2.

¹⁸⁵ See, e.g., *Hearing on An Alternative Method for Obtaining Embryonic Stem Cells*, *supra* note 167.

¹⁸⁶ *This Week with George Stephanopoulos: Headliners Sam Brownback, Arlen Specter* (ABC News television broadcast May 29, 2005). Interestingly, Specter declared at the start of the interview that “it is not factually correct that these human embryos are life, because life does not occur until they’re implanted in a woman.” *Id.* By “life,” Specter was referring presumably to personhood.

Even allowing for the likelihood that, at least in some part, political concerns shaped Specter’s language (that embryos are not “life,” but that their “adoption” would be preferable to their use in research), his position suggests the readiness of those favoring embryonic stem cell research to cede ground before the claim that embryos deserve respect not owed to other sorts of cells.

view, however, the notion that all or most of the stored embryos would, in fact, be used to create a child was fantasy. They will, he explained, “be thrown away.”¹⁸⁷ On the other hand, many of those opposed to human embryonic stem cell research are reluctant to preclude the promise of that research, and some pro-life adherents in the debate about abortion have supported embryonic stem cell research, even referring to it—in words reminiscent of the pro-life movement’s opposition to abortion—as “pro-life.”¹⁸⁸ Moreover, President Bush grounded his 2001 decision to restrict the use of federal funds for embryo stem cell research on two, sometimes conflicting, commitments—to the sanctity of embryonic life on one side and to developments in science and technology on the other side.¹⁸⁹

In some part, the debate about embryos in the context of embryonic stem cell research has altered alignments in the debate about abortion. Perhaps that will open new avenues of discourse and new arenas for cooperation within society. Alternatively, perhaps, the deepest social issues underlying the debate about abortion—especially the value of traditional family life and gender roles will increasingly be debated in relation to questions that fall outside the debate about abortion. Disagreements about same-gender marriage provide one obvious context in which questions about family life are being framed and debated. Another context, providing for a somewhat more opaque debate about the parameters of family life than that generated by the legalization of same-gender marriage, concerns end-of-life decision-making.

¹⁸⁷ *Id.*

¹⁸⁸ See, e.g., Connolly, *supra* note 51, at A6 (describing response of Senator Orrin Hatch (R-Kan.) to non-reproductive cloning for production of embryos for use in stem cell research). Others, including members of the Church of Jesus Christ of Latter-Day Saints (“Mormons”), aligned with the right-to-life movement, have supported embryonic stem cell research. The Mormon position is grounded in the notion that personhood does not begin until after a developing embryo attaches to the uterine wall. Ronald M. Green, *The Stem Cell Conundrum*, 4 RELIGION IN THE NEWS (2001), <http://www.trincoll.edu/depts/csrlp/RINV013No3/RINV014No3/stem%20cell.htm>.

Senate Majority Leader Bill Frist (R-Tenn.) surprised many pro-life supporters with the announcement in July 2005 that he had changed his view about embryonic stem cell research and would support federal funding for research on excess embryos. *Frist Backs Stem Cell Research, Angers Abortion Foes*, *supra* note 152.

¹⁸⁹ See Press Release, White House Office of the Press Sec’y, *supra* note 129. Bush explained that his position on human embryonic stem cell research was “shaped by deeply held beliefs.” He then described himself as “a strong supporter of science and technology.” He continued: “[I] believe they have the potential for incredible good—to improve lives, to save life, to conquer disease. Research offers hope that millions of our loved ones may be cured of a disease and rid of their suffering.” *Id.*

In any event, the debate about embryos in the context of reproductive technology and stem cell research suggests a genuine fragility at the center of the pro-life position in the debate about abortion.¹⁹⁰ For a society long committed to protecting autonomous individuality and proud of its developments in science and medicine, a new form of medicine that offers individualized health care may well be irresistible. If that turns out to be the case, the debate about embryonic personhood may fade. That would not inevitably entail the denouement of the larger debate about gender roles, families, and the meaning of individuals in community.¹⁹¹ That debate will likely continue to engage American society at least as long as society remains committed to understandings of personhood and relationships among people that value both autonomous individuality and communal solidarity.

¹⁹⁰ To some extent, the pro-life movement has solidified despite this fragility; it has had considerable success, for instance, portraying images of late-term abortion in the context of partial-birth abortion bans. *See supra* notes 173-83.

¹⁹¹ A final word of explanation is in order. That the debate about embryonic life can be defined as a pretext for a more encompassing debate should not be read to suggest that the questions raised in that debate are of no real significance. Rather, it suggests only that more is at stake in the debate about embryos than the moral status of, and legal rights that may be owed to, embryos.