EMBRYONIC POLICIES: REPRODUCTIVE TECHNOLOGY AND FEDERAL REGULATION

Erin N. Mignin

A Dissertation

Submitted to the Graduate College of Bowling Green State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2012

Committee:

Leigh Ann Wheeler, Co-Advisor
Andrew M. Schocket, Co-Advisor
Marc V. Simon
Graduate Faculty Representative
Walter E. Grunden
Donald Nieman
Michael Brooks
ABSTRACT

Leigh Ann Wheeler, Co-Advisor
Andrew Schocket, Co-Advisor

This project examines the intersection of in vitro fertilization and abortion during the early 1970s. Because of the potential destruction of laboratory created embryos, anti-abortion activists and politicians linked these two procedures together soon after the Supreme Court decided Roe v. Wade. Tracing the implications of this discursive connection throughout the 1970s and 1980s, this dissertation argues that IVF’s ties to abortion stunted its development in the United States by making the reproductive technology a controversial issue. The questions that direct this study are: why did IVF policy originate in the United States during the early 1970s and how did these policies affect the development of in vitro fertilization in America. Further, this study questions how government policies on IVF changed over time and what outside forces contributed to such changes. This project investigates how IVF developed in the United States by examining governmental policies surrounding the reproductive technology.

This study has depended on archival materials, along with newspaper and magazine articles, government documents, and scholarship on infertility, motherhood, bioethics, and abortion. The American government neglected to fund human IVF because anti-abortion activists linked the new reproductive technology to abortion. As IVF continued to be associated with abortion in the early years of its development, this study explores how clinical expanded throughout the United States despite the lack of federal funding. Private, unregulated clinics offered IVF services, but success rates were low and the procedure was expensive. Policymakers
became aware of the potential for consumer exploitation in the unregulated, unfunded field, and some sought to rectify these problems. Focusing on government policies has elucidated how the connection between IVF and abortion first emerged, affected government policy, and eventually weakened enough to allow policymakers to revisit the new reproductive technology and regulate the medical field.

This dissertation contributes to current literature in women’s history, the history of science and technology, bioethics, reproductive rights, and government regulation. The study of government policies surrounding IVF research is an example of the contentiousness of abortion issue and all that it touched in the United States. However, the story of IVF also serves as an example that the far-reaching controversy over abortion did have its limitations.
For Brad and Colette
ACKNOWLEDGMENTS

This dissertation was made possible by the encouragement and support by so many people in my life. First, I have a huge debt of gratitude to my advisor, Leigh Ann Wheeler, who pushed me to be my best. Never satisfied with superficial answers to complex questions, Leigh Ann encouraged me to ask probing questions. She tirelessly read draft after draft of each chapter of this dissertation, playing an integral role every step of the way. Leigh Ann encouraged me to be confident in myself as a scholar, and this has been a much more valuable experience because of her hard work and dedication. Walter Grunden, too, has been central to this dissertation, which began as a paper in his History of Science Policy seminar. From the beginning, he encouraged me to broaden my thinking and research to expand the paper into my Master’s thesis and indeed this dissertation. He provided moral support and encouragement at crucial intervals during my graduate school experience. Don Nieman has also been a central figure in my graduate experience. As a member of my committee beginning with my Master’s thesis, he provided compelling insights into my work. This dissertation has also benefitted from the addition of several committee members as this project was nearing completion. I have the utmost respect and gratitude for Andrew Schocket and Michael Brooks, who contributed to my dissertation by providing interesting feedback. Finally, graduate faculty representative Marc Simon’s thoughtful suggestions at my defense pushed me to think about this history in new and different ways. Nancy Beck Young, Irwin Halfond, Patrick Folk, and Judith Sealander were also instrumental in my education, and I would be remiss if I did not mention their importance to my academic career.
My family has been a source of support, encouragement, love, and laughter throughout my life. I doubt I could ever find the words to express how grateful I am to my parents, Brad and Colette Weakly, for their unwavering love and support. They have always encouraged me to follow my dreams and I cannot imagine having undertaken this project without them—they taught me to persevere and to focus on the important things in life. Because of their superabundant love, guidance, and acceptance I have chosen to dedicate this dissertation to them. My sister, Amber Harris, also has been a source of inspiration for me—I’ve looked up to her and wanted to be like her for as long as I can remember. My extended family, my Huttes aunts and uncles and Gordon and Vicky Price, have been tremendously supportive throughout the years. My husband’s family, too, have taken me in as one of their own and cheered me on throughout this process. David and Debra Mignin and Richard and Colleen Bernath, thank you for welcoming me into your family and all of your kind thoughts and wishes. I consider myself blessed to know so many wonderful, giving individuals and call them my family.

My husband, Michael Mignin, was patient and thoughtful throughout this process. He listened to me as I formulated my ideas, traveled with me to archives throughout the country and conducted research with me, accompanied me to my presentations, and most importantly, reminded me to be patient with myself throughout years of writing and re-writing this dissertation. He works full-time, cleans, cooks, takes great care of our children, and has made sacrifices for me so that I could complete my education. I am eternally grateful for his kindness and generosity.
Perhaps ironically, I found myself facing two unexpected pregnancies and the births of my children as I wrote this dissertation. Because of that, this work was completed during naptime, after my children’s bedtime, and stolen moments of rare quiet throughout the day. But, my children have enriched this work in so many ways. They have taught me how to be a better, more compassionate person, and indeed, a better scholar. Thanks to Max and Maggie, I learned to be more careful—about what I said and how I said it, I learned to manage my time better, and most importantly, I discovered why people go to such great lengths to have babies. When I started this dissertation, I was single and childless, and now as I am completing this work, I have an amazing new family and with that, an amazing new perspective. I was skeptical of in vitro fertilization when I began this work. And, as I near the end of my study, I’m still not convinced about all aspects of this technology. But, I’m convinced anything that helps people achieve the joy that I’ve found in my children can’t be bad.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION.</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER I. FORESHADOWING</td>
<td>28</td>
</tr>
<tr>
<td>CHAPTER II. THE PROTECTION OF HUMAN SUBJECTS</td>
<td>52</td>
</tr>
<tr>
<td>CHAPTER III. “ETHICALLY ACCEPTABLE” BUT “LEGITIMATELY CONTROVERTED”</td>
<td>102</td>
</tr>
<tr>
<td>CHAPTER IV. “NOT ALL RESEARCH….MUST BE FUNDED BY THE DEPARTMENT”</td>
<td>140</td>
</tr>
<tr>
<td>CHAPTER V. THE ABORTION STIGMA AND THE LOCAL MEDIA AT THE OPENING OF THE NORFOLK IVF CLINIC</td>
<td>170</td>
</tr>
<tr>
<td>CHAPTER VI. SEPARATING IVF FROM ABORTION</td>
<td>221</td>
</tr>
<tr>
<td>CHAPTER VII. GETTING A “FAIR SHAKE” FOR IVF CONSUMERS AND SHAKING OFF THE ABORTION CONNECTION</td>
<td>267</td>
</tr>
<tr>
<td>CONCLUSION.</td>
<td>321</td>
</tr>
<tr>
<td>BIBLIOGRAPHY.</td>
<td>333</td>
</tr>
</tbody>
</table>
INTRODUCTION

Sarah was unable to bear a child, but she and her husband Abraham wished to have one. In vitro fertilization (IVF) was still thousands of years in the future, but Sarah and Abraham solved their problem with the assistance of a servant named Hagar. After Hagar bore a son for Abraham and Sarah to raise as their own, the Bible tells that Sarah, too, bore a son. Bitterness, jealousy, and distrust ensued. This story, which may be familiar to some readers, introduces the theme of infertility in the Bible. Infertility—and a willingness to take extreme measures to cure it—are as old as human history. It comes as no surprise, then, that when IVF became available in the last decades of the twentieth century, infertile couples throughout the world hastened to try the new therapy. But, much like the story of Abraham and Sarah, the new reproductive technology would not be without controversy.

This dissertation argues that in vitro fertilization became connected with abortion during the early 1970s, making the new reproductive technology a subject of controversy even before the successful application of human IVF. Because of the potential destruction of laboratory created embryos, anti-abortion activists and politicians linked these two procedures together soon after the Supreme Court expanded reproductive rights in the United States with its Roe v. Wade decision. Tracing the implications of this connection throughout the 1970s and 1980s, this dissertation argues that IVF’s ties to abortion stunted its development in the United States by making the reproductive technology a controversial issue. Human IVF was stymied by its connection to the politically contentious and polarizing abortion issue during the 1970s.

This project investigates how IVF developed in the United States by examining governmental policies surrounding the reproductive technology. In its focus on the development of federal policies for IVF, this study uncovers the importance of the connection between IVF
and abortion. The American government neglected to fund human IVF because anti-abortion activists linked the new reproductive technology to abortion. As IVF continued to be associated with abortion in the early years of its development, this study explores how clinical IVF became a reality despite the lack of federal funding. Much like they sought to block federal funding for human IVF, anti-abortion activists attempted to prevent the opening of America’s first IVF clinic. Private, unregulated clinics offered IVF services, but success rates were low and the procedure was expensive. Policymakers became aware of the potential for consumer exploitation in the unregulated, unfunded field, and some sought to rectify these problems. Focusing on government policies has elucidated how the connection between IVF and abortion first emerged, affected government policy, and eventually weakened enough to allow policymakers to revisit the new reproductive technology and regulate the medical field.

This dissertation asks why IVF policy originated during the early 1970s and how government policies affected the development of in vitro fertilization in the United States. Further, this study questions how government policies on IVF changed over time and what outside forces contributed to such changes. What was responsible for federal refusal to fund human IVF research? The fundamental questions that have guided this study have led to the conclusion that one cannot fully understand government policies on IVF without acknowledging the connection between IVF and abortion. Following this realization, new research questions emerged. How did the connection between IVF and abortion affect its development outside the policy arena? Did abortion shadow IVF during its era of clinical expansion in the United States? Was there a limit to the link between these seemingly disparate procedures? If so, how and why did the separation between IVF and abortion occur?
Focusing on the policies surrounding IVF in the United States, this dissertation argues that because of the simultaneity of the passage of legislation to protect the subjects of biomedical and behavioral research and the legalization of abortion, *in vitro* fertilization became a subject of controversy before the technology was even successful. As the Supreme Court legalized abortion with its *Roe v. Wade* decision, an anti-abortion movement developed in the United States in an attempt to reverse what some Americans considered to be an unethical, immoral decision. In its efforts to reverse the effects of the Supreme Court’s decision, the Right-to-Life movement took several routes, including trying to pass legislation protecting human life from the moment of conception. Because many anti-abortion activists believed that life begins with conception, they focused on protecting human life by rallying against fetal and embryonic research along with abortion. IVF got caught up in the political debate over abortion as Steptoe and Edwards worked to achieve their goals of creating human life *in vitro*, transferring the embryo to the mother, and sustaining a pregnancy.

In presenting this argument, this dissertation uses archival materials from the National Archives at College Park, Maryland, Old Dominion University Archives, Duke University Archives, and Loyola University at Chicago Archives. Housed at the National Archives at College Park, papers from the director of the NIH, coupled with Mason Andrews’ papers at Old Dominion University have been the basis of this dissertation. It has also relied heavily on bioethicists Paul Ramsey and Richard McCormick’s papers. This study also draws on contemporary newspaper and magazine articles, published books, and journal articles. However, the story that comes out of this study has been driven by the archival materials. Without these documents, this policy history of American *in vitro* fertilization would have looked drastically different. The connection between abortion and IVF, and the ways in which abortion shadowed
the reproductive technology through its development in the United States becomes readily apparent only after reading the NIH papers and Andrews’ papers.

This dissertation begins by exploring the birth of the world’s first IVF baby, Louise Brown. Chapter one argues that the story of IVF pioneers Robert Edwards, Patrick Steptoe, and the Brown family foreshadows the themes that emerged in the development of American IVF. When she was born in 1978, Louise Brown became synonymous with IVF, but her birth took years of experimentation and dedication. Edwards and Steptoe who worked tirelessly to achieve success with human IVF, recognized the mysteries that surrounded the emerging medical field, the potential for commercial growth, the ethical concerns and the media intrigue surrounding the new reproductive technology.

The second chapter of this study argues that because of a historical coincidence in the timing of *Roe v. Wade* and the passage of legislation to protect human subjects, IVF and abortion became inextricably linked together in government policies. As IVF became caught up in a controversy over abortion and fetal research, policymakers placed a moratorium on IVF research. No federal funding could be granted for research involving human IVF until a special ethical advisory board determined its ethical acceptability on a case by case basis. Beginning with the President’s Commission on Bioethical and Behavioral Research, this dissertation looks at how IVF became connected to fetal research, and eventually, how the special Ethics Advisory Board was created to investigate the ethical issues surrounding IVF as an American researcher, Pierre Soupart, requested federal funding for a study on potential chromosomal abnormalities as a result of *in vitro* fertilization.

Chapter three maintains that the technology that was first associated with abortion during the fetal research controversy continued to be plagued by this connection as EAB members
studied the ethical issues surrounding IVF research. The Ethics Advisory Board, created by the Department of Health, Education, and Welfare (HEW), was charged with making a recommendation to the Secretary about the ethical acceptability of federal funding for IVF research. In 1978 and 1979, the EAB explored all aspects of the new reproductive technology, but realized that the real hurdles for the technology lay in the unknown status of the human embryo and the question of when life begins. If life begins at conception, as opponents of abortion claimed, IVF research involved the creation and potential destruction of human life. For many anti-abortion activists, then, IVF research was worse than abortion because scientists knowingly created human life in a laboratory, only to see it destroyed. The connection between IVF and abortion superseded all of the other potential ethical issues surrounding IVF as the Ethics Advisory Board welcomed comments from the American public. Despite its inability to adequately decide when life begins, the Board made a positive recommendation for federal funding for IVF research, leaving it up to the Secretary to decide the fate of IVF research in the United States. Because of the link between IVF and abortion, this decision would prove to be difficult for HEW Secretary Joseph Califano and his successor, Patricia Harris.

The fourth chapter explores the bureaucratic response to the link between IVF and abortion, maintaining that this connection precluded any possibility of federal funding for human IVF research. For bureaucrats chosen by pro-life President Jimmy Carter and targeted by anti-abortion activists both publicly and privately, the connection between IVF and abortion made the EAB’s recommendation nearly impossible to implement. As representatives of the world’s largest source of funding for biomedical research, members of the NIH encouraged the Secretary to make a positive funding, to no avail. As the HEW Secretaries sought to avoid making a controversial decision that could potentially end their political appointments, the moratorium on
federal funding for IVF research remained. Anti-abortion advocates had been successful in at least one of their strategies to protect human life—they had blocked federal funding for research on human IVF. Although unsuccessful in its attempt to overturn the Supreme Court’s abortion decision, the Right-to-Life movement had blocked funding for research that it viewed as the moral equivalent to abortion.

As the abortion/IVF link became increasingly insurmountable in the halls of the federal bureaucracy, a privately funded IVF clinic was preparing to open in Norfolk, Virginia. Chapter five contends that its creators, too, soon discovered the ferocity of the anti-abortion movement’s determination to oppose the life-creating technology. Louise Brown’s birth coincided with the arrival of a world-renowned husband and wife team of reproductive specialists to the Eastern Virginia Medical School (EVMS) in Norfolk, Virginia. Howard and Georgeanna Jones came to Norfolk at the request of Mason Andrews, the chair of the Department of Obstetrics and Gynecology at EVMS, and began preparing to open America’s first IVF clinic. Together, Andrews and the Joneses faced opposition from local and national Right-to-Life groups. The connection between IVF and abortion threatened the opening of the Norfolk IVF clinic as its creators applied for its Certificate of Need from Virginia. Protesting and writing against IVF for its connections to abortion in Norfolk’s local newspapers, organized anti-abortion activists sought to prevent the IVF clinic from opening its doors. In 1979, when the Eastern Virginia Health Systems Agency (EVHSA) held hearings to determine the fate of the Norfolk clinic, the DHEW Secretaries had yet to make a funding decision. Such indecision was not possible for the EVHSA. Faced with making the controversial determination whether or not the clinic should open in Virginia, members of the EVHSA cited the EAB’s report stating the IVF was ethically acceptable, and provided Andrews and the Joneses with a Certificate of Need. Although the
HEW Secretaries ultimately ignored the EAB’s recommendations, the EAB’s report was helpful to America’s IVF pioneers as they sought to open a clinic in Virginia.

Although Andrews and the Joneses overcame the connection between the reproductive technology and abortion when they gained the required Certificate of Need to open their clinic, they continued to fight against the anti-abortion movement’s attempts to stigmatize IVF. As the American IVF team opened the clinic, they fought a public war with local and national Right-to-Life activists who persisted in their efforts to prevent the entrenchment of IVF in the United States. These activists fought a battle for local public opinion in the Norfolk area newspapers, the *Virginian-Pilot* and the *Ledger-Star*. Continually arguing against IVF in guest editorials, anti-abortion activists targeted the technology for its ties to abortion, diminished the achievements of the clinic as it opened, and even implied that the Norfolk IVF pioneers would force the abortion of abnormal fetuses created through IVF. Ultimately, the clinic’s leaders accused the newspapers’ owner, Landmark Communications, of slander. The resulting settlement ironically provided the Norfolk Clinic with funding for experimentation and improvements. The opening of the IVF clinic at Norfolk and its IVF successes illustrate how the connection between IVF and abortion, though insurmountable in the federal government in the contentious environment of the 1970s, was not as strong at the local level when funding was not an issue. IVF was beginning to overcome its early and damaging connection to abortion, thanks to the determination of the technology’s pioneers at Eastern Virginia Medical School.

Chapter six explores the ways in which the connection between IVF and abortion became strained during the 1980s, arguing that three separate and distinct forces contributed to the loosening of the link between the reproductive technology and the still-contentious abortion issue. Together, a pronatalist mainstream media, a radical feminist movement that opposed
reproductive technologies, and an official determination from the Vatican worked together to diminish the link between IVF and abortion. First, the pronatalist mainstream media supported the development of IVF and lessened its ties to abortion by rejoicing in the “miracle” babies that resulted from a technology that had the ability to turn back women’s biological clocks. As other clinics followed in Norfolk’s footsteps, opening throughout the country, it was undeniable that IVF provided babies to infertile couples who otherwise could not have a genetic child of their own. As the media celebrated these victories, the national focus shifted from lost embryos as a result of IVF research to live babies as a result of clinical IVF.

Further contributing to the separation between IVF and abortion was the emergence of an organized feminist movement against reproductive technologies. The Feminist International Network of Resistance to Reproductive and Genetic Engineering (FINRRAGE) was created by self-proclaimed radical feminists who believed that IVF and other reproductive technologies hurt infertile women more than it helped them. In their focus on women-centered issues surrounding IVF, FINRRAGE members continued to shift the focus away from IVF’s connection to abortion. Rather than look at the ways in which IVF destroyed potential life via lost embryos, this groups emphasized they ways in which IVF had a negative physical, mental, and emotional affect on infertile women. The procedure was painful, time consuming, expensive, and, FINRRAGE members argued, provided infertile women with a technology that they could not refuse without feeling like they had not done enough to reach their goals of having genetic babies.

Finally, the connection between abortion and IVF became strained during the 1980s when the Vatican issued its official policy on reproductive technologies in 1987, declaring IVF illicit for reasons other than its connection to abortion. Rather, the Vatican focused on the inseparability of the unitive and procreative aspects of sexual intercourse, reaffirming Donum
Vitae, its encyclical against contraception. In terms of policy history, this chapter shows how influential society and the media can be in pushing policymakers to revisit government policies and implement new ones. As 1980s American society, encouraged by a pronatalist mainstream media, increasingly accepted IVF as acceptable and even beneficial, the connection between IVF and abortion became strained as more and more Americans associated IVF with babies instead of lost embryos. Further, this link was further diminished by new opposition to IVF that found new reasons to rally against the reproductive technology. While FINRRAGE and the Vatican had completely different reasons for speaking out against IVF, the effect was the same—the link between IVF and abortion became strained.

Chapter seven maintains that the increasing separation between IVF and abortion allowed the federal government to revisit its policies surrounding the reproductive technology. Recognizing the great expansion and entrenchment of IVF services throughout the United States during the 1980s, Representative Ron Wyden of Oregon led the charge for updated IVF policies. Wyden saw the need for government regulation of IVF because of the ways in which the technology had developed in the United States, without federal funding or regulation. As IVF rapidly expanded throughout the country, IVF professionals began to wonder about the effects of the lack of funding and regulation, arguing for the need for oversight of some sort. IVF professionals wondered about the exploitation of IVF patients at the hands of unscrupulous doctors who exaggerated their credentials and success rates. As he became aware of the potential for consumer-patient exploitation, Wyden held congressional hearings to investigate the state of the field of reproductive medicine. Because IVF developed devoid of government funding or regulation as a result of the abortion connection, consumer-patients paid the price. However, during the 1980s external forces weakened this connection, paving the way for the
federal government to revisit its IVF policies. Abortion, however, remained a contentious issue that split the United States, and federal funding was no longer an option. Because of the potential exploitation of consumer-patients, though, Congress acted as the gatekeeper intent upon protecting IVF patients at the hands of unscrupulous reproductive specialists. IVF had exploded throughout the country and was a booming business. The technology would remain part of American medicine, and indeed a part of American culture despite its early connection to abortion.

Wyden’s effort to protect infertile American consumers was important during the late 1980s. Anti-abortion activists were unsuccessful in their efforts to prevent what they considered to be unethical and immoral human IVF research—IVF practitioners found ways to fund their experiments. IVF became available in a clinical setting before scientists could engage in large-scale research on human IVF, and oftentimes the patients paid for IVF experimentation. Because of this, costs were high while success rates were low. As IVF developed in an unregulated fashion in the United States, practitioners did not always divulge their low rates of success and questions of false advertising arose. Surely this was one unintended consequence of the anti-abortion movement’s focus on IVF along with fetal research and abortion. The effects of the early link between IVF and abortion were far-reaching. Although IVF ultimately prevailed in shaking off this damaging connection by the late 1980s, the decade of IVF’s development in the United States was marked by low rates of success, high costs for IVF patients, and specialists whose practices could possibly be exploitative. Wyden sought to remedy these unintended consequences of HEW’s refusal to fund human IVF research with an act to protect the consumer-patients of this reproductive technology. In doing so, he by-passed the abortion issue completely, shifting the focus of IVF policy to exploited consumers and away from lost human
embryos. Ultimately, at least in government policy, IVF became separated from the contentious abortion issue enough for policymakers to pass legislation regulating the field.

**Review of Literature**

Few historians have published works focusing on the problem of infertility in America. Elaine Tyler May and Margaret Marsh and Wanda Ronner tackled this subject, concentrating on childlessness in the United States up to the twenty-first century. Because of the broad scope of these studies, the authors only consider reproductive technologies like IVF, ET, and GIFT at the end of their studies. In her 1995 publication, *Barren in the Promised Land*, May concentrates on the human face of infertility, showing the devastating impact of involuntary childlessness.¹ Noticing the American obsession with reproduction during the 1980s, and how the “childless occupy the focus of much of this attention,” May wanted to place childlessness in the United States in historical perspective.² Interestingly, May contends that the national interest in the procreative habits of others has placed the voluntary childless in much the same position as the involuntarily childless—desperate or defensive, pitied or scorned.³ Although she argues that concern over infertility is not unique for late twentieth century Americans, she maintains that “reproduction became a natural obsession” only after World War II, when “the family surfaced as the ideological center of national culture.” At this point, according to May, childlessness—voluntary or involuntary—became “a unique identity.”⁴ Beginning her history with the colonial period when many believed infertility was God’s punishment for sin, she traces the history of infertility to the twentieth century when pronatalism reemerged and reproductive medicine

---

² Ibid., 1.
³ Ibid., 3 and 16.
⁴ Ibid., 18.
expanded as a medical field. Following the different expectations of motherhood and fertility during this long sweep of time, May argues that while many other aspects of American culture changed, responses to childlessness have largely remained the same—negative. To elucidate and understand the intense feelings associated with infertility, May also explores the psychological and social ramifications of the inability to perform what many believe to be the most basic human function: reproduction.

Marsh and Ronner also trace the history of infertility in the United States from the colonial era to the end of the twentieth century in *The Empty Cradle: Infertility in America from the Colonial Times to the Present*, exploring the ways in which Americans experienced and understood infertility.° Marsh, a historian, collaborated with her sister, an obstetrician/gynecologist, to seamlessly meld the social and scientific histories of infertility, paying more attention to the scientific aspects of fertility treatments.° Even so, Marsh and Ronner argue that cultural changes, rather than innovations in reproductive medicine and technology, have increasingly brought infertile patients to clinics. So, while advancements in reproductive medicine are central to this study, Marsh and Ronner emphasize the importance of the secularization of American society, the role of women in the United States, and the increasing medicalization of society in changing Americans’ responses to infertility. The authors trace the technologies of assisted reproduction through American history, as the practice evolved from the very basic artificial insemination to GIFT, showing that the new reproductive technologies are not the first controversial infertility treatments. Acknowledging the “centrality of gender” in their study, Marsh and Ronner maintain that although infertility affects both men

---


° Ibid.
and women, women have “disproportionately borne the medical, social, and cultural burden of a couple’s failure to conceive.”

Cultural Historian Lisa Hope Harris began her study where May, Marsh, and Ronner left off, writing her doctoral dissertation on the clinical development of *in vitro* fertilization in the United States. She argues that while Marsh and Ronner “focus on the role of social forces in shaping public attitudes about infertility and in determining the use of the infertility therapies,” and have “embedded [the technologies] in a social context,” her work goes “further” by “positing a more dynamic and symmetrical relationship between technology and culture.”

Using Science and Technology Studies, Harris maintains that there was “a more dynamic and symmetrical relationship between technology and culture,” where the “medical technologies themselves do social work,” by “actively transform[ing] the very cultural forces that shaped them.” In this way, IVF and other reproductive technologies, according to Harris, “exert a powerful, reciprocal influence on culture.”

In her focus on the interplay between IVF and the culture in which it developed, Harris contends that rather than undermining the technology, opposition to IVF strengthened the burgeoning technology. Focusing on the ways in which “American IVF has been profoundly shaped by dominant social structures and prevailing cultural conditions,” Harris focuses on the clinical development of IVF and its portrayal in the mainstream media to elucidate how Americans understood the reproductive technology as it became available throughout the country.

---

7 Ibid., 4.  
8 Harris, 50.  
9 Ibid.  
10 Ibid., 8.  
11 Ibid., 18.
volume of coverage on infertility and IVF,” surely illustrating May’s contention that Americans had a “national obsession” with reproduction.12 Her study shows that “IVF arose because of a confluence of particular cultural forces and that new cultural possibilities arose because of the arrival of IVF.”13 She sees IVF as resting “upon a sturdy tripod of American cultural phenomena,” including delayed childbearing, consumer culture, and “the intractable U.S. abortion debate.”14 Of the relationship between IVF and abortion, Harris recognizes that anti-abortion activists “exerted a powerful influence on IVF research and clinical agendas and were directly responsible for some of the technical decisions early IVF investigators made.”15 While her dissertation argues that the abortion issue was part of a cultural tripod that supported IVF, this study illustrates the ways in which the connection between IVF and abortion was a hindrance to the technology. And, while this dissertation also briefly explores the impact of the mainstream media’s pronatalism on the development of IVF, it argues that the abortion connection, more than anything else, affected the ways in which policymakers approached the new reproductive technology. Harris’s Science, Technology, and Society focus had led her in a different direction than this study’s focus on the History of government policy. While this study argues that the discursive connection between IVF and abortion had a negative impact on the new reproductive technology, Harris argues that the link between these seemingly disparate procedures helped to shape clinical IVF.

Although these studies provide insight into the complicated issue of infertility and reproductive technologies, they rarely discuss the policymaking decisions central to understanding the government’s role in the development and distribution of reproductive

---

12 Ibid., 28.
13 Ibid., 25.
14 Ibid., 8.
15 Ibid., 20.
technologies. One scholar who does, however, study IVF in the United States is political scientist Andrea Bonnicksen, whose book, *In Vitro Fertilization: Building Policy from Laboratories to Legislatures*, focuses on policies for assisted reproduction, the human embryo, stem cell research, and human cloning. Bonnicksen examines public policy, noting the absence of federal-level policies to monitor the new technology. Published in 1991, her book argues that the federal government should regulate IVF, no longer leaving the field to self-regulation. As a political scientist, Bonnicksen recognized the dearth of regulation for the exploding field of IVF and recommended policy changes. While her book focuses on IVF and federal policy, Bonnicksen’s standpoint is that of a contemporary observer of government policies, one who would happily see her recommendations come to fruition in the 1990s.16

Together, these studies provide great insight into a history of infertility, childlessness, and reproductive technologies in the United States. A short discussion of the rhetoric that accompanied infertility and reproductive rights through American history also puts this study in perspective.

**Motherhood, Medicine, and Reproductive Rights**

Rhetoric surrounding the importance of motherhood in America dates back to the colonial era. For America’s infertile population, parenthood was a status that was not always attainable, leaving childless citizens at times feeling on the edges of society. In the religious societies of colonial America, attempting to tamper with reproduction posed unacceptable challenges to God’s will.17 In theory, both infertility treatments and the practice of family limitation were considered shameful and sinful at this time, although Americans considered

---

16 Personal conversation with Andrea Bonnicksen, 15 August 2011.
17 May, 27.
abortion acceptable before quickening until the 1800s. Women and men who covered up abortions often wanted to conceal their premarital indiscretions rather than hide the destruction of a fetus or the hindrance of “nature’s proper course.”

Although doctors’ ability to ease infertility was non-existent, Americans had a system of “informal channels of child sharing” that included “apprenticeship, servitude, and caretaking,” in which infertile Americans could become unofficial parents. During the colonial era, when medical knowledge was limited, parental status was somewhat fluid.

The Founding Fathers who created the United States government recognized the necessity and importance of “Republican Motherhood” in creating strong and responsible citizens. Ideologies about women’s place in the sphere of domesticity emerged, morphing in response to societal changes but carrying with them certain identifiable characteristics such as the importance of motherhood. America needed women to be fruitful, breeding good and patriotic citizens to ensure the future of the republic. As the nation expanded, May notes that one of the interesting things about the American belief in Manifest Destiny was that even as Americans were encouraged to have children to populate the expanding nation, “the obligatory care and nurture of precious children meant that parents…would need to devote themselves wholeheartedly to each individual child.” May argues that the emphasis on the individual development of each child ironically led to a declining birthrate by stressing “quality over quantity.” The average size of the American family began shrinking during the nineteenth

---

19 May, 243.
21 May, 44.
century, from an average of seven children per family in 1800 to only three or four children per family by 1900.22

With so much emphasis on the rearing and development of individual children, it is not surprising that ideals and practices regarding birth control and abortion also changed. With the falling number of children per family throughout the nineteenth century, reliance on contraception and abortion increased. The number of abortions increased steadily during the first half of the 1800s, when abortion was still legal before “quickening.” At the beginning of the 19th century, there was an estimated one abortion “for every twenty-five to thirty live births,” but around 1850 estimates are “as high as one abortion for every five or six live births.” No longer viewed as a “last resort of single young women,” abortions had become “most common among married women.”23 Fearing the prolific breeding of non-native born Americans as the middle-class native born birth rate diminished, “forty states and territories enacted antiabortion laws, limiting access and transferring legal authority for abortion from women to physicians” between 1860 and 1890.24

As abortion became criminalized, medicine was professionalizing and physicians became more interested in women’s problems and infertility. Motherhood was central to womanhood during the nineteenth century, and in the woman’s sphere, the inability to have children was devastating. By the end of the nineteenth century, women began seeking medical treatment for infertility and physicians attempted to alleviate some women’s problems, as doctors such as J. Marion Sims experimented in the new field of gynecology.25 By this time, doctors had developed new treatments for women who experienced infertility, including “surgery, bleeding

22 Ibid.
23 Ibid., 47.
24 Ibid., 48.
25 Ibid., 43-44.
of the cervix with leeches, the application of electricity, and the use of various mechanical appliances to rearrange the reproductive organs.”

By 1884, some doctors realized that even if husbands were not impotent, they could still be infertile if their semen contained no sperm, and the first artificial insemination by donor was done by Dr. William Pancoast in 1884. The story of this medical first was not shared until 1909, when one of the medical students present at the insemination wrote an article detailing the incident. Relaying how Pancoast had anesthetized his female patient and, unbeknownst to her, impregnated her with donor sperm from one of the medical students. The medical student used the case as an example of the positive application of eugenics—a middle-class woman who had previously been unable to bear children was now pregnant.

The rhetoric of motherhood took on eugenic tones when the government and social reformers alike encouraged upper- and middle-class white Americans to have children to outnumber the prolific undesirables during the late 1800s and early 1900s—whether they were new immigrants, criminals, or the mentally ill. As America became urban and modern, “the advantages of having large families dwindled,” as “children were sources of expenditures rather than investments,” and the American birthrate reached its lowest point in the 1920s and 1930s. Because of the financial difficulties of the Great Depression, many Americans chose not to have children despite the rise of a eugenics movement that encouraged the “best stock” to increase its birthrate. Although eugenicists were not successful in encouraging a rising birthrate for desirable Americans, May points out that they reached success in their efforts at preventing

26 Ibid., 65.
27 Ibid. On page 11 May discusses the fact that “Until the mid-nineteenth century, men were believed to be fertile if they were not impotent.”
28 Ibid., 65-66.
29 Daniel J. Kevles, In the Name of Eugenics: Genetics and the Uses of Human Heredity (New York: Knopf, 1985), 90-96.
30 May, 80.
31 Ibid., 92.
“undesirables” from reproducing through a program of forced sterilization, first at state-run institutions, and later, in the second half of the twentieth century, for poor women on public assistance.\textsuperscript{32}

Physicians who focused on reproductive medicine made some strides in understanding fertility and infertility during the early 1900s. Physicians successfully “plotted” the “ovarian cycle” in the 1920s, although it was not “generally understood by physicians in the United States” until the 1930s.\textsuperscript{33} And although doctors understood “the function of sperm” by this point, “women remained the focus of attention in the treatment of infertility.”\textsuperscript{34} Victorian reticence left some physicians limited in their efforts to alleviate infertility. May writes, “while some physicians urged openness about matters of sex and reproduction…others hindered effective treatment by their own attitudes and discomfort with the subject.”\textsuperscript{35} Few strides were made in the treatment of infertility during the early decades of the 1900s, and a shortage of adoptable infants left involuntarily childless Americans without any real alternatives. “Those who applied for adoption had to pass careful scrutiny to be approved as worthy parents” at a point when “there were at least twice as many hopeful parents for each available child.”\textsuperscript{36} Social agencies focused on keeping genetic families together rather than providing infertile Americans with children.\textsuperscript{37}

While the country’s lowest birthrate was seen during the 1920s and 1930s, the generation that followed “cut the rate of childlessness in half.”\textsuperscript{38} During the post-World War II era, May argues that childlessness became stigmatized more than ever before, becoming “a mark of social

\textsuperscript{32} Ibid., 93-119.
\textsuperscript{33} Ibid., 75.
\textsuperscript{34} Ibid., 76.
\textsuperscript{35} Ibid., 77.
\textsuperscript{36} Ibid., 77.
\textsuperscript{37} Ibid., 87.
\textsuperscript{38} Ibid., 12.
maladjustment," as “childless adults...were vilified as downright un-American.”39 During the baby boom, Americans en masse had babies—“birthrates in America rose for every racial, ethnic, religious, occupational, and income group in the country.”40 The birthrate, which began climbing during World War II, was a sign of better economic times and the push for the American family to be the country’s savior at the beginning of the Cold War.41 As the age of first marriage declined, the number of children per family increased “from an average of 2.4 in the 1930s to 3.2 in the 1950s.”42

With the national emphasis on families and children more than ever before, “childlessness appeared to be deviant, selfish, and pitiable,” and voluntarily childless Americans “went into the closet.”43 Infertility also “became increasingly difficult to accept.”44 In this atmosphere, the mission of adoption agencies changed from helping children find families to helping infertile couples find babies that looked as much like them as possible.45 Further, as adoption agencies emphasized the importance of nuclear families, less married women gave up their children for adoption—“the percentage of adopted children born to married women dropped from 65 percent to none; virtually all were now born to unwed mothers.”46

During the baby boom years, reproductive specialists had a greater understanding of reproduction, including the role played by hormones and the production of sperm. While still depending on therapies like artificial insemination, physicians could also prescribe hormones to stimulate ovulation or “improve the quality of semen,” or rely on new kinds of surgical...
interventions. According to May, “these therapeutic strategies represented major advancements in the field in just a few decades.” Although physicians knew and understood the role of semen in reproduction, many reproductive specialists focused on female infertility, often ignoring male factor infertility. During the 1950s, existing fertility clinics grew and new ones sprouted at a rapid pace. The “unquestioning public faith in the power of science and technology” coupled with social pressures to have children during the post-World War II era supported the booming industry.

With the waning of the Cold War mentality, the baby boom came to an end as the birthrate dropped and childlessness became socially acceptable. Ironically the Baby Boom generation would come to challenge the dictates of American society—including the intense pronatalism—that produced it. The Baby Boom generation grew up in a quickly changing society that witnessed during the 1960s the coming of age of the Civil Rights movement, the Mexican-American movement, the Gay Liberation Movement, and most importantly for the population trends in America, the Women’s Liberation Movement. Many Baby Boomers also revolted against the norms that had led to their very existence: the importance and value of having children. During the 1970s, the Childfree Movement emerged, illustrating a radical break from the pro-motherhood trends that had prevailed in American history.

But perhaps the Population Control Movement beginning in the 1960s set the precedent for contemplating the negative effects of reproduction. This movement began as the world population seemed to be exploding during the post-World War II era. Population controllers

---

47 Ibid., 156.
48 Ibid.
49 Ibid., 158.
50 Marsh and Ronner, 3.
51 May, 3.
52 Ibid., 213.
agreed with the Neo-Malthusian doctrine, which stated that by reducing mortality rates, medical advancements resulted in a population that was not balanced with the natural world.\textsuperscript{53} To rectify this imbalance, leaders such as John D. Rockefeller III lobbied the federal government and worked in close connection with the National Academy of Science, and eventually President Richard Nixon, to make contraception more available. It is highly likely that the Childfree Movement of the 1970s was influenced by the Population Control Movement, which had gained some success in the U.S. despite being denounced by the Catholic Church for approving abortion.\textsuperscript{54} But the Population Control Movement was also connected to birth control and family planning, so much so that historian Linda Gordon argues that the terms could be used “interchangeably” in the 1960s.\textsuperscript{55} The Population Control Movement paired with advancements in technology that created contraceptive successes helped to make the Childfree Movement of the 1970s a possibility. While the voluntarily childless population constituted a minority of Americans at about sixteen percent of women aged thirty to thirty-four in 1976, they nevertheless represented a remarkable break from earlier family practices and norms.\textsuperscript{56} The establishment of an association for those who wished to remain childless, the Childfree Network, demonstrates the extent to which America’s childless population represented a degree of social deviance.\textsuperscript{57}

\begin{verse}
Around the same time, the Supreme Court legalized abortion in \textit{Roe v. Wade}, contributing to the rights revolutions occurring in the late 1960s and early 1970s, and dividing the nation on a contentious moral issue. Basing its decision on the right of privacy, the Supreme
\end{verse}

\begin{flushright}
\begin{footnotesize
\begin{enumerate}
\item Ibid., 8-14.
\item May, 182.
\item Ibid.
\end{enumerate}
\end{footnotesize}
\end{flushright}
Court ruled that women should have a certain degree of autonomy over their reproductive lives. Its decision was complicated, for while the Court upheld reproductive rights, it also recognized “the state’s interest in protecting the fetus,” when it ruled that the state could not prohibit a woman from obtaining an abortion before the point of viability. After the fetus was potentially able to survive outside the womb, albeit with medical help, “the state’s interest in the well-being of the fetus becomes more compelling than its interests in protecting the woman’s right to choose.” Deciding that the fetus was not “a person entitled to constitutional protection,” the Supreme Court believed that a person needed to be born before attaining human rights. Nonetheless, justices held that viable fetuses were entitled to certain protections from abortion. This decision has had a huge impact on American politics and society. Political scientist Eileen McDonagh recognizes the “confused” policy that resulted when she states that “On the one hand, the Court ruled in Roe that it did violate a woman’s fundamental right to due process if the state protected the fetus by criminalizing abortion before it was viable... On the other hand, the Court ruled that it did not violate women’s fundamental right to due process if the state protected the fetus by criminalizing abortions after viability.” McDonagh argues that the ways in which the Court crafted its decision has contributed to a debate between anti- and pro-abortion activists that has resulted in a political stand-off. “From their fixed positions,” she wrote, “activists on both sides remain intractable and unable to find common ground.” For McDonagh, the Roe decision “established that women’s rights are determined more by what the fetus does than what the fetus is.” In unexpected ways, Roe v. Wade complicated reproductive

59 Ibid.
60 Ibid., 21.
61 Ibid., 135.
62 Ibid., 17.
63 Ibid., 136.
rights in the United States and resulted in a movement for fetal and embryonic rights led by anti-abortion activists.

After *Roe v. Wade*, the Population Control Movement and Childfree Movement in the 1970s, America witnessed what some saw as the re-emergence of pronatalism in the 1980s. May writes that this decade was “reminiscent of the early baby-boom days,” when “babies, children, and parenthood began to permeate the nation’s popular culture.” As contributors to the pronatalist culture, May includes movies and television shows that glorified parenthood and childbirth, the mainstream media, and social theorists, like Ben Wattenberg, who warned about the dangers of the “birth dearth.” Interestingly, according to May, “the new pronatalism brought together advocates from the Left and the Right,” because although in its pronatalism, the Right “condemned all nontraditional forms of sex and procreation, the lesbian and gay community…drew upon similar rhetoric in their claims for legitimacy as parents and as families.” Not surprisingly, with so much emphasis on parenthood, visits to infertility clinics were over 1 million per year during the 1980s. Along with the pronatalist rhetoric, infertile Americans had new reproductive technologies luring them to see reproductive specialists. Even though the success rates weren’t high, hopes abounded.

Historians, sociologists, anthropologists, and other scholars have found that hopefulness is one commonality that infertile Americans share. Because of its focus on policy history and the effects of the connection between IVF and abortion, this study does not go into detail about how infertile Americans experienced IVF technology. Other scholars have explored how and why

---

64 May, 213.
65 Ibid., 213-215.
66 Ibid., 216.
67 Ibid., 217.
68 May, 218. As late as the 1990s, infertile couples who sought fertility treatments had about a fifty percent chance of sustaining a pregnancy, a success rate, May points out, that was not much higher than that of the 1950s.
IVF patients experienced infertility and the medical technologies that held out the promise of genetic parenthood. Marsh and Ronner conducted a small study of twenty-three women who in the Philadelphia area who filled out questionnaires and shared their stories of infertility.69 Elaine Tyler May, too, shares the voices of infertile Americans in her book. Recognizing the importance of letting infertile Americans speak for themselves, she sent inquiries to hundred of newspapers and magazines throughout the United States, yielding more than 500 responses. Seeking to avoid any sort of manufactured response, May did not include a questionnaire, but rather asked for respondents to share their story in writing or tape recording.70 Margarete Sandelowski also allowed infertile women to speak for themselves in her 1993 book *With Child in Mind: Studies of the Personal Encounter with Infertility*. Sandelowski interviewed forty-eight women twice to see how their experiences of infertility and fertility treatments and the transition from infertility to parenthood when fertility treatments worked. This study had socioeconomic and racial components, for while twenty-six of the women she interviewed were white and went to private physicians for treatment, twenty-two, all but two of whom were black, visited “an infertility clinic serving primarily the medically indigent.”71 Gay Becker’s 2000 publication, *The Elusive Embryo: How Women and Men Approach New Reproductive Technologies*, also focused on the experience of infertility by conducting interviews with several hundred men and women, in an effort to compare and contrast the ways in which men and women experienced infertility and reproductive technologies.72

69 Marsh and Ronner, 263.
70 May, 4.
These studies illustrate how infertility and reproductive technologies affect the ways that infertile Americans think about themselves, parenthood, their society, and even their fertile counterparts. Separately and together, they help readers understand the pain and suffering that the involuntarily childless experience. As the respondents and interviewees in these studies share, infertility can be agonizing and painful. Reproductive technologies have provided hundreds of thousands of people throughout the world with a possibility that they might not have been able to have—the opportunity to become the parent of one’s own genetic child, if one can afford them. They offer hope to the millions of involuntarily childless throughout the world. However, not everyone can afford these technologies, and the vast majority of those who undergo reproductive technologies never have a genetic child of their own. For some respondents, reproductive technologies provided them with peace of mind. For others, reproductive technologies only increased gnawing feelings that they somehow were not doing enough to pursue parenthood. The expensive price tag on reproductive technologies like IVF, Becker states, was “part of the allure” for some couples, because “being almost out of reach reinforces the idea that because these technologies are so esoteric, they may work where nothing else has.” As Sandelowski writes, not only do these studies give voice to the infertile, but they challenge the prevailing stereotypes of infertility. She argues, “With the emphasis on advancing a scientific, or professional, political, legal, or moral agenda, infertile people themselves have remained either storyless, or, more typically, trapped in the wrong story—typified, for example, as selfish, desperate, damaged, or easily duped.” While this study focuses on the policy history

---

72 Ibid., 1.
74 “peace of mind” from Sandelowski, 104.
75 Becker, 15.
76 Sandelowski, 3.
of reproductive technologies, it benefits from these studies, and provides some insight about why infertile Americans have been stereotyped in these ways.

In the summer of 1978, people throughout the world recognized the real potential of human IVF with the birth of Louise Brown. IVF was no longer a futuristic-seeming technology, but one that had real-world applications. This realization provided hope to countless infertile couples throughout the world. Louise Brown and the British IVF pioneers who achieved success with her IVF conception are pivotal to the story of IVF’s development in the United States, and as such, a fitting place to begin this dissertation.
CHAPTER I. FORESHADOWING

The themes of this dissertation—the connection between IVF and abortion, the societal fears of the misuse of science and technology, the unknowns of reproductive technologies, the media intrigue, the quest for funding, the possibility for commercial IVF, and the presumed need for government regulation of IVF are all highlighted in the tale of Robert Edwards, Patrick Steptoe, and the Brown family. What follows is a case study that foreshadows some of the struggles and triumphs that accompanied the development of IVF in the United States.

Louise Brown was born nine days early by Caesarean section at 11:57 on July 25, 1978.\(^1\) Despite her early arrival and her physicians’ decision against natural childbirth due to her mother’s preeclampsia, her entry into the world seemed uneventful. She had blonde hair and blue eyes and weighed five pounds and twelve ounces and, like most newborns, she “arrived ‘crying [her] head off.’”\(^2\) She was born at Oldham and District General Hospital, located in what was described as a “dowdy British mill town” suffering from high unemployment and the “air of industrial decay” that became increasingly common in the late 1970s.\(^3\) Despite these facts, nearly every single one of the thousands of reporters who flocked to Oldham to witness her birth commented on how normal and healthy baby Louise looked, observing that like any other hungry baby, she cried while waiting for a bottle.\(^4\) The irony was that the vast majority of these journalists could not “interview, photograph, or film the Browns,” because London’s \textit{Daily Mail}\(^5\)

---

\(^2\) Ibid.
\(^3\) Ibid. In his memoirs about this time spent with Patrick Steptoe, Edwards recalled that there were “literally two or three thousand journalists camped around Oldham and District General (448) Hospital.” Robert Edwards, “Patrick Christopher Steptoe C.B.E. 9 June 1913-22 March 1988,” \textit{Biographical Memoirs of the Royal Society} 42 (November 1996): 448.
reportedly paid Louise’s mother, 30-year-old Lesley Brown, over $600,000 for the rights to the story. And yet they came, en masse, to try to get a glimpse of the tiny newborn. The National Enquirer, too, had offered Lesley’s doctors $500,000 for exclusive rights to publish the story, stipulating that Louise had to be born in the United States, but Patrick Steptoe and Robert Edwards turned down the offer.

Louise’s proud father, 38-year-old John Brown, a truck driver for the British Railway in Bristol, marveled at her birth, saying “it was like a dream. I couldn’t believe it.” The couple, married for nine years, had been trying to have a child together from the beginning, and although John had a 17-year-old daughter named Sharon from a previous marriage, he and Lesley wanted a sibling for Sharon and a child of their own. Their neighbors described the Browns to the press as ordinary, “quiet, working-class folks who kept to themselves.” The Browns seemed like just an average family who happened to struggle with infertility and were, like many others before them, willing to try almost anything to have a baby of their own.

What made the press flock to see little Louise? If the Brown family was so ordinary, why was the media so interested in them and the birth of their daughter? And, why was it that the press corps and the child’s father commented so profusely on how normal Louise was? Why did the Daily Mail offer Lesley Brown hundreds of thousands of dollars for the exclusive rights to their story? How was it that “a baby girl named Louise brought the world's press flocking to her

---

5 Jeff Bradley; Peter Bradley; Lisa Hope Harris, “Challenging Conception: A Clinical and Cultural History of In Vitro Fertilization in the United States” (PhD diss., University of Michigan, 2005), 87.
7 Gwynne, 66.
8 Ibid.
9 Ibid.
door, made a fortune for her parents, set newspapers wheeling and dealing, sparked a dispute with the government and started religious leaders arguing.”10

Louise Brown was the world’s first “test-tube” baby, thus named because she was conceived through in vitro fertilization. Like an estimated ten million other British women, blocked fallopian tubes left Lesley Brown unable to conceive naturally.11 Before resorting to in vitro fertilization, Lesley had undergone surgery in an attempt to restore her fertility, but she was still unable to conceive a child. After waiting on an adoption list for over two years, the couple learned about the work of Edwards and Steptoe, who had been experimenting with the process of in vitro fertilization for close to a decade by the time of Louise’s birth. When John won $1,500 in football pools, the Browns decided to take one more gamble and turn to Edwards and Steptoe and IVF—still an unsuccessful experimental procedure with unknown results—in a final effort to have a biological child together.12 Reportedly, Edwards and Steptoe agreed to work with the Browns (or perhaps more accurately, conduct experiments on Lesley Brown), on the condition that the couple agreed to have an abortion “if anything went wrong.”13 Abortion was legal, and this was an important precaution for the researchers who had made IVF the focal point of their careers for nearly a decade. Knowing that for many people, the first baby born as a result of IVF would be the measure of the procedure’s success or failure, the pair could not afford to have their first live baby born with genetic defects. Once the Browns agreed, one of the first things the team did was remove Lesley’s fallopian tubes.14 This not only provided the doctors with an

10 Jeff Bradley.
11 McNicoll.
12 Ibid.
14 Gwynne, 66.
unobstructed view of her ovaries, but, if a pregnancy resulted from the procedure, the absence of fallopian tubes would make perfectly clear that the child was conceived through IVF.\textsuperscript{15}

Once the team had completed its preliminary work, Steptoe began the IVF process by removing Lesley Brown’s egg with a laparoscope, at which point the responsibility shifted to Edwards, who fertilized the egg in a Petri dish with John Brown’s sperm. The fertilized egg remained in the Petri dish for about two and a half days, after which, the embryo was transferred to Lesley’s womb to continue developing on its own.\textsuperscript{16} Steptoe and Edwards had attempted this process many times before, in about two hundred women, but Lesley Brown was the first woman whose body did not reject the implanted fertilized egg or miscarry.\textsuperscript{17} The scientists had theories about why they had finally achieved success, but they were not completely sure why this IVF procedure had finally worked.

Under the alias “Rita Ferguson,” Lesley Brown checked into Oldham District and General Hospital seven weeks before her due date, because she had developed preeclampsia.\textsuperscript{18} According to one journalist, Brown spent her days in the hospital “quiet and subdued, spending her time knitting, watching television and doing crossword puzzles. She chewed gum, developed a craving for mints, and couldn’t resist disobeying Steptoe’s orders by taking an occasional puff from a cigarette – and blowing the smoke out a window to conceal it.”\textsuperscript{19} Because of Lesley’s high blood pressure, Steptoe decided to deliver Louise by caesarean section. The reporters collectively agreed that the baby’s appearance benefited from this decision, as she didn’t “have

\textsuperscript{15} Ibid.
\textsuperscript{16} Bradley, np. Edwards, “Patrick Christopher Steptoe,” 447.
\textsuperscript{17} Ibid.
\textsuperscript{18} Robert Edwards, “Patrick Christopher Steptoe,” 447.
\textsuperscript{19} Gwynne, 66.
to struggle through the birth canal.” While Lesley and John both gushed about their newborn’s perfection, Edwards, who was described as “a godfather of sorts,” stated that, “The last time I saw the baby it was just eight cells in a test tube. It was beautiful then, and it’s still beautiful now.”

Steptoe added that Louise was indeed the world’s first documented “test-tube” baby, stating that he knew “of no authenticated case of a baby born by this method before.” Perhaps he was thinking about the British physician Douglas Bevis, who had professed to achieve three IVF births in 1974, but had no hard scientific evidence to support his claims. Certainly John Brown recognized the unique qualities of his daughter’s birth and the role that Steptoe and Edwards played in it, for Brown extolled Patrick Steptoe as “the man who deserves all the praise.” And, as Edwards later recounted, Louise’s birth represented what was undoubtedly Steptoe’s “finest moment in his profession.”

Some members of the scientific community, however, were a little more reticent in their congratulatory remarks. Several medical researchers thought that there was too much media attention for this “first,” while others trivialized the accomplishment as “a cookbook thing;” Steptoe and Edwards merely lucked out by stumbling across a recipe that worked. Dr. Malcolm Potts, the Executive Director of the International Fertility Research Program in North Carolina, noted that “fertilization outside the body ‘is something frogs do in a dirty stream.’” Others who had been working on in vitro fertilization research doubted that Steptoe and Edwards had

---

20 Ibid.
21 Ibid.
22 Bradley, np.
23 Harris, 63.
24 Gwynne, 66.
26 Gwynne, 66.
found a repeatable, successful procedure that could stand the test of time. Once again, these competitors suggested that the birth of Louise Brown could be attributed to the team’s good luck rather than their mastery of *in vitro* fertilization and embryo transfer techniques.\(^{27}\) Soviet scientists working in the field of fertility research echoed western critics, arguing that Edwards and Steptoe did “not solve anything practically,” and predicted that the procedure would “have no wide use in the near future.”\(^{28}\) Thus, numerous members of the scientific community doubted that Louise Brown’s birth would revolutionize reproduction, or even infertility treatment, but rather viewed her “test-tube” conception and resulting birth as a happy mistake. Perhaps because of the competition among scientists to be the first to achieve a sustained pregnancy and successful childbirth through IVF, or possibly because of their knowledge of the many variables and uncertainties involved, many researchers were skeptical of the British team’s achievement.

Others, though, immediately began theorizing about what her birth might portend. For many, Louise’s birth conjured “the possibility of surrogate mothers, the creation of superbeings and an Aldous Huxley vision of embryos nurtured to birth in artificial wombs.”\(^{29}\) Her first “lusty yell” signified for many the “cry heard round the brave new world.”\(^{30}\) From the very beginning Louise Brown became synonymous with visions of *Brave New World* type dystopias, where science and technology could fall into the wrong hands and be used to control the world and the people in it, leaving no room for individuality or personality—a world where everyone was bred for a certain caste. Observers warned that while *in vitro* fertilization as a means of relieving infertility seemed morally justifiable, what could or would follow from the cultivation of this new technology might not be so benign. While no one denied the joy that Louise’s birth brought

\(^{27}\) Ibid.  
\(^{29}\) Gwynne, 66.  
\(^{30}\) Ibid.
to her parents, fears of the slippery slope of science immediately began to emerge. Could proponents of the technology ensure that it would not ultimately lead to “baby farms” in a science fiction dystopia?31

Reporters not only suggested that IVF would have profound implications for the future of civilization, but also that little Louise’s health and welfare could be in danger because of the method of her conception. Many noted that while Louise appeared to look normal and healthy in 1978, there was no assurance that her test-tube conception would not result in genetic diseases that developed later in life. Some worried that even the knowledge of her difference from other naturally conceived children would damage Louise psychologically.32 At the very least, many thought that she would certainly struggle with media scrutiny for the rest of her life—that she would always be either stigmatized or hailed as the first test-tube baby. Indeed, her name has become synonymous with in vitro fertilization, and on the anniversaries of her birth Louise is still showcased in the media. However, this attention has not had the adverse effect on Louise that some thought it would. In fact, when Louise was interviewed on her thirtieth birthday, she implied that the attention has always made her feel a bit special. Furthermore, when asked if she would have attempted in vitro fertilization if she encountered fertility problems, Louise unequivocally stated that she would utilize the procedure without thinking twice.33 Louise had no physical or emotional scars as a result of being the first “test-tube” baby that would have prevented her from turning to the technology that gave her life.

32 Gwynne, 66.
33 “30 Years of IVF,” BBC News, 14 July 2008, http://news.bbc.co.uk/2/hi/health/7506323.stm. Now that she is an adult, reporters often showcase the fact that as a “test-tube” baby, she conceived her then eighteen-month-old son, Cameron, without technological intervention.
Louise Brown’s conception took the perseverance and collaboration of scientists, doctors, and researchers to achieve something monumental—successful *in vitro* fertilization and embryo transfer. The relationship that Robert Edwards and Patrick Steptoe developed was the foundation that led to this technological first, and knowledge of their scientific partnership and the complexities of the procedure they pioneered is helpful in understanding the development of IVF.

The story begins with Robert Edwards, who began thinking about *in vitro* fertilization as a doctoral student at Edinburgh University in the early 1950s. First interested in the chromosomes found in mouse embryos, he was influenced by scientists Alan Gates and Alan Beatty, who used hormones to make immature mice ovulate and then transferred their embryos to mature mice. For Edwards, this illustrated some of the interesting work that could be done with fertilization. His interest in human IVF corresponded with others scientists’ attempts to trigger ovulation by using follicle stimulating hormone (FSH) from the urine of menopausal woman. The clinical use of FSH, later marketed as Pergonal, would eventually help pave the way for broader application of IVF by ensuring ovulation in anovulatory women.

As he began his work on *in vitro* fertilization, Edwards had little research to help guide him, and knowledge of normal human reproduction was limited. According to Edwards, in the early 1950s, “little was known about the physiology of ovulation, tubal function, spermatogenesis, spermatozoa and reproductive endocrinology even in animals let alone human beings.” Even as the situation may have seemed dire, Edwards did have a few studies he could depend upon. Dr. Gregory Pincus was the first to report *in vitro* fertilization using rabbit eggs

---

35 Ibid.
36 Ibid.
and sperm in 1936, and his work was shortly followed by that of Dr. John Rock and his assistant Miriam Menkin. Neither of these instances was well-documented, though, and thus not well received by the scientific community. Ironically, though, Pincus and Rock were instrumental in developing the means to limit fertility via the birth control pill, providing American women with a new method of contraception by the 1960s. The first well-documented study of human IVF came in 1961, when Dr. Daniele Petrucci of the University of Bologna stated “that he had fertilized twenty separate human eggs in vitro,” and he even had film to prove his claim. Many in the scientific community still found this line of research outrageous and untenable—more appropriate for science fiction or the far and distant future. Although the world had seen the development of the atomic bomb, a super weapon capable of killing hundreds of thousands of people in one strike, scientists were still reticent about tampering with human origins. Even as some prestigious scientists expanded human capability to destroy life, many were still unwilling to push the limits of creating human life.

Despite a scientific environment that seemed unwilling to welcome such research, Edwards began thinking more and more about fertilizing oocytes in vitro and transferring the resulting embryos to women who could not conceive on their own. The problem, however, was that he needed to figure out a way to get the necessary materials to conduct his research. Edwards believed that he could find the oocytes in ovarian tissues, so he asked several doctors to provide him with tissues from their patients. Perhaps not surprisingly, they flatly refused his request. The gynecologist who had delivered his children, Molly Rose, ultimately agreed to

38 Gwynne, 66.
40 Ibid.
supply him with ovarian tissues from some of her patients undergoing hysterectomies.\textsuperscript{41}

Although this certainly would not be considered an ethical practice when judged by today’s standards, Edwards claimed that at the time there were no dictates against using human tissues without the patients’ permission. Edwards began experimenting with Pincus’s findings on oocyte maturation and retrieval. According to Pincus, it should have taken twelve hours for the egg to mature after being released from the follicle, at which point it could be fertilized. For two years he worked with a number of different variables, investigating the eggs of rabbits, mice, rhesus monkeys, baboons, sheep, cows, and even humans when he had the opportunity, only to be met with failure. Only when he began to experiment with the length of time to allow maturation did he achieve success. Edwards found that twelve hours was not enough time for an oocyte to mature.\textsuperscript{42}

After this discovery, Edwards spent what he called a “memorable six weeks” at Johns Hopkins University in Baltimore with the husband-wife gynecology team of Howard and Georgeanna Jones.\textsuperscript{43} Howard Jones had no qualms about providing Edwards with the tissues that he needed for his research, and Jones’ early assistance forged a relationship that would help with the development of the first \textit{in vitro} fertilization clinic in the United States as well as an international collaboration to achieve greater IVF successes.\textsuperscript{44}

Throughout the early years of his research, Edwards experimented with all aspects of the \textit{in vitro} fertilization process in an attempt to unlock the mysteries of human reproduction. In

\begin{itemize}
  \item \textsuperscript{41} Ibid. Molly Rose providing Edwards with patients’ genetic tissue is similar to the tale that Rebecca Skloot tells in \textit{The Immortal Life of Henrietta Lacks}, in which researchers have used one woman’s cells in science and medicine for decades without her consent or knowledge. Rebecca Skloot, \textit{The Immortal Life of Henrietta Lacks}. (New York: Crown Publishing Group, 2010).
  \item \textsuperscript{42} Ibid.
  \item \textsuperscript{43} Ibid.
  \item \textsuperscript{44} Harris interviewed Howard Jones for her dissertation and recounted how, in the days before Institutional Review Boards dictated ethical research practices, Howard Jones was happy to provide Edwards with the materials he asked for, and that he found IVF experimentation to be a “wild and intriguing idea.” Harris, 59
\end{itemize}
natural reproduction, fertilization usually occurs in the fallopian tubes, which is a “protected”
“environment.” 45 Naturally the researchers tried to recreate this environment when fertilizing an
egg externally, but they could not do so. They had to deal with the “inaccessibility of the upper
female reproductive tract [that made] sampling normal fluids virtually impossible,” and also the
fact that “the fluids’ composition changes during the preimplantation phase.” 46 The fallopian
tubes prepare for fertilization in a way that researchers and doctors had been unable to
understand completely. Because of this, perhaps the biggest challenge that IVF researchers
faced when trying to prepare for IVF was finding the correct culture that could facilitate
fertilization and then maintain embryonic growth until transfer occurred. Unable to gain easy
access to the fallopian tubes, and thus to the culture that could best facilitate the fertilization
process, Steptoe could only make educated guesses when it came to the first steps of IVF.

Because researchers could not access the fallopian tubes to gain an understanding of the
natural fertilization environment, scientists struggled to find or create the optimal fertilization
and growth cultures. 47 Edwards experimented with well known culture media, making “minor
modifications” in an attempt to create “the exact conditions for achieving human embryonic
growth.” 48 The culture media that Edwards would find to be the most successful by the time of
Louise Brown’s birth was Hamm’s F-10, to which he added more than thirty other ingredients. 49
Even though Edwards would eventually find a medium that facilitated embryonic growth,

45 J.B. Black, T.K. Thompson, and G.W. Patton, Jr., “Culture Techniques for IVF/ET” in Fredericks, Christopher
46 Ibid.
47 Ibid.
Mason Andrews Papers, Box 4, Series II, Folder 6, Perry Library, Old Dominion University (Norfolk, VA).
Hereafter cited as ODUA. Jones prepared this paper for a talk before the Florida Obstetric and Gynecologic Society
in 1980.
Howard Jones, pioneer of IVF in America posited in 1980 that, “There remains the presumption that the fallopian tube does something for the conceptus which is not duplicated in culture media.”\textsuperscript{50} Edwards’ growth medium worked, but it was not a perfect recreation of the natural growth culture of the fallopian tubes. Researchers may have found the keys to unlock some of the mysteries of human reproduction, but there were some doors that scientists continued to be unable to open.

Despite these challenges, continued successes in the maturation and fertilization aspects of \textit{in vitro} fertilization led Edwards to search for a partner who could help him attain more human oocytes with a minimal amount of surgery. For Edwards, it seemed logical to contact Patrick Steptoe, a pioneer in the field of laparoscopy. Journalists later described Steptoe as a “flamboyant and somewhat mysterious figure,” or a man who looked “perfect for his role [as a doctor]: silver-haired, blue eyes winking behind horn-rimmed glasses, [with] a reassuring gentle manner.”\textsuperscript{51} Steptoe received his medical degree in 1939 as war was breaking out in Europe.\textsuperscript{52} Serving in the British Royal Navy, he reportedly smuggled “escape plans as an Italian prisoner of war.”\textsuperscript{53} After the war was over, he returned to England and continued his medical career as a gynecologist.

Much like Edwards, Steptoe was drawn to reproduction and infertility early in his career, and he began treating infertile women in the late 1940s. According to Edwards, the treatments which were “quite elementary” when Steptoe began his practice, included “taking a history, recording coital habits, discussing fertility and ovulation, and if necessary admitting the wife to

\begin{footnotes}
\item[50] Ibid., 9
\item[51] Gwynne, 66, and MacPherson, D1.
\item[53] MacPherson, D1. According to Robert Edwards, Steptoe was a P.O.W. for 2 years, during which time he “greatly improved his knowledge of local wines, brought to him apparently by his Italian guards…” Edwards, “Steptoe,” 436.
\end{footnotes}
hospital for a D & C.”\textsuperscript{54} At this time, doctors attempting to treat infertility focused their attention on women, and very few even bothered to examine the husband. Steptoe, however, began to realize that “infertility was a problem of two people, resulting in a desperately serious complaint causing life-long unhappiness.”\textsuperscript{55} Steptoe became an obstetrician for the British National Health Service at Oldham and District General Hospital in 1951, and began a family planning clinic in Oldham in 1961.\textsuperscript{56} Here, Steptoe began his work on the laparoscope, which eventually catapulted him to international acclaim in the field of human reproduction.

Although Patrick Steptoe was not the first person to use a laparoscope, he became instrumental in developing and perfecting it.\textsuperscript{57} The laparoscope is a long, thin tube that could be inserted into the abdominal cavity. It had an eyepiece and internal lighting that allowed physicians to see inside the human body without their patients having to undergo intensive surgeries. Because of this, the use of laparoscopy could prevent unnecessary surgeries, and as a result, “overall inconvenience and discomfort” to patients.\textsuperscript{58} Of Steptoe’s initial achievements in the field of laparoscopy, Edwards expressed his awe when he wrote that, “For the first time in medical history, a surgeon could make or confirm a reliable and relatively safe diagnosis on his patient by easily visualizing the conditions within her abdominal cavity.”\textsuperscript{59} However, “the

\textsuperscript{54} Edwards, “Steptoe,” 436.
\textsuperscript{55} Ibid.
\textsuperscript{56} Ibid., 436-437
\textsuperscript{57} According to Robert Edwards, Steptoe was influenced by a 1925 paper published by Rendle Short, who described “a method in which the abdominal cavity was distended with air under local anesthesia and then penetrated with a cystoscope.” Others were also experimenting with similar research. New Yorker Albert Decker began using culdoscopy, “using a telescope inserted under local anesthesia through the vagina,” which Steptoe had been unimpressed with when he saw the technique in action. He thought that the limited visibility achieved through the technique there was too much discomfort experienced by the patient. Steptoe was greatly influenced by Raoul Palmer, who, in Paris, inserted a “viewing instrument” into the abdomen and yielded much better results, although the heat created by the viewing lamp could burn the patient. Steptoe would come to perfect the laparoscope by utilizing the Palmer’s techniques, with a better viewing lens and light source that, using a system of mirrors and prisms, would not burn the patients. Edwards, “Steptoe,” 437-438.
\textsuperscript{58} Ibid., 437.
\textsuperscript{59} Ibid., 438.
medical world remained unimpressed” with laparoscopy for some time, Edwards later stated, and its “lukewarm response,” “deeply disappointed” Steptoe. Steptoe waited to publish a paper on his work until 1964, after almost five years of using the laparoscope in a clinical setting, because he wanted to have “sufficient cases” to prove that the instrument did indeed work and was in fact useful. Ultimately, Steptoe’s laparoscopic work revolutionized medical and surgical procedures throughout the world. Perhaps more importantly for Robert Edwards, the instrument could also use suction to obtain mature oocytes from the follicles in the ovaries. Recognizing the future possibilities of their collaboration, Edwards decided to contact Steptoe.

In 1968, after reading a letter Steptoe had written in *Lancet*, Edwards called Steptoe on the telephone and proposed that they form a partnership focusing on the clinical applications of *in vitro* fertilization. In what seemed to Edwards to be a “simple” procedure that “obviously solved what had become [his] major problem at the time,” Steptoe could use his laparoscope to aspirate, or retrieve, oocytes from the follicles without removing any ovarian tissue. From there, Edwards would take care of the laboratory work of readying the oocytes for fertilization. Steptoe eagerly agreed to take on this challenge, and they created a partnership that would last twenty years until Steptoe’s death in 1988. Once the pair began their long-distance collaboration between Oldham and Cambridge, England (over 120 miles each way), they began to apply their knowledge in a clinical setting.

From the beginning, Steptoe and Edwards utilized hormones, including human

---

60 Ibid., 439.
62 Gwynne, 66.
64 Edwards, “The Bumpy Road to Fertilization,” 1061.
65 MacPherson, D1.
menopausal gonadotropin (hMG) and human chorionic gonadotropin (hCG), to stimulate the
ovaries to produce eggs on the researchers’ schedule. In natural reproduction, a series of
hormones are released by the hypothalamus and the pituitary gland to stimulate ovulation. First,
gonadotropin-releasing hormone (GnRH) causes the pituitary to release the follicle-stimulating
hormone (FSH) and the luteinizing hormone (LH). For many women, infertility resulted from
hormonal problems and hormone treatment alone could lead to conception. In utilizing
hormones, Steptoe and Edwards could not only better predict when ovulation would occur, but
they could also count on greater egg production as well. The use of these hormones yielded
eight to ten eggs instead of one or possibly two eggs, affording these researchers and their
patients greater opportunity for successful fertilization. Steptoe and Edwards used
hyperstimulation to retrieve eggs which were later fertilized and implanted in seventy-seven
patients. Three patients became clinically pregnant during this stage of their research, but none
of these pregnancies lasted very long. During the second half of the twentieth century fertility
doctors increasingly turned to hormone treatments as researchers continued to learn about the
role of the endocrine system and hormones in reproduction.

After egg production and maturation occurred, Steptoe could use laparoscopy to obtain
the matured oocyte and Edwards could begin to fertilize the eggs in vitro. Edwards used a
number of methods, time frames, and growth cultures to try to obtain the best possible results.
Steptoe and Edwards published their first paper together in 1969, and after that they continued to
publish their research findings on in vitro fertilization as they completed each step of the

---

67 “Memorandum of a Meeting at the Royal College of Obstetrics and Gynecologists,” 26 January 1979, 2, Mason
Andrews Papers, Box 16, Folder 2, ODUA.
68 Ibid.
After witnessing the fertilization of countless eggs \textit{in vitro}, as seen in the cleavage of the fertilized eggs and the division of cells, the pair decided it was time to attempt to transfer the embryos to the uterus. If Steptoe and Edwards could do this, they could truly begin to help alleviate infertility. The pair applied for research funding at Cambridge, but were denied. Cambridge’s board cited the lack of knowledge of the consequences of implanted human embryos as its reason for refusal. Steptoe and Edwards set up in Kershaw Hospital by 1972, where they would begin to attempt embryo transfer.\textsuperscript{70} According to Steptoe, they had “no trouble in finding willing women, childless and desperate to have families,” even after explaining to them that “their contribution might not lead to them having a baby themselves [but] it would at least be a little more contribution on the road to helping somebody.”\textsuperscript{71} Steptoe and Edwards made it clear to the women involved in the early \textit{in vitro} fertilization and embryo transfer efforts that they were engaged in an experimental procedure that may not yield them any personal success. Yet, for many women suffering from infertility, any chance at having a child was better than no chance at all.

From the beginning of their clinical applications of IVF, Steptoe and Edwards encountered many challenges. First, the ovulation stimulating hormones that Steptoe and Edwards used led to an almost immediate return to menstruation, causing the uterus to reject the fertilized egg. Because of this, the luteal phase defect made IVF’s clinical application non-


\textsuperscript{71} MacPherson, D1.
existent. Steptoe and Edwards experimented with different hormone cocktails that ultimately encouraged ovulation while preparing the uterus to accept the embryo.\textsuperscript{72} Initially, though, in their attempts to overcome the luteal phase problems the scientists thought that the drug Primulot would give support to the uterus and prevent miscarriages. They later discovered that Primulot actually acted as an abortifacient, causing embryo loss almost immediately.\textsuperscript{73} In 1974, Steptoe and Edwards stopped using this drug, resulting in a “turning point” that eventually led to the end of their embryo transfer “stalemate.”\textsuperscript{74} They achieved their first clinical pregnancy in 1975, and although it was an ectopic pregnancy—the embryo implanted in the fallopian tubes instead of the uterine wall—for Edwards it demonstrated progress.\textsuperscript{75}

To overcome the problem of the luteal phase defect, Steptoe and Edwards used patients’ natural cycles rather than giving them hormones to stimulate egg production, but they could not treat anovulatory women.\textsuperscript{76} A woman’s natural cycle is less dependable than hormone stimulated cycles and requires close monitoring from the doctors, but Steptoe and Edwards decided to try it. Without hormone stimulation, the uterus naturally prepares itself for implantation after ovulation. Steptoe and Edwards used natural cycles in seventy-nine women, detected a LH surge that denoted ovulation in sixty-eight women, retrieved an egg in forty-four of them, and implanted fertilized eggs in thirty-two patients. Of these thirty-two women, four became pregnant, two of which sustained pregnancies nearly to term and had healthy babies.\textsuperscript{77}

\textsuperscript{72} Edwards, “Steptoe,” 445. By the late 1970s, researchers, gaining a better understanding of the role of hormones in human reproduction and IVF, realized that they could avoid luteal phase defect by using a combination of clomiphene citrate, HCG and HMG.
\textsuperscript{73} Ibid., 446.
\textsuperscript{74} Ibid., 447.
\textsuperscript{75} Ibid., 447.
\textsuperscript{76} “Memorandum of a Meeting at the Royal College of Obstetrics and Gynecologists,” 26 January 1979, 2, Mason Andrews Papers, Box 16, Folder 2, ODUA. Edwards, “The Bumpy Road to Fertilization,” 1061.
\textsuperscript{77} “Memorandum of a Meeting at the Royal College of Obstetrics and Gynecologists,” 26 January 1979, 3, Mason Andrews Papers, Box 16, Folder 2, ODUA.
Lesley Brown was the team’s second patient to use the natural cycle, and their first patient to deliver a live infant following IVF.\textsuperscript{78} For years after Edwards and Steptoe struggled with the problem of the luteal phase defect following hormone treatments, infertility specialists continued to grapple with the decision of whether to use the patient’s natural cycle or hormone treatments for IVF. Both had their pros and cons, but by the time IVF became regarded as an accepted, non-experimental procedure to treat infertility, most specialists turned to drugs to stimulate ovulation on a more predictable timetable.

For Edwards, who knew the widespread clinical applications this procedure could have, Louise Brown’s birth represented “the end of the beginning of human IVF.”\textsuperscript{79} And as far as Steptoe was concerned, the “ethical arguments were largely over,” by 1978 because, Edwards later hypothesized, the pair had started using the natural cycle, and thus created and implanted only one embryo, as opposed to the “several that could be obtained by the use of ovarian stimulation.”\textsuperscript{80}

By October 1978, just months after Louise Brown’s birth, Steptoe and Edwards claimed to know exactly when the oocyte could be taken from the prospective mother’s ovaries, how to make the correct culture medium to facilitate ovulation, and the “optimum time” to implant the fertilized egg in the mother’s womb.\textsuperscript{81} Thus, very early on, these researchers assumed the role of experts despite the fact that they did not actually understand everything about \textit{in vitro} fertilization and embryo transfer and why they so often failed. They had tried so many time frames for retrieval, fertilization, and transfer, as well as different culture media for fertilization

\begin{itemize}
\item Edwards, “The Bumpy Road to Fertilization,” 1061.
\item Ibid.
\item Edwards, “Steptoe,” 448.
\end{itemize}
and cell growth that they could not be entirely positive which variables had ultimately made the
difference that led to Lesley Brown’s pregnancy. As Steptoe and Edwards presented themselves
to the scientific community as IVF experts, the duo was sending mixed messages to the public
when they admitted uncertainties over the procedure in interviews with the press. For example,
Steptoe and Edwards cautioned infertile women not to pin all of their hopes on *in vitro*
fertilization, because they had “a lot to learn.”[^82] Because they had fertilized Lesley’s Brown’s
egg with her husband’s sperm in the middle of the night, the pair initially believed that nocturnal
fertilization had been one of the crucial variables that brought them success with the Browns.[^83]
It was only later that other researchers determined that night-time fertilization was not a
necessary component of successful IVF.

Although they assumed the role of IVF “experts” after Louise Brown’s birth, the pair did
not immediately publish their research in great detail, as many other researchers had hoped they
would. They first formally published an announcement of Brown’s birth via IVF in August of
1978, but did not include the crucial details of their procedure in the write-up. In fact, they left
much to the imagination, stating little more about the scientific nature of their procedure than the
thousands of journalists who had already published stories on the media sensation. Even as they
appeared reluctant to publish a full account of research, they began lecturing to members of the
scientific community as early as January 1979. Perhaps this cloak and dagger approach was the
pair’s attempt to maintain some control over the IVF procedure they had pioneered.

[^82]: McNicoll.
[^83]: “Memorandum of a Meeting at the Royal College of Obstetrics and Gynecologists,” 26 January 1979, 2, Mason
Andrews Papers, Box 16, Folder 3, ODUA. The team reimplanted 32 embryos that resulted in four pregnancies. All
four of the pregnancies resulted from the twenty-one embryos that had been transferred during the night. None of
the embryos that were implanted in the morning or afternoon resulted in successful pregnancies, causing the team to
believe that the best time to transfer embryos was at night.
Howard Jones, a reproductive specialist who was beginning his work on IVF at Eastern Virginia Medical School in Norfolk, Virginia, was invited to attend one of these lectures. Expressing surprise, and perhaps disappointment at the meeting which was apparently not what he had been led to expect, Jones wrote afterwards that the lecture was “announced…as a private meeting of the Royal College [of Obstetricians and Gynecologists] by invitation only. Lecture hall, however, was full.”

At this meeting, Edwards and Steptoe shared their experience and gave advice on all aspects of their procedure, including the culture medium, catheter size, sperm quality, and the best time for reimplantation. Although they freely shared advice with fellow scientists, Steptoe and Edwards told Jones that they were prohibited from entering into any “formal agreement” with him because they were “dependent on financing by a ‘syndicate’” that was going to provide them with money to expand their practice. Bouverie Investments, the “syndicate” which was supposed to support the British team financially, apparently did not want Steptoe to advertise the fact that he had any association with the clinic at Norfolk, because that might “discourage Americans from using the British facility.” The investors wanted to ensure that the IVF pioneers would reap the benefits of their glorious “first.” Steptoe discounted any concerns over international competition for clientele, though, as he told Jones, he thought there was “adequate ‘business’ for everybody.” Almost from the very beginning, then, this reproductive technology was recognized as a prime candidate for commercial enterprise. Steptoe agreed to visit the new clinic in the United States, but Edwards, who had readily accepted excised ovarian tissue from Jones when he visited Johns Hopkins early in his career, made no

---

84 Ibid., 1.
85 Ibid., 4-5
86 Ibid., 5-6. Edwards requested funding from the British National Health Service on “4 separate occasions” but was denied each time, leading he and Steptoe to seek private funding.
such commitment.\textsuperscript{87} Even as Jones sought to learn from Steptoe and Edwards, he recognized their “somewhat limited” success, and thought that their assistance was “mostly psychological unless they [were] withholding some type of scientific information.” Jones doubted that they were keeping any secrets, and thought that perhaps he and others could make “substantial improvements” to Steptoe and Edwards’ technique “as they describe[d] it.”\textsuperscript{88}

Steptoe and Edwards could not answer all the questions surrounding artificial reproduction as evidenced by their low success rate. The pair clearly acknowledged the experimental status of \textit{in vitro} fertilization when they admitted in 1980 that they needed to figure out how to improve the procedure to make their “work more realistic for the hundreds of patients on our waiting list.”\textsuperscript{89} In the earliest years of IVF the pioneers vacillated between considering themselves experts in the field of reproductive technologies and considering the treatment they pioneered to be experimental.

After they started what many referred to as the “technological reproductive revolution” with the birth of the first “test-tube” baby, Edwards and Steptoe sought to begin a “large-scale” IVF clinic. While discussing the large volume of correspondence they received from infertile couples around the world, Steptoe predicted in 1978 that in “two or three years' time this will be a treatment which can be adopted by many centres.”\textsuperscript{90} If his prediction became a reality, Steptoe thought that compared to other treatments to alleviate infertility, \textit{in vitro} fertilization would not be much more expensive, but might be “considerably less disturbing” than undergoing tubal

\textsuperscript{87} Ibid., 5.  
\textsuperscript{88} Ibid., 5-6.  
However, Steptoe’s predictions did not come true, for without governmental support, even the pioneering pair had to put off their work for over two years. The duo initially experienced problems securing investors, as Bouverie Investments pulled out of the project when it was warned about how great its financial loss could be if an abnormal baby was born through IVF. Steptoe and Edwards found another willing investor, but had to wait “two frustrating years” to open their clinic in a “Jacobean mansion,” Bourn Hall in 1980.

Once situated at Bourn Hall, Steptoe and Edwards gave IVF a wider applicability by beginning to accept patients with different classifications of infertility instead of just seeing women with disorders of the fallopian tubes. Here, they worked with couples dealing with male factor infertility, anovulation, or endometriosis. And, by 1983, over one-thousand patients sought treatment at the clinic each year. Even as they opened their for-profit clinic, Steptoe, Edwards, and their increasingly larger team continued the experimental process. In an attempt to achieve the best fertilization, transfer, and pregnancy rates they tried different catheters, fertility drugs, and culture media. By 1989, however, the pair seemed to have worked out many of the details for successful in vitro fertilization, as they assisted in the birth of more than 1,000 children by that point.

---

91 Ibid.
93 The first quote comes from Edwards, “Steptoe,” 448, and the description of Bourn Hall is from Edwards, “The Bumpy Road to Fertilization,” 1091. In 1984, Howard Jones commented that after being open for a little over four years, Bourn Hall was “relatively unchanged” since their last visit, but “beginning to show wear and tear and looked a bit shabby.” He also noted that they were planning on starting the construction of a new laboratory wing in 1985. TIDBITS, “Bourn Hall Cambridgeshire, November 19-20, 1984,” n.d., 1. Mason Andrews Papers, Box 16, Folder 2, ODUA.
94 Edwards, “The Bumpy Road to Fertilization,” 1091.
96 Edwards, “The Bumpy Road to Fertilization,” 1091.
97 Ibid.
Foreshadowing

Steptoe and Edwards’ experience foreshadows the future of IVF as more and more physicians joined the crusade to fight infertility through technological intervention. As Steptoe and Edwards gained international acclaim and notoriety, and the technology began to spread, other specialists endured many of the same frustrations that the IVF pioneers experienced in their early careers. And although Steptoe and Edwards shared the secrets of their success with other researchers, some aspects of IVF remained shrouded in mystery. Low success rates would remain a problem for IVF practitioners, even as the years went by and the medical establishment deemed the procedure to be an accepted, non-experimental treatment. Critics and some insiders questioned the technology’s success since the procedure only worked about fifteen to twenty percent of the time. Despite continual low success rates, the technology would spread and IVF practitioners, many of whom opened for-profit clinics, made money. As Steptoe predicted, investors did not have to fret about a shortage of patients—there were more than enough infertile couples who, like the Browns, decided to gamble on the new technology. Much like the British government denied Edwards’ request for money, the American government would also refuse to grant funding for any IVF experiments involving humans. Nonetheless, privately funded clinics would flourish in the United States much as they did in Great Britain. The mainstream media, so intrigued by Louise Brown’s birth, continued to promote IVF as a miracle cure for infertility well into the 1980s, undoubtedly drawing potential patients to fertility clinics. The birth of the world’s first “test-tube” baby marked the end of IVF’s ethical dilemmas for Steptoe. Perhaps ironically, this same event thrust IVF into the ethical spotlight for many bioethicists, theologians, policymakers, and social critics in the United States, who would now have to seriously consider
IVF. No longer could the technology be relegated to the realm of science fiction. *In vitro* fertilization was a reality, and one that many believed had great implications for the future.

In 1978, the birth of Louise Brown rocked the world. As the first “test-tube baby,” her naissance sent shock waves through scientific, technological, and medical communities. An exploration of the story of Steptoe, Edwards, and the embryo that grew to become Louise Brown brings to the fore many of the central themes of this dissertation. A discussion of the origins of IVF’s clinical application introduces ethical questions surrounding the creation of life in a laboratory, the scientific difficulties surrounding the successful application of IVF, the media’s interest in the technology, the commercial aspects of reproductive technologies, and the link between abortion and IVF. The story of Steptoe, Edwards, and the Browns represents a perfect microcosm of the development of IVF in the United States and the themes of this dissertation.

For many readers, this is a somewhat familiar story that marks the beginning of the history of IVF, but the United States government already had policies surrounding *in vitro* fertilization in place before Louise Brown’s conception and birth. Chapter two explores the origins of U.S. government policies surrounding *in vitro* fertilization, explaining how and why the federal government responded by temporarily banning federal funding for IVF research.
CHAPTER II. THE PROTECTION OF HUMAN SUBJECTS

Because the focus of this study is on the creation, implementation, and alteration of government policies surrounding IVF, this study begins in the late 1960s, before Louise Brown’s birth, when a movement for ethical research emerged in the United States and led to an expanded discussion about biomedical research. Unbeknownst to policymakers seeking to protect Americans from participating in potentially unethical biomedical and behavioral experiments, their efforts would have huge implications for the development of a futuristic seeming reproductive technology. As scientists investigated *in vitro* fertilization and the movement for biomedical ethics emerged in the late 1960s, the United States government began exploring the social implications of biomedical and behavioral research. By 1965, the National Institutes of Health (NIH) began regulating biomedical and behavioral research by instating a policy of institutional review for research projects at the institutions in which they were conducted. Despite this effort, seemingly unethical research practices continued and Walter Mondale focused Congress’s attention on biomedical research. In 1968 Mondale presided over hearings that focused on advances in biomedical technologies and their societal implications, and then attempted to pass legislation for the protection of human subjects of biomedical research. Mondale met defeat year after year until he successfully pushed the National Research Act through Congress in 1973 with help from Edward Kennedy. This chapter explores the historical coincidences that enabled the passage of congressional legislation focusing on the protection of human subjects, arguing that the intersection of the bioethics movement, congressional efforts to rein in science and technology, and the Supreme Court’s decision to legalize abortion, ultimately led to a moratorium on federal funding for IVF research.
Beginning with a discussion of congressional attempts to pass legislation focusing on the protection of human subjects of biomedical and behavioral research, this chapter shows how and why policymakers came to focus their attention on in vitro fertilization technology during the early 1970s. Although in vitro fertilization had yet to be successful, laboratory-created embryos became politicized along with the human fetus in the aftermath of Roe v. Wade. Congress and the NIH wrestled for control over the regulation of biomedical and behavioral research as the Supreme Court made its weighty decision. Despite the NIH’s best efforts to maintain control of such research, Congress mandated the creation of a Commission for the Protection of Human Subjects. In a climate of political contentiousness surrounding the legalization of abortion, Congress ordered the Commission to prioritize issues of fetal research before all others. Because of the strong anti-abortion movement in the United States that fought against the legalization of abortion and sought to protect potential human life from all indignities, there was great political pressure on the Commission to repudiate fetal research. Indeed, in the aftermath of Roe v. Wade, the NIH denied that it had ever knowingly funded fetal research. At the core of the Commission’s discussion was the status of the human fetus—was it a person or merely human tissue? Further, the question of when life begins proved to be the critical issue when exploring fetal research, ultimately dragging IVF into the controversy. If life begins at conception, as most opponents of abortion believed, human IVF research was a violation of the sanctity of human life. Thus, IVF became sucked into a political debate that was much larger than the futuristic seeming technology, setting the tone for its development in the United States. As such, bioethicists focused on ethical questions surrounding IVF as it developed in England and became the focus of biomedical research regulation.
The emergence of the American bioethics movement helps to set the stage for American IVF policies. Historians David Rothman and M. L. Tina Stevens studied bioethics and its emergence in the late 1960s and early 1970s in their respective books *Strangers at Bedside: A History of How Law and Bioethics Transformed Medical Decision Making* and *Bioethics in America*. Both Rothman and Stevens trace the roots of bioethics back to the World War II era when the American government began to devote more federal money to research in weapons and biomedical technologies. Each of these studies points to the late 1960s as the critical period when bioethics came into its own as a field. Both of these exceptional studies bring much to light about science, technology, and society, and ultimately, bioethics in post-war America.¹

In *Bioethics in America*, M. L. Tina Stevens also recognizes the great strides made by science, technology, and medicine during World War II and argues that American society was not ready for some of the changes that came along with this research. According to Stevens, though, American wariness of science was nothing new. For Stevens, the biomedical ethics that emerged in the United States as a movement in the late 1960s was “a recent expression of a centuries-long cultural legacy of American ambivalence toward progress.”² Tracing the history of science in America, Stevens points out that in almost every generation Americans have both embraced and distrusted science and technology. However, the backlash against science in the 1950s and 1960s was significant because it resulted in the emergence of a permanent discourse between science and society—bioethics.³

---

² Stevens, x.
³ Ibid.
Both scholars argue that the expansion of science and technology during World War II was the foundation for the emergence of the bioethics movement in the late 1960s. Scientific achievements during WWII left many Americans confused about the legacy of science and technology—improvements in medical and weapons technology were dramatic, but some people began to wonder at what cost. After the United States dropped atomic bombs on Hiroshima and Nagasaki, Americans recognized that scientific research had unleashed a powerful new weapon which deserved the utmost respect. But, knowledge of the existence of the atomic bomb also caused fear and anxiety among the populace and led Americans to question science and scientists.  

Rothman brings to light another reason why biomedical ethics became so important after World War II: medical and scientific research had shifted from small private operations to larger more impersonal ones. Throughout the 19th century, medical and scientific research was usually done on a smaller scale, with researchers performing experiments on family members before looking for outside research subjects. As the 20th century progressed and new understandings of medicine came about, experimentation occurred on a larger scale and was more likely to involve patients in hospitals than family members or neighbors. Unethical experimentation seemed to increase in direct proportion to the expansion of medical knowledge.  

---

4 Stevens, 10.  
5 Rothman, 22-24.  
6 Ibid., 25.  
7 Ibid., 25-27. One example of research in which ethical protocols were not established is the work Walter Reed did with yellow fever during the Spanish-American War. When he realized that he and his team were too valuable to risk infection by allowing mosquito to bite them, they looked towards American servicemen fighting in the war. The researchers told the soldiers that they were likely to get yellow fever while fighting in Cuba anyway, so why not engage in an experiment that could possibility help eradicate the disease. The researchers paid the servicemen $100 in gold when they agreed to the experiments, and if they contracted the disease they were paid an extra $100. Rothman points out that many contemporaries wondered about the ethics of this research, which was in no way
size, and researchers became farther removed from research subjects, the ties that bound researcher and subject together were strained. Researchers often found human subjects in hospitals, mental institutions, or prisons. Rothman describes these research subjects as a “captive and compliant group,” who may or may not have been briefed on the research and its implications, understood it, and given informed consent.  

World War II helped to usher in this era of expanded biomedical research. In order to discover treatment and cures to malaria and other diseases, as well as lead the way in weaponry innovations, the United States government increased and expanded its funding of scientific research in the United States during the war. In 1941 President Franklin Roosevelt created the Office of Scientific Research and Development (OSRD) to fund and manage weapons research and medical research. The OSRD contracted with researchers at universities hospitals and research institutes, and ultimately provided a model for the enlarged National Institutes of Health that would emerge after the war. This wartime effort centralized scientific and medical research, resulting in what Rothman calls an “extraordinary expansion in human experimentation in medical research” in postwar America.  

The NIH, which was created in 1930 through the U.S. Public Health Service, became crucial to American biomedical research in the years immediately following World War II. When the war ended, the federal government prepared to dismantle the OSRD Center for Medical Research. Many researchers who had benefitted from federal funding for their war-time therapeutic or could even be beneficial to the research subjects. For Rothman, ethical questions arise because the research subjects were servicemen who could have possibly been forced into participating.

8 Ibid., 27. To illustrate the unethical treatment of incarcerated subjects and issues of consent, Rothman details a malaria experiment that took place during World War II, first on sixty patients at Manteno State Hospital in Illinois and then at the federal prison in Joliet Illinois. In each instance, inmates were purposely infected with malaria and then given anti-malarial therapies to figure out the best cure for the disease. This non-therapeutic research was justified because American soldiers were dying of malaria when they were needed to fight the enemy, pages 36-37.

9 Ibid., 31.

10 Ibid., 50.
experiments encouraged the federal government to continue providing funding for national research through an expanded NIH.\textsuperscript{11} During the postwar years the NIH grew exponentially. Starting with a budget of about $700,000 in 1945, by 1970 the NIH distributed about $1.5 billion to biomedical researchers.\textsuperscript{12} The expansion of the NIH led to the centralization of American scientific experimentation in medicine. For many years, however, the leaders of this behemoth had no requirements for ethical protocols of human experimentation.\textsuperscript{13} According to Rothman, for the NIH, the ends justified the means.\textsuperscript{14} The NIH, which became the most important source of funding for biomedical research in the United States, made no stipulations about how researchers conducted human experiments because these experiments yielded results—medicine and medical technologies were improving.\textsuperscript{15} NIH leaders believed that the ethical considerations and protocols of medical research were best left to the investigators.\textsuperscript{16}

Rothman finds this lack of regulation and oversight on the part of NIH surprising because Nazi atrocities during World War II were exposed almost immediately after the end of the war. The cruel and unethical experiments conducted by Nazi doctors led to the inclusion of standards for ethical medical research in the Nuremberg Codes. These standards seemed to have very little effect on American scientists, as American researchers did not follow the opening provision of the Nuremberg Codes stating that “the voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent.”\textsuperscript{17} Many researchers in the postwar era continued to conduct experiments on the institutionalized mentally disabled, handicapped, or prisoners. American scientists justified this glaring

\begin{itemize}
\item[\textsuperscript{11}] Ibid., 51-52.
\item[\textsuperscript{12}] Ibid., 53.
\item[\textsuperscript{13}] Ibid., 55.
\item[\textsuperscript{14}] Ibid., 55-59.
\item[\textsuperscript{15}] Ibid., 59.
\item[\textsuperscript{16}] Ibid., 60.
\item[\textsuperscript{17}] Ibid., 62.
\end{itemize}
indiscretion by saying that American doctors would not show such disrespect for human life as Nazi doctors.\textsuperscript{18}

Despite biomedical researchers’ seeming disregard for the need to obtain informed consent from research subjects, many American scientists became involved in the “responsible science movement” in the aftermath of World War II. According to Stevens, outsiders did not initiate the field of biomedical ethics against the wishes of scientific researchers, but rather biomedical researchers requested outside input. Recognizing the implications of their work, scientists wanted to open a public forum to discuss scientific research. Many believed their work should not be shrouded in secrecy, and that the public should be prepared for the possibilities of science and technology. Aware of both the positive and the negative public responses to atomic research following WWII, geneticists especially hoped to avoid a public furor over their research. Seeking to help “prepare the world for the biological revolution,” they recognized that their field could be problematic for non-scientists for whom genetic research was not easily understandable.\textsuperscript{19} Atomic scientists had conducted their work secretly, and geneticists who witnessed the aftershock of public opinion did not want to make the same mistake. Recognizing the changes they were ushering in, geneticists sought to ready the world.

Even if scientists in the “responsible science movement” were the first to rally for outside involvement in science, they had no control over the results of their request. Perhaps the feedback was a little more negative than “responsible” scientists would have imagined. During the 1960s, science got swept up in the social movements of the decade when radicals began to issue scathing critiques of science and technology.\textsuperscript{20} Science had become part of the

\textsuperscript{18} Ibid., 63.
\textsuperscript{19} Stevens, 12.
\textsuperscript{20} Ibid., 19.
establishment against which radicals during the turbulent decade fought. For these radical critics, American science was devoid of ethics, and Americans needed to be aware of the horrifying possibilities of new technologies. Stevens argues that this radical movement against science ultimately subsided because the bioethics movement that materialized at the same time was led by theologians and philosophers who discussed the role of science in society in a more mainstream manner. The radical critiques became hushed after philosophical or theological scientific “experts” joined the discussion. By focusing on the ethics or morality of individual technologies or experiments, bioethicists downplayed the radical critics’ fears of science and technology leading to a “technocratic megamachine.” In this way, Stevens claims, the bioethics movement actually helped rather than hindered scientific research.

Rothman agrees with Stevens that bioethics became entrenched in the United States during the late 1960s and early 1970s. Rather than pointing to the responsible science movement or the radical critiques as ushering in the bioethics movement, though, Rothman credits a scientist for shedding light on the state of biomedical research in the United States. In 1966, Harvard Medical School professor Henry Beecher wrote an article focusing on instances of abuse by researchers involved in human experimentation. The article, “Ethics and Clinical Research,” was directed at a professional audience but because of its shocking content it made headlines in the lay community. Beecher—referred to as a “muckraker” by Rothman and a “whistle-blower” by Stevens—discussed what he considered to be a problem in medical research: poor treatment of the research subjects. His article exposed twenty-two examples of what he deemed to be ethical infringements on the rights of clinical research subjects.

21 Ibid., 20.
22 Ibid., 31.
23 Rothman, 3.
24 Ibid., 15.
Beecher’s examples involved the research of Dr. Saul Krugman, who purposefully infected the residents of Willowbrook State School for the developmentally disabled with hepatitis. Krugman went on to become the chairman of the pediatrics department at New York University.\textsuperscript{25} In each of the experiments Beecher detailed, informed consent was not established and the human subjects suffered because of the research without experiencing any benefits.\textsuperscript{26} The bioethics movement addressed the potential for the abuse of human subjects in the unregulated world of biomedical and behavioral research.

According to Rothman, the fact that many of these investigators came of age during World War II is useful in understanding why scientists behaved in a manner that seemed to disregard the rights of research subjects. During the war, advancements in medicine came rapidly, and when researchers found cures for diseases that affected soldiers on the battlefield, “no one would question their methods or techniques.”\textsuperscript{27} Indeed, Beecher’s ultimate goal in writing the article was not to single out individual investigators, but rather to effect changes in medical research protocols. He did not believe that the investigators he singled out were deviant; he thought that unethical practices ran rampant in biomedical research. Ultimately he credited unethical choices to ignorance of ethical medical practices, recognizing that what researchers sought to do was make society better through medical knowledge.\textsuperscript{28}

Around the time of Beecher’s article, it became increasingly clear to the leaders of NIH that the best interests of the investigators and their subjects did not necessarily coincide. Administrators began to recognize that “the bedrock principle of medical ethics – that the

\textsuperscript{25} Ibid., 77.
\textsuperscript{26} Ibid., 78.
\textsuperscript{27} Ibid., 79.
\textsuperscript{28} Ibid., 83.
physician actually to promote the well-being of the patient – did not hold the laboratory."29 This realization drove the NIH to change its policies regarding research protocols in 1965. The changes the NIH initially instituted called for the investigator’s university, hospital, or center to take responsibility for the research projects at their institution. Institutional review boards (IRBs) could ensure the ethical integrity of NIH funded experiments by having unassociated outsiders review projects. According to Rothman, this was revolutionary, because “for the first time and in direct response to the abuses of discretion, decisions that had traditionally been left to the individual conscience of physicians were brought under collective surveillance.”30 Outsiders gained entrance into the world of biomedical experimentation—and for once, not just as research subjects. Now, non-scientists would begin to judge medical research practices, and for the first time, research funding was at stake. Medical researchers would not receive any money from the world’s largest source of funding if they did not follow ethical practices.

Both Rothman and Stevens recognize a “revolution in attitudes” toward science during the 1960s, although they find different explanations for this revolution. New rules for human experimentation were a large part of this revolution; a revolution that Rothman believes would have been “startling and unexpected” if it had happened in the 1950s when medical experimentation was at its prime.31 This revolution resulted in the formation of a new field of ethical study—the discipline of biomedical ethics. As laypeople became increasingly aware that unbridled research posed a problem in the United States, a number of theologians, ethicists, and lawyers became interested in scientific and medical research. By the end of the 1970s medical decision-making was no longer in the hands of doctors alone, but rather doctors had to share

29 Ibid., 88-89.
30 Ibid., 89-90. Rothman notes that at the same time, the FDA also tightened its laws regarding the distribution of experimental drugs, stating that physicians couldn’t prescribe them without the patients’ consent.
31 Ibid., 107.
medical authority with institutional review boards, lawyers, physicians, politicians, and community members. According to Rothman this shift in medical ethics made the “invisible" world of medicine and science “visible," leading to its increasing presence on the public agenda just as Edwards and Steptoe began experimenting with in vitro fertilization.

The bioethicists in this burgeoning movement expressed distrust of doctors and scientists, and many believed that they had gone unchecked for too long. The goal for bioethicists was to bring ethics to science, technology, and medicine—not dismantle them. Along with new technologies and medical research, bioethicists discussed funding, allocations and dilemmas surrounding scarce resources. What was the role and responsibility of the government in the realm of medical technologies? This became one of the central questions surrounding government policies surrounding in vitro fertilization.

Congressional Attempts to Rein in Science and Technology

In 1968 Walter Mondale put forth a bill to create a Commission on Health, Science, and Society to investigate ethics in biomedical research. The impetus for creating the Commission was concern over new heart transplantation technology, but ultimately the Commission broadened its focus to investigate ethics in science and technology in general. Recognizing the great strides that science and medicine had made in the post-war decades, Mondale began the

---

32 Ibid., 2.
33 Ibid., 3.
34 Dialysis, for example, was a new medical technology in the United States in the 1960s that remained relatively scarce. Not everyone who needed to be treated through dialysis had the opportunity to get treatment. For bioethicists, questions of medical ethics arose surrounding the realization that numerous people who could be cured by this lifesaving technology would not be unless the government funded the technology. Bioethicists became entangled in a discussion of whether or not dialysis, a lifesaving technology, could be paid for through Medicaid, making it readily available to the poor as well as those who could afford the treatment. The question was whether or not dialysis could be readily available, “along with satisfying this and every other medical priority and social priority?” John C. Fletcher to Paul Ramsey, 1 June 1971, 1, Box 8, “John C. Fletcher” folder, Correspondence Series, Paul Ramsey Papers, Duke University Rubenstein Library Archives. Hereafter cited as DRLA.
35 Rothman, 168-169.
hearing to determine the need for such a commission by extolling scientists for their hard work and dedication. Yet, he questioned whether or not scientists and researchers, blinded by their own ambition and successes, always made ethical choices when it came to their research.

Perhaps not surprisingly, American doctors and scientists resisted congressional oversight. Many of the scientists who testified before the hearing argued that government involvement was unnecessary, but Mondale was able to get a few members of the scientific community to testify in support of a congressional commission—as long as it had a limited scope. Henry Beecher, whose 1966 article illustrated the problems of boundless science, supported the commission. However, Christian Barnaard, the South African physician who was the first to successfully transplant a human heart, suggested that if Congress commissioned outsiders to direct science and technology in the United States, American researchers would fall behind scientists in other countries whose work was not subject to government regulation.

Although heart transplantation was the “lead issue” that led to creating the Commission, historian David Rothman argues that the proponents of the Commission were less concerned about the work of doctors than “machines and research.” Researchers who lacked an attachment to their subjects were the ones who needed to be watched—not necessarily physicians at bedsides. During the hearings, concerns shifted from issues surrounding heart transplantation to genetic engineering and behavioral research—“where the breakthroughs were yet to come, but the potential social and ethical consequences already seemed scary.” Genetic engineering and making babies in test-tubes seemed like possibilities in the distant future, but

---

36 Ibid., 169-170.
37 Ibid., 171.
38 Ibid.
39 Ibid., 174.
40 Ibid.
they were frightening prospects for many Americans. At the 1968 hearing, geneticist Arthur Kornberg recognized this apprehension, but argued that a congressional committee was not needed to rein in science in America. What scientists needed from the government, according to Kornberg, was more money to conduct research. Many scientists welcomed governmental involvement in biomedical ethics in the form of research funding, not regulation.

When Mondale initiated the bill, he thought scientists would accept the addition of a congressional Commission to discuss scientific research, but later stated that he was “disappointed and appalled by the almost unexplainable fear on the part of some scientists about the public being involved.” It seemed that scientists failed to see the value of outsiders mandating what they should and should not do. In response, Senator Mondale stated that he believed that “Research has more to gain from the public process than to lose. Secrecy could do a lot of harm.” But of course, some of the concerns voiced by scientists were valid: they thought that public deliberation might slow the progress of science. They doubted bioethicists’ ability to answer ethical questions and the government’s ability to legislate medical ethics.

Congress failed to approve Mondale’s commission. According to Rothman, the legislation lacked support from the Nixon administration because the “administration was unwilling to support the creation of a forum that would give liberals the opportunity to play farsighted policy analysts.” Further, the proposal failed to clarify what the commission would actually do. Mondale refused to give up on his belief that American laypeople had a stake in ethical research, and that scientists did not always respect the desires and the rights of the people

---

41 Ibid., 175.
43 Ibid.
44 Ibid.
45 Rothman, 177.
upon whom they conducted research. There needed to be a system of ethical oversight in place for scientific research—especially federally funded biomedical research. He reintroduced his legislation in 1971 and 1973 with the support of Senator Edward Kennedy, who proposed similar legislation by 1973.46

Kennedy emphasized the need for biomedical research controls in the Senate, similar to the legislation that was proposed in the House of Representatives. The bill that originated in the House focused on research training and had limited provisions regarding the protection of human subjects. This legislation prohibited the Secretary of HEW from funding any research that violated ethical standards set forth by the NIH or any research that involved human fetuses living outside a woman’s body.47 The prohibition on live fetal research immediately gained the attention of scientists, one of whom noted that “far more thought needs to be put into the wording of … anti-fetal and infant research amendments if they remain in any bill.” He noted that such legislation could prohibit doctors from providing emergency care to premature infants, much of which “involve[d] research procedures that in another context could be viewed as non-therapeutic.”48 The legislation placed a temporary ban on federally funded research that involved fetuses “unless such research [was] done for the purpose of assuring survival of such fetus” until the issue could be investigated further.49 At least until final determinations were

46 Ibid., 182.
47 Robert S. Stone to Editor, Christian Century, 24 April 1974, Box 79, Folder 4, National Commission for the Protection of Human Subjects, 1974-1975, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, National Archives at College Park, College Park, Maryland (NACP). Stone was the Director of the NIH.
48 Ibid.
made, doctors could be assured that if they utilized any experimental procedures in an effort to save a fetus or premature infant, they could not be prosecuted.

Ultimately, the House and Senate bills were combined, passed, and given the same bill number—H.R. 7724. The National Research Act included provisions for research training for young scientists beginning careers in biomedicine as well as the study of the ethical implications of biomedical and behavioral research and its human subjects.\textsuperscript{50} In order to accomplish the latter, the bill provided for the creation of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research.\textsuperscript{51} The Commission, functioning for two years, would recommend policies which would ultimately “take precedence over existing DHEW policies.” The Secretary of Health, Education, and Welfare was to implement the recommended policies in all HEW funded programs, especially the National Institutes of Health, the largest source of funding for biomedical research in the United States.\textsuperscript{52} The Commission would include ethicists, lawyers, religious leaders, and scientists engaged in research involving human subjects, who had twenty-four months to “study the ethical, social, and legal implications of advances in biomedical and behavioral research and technology.”\textsuperscript{53} After that, it had ninety days to provide the President, Congress, and the Secretary of HEW with its final report and publish it in the \textit{Federal Register} for public comment before the Secretary made a determination on the

\textsuperscript{50} Stone to Editor, \textit{Christian Century}, 24 April 1974.
\textsuperscript{52} Assistant Secretary for Health to the Secretary, “Regulations on Protection of Human Subjects—ACTION MEMORANDUM,” 19 April 1974, page 2, Box 78, Folder 1, Proposed Policy Protection Human Subjects 1974, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
\textsuperscript{53} “Summary of Title II, PL 93-348,” 1.
acceptability of the Commission’s recommendations.\textsuperscript{54} If the Secretary decided that the Committee’s determinations were inappropriate, he was not obliged to accept them.\textsuperscript{55}

As the Commission was being created, some Americans wondered who would be included among its members. First of all, Americans repeatedly asked who was going to select the Commission’s members, expressing concerns that the board would be “‘loaded’ to reflect the agency Director’s views.”\textsuperscript{56} If the Secretary of HEW wished to gain a specific recommendation, he could choose members based on their political, moral, or religious ideologies. Next, the professional make-up of the board was of some concern, for if researchers drastically outnumbered non-scientists, the Commission’s recommendations would certainly be different than if bioethicists and lawyers outnumbered scientists.\textsuperscript{57} Not surprisingly, “Researchers asked that a majority or all [members] should be researchers, fearing that no adequate review could be given their proposals by laymen. Laymen asked that a majority or all should be laymen.”\textsuperscript{58} Ultimately, perhaps to the disdain of researchers, no more than five members of the Commission could be scientists engaged in biomedical research.

Some Americans who responded to the possibility of a congressional commission to study the ethical implications of biomedical and behavioral research wanted to limit or expand the proposed powers of the Commission. While some Americans expressed concern over the

\textsuperscript{54} Ibid.
\textsuperscript{56} “Ethical Review Board,” 5, in NIH Deputy Director to Agency Liaison Representatives, NIH Members, DHEW Study Group on the Protection of Human Subjects in Biomedical and Behavioral Research, Dr. Charles Lowe, Donna Spiegler, “Proposed Policy and Regulations Concerning the Protection of Children Participating in Biomedical and Behavioral Research – COMMENTS REQUESTED,” 20 September 1974, Box 78, Folder 1, Proposed Policy Protection Human Subjects 1974, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
\textsuperscript{57} Ibid.
\textsuperscript{58} Ibid.
Commission’s veto power, rights to appeal, and the removal of members following controversial
decisions, others wondered whether the Commission was even necessary.\textsuperscript{59} Some of those who
voiced their opinions worried that a Commission or an Ethical Review Board would “impose an
additional roadblock that would delay or prohibit important research, while needlessly
consuming time, energy, and money.”\textsuperscript{60} Those who did find value in the creation of a new
Ethical Advisory Board, however, “called it a welcome addition in the review process that would
require additional time but would not impede research.”\textsuperscript{61}

For HEW and the NIH, congressional efforts to protect the human subjects of biomedical
and behavioral research were unnecessary and redundant, because these organizations had
moved towards protecting human subjects as early as 1953 by creating, adopting, and adapting
policies regarding human subjects of scientific research. Beginning in 1965, HEW and NIH
policies required that “each proposal for a grant or contract undergo review at least twice by
experts recruited from outside the department” and by institutional review boards. The NIH
sought greater protections for subjects of scientific research through a system of peer and
institutional review to ensure that researchers’ practices were ethical. According to HEW, by
1973 the system was working: “the majority of HEW grantee and contractor institutions have
complied with this requirement.”\textsuperscript{62}

Despite the NIH’s efforts to ensure ethics in biomedical research, public concern over the
use of human subjects increased in 1972 as the media exposed numerous examples of biomedical
research gone awry, including the infamous Tuskegee experiments on the effects of syphilis.
Because of the increased public awareness of potential ethical violations in human research, and

\textsuperscript{59} Ibid., 5-6.
\textsuperscript{60} Ibid., 5
\textsuperscript{61} Ibid.
\textsuperscript{62} Stone to Editor, Christian Century, 24 April 1974, 2.
in an attempt to maintain control over biomedical research in the face of the proposed congressional legislation, the NIH “decided that a total review of current guidelines was needed with special attention given to the issue surrounding the use of prisoners, institutionalized patients, and children as subjects.” Thus, the changes to the NIH guidelines emphasized the need to protect the same groups of Americans as the proposed Congressional legislation. This was no coincidence: if the NIH emphasized institutional review and stipulated that certain groups needed special protection, Congress would not need to get involved in the realm of biomedical research funded by the federal government. This strategy had worked before, most notably in the motion picture industry, which, successfully avoided government regulation beginning the in the 1920s and 1930s by practicing self-censorship.

NIH representatives expressed their concerns about the protective legislation making its way through Congress. First of all, members of the NIH feared that the bills introduced by Senators Mondale and Kennedy would bypass the “existing channels of authority and program responsibility” for the protection of human subjects in NIH and HEW. As members of the executive branch of government, bureaucrats in HEW and the NIH worried about what they perceived to be congressional maneuvering to wrest control from the NIH of what had always been its domain: standards for biomedical research. HEW representatives opposed Kennedy’s bill because the Department had “over eight years experience…with a policy on protection of

---


65 Assistant Secretary for Health to the Secretary, 19 April 1974.
human subjects first developed by the National Institutes of Health in 1965. Further, representatives believed that “the Department has always been sensitive and responsive to public concerns,” and it showed this responsiveness by creating a study group in 1972 once again to modify requirements for access to funding. According to HEW and the NIH, congressional legislation for the protection of human subjects of biomedical and behavioral research was unnecessary because these bureaucracies already had a system for the protection of human subjects in place. Congress implied that HEW and the NIH had inadequately overseen biomedical research.

According to the NIH, the congressional legislation for the protection of human subjects was inadequate because it had a blanket approach to biomedical research. The Assistant Secretary of the NIH expressed apprehension because Congress had introduced “bills potentially imposing substantial and rigid restrictions on a wide range of research and service activities in the biomedical and behavioral sciences.” According to members of the NIH, it had a more nuanced approach to examining the ethical acceptability of experiments and the potential threats to human subjects by approaching scientific research on a case-by-case basis through institutional and peer review. NIH representatives better understood the “highly technical nature” of biomedical research, and because of this they were better prepared to deal with the ethical issues that arose. Indeed, NIH’s system was set up to “deal with the unique problems of high-risk medical experimentation,” while “H.R. 7724 would unduly hamper low-research in psychology, sociology, and education, and unnecessarily dilute the attention given to potentially

66 Chief, Institutional Relations Branch, DRG to Director, Executive Secretariat, 5 April 1974, Box 79, Folder 4, National Commission for the Protection of Human Subjects, 1974-1975, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
67 Ibid.
68 Assistant Secretary for Health to the Secretary, 19 April 1974.
serious issues in clinical investigation.” By encompassing all research that involved human subjects, the proposed legislation would, according to representatives of HEW and the NIH, ultimately result in a more lax approach to high-risk research.

Further, while Congress considered the legislation, the Director of HEW believed that its new regulations would “offer greater protection to subjects than either version of H.R. 7724.” This view stemmed from the fact that while the NIH had a system of both institutional and peer review in place, H.R. 7724 only adopted the system of institutional review committees. According to the NIH, “roughly half the projects deemed to be unethical have been disapproved at the institutional level, half by the peer review system,” which meant that “half of the public’s protection is removed” by the proposed legislation. NIH representatives also noted that by removing the protection for human subjects provided at the peer review level, the congressional legislation ignored “the plurality of ethical and legal systems under which research institutions necessarily operate.” Recognizing the subjectivity of ethics, the NIH set up a system of peer review where individuals at different institutions might make different rulings for similar research protocols. The uniform policy of the congressional legislation made no place for such subjectivity. According to HEW and the NIH, the system created by the National Research Act was flawed. It would not improve the system put in place by HEW and NIH, but rather it would lead to less protection for human subjects of biomedical and behavioral research. As such, Congress should leave the protection of human subjects to the institutions that had been in charge of biomedical and behavioral research in the United States—HEW and its subsidiary, the National Institutes of Health.

69 Chief, Institutional Relations Branch, DRG to Director, Executive Secretariat, 5 April 1974, 2.
70 Stone to Editor, Christian Century, 24 April 1974, 2.
71 Chief, Institutional Relations Branch, DRG to Director, Executive Secretariat, 4 April 1974, 2.
72 Ibid.
73 Ibid., 3.
HEW and the NIH sought to maintain control over biomedical and behavioral research as congressmen were pushing legislation through the Senate and the House of Representatives. As the main source of funding for biomedical research in the United States in the years following World War II, members of HEW and the NIH believed that they had greater experience with the complexities of biomedical research, and could better protect the human subjects of such research. When Seward Hiltner wrote an article for *Christian Century* in 1974 urging readers to write their representatives in support of H.R. 7724, the Department penned a response that suggested that “readers look into this complex matter more carefully…before they take up their pens.”

The Protection of Human Subjects of Biomedical and Behavioral Research Focus on Fetal Research

As congressmen discussed and debated the bill for the protection of human subjects of biomedical and behavioral research, the Supreme Court was making its decision on abortion rights in America. This coincidence in timing would irrevocably connect medical research on the human fetus with the abortion controversy. Although fetal research had become increasingly important in the 1960s, it did not garner much attention outside of scientific circles. However, as the legalization of abortion split the nation, anything associated with abortion became the subject of scrutiny. Fetal research was a field of scientific inquiry that could potentially benefit from the legalization of abortion, which would increase the number of fetuses potentially available for research. The *Roe v. Wade* decision implied that research on pre-viable human fetuses might be acceptable because the Supreme Court did not regard the fetus “as a ‘person in the whole sense’ prior to the age of viability.” Viability, defined as the fetus being “potentially able to live outside the mother’s womb, albeit with artificial aid,” was set at about seven months’ gestational

---

age.\textsuperscript{75} Basically, in its \textit{Roe v. Wade} decision, the Supreme Court determined that a fetus was not a complete, self-sustaining individual, and thus should not be afforded the same rights and protections as a person. If the fetus was not a person, “the Court [left] open the entire question of what it actually [was]—and, more important, what may be done with it.”\textsuperscript{76} Because \textit{Roe v. Wade} indirectly allowed research on aborted fetuses, fetal research increasingly became a topic of public conversation and cause for concern. Laypeople who believed in the human rights of the unborn immediately voiced their opposition to fetal research in the aftermath of the Supreme Court’s abortion decision. It was only after \textit{Roe v. Wade} that fetal research became controversial.\textsuperscript{77}

In his book, \textit{The Dilemma of the Fetus: Fetal Research, Medical Progress, and Moral Politics}, public policy analyst Steven Maynard-Moody explores the ethics and politics of fetal research. Maynard-Moody contends that for the opponents of \textit{Roe v. Wade}, abortion and fetal research became inseparable despite the known benefits of fetal research, which had already contributed to the development of the Salk anti-polio vaccine and the German measles vaccine. Further, fetal research held the promise of preventing future incidents like the thalidomide disaster that resulted in birth defects among thousands of European infants born to women who took the sleeping pill during their pregnancies.\textsuperscript{78} Many recognized the benefits of fetal research in the wake of the thalidomide disaster, but it was clear that fetal research “depended on planned abortion,” for “what woman would consent to taking an unproven vaccine that could potentially

\textsuperscript{76} Ibid.
\textsuperscript{77} Maynard-Moody, 4. While Maynard-Moody sees the fetal research controversy beginning in 1973, he argues that the dispute was “more than a conflict between anti-abortionists and scientist, between anti-research traditionalists and pro-research progressives.” He believes that the fetal research dispute illustrates the “ambivalent place of science in our culture,” as Americans have an “addiction” to scientific “progress” while at the same time fearing that it “erodes human values.”
\textsuperscript{78} The German measles reference comes from Maynard-Moody, 46.
According to Maynard-Moody, fetal research was a “hot scientific area with importance extending well beyond the testing of new drugs.” He notes that “prior to 1973 and the Roe v. Wade decision, research that would later spark public controversy was quietly planned, funded, completed, and published without evoking a hint of public concern.”

Maynard-Moody argues that the Roe v. Wade decision politicized fetal research in the United States. As the pro-life movement emerged in opposition to the Supreme Court’s legalization of abortion, opponents of abortion “feared the redemptive power” of fetal research and fetal organ and tissue donation. Fetal research could be the silver lining of abortion—encouraging women to terminate pregnancies knowing that their choice could potentially benefit others. Although “the decisions to have an abortion and participate in fetal research are often distinct, fetal research depends on abortion.” Taking advantage of legalized planned abortions, scientists could conduct controlled experiments without taking “risks with wanted fetuses,” or depending on spontaneous abortions or “retrospective studies of birth defects.” Rather, researchers could benefit from women who planned abortions, consented to fetal research, and agreed to time the abortion procedure around experiments. For example, “researchers may ask a pregnant woman to delay her abortion a day or two, or to come in for the experimental treatment a day or two prior to her abortion.” For opponents of abortion, the potential risk to the fetus through such research “could discourage a woman from changing her mind about the abortion.”

---

79 Ibid.
80 Ibid., 13.
81 Ibid., 92.
82 Ibid., 108.
83 Ibid.
84 Ibid., 111.
providing a possible benefit to society and preventing last-minute decisions not to go through with the procedure.85

Further, anti-abortion forces recognized the possibilities for fetal research following the Roe v. Wade decision, and determined that research on aborted human fetuses added insult to injury.86 Most anti-abortion activists believed that life begins at conception, thus abortion was analogous to the crime of murder, and scientists were adding unnecessary pain and violence to an already tortured soul. Because of this, abortion opponents advocated for legislation to limit or forbid research on aborted fetuses. It was in this climate that Congress enacted Kennedy’s bill laying the groundwork for the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The Supreme Court’s abortion decision shifted Congress’s focus of the protection of human subjects from the incarcerated and institutionalized to the unborn. The mobilization of pro-life Americans after Roe v. Wade aided the passage of this legislation, because many feared that once abortion was legal in the United States, fetuses would be produced and harvested solely for scientific research. In the wake of the Supreme Court decision, pro-life constituencies coalesced to roll back what they considered to be immoral practices regarding the unborn in the United States. Immediately, anti-abortionists worked to get legislation passed in different states to protect the lives of the unborn.

In the months following Roe v. Wade, the issue of federal funding for fetal research became increasingly controversial as abortion opponents struggled with the implications of the decision. In April 1973, a reporter from Ob/Gyn News covered a meeting where members of the NIH discussed human experimentation and fetal research.87 Because the recent Freedom of

85 Ibid.
86 Scarf, “The Fetus as a Guinea Pig,” 13
Information Act stipulated that “advisory councils to all departments in the federal bureaucracy including the NIH must” hold meetings in the open, the meeting was announced in the Federal Register and the journalist was present but went unrecognized by the bureaucrats who “continued to talk as usual.” Members discussed fetal research guidelines, Ob/Gyn News published an article on the subject, and fetal research became the subject of media attention.

For the NIH, the media’s involvement in the explosion of interest in human subjects of biomedical research could not be overstated. After the Ob/Gyn News covered the March meeting, Victor Cohn of the Washington Post wrote an article further publicizing the discussion. According to members of the NIH, it was this article that “triggered national interest” in fetal research. Cohn noted that an NIH study panel had recommended continued federal funding for fetal research, and discussed fetal research procedures, stating that “such tiny infants if delivered intact may often live for an hour or so with a beating heart after abortion.” For many Americans, Cohn’s detailed description of fetal research was eye-opening. The day after Cohn’s article was published, the NIH received calls from newspapers and television stations all over the United States. Americans across the nation became aware of the controversial topic of federal funding for fetal research as potentially more fetuses became available for research following the legalization of early term abortions in the United States.

Following the NIH meeting and the publication of Cohn’s article, the Principal of the Stone Ridge Country Day School of the Sacred Heart called the NIH and indicated that the students wanted to protest federal funding of fetal research. Maria Shriver, Senator Edward Kennedy’s niece and the daughter of one of Washington’s elite anti-abortion couples, Eunice

---

88 Ibid., 9.
89 “Background and Chronology of Recent NIH Statements on the Use of Live Aborted Human Fetuses in Research,” 3.
90 Ramsey, The Ethics of Fetal Research, 6.
Kennedy Shriver and Sargent Shriver, became involved in the controversy. A senior at an all-girls’ high school in Washington D.C., Shriver discovered that the NIH was planning on drawing up guidelines for conducting fetal research and organized a protest in April 1973. The NIH had consistently stated that it did not “have any research going on in [that] area,” but agreed to meet with the high school students. 91 NIH representatives scheduled a meeting with the two hundred student protesters, so they could meet with an NIH scientist and have an informed discussion regarding issues of fetal research. 92 According to NIH representatives, however, the Stone Ridge School “turned the meeting into a press conference,” and some of the adults chaperoning the high school students “used the meeting as a forum for the expression of anti-abortion views.” 93

The protesters invited the media to the meeting, ultimately forcing the NIH to put forth a public statement regarding its support of fetal research. 94 NIH members could not provide the students or the media with an official policy statement because “the entire subject of human research [was] under review.” 95 Although the Advisory Group had recommended that ethical fetal research was acceptable, Dr. Robert Berliner, the Deputy Director for Science and the Principal Scientific Officer at the NIH, stated that at that time, the federal government was not funding fetal research nor would it until an official policy was made. 96 When the NIH discussed fetal research generally, it included research on a fetus that was intended for abortion as it was

91 G. Sharpe, “Call from Sister MacGowan to Dr. Berliner,” 11 April 1973, Box 78, Folder 8, Experimentation Involving the Human Fetus, 1973-1981, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. This document is a memorandum to unlisted recipients.
94 Ibid.
95 Ibid.
96 Ramsey, The Ethics of Fetal Research, 6-7.
still in the womb, research on a newly aborted fetus that was kept alive for research purposes, and research on tissues taken from aborted fetuses.

One student at the meeting asked why, if the NIH did not fund any research on human fetuses and did not plan on doing so, its members were meeting to discuss guidelines for such research. Charles Lowe, who responded as a representative of the NIH noted that a number of scientists would have liked to engage in fetal research, but they were not the ones who made policy—the NIH made policies. Berliner stated that the NIH would support research on tissues taken from aborted fetuses, for it “was about the same thing as taking kidneys or a heart for a heart transplant.” NIH representatives would not, however, admit to any awareness of federal funding for research when a fetus was intentionally kept alive for scientific experiments, and in fact, Lowe told the Catholic high school students that he saw “no need” for using live fetuses for research purposes.

Before the Supreme Court’s Roe v. Wade decision, an NIH study section that included mostly doctors and scientists met in September 1971, and suggested that fetal research was acceptable, as long as it was “carefully safeguarded.” The study section recommended, too, that researchers should only be able to study non-viable fetuses, or fetuses that absolutely could not survive outside the mother’s womb. Upon reviewing the study section’s recommendations in 1972, the National Advisory Council on Child Health and Human Development decided that the NIH needed to develop guidelines for fetal research, but failed to respond to the study group’s

97 Cohn, “NIH Vows Not to Fund Fetus Work.”
98 Ibid.
99 Ibid.
100 Ibid.
101 Cohn, “Scientists and Fetus Research,” in NIH, “Current Clips From the Newspapers,” April 15, 1973, 2, Box 78, Folder 8, Experimentation Involving the Human Fetus, 1973-1981, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. This article was originally published in the Washington Post.
recommendation. The organization implied, however, that fetal research was acceptable, as it stipulated that those utilizing aborted fetuses must not be involved in the “decision to terminate a pregnancy.”

After Roe v. Wade, NIH representatives promised that the institution would not fund research on live, aborted fetuses in the United States or in any other part of the world. Representatives of the NIH stated that the institution did not and had not funded research on human fetuses, although scientists came forward saying that they had conducted experiments on human fetuses with funding from the Institute. Representatives of the NIH responded that it provided so many grants—14,000 in 1973—that they could not keep track of every aspect of every NIH-funded project. Thus, it was possible that fetal research was conducted without the knowledge of NIH representatives. In the wake of the fetal research controversy, the NIH conducted a computer search to show that it had no outstanding grants or contracts for research on record that utilized live fetuses. However, one bioethicist who participated in an NIH study section on fetal research noted that the because of the size and scope of the NIH, it had “no way of knowing everything that [was] being done under training grants or institutional grants.” Representatives of the Institute could not positively state that fetal research was not being conducted with federal funds.

Indeed, as the Stone Ridge students protested NIH funding of fetal research and the media publicized the controversy, some scientists who conducted fetal research and benefitted from federal funding began to come forward. For example, journalist Victor Cohn of the

---

102 Ibid.
103 Cohn, “NIH Vows Not to Fund Fetus Work,” 1
104 Ibid.
105 Ibid.
106 Cohn, “Scientists and Fetus Research,” 1
107 Ibid., 2.
Washington Post wrote an article that focused on how the NIH funded American scientists who engaged in fetal research in foreign countries. For example, some researchers went to Finland to experiment on human fetuses “freshly removed from their mother’s wombs in abortions.”

Cohn focused his article on two renowned scientists: Dr. Jerald Gaull, the chief of pediatric research at the New York State Institute for Basic Research in Mental Retardation, and Dr. Robert Schwartz, the chief of pediatrics at Cleveland Metropolitan General Hospital. Both of these researchers took advantage of opportunities to go to foreign countries with more liberal abortion and fetal research policies and experiment on live aborted fetuses.

American scientists who conducted fetal research in foreign countries did not consider their activities immoral or unethical. The benefits of fetal research had been well-documented, and researchers like Gaull took measures to engage in ethical protocols. For example, Gaull assured Cohn that he “sever[ed] the nervous connections that link the brain to the body ‘to make sure the fetus will feel no pain.’” Gaull and other fetal researchers justified their work by noting that the fetuses, who reached brain death before their hearts stop beating, were intended for abortion. Potential lives were not lost in vain. Gaull argued that his work on human fetuses was moral because it was “a terrible pervasion of ethics—to throw these fetuses in the

---

108 Ibid., 1.
109 Ibid. In the United States, too, methods of removing a fetus in the course of an abortion differed from practices in countries where fetal research was more acceptable. For example, in the United States, abortion procedures included either suctioning the fetal tissues out of the uterus early on or injecting saline solution, both of which “produce[d] only fragmented or dead fetuses.” In some European countries, including Finland and Sweden, scientists were allowed to conduct experiments on human fetuses to gain information helpful to premature infants, fetuses that went to term, and even children and adults. In other European countries, however, ethical debates had already taken place regarding fetal research. For example, the public debate over fetal research began in Great Britain before it began in the United States, when reports that human fetuses were being sold for research purposes surfaced in the British media. Parliament created an advisory group to formulate regulations, and the ensuing report determined that scientists could conduct fetal research up to twenty weeks gestational age. Notable in the document were the stipulations that researchers could not be involved in deciding whether or not the fetus could be used in research, and that no money could change hands for the use of fetuses or fetal tissues. As Americans debated fetal research following Roe v. Wade, Great Britain had guidelines already in place while other European governments left fetal research unregulated.

110 Ibid.
incinerator as is usually done, rather than to get some useful information.” For researchers like Gaull, it was unethical not to utilize the aborted fetuses. Allowing doctors and researchers to conduct fetal research provided aborted fetuses with a purpose.

Both Gaull and Schwartz worked with NIH funds in the United States, but did not use federal money to pay for their trips to conduct fetal research abroad. However, their NIH funded work was connected to and benefitted from the fetal research conducted abroad. And, although Gaull and Schwartz conducted their research in Finland without the use of federal money, there were other researchers who were not so careful to avoid using NIH funds for fetal research abroad. Other scientists brought fetal tissue back to the United States to continue the experiments at their home institutions. Despite NIH statements to the contrary, the organization had indirectly funded American scientists conducting fetal research. Before the Roe v. Wade decision, the possibility of NIH funding for such research received very little attention. After abortion was legalized, however, biomedical research on human fetuses became a controversial topic in the United States and the NIH tried to protect itself from the controversy by showing that NIH funded experiments did not involve human fetuses. Scientists funded by the NIH claimed the opposite.

Before Roe v. Wade, fetal research designed to benefit premature infants and other children aroused no controversy. Dr. Robert Goodlin was one scientist who conducted fetal research and gained only positive consideration prior to the Roe v. Wade decision. After the

111 Ibid.
112 Ibid., 2.
113 Ibid., 1.
114 Robert C. Goodlin, M.D., to Charles Lowe, M.D., 14 September 1973, Box 78, Folder 8, Experimentation Involving the Human Fetus, 1973-1981, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Lowe was the Scientific Director of the NICHD, and Goodlin was an Associate Professor in the Department of Gynecology and Obstetrics at the Stanford University School of Medicine and the Associate Director of the Department of Obstetrics and Gynecology at Santa Clara Valley Medical Center.
Supreme Court legalized abortion, his work received a great deal of negative attention. An associate professor in the Department of Obstetrics and Gynecology at Stanford University, Goodlin had seen numerous statements by NIH officials who claimed that the federal government had not and did not fund research involving human fetuses. In the fall of 1973, he sent a letter to Charles Lowe because he wanted representatives of the NIH to be aware that the institution had supported his research on fetuses from spontaneous abortions, or miscarriages. In the contentious environment of the *Roe v. Wade* decision and the controversy over fetal research, Goodlin wrote to Lowe that he had been “attacked” by “pro-life groups” for “torturing” human fetuses. His research objective, however, was “to maintain these human fetuses so that they would eventually reach a stage of maturity so that they could survive in a premature nursery.”

Regardless of his research goals and the international recognition he gained for his use of fetal incubators, his work came under fire. The California Legislature cited it when it passed legislation prohibiting experimentation with human fetuses.

Pro-life organizations attacked his research for involving human fetuses and lambasted the NIH for its role in funding the project. In 1965, when Goodlin first contacted the NIH for research funding, the institute “was encouraging publicity” on the type of research he conducted because of its potential to help premature babies. By 1973, however, the organization was trying to hide any evidence of funding fetal research. In the fall of 1973, Goodlin wanted to make NIH representatives aware that pro-life groups were using his research to publicize federal funding of unethical and “grotesque” research. While many doctors and researchers argued for the benefits and even the morality of research on aborted fetuses, there were also many

---

115 Ibid.
116 Ibid.
117 Ibid.
118 Ibid.
people who claimed that research on fetuses was an affront to humanity. NIH leaders recognized
the contentiousness of the issue and that “the subject of research on live aborted human fetuses
aroused a strong emotional response among persons of varying religious backgrounds.”

Renowned geneticist Joshua Lederberg also recognized that fetal research elicited a strong emotional response from some segments of the American population. After the meeting-
turned-press-release between the high school students and NIH representatives, Lederberg, who
assumed that Maria Shriver was a front for her mother Eunice, crafted a letter to Eunice in
defense of fetal research. Lederberg noted that he did not share Shriver’s “philosophical position
that the early fetus [was] indeed a human being,” and because of this, he did not “share [her]
sense of outrage that it should be the object of experimentation.” Although he recognized that
fetal research was a sensitive subject, he implored Shriver to try to understand scientists’
perspectives. From his point of view, fetal research enabled scientists and doctors to “better help
future generations.” Furthermore, he argued that according to her philosophical worldview,
“800,000 human beings…that is to say fertilized human eggs, are lost every year in this country
by natural failures during early pregnancy.” Knowing that for Catholics and other religious
Americans, human life begins with conception, he asked, “Should you not also be outraged that
we permit this to happen?” Lederberg maintained that “at least a proportion of these losses
should also be remediable if we but knew more about the biology of the fetus and of

119 “Background and Chronology of Recent NIH Statements on the Use of Live Aborted Human Fetuses in
Research,” 4.
120 Joshua Lederberg to Mrs. Eunice Shriver, 16 April 1973, Box 78, Folder 8, Experimentation Involving the
Group 443, NACP. Lederberg was a Professor of Genetics at Stanford University Medical Center, and Eunice
Shriver, mother of Maria Shriver, was a member of the politically powerful Kennedy family and opponent of
abortion.
121 Ibid.
122 Ibid.
pregnancy.”123 If scientists were permitted to conduct fetal research on unwanted human fetuses, Lederberg claimed, those that were wanted stood a better chance of survival.

As fetal research became an increasingly controversial topic in the media and among Americans, the NIH still had no official policy on fetal research. This, however, did not stop “individual scientists and administrators…[from] giving their views in telephone interviews, inadvertently giving the impression of divergent and even contradictory positions within NIH.” For Americans, NIH’s role in fetal research was unclear. One NIH representative, Dr. Robert Berliner, argued that there was no justification for fetal research since animals could be used for the same studies, but others claimed that fetal research with limitations could indeed be useful.124 As fetal research increasingly became more contentious, the lack of an official NIH policy may have helped the organization deflect criticism, for its leaders claimed that its “stance was such as to invite the widespread intervention of public groups.”125 Leaders and representatives of the NIH claimed that they would accept input from American citizens to help determine NIH policies on fetal research.126

The NIH responded to the fetal research controversy by pointing out the organization’s efforts to formulate a policy for fetal research as early as 1971. Prompted by the controversy over fetal research in England, the NIH created the Human Embryology and Development Study Section, which “formulated criteria for guidance in the review of applications involving research

123 Ibid
126 Ibid.
on human fetuses.” Members of the National Advisory Council reviewed the proposed criteria, and responded by stating that “because of the unique problems involved and growing competence and interest in this field, ethically and scientifically acceptable guidelines for the conduct of such investigation must be developed.” Members of the National Advisory Council recognized that fetal research was a growing field of interest for scientists, but, as in England, guidelines were needed. Members of the Council were not prepared to put forth such guidelines and they disregarded the guidelines proposed by the NIH’s Human Embryology and Development Study Section. Thus, the NIH had no official fetal research policy in 1973 when the issue of fetal research became increasingly contentious in the months after *Roe v. Wade* legalized abortion in the United States.

**NIH Fetal Research Policy**

In 1973 the NIH drafted a statement to clarify its position on fetal research by admitting that it lacked an official policy. Representatives stated that fetal research would be considered by the “general review of DHEW policies and procedures for the protection of human subjects in biomedical research,” that was already planned. Reviewers would recommend policies on the subjects of biomedical research in general which would then be subject to public discussion before any final decisions were made. In this statement, too, the NIH claimed that “projects utilizing such fetuses have not been supported,” and that until HEW officially adopted a policy,

---

128 “Background and Chronology of Recent NIH Statements on the Use of Live Aborted Human Fetuses in Research,” 2.
“support of any projects or part of projects involving human fetuses will be held in abeyance.” \(^{129}\)

Nonetheless, the statement also read that “Until such policies are adopted, the National Institutes of Health will continue, as it has done in the past, to give most careful review and consideration to proposals involving the use of live aborted human fetuses.” \(^{130}\) The NIH framed the statement to assure the public that it would not fund fetal research until an official determination was made, and also noted that the organization had always carefully considered the protocols and implications of fetal research. NIH leaders maintained that the organization’s oversight of fetal research had been thoughtful and adequate; reinforcing their claim that congressional involvement in biomedical and behavioral research was unnecessary.

In the face of public scrutiny, NIH representatives justified their funding decisions by pointing to HEW’s policy on human research subjects, which was “stated in simple and general terms.” \(^{131}\) The HEW policy read, “it is the policy of the Department that no grant or contract for an activity involving human subjects shall be made unless the application for such support has been reviewed and approved by an appropriate institutional committee.” \(^{132}\) In other words, if the NIH used federal funding for research projects involving human fetuses, it was not because the NIH condoned such research, but because the institutional reviewers allowed it to take place. The institutional reviewers were supposed to ensure the “rights and welfare of the subjects,” not HEW or the NIH. These IRBs were intended to make sure that human research subjects gave informed consent, not HEW or the NIH. HEW had put a system in place whereby the ethics and morality of experiments were to be reviewed at individual institutions. Thus, it would be


\(^{130}\) Ibid.

\(^{131}\) “Background and Chronology of Recent NIH Statements on the Use of Live Aborted Human Fetuses in Research,” 1.

\(^{132}\) Ibid.
understandable if representatives of these federal institutions were unaware that researchers used federal money in procedures involving questionable ethics. The NIH could not possibly be aware of every aspect of every research project that the federal government funded. Facing controversy over providing funding for fetal research, NIH representatives shifted responsibility to its diverse network of institutional review boards. NIH leaders had instituted a system of research funding whereby they could pass the buck to others when controversy erupted.\textsuperscript{133}

Regardless, representatives of the NIH did not welcome congressional intrusion into the realm of biomedical and behavioral research. Although NIH leaders acknowledged that fetal research was an especially contentious issue in the months following \textit{Roe v. Wade}, some believed that the threat to human subjects had been overstated. The Assistant Secretary recognized that “the public and Congress have reacted strongly to reports of alleged abuse in the conduct of a wide variety of research.” However, he believed that “public criticisms have tended to regard research and development activities entirely as ends in themselves without regard for their possible benefits to individual citizens and for the role of research activities in the promotion of general welfare.”\textsuperscript{134} In other words, according to the NIH, Congress and the public should appreciate the great achievements of biomedical research rather than focus solely on the individuals who may have been harmed in the process. While all NIH funded research might not have adhered to the guidelines that some ethicists might impose, the media’s focus on the negative aspects tended to ignore the fact that the NIH had funded countless biomedical and behavioral experiments that were purely beneficial to humanity. While some unethical research protocols may have escaped the notice of NIH officials, peer review boards, and institutional

\textsuperscript{133} Ibid.

\textsuperscript{134} Assistant Secretary for Health to the Secretary, “Regulations on protection of Human Subjects—ACTION MEMORANDUM,” 19 April 1974, Box 78, Folder 1, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
review boards, the organization had safeguards in place that recognized the subjectivity of ethics. Ultimately NIH representatives believed their safeguards for human subjects of biomedical and behavioral research to be greater than those in the proposed legislation. The NIH already provided for the protection of the human subjects of the biomedical research the institution funded, and did so in a manner that recognized the nuances of what it meant to conduct ethical research.

The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research

Despite the best efforts of the NIH to maintain control over biomedical and behavioral research and the human subjects involved, Congress passed and President Richard Nixon signed H.R. 7724, or the National Research Act, and created the National Commission for the Protection of Human Subjects of Biomedical Behavioral Research. After right-to-life congressman Angelo Roncallo and Senator James Buckley amended Kennedy’s bill to include a permanent ban on fetal research, Kennedy added a “perfecting amendment” that temporarily banned such research until the planned-for Commission examined fetal research. The eleven-member board, which was initially charged with investigating ethical principles surrounding biomedical research, developing guidelines for research, and making recommendations to the Secretary of HEW, saw its mandate expanded to include the controversial issue of fetal research. According to bioethicist Paul Ramsey, Senator Kennedy’s amendment to temporarily ban fetal research “enabled Senators and Congressmen to pass the ball to the

Commission and avoid their having to take decisive stand on controversial public question.”\textsuperscript{138} Although HEW and the NIH opposed congressional involvement in biomedical and behavioral research protocols, these bureaucracies would ultimately decide the fate of fetal research once the National Commission made its determinations. Indeed, HEW and NIH were involved with the creation of the Commission from the very beginning. The Department received nominations for the members of the Commission, and the NIH developed plans for providing support to the Commission. The regulations that were finalized in 1974 ultimately provided that the Secretary of HEW would be the final arbiter when it came to research involving human subjects, and he was given the authority to “restrict the use of certain research procedures or the involvement of certain groups.”\textsuperscript{139}

Until the Commission was formed, could meet, and make recommendations to the Secretary of HEW, the NIH initiated changes in accordance with the legislation. Since fetal research had become a controversial topic, it imposed a moratorium on fetal research until the Commission made its recommendations and the Secretary made his determination. The NIH also developed “Institutional Assurance forms,” which all HEW funded scientists using human research subjects needed to sign until the Commission could convene to make policy recommendations.\textsuperscript{140} Further, all proposals for federal research funding had to go through a review committee that weighed the risks and benefits of the research before it could be submitted to HEW. Thus the NIH could not fund any research that had not passed a review committee

\textsuperscript{138} Ramsey, \textit{The Ethics of Fetal Research}, 18.

\textsuperscript{139} Donald T. Chalkley, “For Release: National Institutes of Health,” \textit{Hew News}, 2, Box 78, Folder 1, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.

\textsuperscript{140} Robert S. Stone to Assistant Secretary for Health, Development of a Plan for Implementing PL 93-348 the ‘National Research Act’ Title II, protection of Human Subjects of Biomedical and Behavioral Research,” 2 August 1974, page 2, Box 79, Folder 4, National Commission for the Protection of Human Subjects, 1974-1975, Records the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
ensuring that all research subjects had provided their informed consent.\textsuperscript{141} For these regulations, “informed consent” was based upon the definition provided in the Nuremberg Codes which stated that “The knowing consent of an individual or his legally authorized representative, so situated as to be able to exercise free power of choice without undue inducement or any element of force, fraud, deceit, duress, or other form of constraint or coercion.”\textsuperscript{142} The first step in protecting human subjects of biomedical and behavioral research was obtaining informed consent, meaning that the subjects understood the research protocols, whether or not it was therapeutic, and they gave their consent without coercion. As far as fetal research was concerned, this issue of informed consent was more complicated. A human fetus certainly was not able to give informed consent, and the only people who could speak for the fetus were the mother or father who, some opponents of fetal research argued, appeared to have little regard for the well-being of the fetus anyway.\textsuperscript{143}

The proposed regulations sought to protect human subjects by ensuring that researchers obtain informed consent and focusing on specific groups of Americans deemed by Congress to be particularly vulnerable, including the incarcerated, the mentally ill, and pregnant women. Policymakers could turn to concrete examples from biomedical research practices when researchers seemed to take advantage of the vulnerabilities of the incarcerated and the mentally ill as research subjects. However, the addition of pregnant women to the list of vulnerable biomedical research subjects must stem from an understanding of fetal politics in the 1970s. Lawmakers were concerned with protecting fetuses from biomedical and behavioral research along with the pregnant women who carried them. Much like prisoners and the mentally ill,\

\textsuperscript{141} Chalkley, “For Release: National Institutes of Health,” 1.\textsuperscript{142} Ibid., 2.\textsuperscript{143} Cohn, “Scientists and Fetus Research,” 2.
fetuses were unable to make decisions—or reasoned ones—about their own welfare. The regulations described “special mechanisms for the protection of the pregnant woman and unborn child or fetus, where the pregnant woman participates in a research, development, or related activity.”

By May 30, 1974 when the Federal Register published regulations for research involving research subjects, the proposed policies listed the products of in vitro fertilization among those that needed special protection. Because the sole purpose of human in vitro fertilization was creating human embryos, the procedure was the only specific field of research mentioned in the proposed legislation. Once the legislation shifted focus to pregnant women and fetuses after Roe v. Wade, human embryos that could possibly be created in a laboratory for research purposes became included in the legislation as well. Those who believed that the Roe v. Wade decision was fundamentally immoral often held the belief that life began at conception—in which case, the human embryo had the same rights as the human fetus. Neither could give informed consent, thus neither should be used in biomedical research. The regulations recognized classes of research subjects that needed special protection, but singled out in vitro fertilization as the only field of research that needed special consideration by the Commission.

The Inclusion of In Vitro Fertilization

When the Federal Register published the proposed legislation that included the products of in vitro fertilization among the classes of Americans that needed special protection, “a number of respondents” commented on the part of the legislation that dealt with this futuristic reproductive technology. In August of 1974, Congress welcomed public comments to make

---

144 HEW, “Protection of Human Subjects,” 3.
145 Ibid., 1.
proposed amendments to the National Research Act in an effort to strengthen protective
measures.146 While some of the respondents suggested that the restrictions on in vitro
fertilization should be “strengthened,” others thought they should be “liberalized.” Some
respondents believed that human embryos that might be created by the as-yet-unsuccessful
technology needed special protections in the face of biomedical research, and others thought that
it was unnecessary. After consideration, HEW responded that it would do neither, for “while it
is necessary to impose certain restraints, it is contrary in the interests of society to set permanent
restrictions on research which are based on the successes and limitations of current
technology.”147 In other words, Department members believed that some safeguards were
necessary, but prohibiting any sort of research indefinitely was inappropriate. One never knew
what benefits the research could yield in the future. In 1974, HEW stated that an Ethical
Advisory Board should be created to “weigh, with respect to specific proposals, the state of the
art, legal issues, community standards, and the availability of guidelines to govern each research
situation.”148 Through its in-depth study of different kinds of biomedical research, this Board
would have the knowledge necessary to make judgments about complicated issues. It would
make its recommendations to the Secretary of Health, Education, and Welfare after careful study
of the issue. The initiation of such a Board would become the reality for research involving in
vitro fertilization—the only specific type of research that the legislation singled out in its attempt
to protect the human subjects of biomedical and behavioral research, despite the fact that in
1974, the NIH had no funding requests for human in vitro fertilization research.

---

146 “ACTION” Memorandum enclosed in Director of NIH to Assistant Secretary for Health, “Miscellaneous
Amendments to Departmental Regulations on Protection of Human Subjects, Particularly Those Pertaining to
Research, Development and Related Activities Involving Fetuses, Pregnant Women and In Vitro Fertilization,” 13
July 1977, Box 78, Folder 2, Proposed Policy Protection Human Subjects 1975 & 1977, Records of the Office of the
Director, Records of the National Institutes of Health, Record Group 443, NACP.
148 Ibid.
By the fall of 1974, HEW Secretary Caspar Weinberger had chosen the eleven Americans who would become members of the National Commission. The members of the Commission were expected to “study the basic ethical principles involved in biomedical and behavioral research,” and make recommendations to the HEW Secretary regarding Department policies about the protection of human subjects of such research. Five of the eleven members were scientists who utilized human subjects in their experiments, and the others were professionals in the field of medicine, ethics, theology, and law. In 1974, when HEW issued a news release about the creation of the commission, it stated that the commissioners were to discuss the protection of living fetuses, prisoners, the mentally ill, children, and subjects of psychosurgery. The news release made no mention of in vitro fertilization. Although the products of IVF were included among the classes of research subjects that needed special protection, in 1974, the possibilities of IVF research were overshadowed by the fetal research controversy. After all, IVF had yet to be successful.

The Fetus and Personhood

HEW Secretary Weinberger requested that the newly created National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research prioritize the issue of fetal research before all other forms of human research because it had become so controversial in

---

150 Ibid., 2. Members included Joseph V. Brady, Professor of Behavioral Biology Johns Hopkins; Robert E. Cook, Vice Chancellor Health Sciences at the University of Wisconsin; Dorothy S. Height, President, National Council of Negro Women, Inc.; Albert R. Jonsen, Adjunct Associate Professor of Bioethics at the School of Medicine at the University of California; Patricia King, Professor at the Georgetown University Law Center; Karen Lebaeqz, Assistant Professor of Christian Ethics at Pacific School of Religion; David W. Louisell, Professor of Law at the University of California at Berkeley; John Kenneth Ryan, Chairman of the Dept of Obstetrics and Gynecology at Harvard Medical School; Donald Wayne Seldin, Professor and Chairman of the Department of Internal Medicine at the University of Texas Southwestern Medical School; Eliot Stellar, Provost of the University and Professor of Physiological Psychology at the University of Pennsylvania; Robert H. Turtle, attorney in Washington D.C.
151 Ibid., 1.
the months following *Roe v. Wade*. The Commission, headed by Kenneth J. Ryan, was expected to explore whether or not fetal research should be allowed to take place in the United States, whether it should be federally funded or regulated. Within four months, the Commission was expected to submit its recommendations on fetal research to the Secretary.

Before the committee could determine whether fetal research was ethically acceptable, it had to revisit the question that the Supreme Court had decided in *Roe v. Wade*: was the fetus a person or a “nonperson”? Featured as experts in the media’s coverage of fetal research, American bioethicists weighed in on the controversial question. According to theologian and bioethicist Paul Ramsey, the title of the legislation that included human fetuses—The Protection of Human Subjects of Biomedical and Behavioral Research—implied that research on the fetus was indeed human experimentation. Because research on live fetuses could effectively be considered research on humans, Ramsey believed that it would be the “equivalent of research on a dying patient,” which was unacceptable in medical ethics. Even though he believed that most scientists wanted to engage in fetal research because they truly believed that it could help humanity, Ramsey thought that there should be limitations on what kinds of fetal research scientists could conduct in the United States. Agreeing with Ramsey’s perspective that the fetus was in fact human, Dr. Leon Kass of the Kennedy Institute of Bioethics at Georgetown stated that the idea that the fetus was merely a part of the mother, much like a kidney or a gall bladder, was preposterous. He noted that “The fetus, in its varying stages, is a self-developing, self-changing whole, which assimilates and transforms food supplied by the mother, and grows

---

152 Ibid., 2.
153 Scarf, “The Fetus as a Guinea Pig; Is Such Experimentation an Insult to our Humanity? OR is it a Step Toward Life Saving Knowledge?” *New York Times*, October 19, 1975, 89.
155 Scarf, “The Fetus as a Guinea Pig,” 89.
and differentiates itself according to the plan encoded in its own DNA.”157 These bioethicists made the case that the pre-viable fetus, while not self-sustaining, should be treated as an entity of its own deserving of respect.

Other bioethicists disagreed with Kass and Ramsey, arguing that it would be inconsistent for the federal government to ban fetal research while the Supreme Court condoned the abortion of pre-viable fetuses. Marc Lappé and Willard Gaylin of the Institute of Society, Ethics, and the Life Sciences were “perplexed” by what they called “mutually contradictory positions.”158 For Lappe and Gaylin, it made no sense to prohibit biomedical research on human fetuses since the Supreme Court’s abortion ruling implied that pre-viable human fetuses were not a protectable class. To others, these men seemed to suggest that just “because the worst will be visited upon the fetus ultimately, lesser acts along the way ought to be tolerated.”159 In this case, the ends did not justify the means.

The question of when life begins is a difficult one to answer in a definite manner. As Steven Maynard-Moody recognized in *The Dilemma of the Fetus: Fetal Research, Medical Progress, and Moral Politics*, for many, there is no middle ground. As he writes, “The views are often polarized: life begins at birth or life begins at conception.”160 The view that birth was the beginning of human life, Maynard-Moody states, appreciates that the “fetus is biologically alive,” but “reserves full human status until the moment of separation with the mother.” The fact that most people celebrate “birthdays,” as opposed to “conception days,” the scholar points out, illustrates the point that most people, at least subconsciously, mark the beginning of human experience as the moment of birth. Further, he notes that “stillbirths and abortions do not require

---

158 Ibid.
159 Ibid.
160 Maynard-Moody, 74.
 However, Maynard-Moody recognizes the difficulty of the use of viability as a measuring stick for personhood when he writes that “A full-term newborn requires extraordinary efforts from adults to feed and protect it; its early life is only slightly less dependent than it was in the womb.” He questions the common acceptance of viability by arguing that even after 28 weeks, a fetus, or even a newborn baby cannot literally survive on its own. Viability was the Supreme Court’s measuring stick for abortion, and indeed, the Ryan Commission would use this notion for acceptable fetal research. But, Maynard-Moody claims, this concept was not without problems. Arguably, humans don’t reach a point of viability for quite a while after birth. There is a “biological ambiguity” when it comes to the fetus. As Maynard-Moody wrote, “The fetus is both separate from, yet part of, the woman who carries it. It is unseen, except through technical means of the sonogram or embryooscope, yet present. Long before it is felt moving in the womb the presence of the fetus radically alters the woman’s body. Unlike other cells or organs, the fetus has its own individual genetic heritage and the potential to become an individual.” However, the early fetus cannot survive on its own and the medical community treats fetal remains differently than human remains. This ambiguity led to and perhaps expanded the fetal research debate as the Ryan Commission considered the status of the human fetus and how it should be treated.

**The Ryan Commission and Fetal Rights**

In May of 1975, the Ryan Commission submitted its report on fetal research to Dr. David Mathews, Caspar Weinberger’s successor as the Secretary of Health, Education, and Welfare.

---

161 Ibid.
162 Ibid., 79.
163 Ibid., 69.
164 Ibid.
165 Ibid., 69 and 83.
The Commission determined that a fetus was viable at twenty weeks, at which point no scientific research could be conducted on live fetuses in the United States. While the Commission determined that the age of viability was earlier than the Supreme Court’s twenty-four to twenty-eight weeks, it also suggested that the moratorium on fetal research be lifted. However, it also set some limitations on the kinds of research that would be acceptable. Perhaps the most controversial decision that the Commission made involved the living, aborted, non-viable fetus. The Commission suggested that live fetuses should not be subjected to research, but rather should be treated as “dying subject[s],” whose lives should not be artificially prolonged or shortened for research purposes.166 So, while the Commission determined that fetal research was acceptable in the first twenty weeks, it also recommended that fetuses be given the same respect as dying persons. Thus, fetuses should not be kept alive solely for research purposes.

This Commission had “no legal power to enforce its decisions,” but the “Congressional legislation did require the Secretary of HEW to respond to whatever report it made when he drew up his guidelines for the protection of human subjects.”167 After reviewing the recommendations of the National Commission and taking into account the public response, the Secretary made an important change to 45 CFR 46. He decided to prohibit research on fetuses less than twenty weeks old that were artificially kept alive, even when the intent of the research was to enable “other and more mature fetuses to survive to the point of viability.”168 The National Commission believed research on the “‘possibly viable’ infant in the 20 to 24 week category” was the “frontier” for research on sustaining the lives of premature infants, not research on

---

166 Scarf, “The Fetus as a Guinea Pig,” 89.
167 Ibid.
168 “ACTION” Memorandum enclosed in Director, NIH to Assistant Secretary for Health, 13 July 1977, 2.
fetuses of less than twenty weeks gestational age. In order to keep a fetus of less than 20 weeks alive, scientists would have to resort to the “artificial maintenance of the vital functions” for these nonviable fetuses. It would be unlikely that these fetuses would be able to survive after being removed from such support. According to the Assistant Director of the NIH, such research “was objected to by all segments of the public, including scientists.”

The decisions that the temporary Ryan commission had to make were controversial and cut to the heart of ethics and morality for many people. For some, these decisions involved the status of humanity in what seemed to be an increasingly callous world of science and technology. Recognizing that the problems they had tackled would soon be replaced by new bioethical challenges as technology continued to evolve, the Ryan Commission also suggested that the Department of Health, Education, and Welfare create a more permanent Ethical Advisory Board to handle issues of fetal research or, more specifically, in vitro fertilization research as they arose. This proposal became a reality, and a moratorium was placed on controversial research initiatives until the research was approved by an Ethics Advisory Board.

Because the Department of Health, Education, and Welfare was concerned about the ethics of IVF research, it required “that all activities involving in vitro fertilization be reviewed by the Ethical Advisory Board prior to funding.” When responding to the Commission for the Protection of Human subjects, the public expressed concern regarding IVF and HEW created the

---

169 Ibid.
170 Ibid.
172 Harris, 67.
Ethical Advisory Board to “review all applications involving in vitro fertilization” and “weigh, with respect to specific proposals, the state of the art, legal issues, community standards, and the availability of guidelines to govern each research situation.” After discussing the proposed rules for IVF, former HEW Secretary Caspar Weinberger stated that “if there is a possibility that the conceptus might be sustained in vitro beyond the earliest stages of development, the Ethical Advisory Board is to consider this possibility, and determine what guidelines should govern decisions affecting that fetus, if the research is to be permitted.”

All proposals for federal funding for IVF research in the United States had to be reviewed and found ethically acceptable by an Ethical Advisory Board. For Pierre Soupart, who requested research funding in 1975 for a study on potential chromosomal abnormalities in embryos created through in vitro fertilization, this posed a problem. The Department of Health, Education, and Welfare did not immediately establish this board, placing a de facto moratorium on IVF and embryonic research. It would take HEW nearly five years to create the needed Ethics Advisory Board. Califano appointed a 13-member board, who first met in January 1978 to determine whether Soupart’s proposed research warranted federal money. At this point, Soupart’s was the only IVF case on the Ethics Advisory Board’s docket, but, if the board decided in favor of his research, others would certainly follow as the next summer witnessed the birth of the world’s first test-tube baby, Louise Brown.

Conclusion

In the late 1960s, Americans became increasingly aware of unethical biomedical and behavioral research experiments involving human subjects. At the same time, due to the

---

174 Ibid.
175 Harris, 94.
potential threats of unchecked science, a bioethics movement emerged and congressmen began calling for legislation to protect potentially “vulnerable” classes of American research subjects. Initially policymakers focused on the mentally ill, hospitalized, and incarcerated, but ultimately the focus shifted to the issue of fetal research. After the Supreme Court legalized abortion in 1973, the unified pro-life movement worked to protect aborted human fetuses from further indignities by lobbying against fetal research in the United States. For many anti-abortionists, life begins at conception, so embryonic research became part of the discussion and inevitably part of the legislation. As Steptoe and Edwards experimented with *in vitro* fertilization in England, the Commission for the Protection of Human Subjects was discussing embryonic research along with fetal research. The historical coincidence of the congressional legislation for the protection of human subjects of biomedical research and the legalization of abortion, led to a moratorium on federal funding for *in vitro* fertilization in the United States. American researchers could not gain federal funds to conduct any human IVF research.

In 1973, anti-abortionists began to look at one of the unintended consequences of the abortion decision: the possibility of increased fetal research in the United States. With *Roe v. Wade*, fetal researchers could potentially have greater access to human fetuses, but opponents of abortion sought to ban fetal research by including fetuses in the legislation for the protection of human subjects of biomedical and behavioral research. After several failed attempts to achieve passage of legislation for the protection of human subjects, Congress passed a bill that human fetuses and embryos among the special classes of Americans who needed protection. Indeed, some NIH officials recognized a huge shift in congressional and public opinion surrounding this bill between after the Supreme Court’s controversial decision. The Assistant Secretary of the NIH wrote that “in 1972 public and Congressional concern centered on medical and behavioral
research involving disadvantaged subjects,” while “in 1973, concern centered on medical research involving the fetus, abortus [aborted fetus], and the infant, and on behavioral research in young children.” The circumstances shifted as this legislation was enacted, and so too did its purposes.

By the time the legislation passed, the bill included the products of the futuristic-seeming in vitro fertilization among the list of subjects that needed protection. Indeed, IVF was the only research procedure that was specifically listed in the legislation intended to protect human subjects because for some, fertilization marked the beginning of life. Some argued that experimenting on the human embryo was no different than conducting research on the human fetus, a line of inquiry vilified by pro-life Americans as the Supreme Court legalized abortion. Stemming directly from the Roe v. Wade decision, the framers of the act singled out in vitro fertilization as the only actual research experiment in which subjects (or products) inherently needed protection. Many anti-abortionists believed that human life begins at the moment of conception, and as such, the pro-life concern over human subjects of biomedical and behavioral research extended beyond human fetuses to human embryos. The only scientific research that could possibly utilize the human embryo inevitably resulted from in vitro fertilization. Without in vitro fertilization, there could be no research on the human embryo, which, along with the powerful anti-abortion coalition, helps to explain why Congress targeted this procedure in its attempt to protect human subjects of biomedical and behavioral research.

177 Assistant Secretary for Health to the Secretary, “Subject: Regulations on protection of Human Subjects—ACTION MEMORANDUM,” 19 April 1974, Box 78, Folder 1, Proposed Policy Protection Human Subjects 1974, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
CHAPTER III. “ETHICALLY ACCEPTABLE” BUT “LEGITIMATELY CONTROVERTED”

The NIH received its first application for IVF funding from Pierre Soupart of Vanderbilt University on June 1, 1977.1 The NICHD—the branch of the NIH that focused on population and reproductive research—approved a $375,000 grant for Soupart’s IVF research to determine if embryos created *in vitro* had a higher incidence of chromosomal abnormalities.2 Unlike Robert Edwards and Patrick Steptoe, the ultimate goal of Soupart’s research was not to achieve pregnancy in infertile women, so he did not intend to transfer IVF embryos. Rather, he sought to ensure that IVF did not pose more risk than natural reproduction as the clinical application of the technology was increasingly becoming a possibility. Soupart recognized that *in vitro* fertilization differed from natural reproduction in an important aspect that could potentially cause genetic abnormalities: in the IVF process all sperm have an equal chance at penetrating the egg in the Petri dish, while in natural reproduction, the strongest and fastest sperm reach the egg first in a manner reminiscent of “survival of the fittest.”3 Soupart requested the money for a three year period to “fertilize about 450 human ova, obtained from donors undergoing gynecological surgery, with donor sperm, to observe their development for five to six days, and to examine them microscopically for chromosomal and other abnormalities before discarding them.”4 For many IVF opponents who were critical of Steptoe and Edwards for racing too quickly into an unknown future, this was a step that the IVF pioneers skipped when they barreled straight into clinical practice by implanting the IVF embryos into patients.

---

1 Harris, 65.
4 Leon R. Kass, “‘Making Babies’ Revisited,” Public Interest 1979, 33, Richard McCormick Papers, Box 48, Folder 6, LUCA.
The National Institute of Child Health and Human Development (NICHD) approved funding for Soupart’s research in March 1978, but could not actually grant him the money until the Department of Health, Education, and Welfare (DHEW) created an Ethics Advisory Board to evaluate the ethics of IVF and make its recommendations. When the DHEW issued regulations for the protection of human subjects in 1975, it required the creation of an Ethics Advisory Board to determine the ethical acceptability of federal funding for in vitro fertilization research. DHEW Secretary Joseph Califano created the Board in 1978, and charged members with deciding the social implications of the IVF procedure and techniques. The circumstances surrounding IVF changed tremendously as the EAB began its work—members began to study IVF in May 1978, and by the end of July, Louise Brown was born following IVF procedures. Almost instantly, IVF transformed from what many viewed as a futuristic scientific procedure to a contemporary possibility, and “enormous public attention began to focus on the deliberations of the Ethics Advisory Board.”5 The work of the Ethics Advisory Board suddenly involved much more than the research agenda of a scientist from Vanderbilt University: it also involved the very real possibility that more infertile couples could have their own miracle babies via IVF. After Brown’s birth, the EAB’s study, hearings, report, and recommendations had to consider possibilities for IVF beyond laboratory research.

This chapter explores the creation of the Ethics Advisory Board and how the connection between IVF and abortion plagued the burgeoning technology as Steptoe and Edwards proved to the world that IVF technology could be successful. Board members, who were charged with determining the ethical acceptability of IVF research, discussed the ethical, legal, and social

---

5 Donald Fredrickson to the Secretary, 12 November 1980, Box 155, Folder 6, In Vitro Fertilization/Fetal Tissue Research, 1973-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
aspects of IVF and its possibilities. Holding public hearings and commissioning feedback from biomedical ethicists and reproductive specialists, EAB members heard arguments for and against federal funding from IVF. The technology’s proponents justified federal funding for IVF research by minimizing the ethical concerns and emphasizing the missed opportunities for infertile Americans and American researchers. Opponents voiced concerns that included the slippery slope of science—that surrogacy, genetic engineering, extracorporeal gestation, and even human cloning could result from federal funding for IVF research. Ultimately, however, the discussion provoked turbulent unanswerable questions associated with IVF, which Right-to-Life activists connected to abortion in the aftermath of *Roe v. Wade*. This was a connection that could not be severed as the EAB debated the acceptability of federal funding for IVF research.

Although EAB members discussed the potential ethical, moral, societal, and legal issues surrounding the technology, the connection between IVF and abortion became central to the funding question. This chapter looks at the arguments contributors made to the EAB for and against federal funding for IVF, arguing that the EAB ultimately realized that the moral status of the embryo and the connection between the technology and abortion was the central funding issue. The discursive connection between IVF and abortion that was first made during the fetal research controversy became stronger as HEW created the EAB to explore the ethical issues of IVF. This connection became the focus of public contributors, ethicists, and theologians, despite a plethora of other issues associated with the life-creating intent and potential of this new medical technology.

Califano appointed a 13-member board, that first met in January 1978 to determine the ethical acceptability of Soupart’s proposed research. At this point, Soupart was the only researcher who had requested funding for IVF research, but if the Board made a positive
recommendation, others would certainly follow. When Pierre Soupart passed away in June 1981, “no action was ever taken concerning his proposal” because although the EAB explored the ethics of IVF by consulting experts, holding public hearings, and studying the new reproductive technology and made its recommendation to the Secretary of DHEW, both Califano and his successor Patricia Harris failed to make a decision. Although EAB members did not necessarily make the connection between IVF and abortion, the early association between these two procedures continued to plague IVF as the EAB met. The pro-life segment of the American population made its views apparent first to Califano, and then Harris, both of whom refused to respond to the EAB’s recommendation that federal funding was “ethically acceptable.” Neither Secretary provided a reason for avoiding the issue, but pressure from pro-life organizations in the United States is crucial to understanding the Secretaries’ decision against making a statement one way or the other. Although each Secretary avoided making a firm statement, ultimately both Califano and Harris both chose not to accept the Board’s recommendation and the moratorium on government funding for IVF research remained. Had it not been for the galvanization of the American population on the abortion issue, perhaps the EAB’s positive recommendations would have been accepted by one or both of the Secretaries of DHEW in the years following the Board’s study.

**Ethics Advisory Board**

The Ethics Advisory Board was created within DHEW because of the “continuing public and Congressional pressure,” over research involving human fetuses spurred by the National

---

Research Act in 1974. The debate about the protection of human subjects in general eventually shifted to focus almost exclusively on the propriety of fetal research in the United States, and as the discussion continued, policymakers became aware that the public was also concerned about the “effects of future medical research” such as in vitro fertilization. Because of both positive and negative public feedback regarding IVF, DHEW and the NIH determined that an Ethical Advisory Board was needed to determine the ethical acceptability of all kinds of IVF research, whether or not embryo implantation was involved. The recognition of public unease over the future of IVF, in 1974 an as-yet-unsuccessful reproductive technology, caused policymakers to include IVF in the National Research Act, ultimately leading to a moratorium on federal funding on IVF research until an ethical advisory board could study and make recommendations to the Secretary of HEW. Although the DHEW funded IVF research prior to 1975, once it published regulations on August 8, 1975 that required proposals involving fetal research or human IVF research to be reviewed by an Ethics Advisory Board, such research came to a “standstill” in the United States.

The Charter for the Ethical Advisory Board specifically stated that the Board’s creation was necessary and pertinent to determine the ethical acceptability of federal funding for IVF. According to the charter, the Secretary should choose members based upon their expertise in

---

7 Donald T. Chalkley and Theodore Cooper to the Secretary, “Establishment of the Ethical Advisory Board for Public Health,” 20 June 1976, Box 80, Folder 2, Ethical Advisory Board, 1975-1977, Records of the Office of the Director, Records of the NIH, Record Group 443, NACP.
8 Ibid.
10 Susan Abramowitz, “Competitive Funding of In Vitro Fertilization Research: To Be or Not To Be?” n.d., page 2, Box 155, Folder 6, In Vitro Fertilization/Fetal Tissue Research, 1973-1982, Records of the Office of the Director, Records of the NIH, Record Group 443, NACP.
fields of law, medicine, and bioethics.\textsuperscript{12} It was estimated that the annual costs for the Board would be about $50,000, with an additional $40,000 for two years of staff support for the Board, and the Board was set to expire two years after the charter gained approval.\textsuperscript{13} In its justification for the Ethical Advisory Board, DHEW and the NIH listed issues that would likely be on the EAB’s agenda in 1977. Included on the list were: clinical trials and informed consent, drug testing in penal institutions where informed consent “become paramount,” informed consent in research involving pregnant women and fetuses, research on human reproduction including the possibilities of genetic engineering, and behavior modification research which might take place in mental institutions.\textsuperscript{14} While the EAB was created to discuss more than just the ethics of IVF, for many people, the Board became synonymous with IVF when the birth of the world’s first “test-tube” baby in July 1978 and the technology that enabled her birth stole the show.

As Louise Brown’s birth catapulted IVF into the global spotlight, Steptoe, Edwards, and the Brown family shared the stage with the Ethics Advisory Board, which was often mentioned in the American media for its ethical study of IVF. In many ways, Brown’s birth legitimized \textit{in vitro} fertilization research by proving that the procedure could produce life as well as experiment on it, but many people still wondered about the ethics of IVF research and recognized the need for the Ethics Advisory Board. The simultaneity of the creation of the Board and Lesley Brown’s pregnancy was purely coincidental. But this coincidence and the media attention focused on Brown’s birth made Americans aware of the work of the EAB as it explored the issues surrounding the technology that led to the miracle baby. While many Americans saw the need for an ethical discussion of IVF, a Harris Poll conducted by \textit{Parents} magazine in 1978

\textsuperscript{12} Ibid.
\textsuperscript{13} Ibid., 3.
\textsuperscript{14} Associate Director for Program Planning and Evaluation to J. Michael McGinnis, M.D., special assistant to the Secretary, “Possible Items for the Agenda of the Ethical Advisory Board,” 19 July 1977, pages 1-3, Box 80, Folder 2, Ethical Advisory Board, 1975-1977, Records of the Director, Records of the NIH, Record Group 443, NACP.
showed that “fully 95% of the 1500 women respondents agreed that test-tube conception should be made available to married couples who were unable to conceive naturally,” though only “28% of the respondents said they themselves have had difficulty conceiving.” So, while the vast majority of the respondents experienced no signs of infertility, they still approved of the procedure. Nonetheless, those same Parents readers would have been hard pressed at the time to find a newspaper or magazine article in 1978 that did not discuss the ambiguous ethics of IVF along with the “miraculous” birth of Louise Brown.

DHEW Secretary Joseph Califano recognized the implications of Louise Brown’s birth for the newly created Ethics Advisory Board and its mission. After the “miracle baby” was born, Califano sent a memorandum to EAB Chairman James Gaither stating that when he asked the Board to assess the ethics of IVF research and more specifically Soupart’s NIH approved funding application, “the practical application of the research seemed years away.” However, with the success achieved by the British physicians, the Board’s work became even more important. Steptoe and Edwards had proven that the IVF procedure could not only increase medical knowledge about the origins of human life, but also help enable infertile couples to have children. However, Califano maintained that the ethical questions surrounding IVF procedures remained unanswered. The Board’s work was necessary and important regardless of Edwards and Steptoe’s success because, according to Califano, “these procedures raise serious moral and ethical questions.” Some of the possible negative consequences of this new technology were, according to Califano, the transplantation of damaged embryos leading to abnormal children,

---

15 Harris, 94.
16 Joseph A. Califano, Jr. to James C. Gaither, Chairman, The Ethics Advisory Board of HEW, 15 September 1978, Box 80, File 4, “In Vitro Fertilization/Embryo Transfer Folder 1, Jan-April 1979,” Records of the Director, Records of the NIH, Record Group 443, NACP.
17 Ibid.
selective breeding, and the use of surrogate parents. Regardless of Brown’s birth, the DHEW Secretary, along with many others, was still unsure of this new, futuristic seeming technology about which science fiction writers like Aldous Huxley warned readers. Huxley’s dystopia, in which reproductive technologies were used by unscrupulous leaders, provided the American imagination with an example of IVF gone awry.

The Board’s main purpose was not just to explore the ethics of IVF research, but ultimately to determine whether or not the federal government should allocate finite resources to scientists for IVF research. Califano asked Gaither and the Board, “Does the perfection of these techniques create a potential for abuse so severe that the Federal government should not support or strictly limit its support of research?” It was up to the Board to study the moral, ethical, and legal issues surrounding IVF and use the knowledge gained to answer the funding question. In order to do so, the Secretary wanted to involve the American public as much as possible. Califano sought to bring out “the best thinking this nation has to offer to bear on these subjects,” in open debates that included the public. Because he recognized the contentiousness of the issue, the DHEW Secretary sought to make sure that the American people had the opportunity to have their voices heard, and he thought that “only through the widest possible public involvement and debate can we hope to reach a conclusion which can win the confidence and support of the American people on issues involving such basic ethical concerns.” Ultimately, however, while Califano wanted as much public feedback as possible, those who responded typically included experts whom Board members asked to provide written or verbal testimony for the public hearings or Americans involved in pro-life organizations that encouraged members to protest

---

18 Ibid.
19 Ibid.
20 Ibid., 2.
federal funding. Despite the opinion polls that showed that many Americans supported IVF, the majority of Americans who responded to the Secretary’s call for comments were opposed to federal funding for the technology because of its continued association with abortion.²¹

**Justifying IVF Research**

Unlike many of those who responded to the call for public input, Pierre Soupart, as well as Patrick Steptoe and Robert Edwards and other scientists interested in pursuing in vitro fertilization dismissed many of the ethical issues involved in IVF research. Much like the scientists conducting fetal research, Soupart justified his research agenda by focusing on its potential benefits. Soupart rejected “the label test-tube baby” as a misnomer because “there is nothing that looks like a baby in the test tube ever,” and he said that he was not creating life because “the life is already there in the sperm and the egg.”²² From the beginning, then, Soupart failed to see any ethical problems in his research because he did not believe that conception necessarily marked the beginning of life. Moreover, he planned to conduct research on tissues that bore no resemblance to an actual baby or even a fetus. Furthermore, Soupart, like many other scientists believed that because of the Ryan Commission decision that research was acceptable on non-viable fetuses; embryonic research should also be ethically acceptable.

Although Americans could not and would not come to a consensus on the morality of abortion or fetal research, the American government had decided that both were allowed in the United States. For researchers like Soupart, this implied that IVF would surely be deemed ethically acceptable. For Americans who had witnessed the Supreme Court legalize abortion and

---

²¹ Susan Abramowitz, “Competitive Funding of In Vitro Fertilization Research: To Be or Not To Be?” n.d., 3, Box 155, Folder 6, *In Vitro Fertilization/Fetal Tissue Research, 1973-1982*, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.

²² “Should Tiny Embryos be Created and Destroyed for Science?” T1.
the Ryan Commission decide that limited research on fetuses was acceptable, focusing on the ethics of embryonic research seemed to contradict this precedent. For others though, embryonic research provided an opportunity to set a new precedent and perhaps even scale back what had already been done. Perhaps ironically, it was the decisions made by the Supreme Court and the Ryan Commission that placed abortion, fetal research, and ultimately IVF in the spotlight and resulted in the creation of the Ethics Advisory Board. Soupart’s IVF research agenda, which included fertilizing and then discarding human eggs, was particularly controversial because of the intentional creation and destruction of what many considered to be human life. Soupart, like other IVF researchers, justified the research by pointing out that “mother nature is doing it herself all the time without asking permission of anyone.”  

23 By this, he meant that oftentimes, in natural reproduction, “one out of two human conceptions is defective,” and “are aborted simultaneously and never noticed.”  

24 Soupart justified his research by focusing on the information on abnormal chromosomes he could glean from embryonic research, and continued to insist that life did not begin with fertilization. For Soupart, the early embryo in no way resembled a human life form. Anti-abortionists found these justifications hollow. For many Americans, human life was at stake if the government allowed “embryonic human beings to be created and destroyed for science.”  

25

British IVF pioneer Patrick Steptoe echoed Soupart’s thoughts on IVF research during one of the first public meetings held by the EAB. Although Steptoe was not present at the meeting held at Bethesda, Maryland on September 15 and 16, 1978, he shared his views on the ethics of IVF through written testimony. Claiming that infertile Americans’ desire to have a

---

23 Ibid.  
24 Ibid.  
25 Ibid.
child should be the “overriding ethical issue” surrounding IVF, Steptoe argued that the government should focus on using new technology to help the infertile. To him, the fact that infertility could be alleviated was more important than the possible future misuse of IVF technology or even the moral status of the embryo. However, Steptoe did urge reproductive specialists to accept a “code of conduct” and refuse to use IVF for surrogate arrangements. 26 Regardless, Steptoe noted that the moratorium on federal funding, and even the Ethics Advisory Board, was holding up the advancement of medical technology in the United States. Otherwise, the IVF procedure could help infertile couples “within a year.” 27 For Steptoe, it was a far more egregious ethical violation to postpone the treatment of infertility when assistance was available than to fertilize eggs in laboratories. Steptoe, along with many other doctors and scientists, did not believe that the ethical issues surrounding IVF needed to be considered by a government body. 28 According to him, the Department of Health, Education, and Welfare was making a grave “mistake” by entangling IVF research in a web of regulations. 29

Patrick Steptoe was willing to give his opinion, but he was less eager to assist the EAB by providing members with an in-depth account of the IVF procedure he and Robert Edwards used to achieve a successful IVF pregnant. After the birth of Louise Brown, the Ethics Advisory Board asked Edwards and Steptoe for more information about the procedure, but as late as September of 1978, the researchers refused to cooperate. So, while Steptoe questioned the necessity of the Board in general, he also refused to help it make its decision by illuminating the process that resulted in the birth of baby Louise. He did, however, take the opportunity to urge

28 Ibid.
29 Ibid.
that the Board allow IVF research in the United States, but only for doctors who “demonstrated expertise.” 30 And while the British team remained tight-lipped about the technicalities of its procedure, it allowed the EAB to sponsor a site visit to Great Britain so members could learn more about IVF by seeing the procedure in person. 31

**International Competition**

Some members of the Board agreed with Steptoe’s position that the government’s policies on IVF were slowing the progress of science and technology in the United States. The desire for the nation to remain competitive in global science was one reason EAB members and contributors suggested that the federal government should fund IVF research. For example, Dr. Clifford Grobstein, a biologist from the University of California at San Diego expressed an eagerness to commence with IVF research in the United States. He suggested that *in vitro* fertilization was not just an American issue, but a world-wide issue when he stated that “We cannot maintain a head-in-the-sand policy.” 32 Other countries throughout the world would support *in vitro* fertilization research regardless of the ethical or moral issues involved, while the United States remained in limbo. Board members Dr. Donald Henderson and Dr. Mitchell Spellman agreed with Grobstein “that the United States ‘cannot live in isolation.’” 33 Bioethicist Leon Kass, who wrote a paper on IVF at the request of Board members, agreed that one of the benefits to federal funding for IVF research was to ensure American scientists remained competitive in the global theatre. However, he did not think government refusal to fund research

---

31 Charles McCarthy to B/I/D Directors, 29 January 1979, Box 80, File 4, “*In Vitro* Fertilization/Embryo Transfer Folder 1, Jan-April 1979,” Records of the Director, Records of the NIH, Record Group 443, NACP.
33 Ibid.
for reproductive technologies would put American scientific preeminence in danger. Many contributors who favored funding for IVF research focused on the idea that other countries were undoubtedly going to support *in vitro* fertilization even if the United States did not. To ensure that American scientists, technology, and medicine remained competitive, the federal government should choose to fund IVF. Inaction in the United States would lead to a monopoly over the treatment’s development in other countries.

**Missed Opportunities**

Support for IVF research centered on fears of missed opportunities for American scientists and citizens struggling with infertility. The EAB’s Dr. Joseph Schulman, who acted as the Chief of the Human Biochemical and Developmental Genetics section, noted that each year that the moratorium continued for IVF research, more couples facing permanent infertility watched their window of opportunity close. The fact that one out of every ten American couples struggled with infertility was a powerful incentive for EAB members to consider IVF ethically acceptable and view federal funding for IVF in a positive light. Bioethicist John C. Fletcher provided a utilitarian view of IVF when he also made the case for lifting the moratorium on research. The potential benefits of IVF, Fletcher argued, outweighed its possible harm. He believed that such research should be pursued in the United States for the following reasons:

One: There is an obligation to relieve suffering when the means to do so are available.
Two: There is an obligation to increase the number of wanted children.
Three: There is an obligation to increase the number of adults who want to be responsible parents.

---

34 Kass, “‘Making Babies’ Revisited.” 53.
From Fletcher’s perspective, it would be wrong for the federal government to withhold medical technology that could ease the pain of infertility. Any child born of IVF would be wanted, Fletcher argued, and the parents would be responsible and loving after investing so much effort in producing their child.\(^{36}\)

Others recognized the desperation and vulnerability of infertile Americans. IVF proponent R.V. Short argued that “Since the infertile couple will go to any lengths to achieve a pregnancy, no matter how low the success rate and how high the risks, it is probably the duty of the State to protect them from their excessive enthusiasm and from unscrupulous commercial exploitation.”\(^{37}\) Concerned about the risks associated with clinical IVF and the reality of low success rates, Short thought the federal government had a duty to help infertile Americans by funding research on IVF to ensure ethical practices and better success rates. As the moratorium on IVF research continued, infertile couples in the United States were missing out on opportunities to have genetic children of their own, and the likelihood that IVF would develop in the private sector devoid of any regulations appeared inexorable.

Others were more skeptical about the medical importance of infertility and IVF as its cure. Some contributors contended that infertility was often not a disease, but rather it was often a symptom of other diseases. As such, instead of providing funding for expensive reproductive technologies like IVF, the federal government could make better use of its money by focusing on preventative measures. Leon Kass argued that infertility from blocked Fallopian tubes often but not always resulted from venereal disease and emphasized the value of preventative measures.


\(^{37}\) R.V. Short, “Human \textit{In Vitro} Fertilization and Embryo Transfer,” 11. Box 80, File 4, \textit{“In Vitro Fertilization/Embryo Transfer Folder 1, Jan-April 1979,”} Records of the Director, Records of the NIH, Record Group 443, NACP.
Kass stated, “Leaving aside any question about whether it makes sense for a Federally-funded baby to be the wage of aphrodisiac indiscretion, one can only look with wonder at a society that will have ‘petri-dish babies’ before it has found a vaccine against gonorrhea.” As Americans and the EAB were debating the ethics of IVF, Kass wondered why the government did not invest more in drugs or vaccines to ward off sexually transmitted diseases that would lead to infertility.

**Research Opportunities**

Alleviating infertility was not the only reason IVF proponents thought the EAB should recommend that DHEW lift the moratorium on federal funding. Others emphasized the amazing possibilities for IVF research. While much of the focus remained on IVF as a cure for infertility, some contributors pointed out that such research could be valuable on multiple levels. Those most likely to look at IVF in such a light were, unsurprisingly, doctors and researchers, one of whom was Dr. R.V. Short. He noted that IVF research could prove invaluable in the development of male contraceptives, especially as proof of their efficacy. According to his thinking, IVF was not analogous to abortion, but rather, it could prevent unwanted pregnancies that led to abortion. For Short, “It would seem unethical to put the matter [male contraceptives] to the test by encouraging the man to have unprotected intercourse with his wife, who would then have to have recourse to abortion to make up for any failures of the male contraceptive.”

For Short, the only ethical way to prove to men that male contraceptives worked without risking unwanted pregnancies was by trying to fertilize an egg outside the body via IVF.

Short argued that IVF research could also help scientists gain an understanding of man’s evolutionary origins. Arguing that “spermatozoa morphology has proved to be an excellent taxonomic guide,” he thought researchers could carry out IVF experiments to see whether or not

---

38 Kass, “‘Making Babies’ Revisited,” 55.
sperm from “great apes” could fertilize a human egg. While Short saw the scientific possibilities in such research, he also recognized that such research was “abhorrent to many” because some “mad scientist” might try to create a hybrid or inseminate a female ape with human sperm. What some scientists saw as a great opportunity, Short realized, elicited concern for many Americans who continued to be wary of the possibilities of science gone awry.

Finally, Short argued that more research needed to be done to study the normality of human embryos created through IVF. Proponents of IVF, however, argued that “such an investigation would be irrelevant, since any embryo with gross chromosomal abnormalities would be aborted in the normal way” through miscarriage early on in the pregnancy. According to contributor James Schlesselman, Ph.D., in normal reproduction, around forty to fifty percent of implanted blastocysts have chromosomal abnormalities, 99% of “which are estimated to be eliminated during the course of pregnancy.” Short believed that IVF could lead to a higher rate of chromosomal abnormalities because sperm selection which usually occurs “as the spermatozoa ascend the female reproductive tract in life,” does not happen with “ejaculated spermatozoa used to fertilize the egg in vitro.” More studies were needed for IVF, and Soupart’s research, at least according to Short, would be welcome and necessary. According to Short, federal funding for IVF research, then, was relevant and ethical. Short made the case for Soupart’s research, but also argued that other areas of IVF research would only increase knowledge about human life. Bioethicist and theologian Paul Ramsey argued against Short’s enthusiasm for IVF research when he stated “that we cannot get to know whether the risks of

40 Ibid., 6.
41 Ibid., 7.
42 Ibid., 8.
IVF are greater than natural reproduction without knowingly doing immoral experiments to find out.”  

For Ramsey, regardless of the possible benefits of IVF research, ethical questions remained paramount.

Like many others, Short thought that clinical IVF practices would be offered in the United States with or without federal assistance, but he thought that federal funding for IVF research would benefit IVF patients as much as researchers. However, he recognized that, “numerous studies point to the fact that the maximum probability of becoming pregnant in a menstrual cycle during which frequent intercourse takes place is only about 25%,” and he did not believe that “in vitro fertilization and embryo transfer [would] improve this figure.” Aware of the relative inefficiency of natural reproduction in the best circumstances, Short did not make great projections for the clinical success of IVF. Even in natural, unassisted reproduction, the odds that a couple would achieve pregnancy were quite low. Thus, Short reasoned that in order to ensure clinical success, basic and clinical research needed “encouragement” from the federal government. Short saw value in IVF for the research opportunities it afforded scientists and as a reproductive tool for infertile Americans.

Government Funding

Others, however, argued that the moratorium on federal funding did not prohibit IVF research. American scientists could conduct IVF research with private funding. Oftentimes, opponents of funding for IVF research recognized the contentiousness of federal funding for IVF in a country where there was no moral consensus, as indicated by the “ongoing debates

45 Paul Ramsey To Leon Kass, 7 December 1978, 3, Box 13, “Leon Kass folder,” Correspondence Series, DRLA.
47 Ibid., 11.
concerning the ethics of abortion and fetal research.” 48 One EAB contributor who held such views was Princeton theologian and bioethicist Paul Ramsey. While he thought the IVF research should be allowed in the private sector, he stated that he did “not see that enabling a marriage to be able to produce a child ought to be raised to the level of national interest.” 49 The federal government should not attempt to prohibit IVF research, thought Ramsey, but it should not provide funding, either. Leon Kass and Jesuit theologian Richard McCormick of the Kennedy Institute of Ethics, agreed with Ramsey on both accounts. 50 Recognizing that the issue before the Board was federal funding and not the prohibition of IVF research, Kass argued that any attempt to prohibit IVF research would “be both ineffective and dangerous,” setting a dangerous precedent of government intrusion into science. However, all three bioethicists thought that federal funding for IVF was unnecessary. 51

Because a decision against funding IVF research would not cause its prohibition, a number of bioethicists argued that the federal government had no place funding IVF research when it had such finite resources. Ramsey did not believe that IVF research should be funded by the federal government because he thought that it had more important things to do with its money. Bioethicist LeRoy Walters agreed with Ramsey, when he listed what he thought were the three main ethical issues involving IVF and embryo transfer: the moral status of the embryo, the risks and hazards to potential children born through IVF, and the “allocation of scarce

48 Quote from LeRoy Walters, “Ethical Issues in Genetic and Reproductive Engineering,” n.d., 1, Box 155, Folder 6, “In Vitro Fertilization/Fetal Tissue Research, 1973-1982,” Records of the Director, Records of the NIH, Record Group 443, NACP. Walters was affiliated with the Center for Bioethics at the Kennedy Institute of Ethics at Georgetown University. This paper was presented at a meeting in Washington on January 4, 1982.
49 Ramsey to Sissela Bok, 1 September 1978, Box 3, “Sissela Bok” folder, Correspondence Series, DRLA.
50 Richard McCormic, “Therapy or Tampering? The Ethics of Reproductive Technology,” n.d., 6, Richard McCormick Papers, Box 23, Folder 30, LUCA.
healthcare resources.\textsuperscript{52} Walters argued that the “resource-allocation question” was probably the most difficult question surrounding IVF research.\textsuperscript{53} Within the private sector, Walters believed, this problem could be resolved through the health care system: “infertile couples who can afford to travel to the few centers offering \textit{in vitro} fertilization and embryo transfer and who are able to pay the rather sizeable fees will receive treatment; other infertile couples will not.” Anticipating that the technology would become more widespread and successful, he reasoned that IVF would become less expensive and there would be a push for health insurance to include the procedure. Eventually, Walters thought, less affluent Americans would have the opportunity to undergo IVF.\textsuperscript{54} He wondered, however, whether or not the inclusion of IVF on health insurance plans, Medicaid, and Medicare would be morally justified, but he believed that based upon the “important decisions about bearing or begetting children in the plans of most people, a strong equity argument can be mounted for making” \textit{in vitro} fertilization widely available through the health care system.\textsuperscript{55} IVF, according to many bioethicists, would become clinically available for infertile couples in the United States regardless of federal funding. Without federal funding, there would be no prohibition on IVF research, but clinical IVF would take place in the private sector.

Others, however, remained skeptical of private sector control of IVF and like Short, expressed concern about the potential mistreatment of IVF patients at the hands of unscrupulous practitioners. To Leon Kass, using the potential exploitation of IVF patients as an argument for federal funding seemed preposterous. Although others made the argument that without government funding, IVF research would be left “in the hands of profit-hungry, adventurous,

\textsuperscript{52} Walters, “Ethical Issues in Genetic and Reproductive Engineering,” 1.
\textsuperscript{53} Ibid., 4
\textsuperscript{54} Ibid., 4-5.
\textsuperscript{55} Ibid., 5.
insensitive, reckless, or power-hungry private physicians, scientists, or drug companies,” Kass failed to share the same concerns. For those who feared unethical physicians, the justification for federal funding was federal control and regulation of IVF research and clinical practice. Kass thought that even if the government sponsored IVF research, it would not have the power to regulate the clinical practice of IVF in the private sector. Kass had faith that once the clinical practice began spreading, IVF practitioners would self-regulate and there would be “enough concerned practitioners of these new arts who would have a compelling interest in regulating their own practice, if only to escape the wrath and interference of hostile citizen groups in response to unsavory goings-on.” Bioethicists Kass, Ramsey, McCormick, and Walters all recognized the difference between funding and prohibition. Even if the EAB recommended continuing the moratorium, they realized, researchers and doctors could still use private funding to conduct IVF research. This knowledge, along with the fact that a large segment of the American population found IVF research to be morally reprehensible, led these bioethicists to believe that federal funding was inappropriate.

**Slippery Slope**

Yet another reason why McCormick believed the federal government should not support IVF research was because too often, Americans “intervene[d] only to discover later the frightful price of their intervention.” McCormick claimed that short-sighted, “myopic reactions which focus on immediate results” were dangerous to society. Looking to technological innovations of the past, he suggested that “history should teach us that technology can represent mixed blessings.” Just because a technology could bring happiness to certain individuals, McCormick

---

56 Kass, “‘Making Babies’ Revisited,” 53.
57 Ibid., 53-54.
58 “The Ethics of In Vitro Fertilization,” n.d., 14, Richard McCormick Papers, Box 48, Folder 4, LUCA.
saw the value of exploring its possible applications rather than blindly accepting it as a positive good. Even though he and other bioethicists recognized the pain of infertility, they could not be sure that federal approval and funding of IVF would not lead to dangerous applications of the technology.

Many bioethicists thought that federal funding of IVF research would lead Americans down the slippery slope of science. Kass was one EAB contributor who expressed concern about the future of IVF research when he suggested that “a wise society would say to infertile couples: ‘We understand your sorrow, but it might be better not to go ahead and do this.’” For Kass, infertile couples’ desires to have a child of their own was not enough to let the genie—or baby—out of the bottle. Paul Ramsey sent a letter to the New York Times that reiterated Kass’s fears when he wrote that IVF “technology is ‘one long step for mankind’ (to quote words from the moon) toward [Aldous] Huxley’s Hatcheries.” He had visions of “host ‘mothers’ with wombs-for-hire,” and argued that others shared his bleak outlook for the future of IVF. Kass believed that “science [did] not operate within the ethics of a wider human community.” As a bioethicist who was aware of the ethical missteps that some scientists had made, Ramsey believed that many scientists operated under a different code of ethics than mainstream Americans. Many scientists justified their research despite questionable ethical practices by arguing that the benefits outweighed the harm. They could argue that their work was for the greater good of the larger population, even if human research subjects were negatively affected.

Once the federal government conceded that the creation of human embryos in laboratories was
ethically acceptable and decided to fund such ventures, who knew what scientists and doctors would unleash. Would scientists go forward with cloning? Genetic engineering to create designer babies? Egg, sperm, or even embryo donation? Surrogacy? The possibilities for ethically questionable outlets of IVF research seemed almost limitless.

The People’s Business Commission was an interest group that also voiced its concern about the slippery slope of IVF research at the public hearing in Bethesda, Maryland. This particular group, which encouraged the EAB to continue the moratorium on IVF, “announced a U.S.-wide campaign to voice ‘a loud and clear ‘No’ to the scientific community’s desire to take one more step toward a Brave New Future.’” Ted Howard, the co-chairperson of the organization, represented the group at the Bethesda hearing and “compared IVF technology with the technology of nuclear physics in the 1940s.” Although the atomic bomb resulted in the end of World War II, it also unleashed a nuclear arms race and the threat of “mutual assured destruction.” The top secret Manhattan Project was led by scientists, who, some Americans later argued, built the atomic bomb without fully assessing the consequences of nuclear power. Skeptical of science and technology, Howard asked, “Must the American way always be to forge ahead for the sake of science, unmindful of the possible social and ethical consequences?” Howard expressed concern not only over in vitro fertilization, but over science itself, and the impact it has on American society. In the 1970s, this skepticism of science and scientific achievements was not uncommon as the media exposed scientists for engaging in questionable ethical practices in their experiments.

When Life Begins

Ultimately, for many who contributed their opinions on IVF, any discussion of the ethics of IVF had to include the question of when life begins. One of the controversial issues surrounding IVF stemmed from the fact that fertilization occurred outside the human body, and for many people, fertilization marked the beginning of life. If conception marked the beginning of life, research on blastocysts or embryos in a laboratory was research on human life. For R.V. Short, a scientific discussion of when life begins had to be undertaken to get at the heart of the controversy.67 Recognizing that fertilization was “normally an important event in the development of a new individual,” Short argued that “fertilization is not an essential stop in the process,” and failed to see conception or fertilization as the beginning of human life.68 According to him, the origins of life from the point of conception “cannot be supported on scientific grounds.” Instead, he preferred to view life “as a continuum of gradually increasing probability of reaching adulthood,” and refused to nail down an exact point in this process when life actually begins.69 As a proponent of federal funding for IVF research, Short made the case that fertilization did not represent the most important signifier as the beginning of human life.

McCormick, however, maintained that Short was wrong in his assessment that conception could not be scientifically substantiated as the beginning of human life. McCormick, later serving as a member on the Ethics Committee for the American Fertility Society, was one of many of the theologians and bioethicists who went before the Board and voiced his opinion that life begins at the moment of conception. And, he contended that there was not really even a

---

67 Short, “Human In Vitro Fertilization and Embryo Transfer,” 1.
68 Ibid.
69 Ibid.
“question,” of when life begins, because “if you put 100 biologists together in the same room, they would all tell you the same thing: human life begins at fertilization.”

If McCormick was indeed correct, and most scientists agreed that life does begin with conception, it bolstered the argument of anti-abortionists who claimed that the creation and destruction of embryos in the laboratory for research purposes was no better than abortion. For many Americans, human life was precious at even the earliest stage of development, making IVF research ethically suspect.

Kass expanded on McCormick’s position that life begins at conception by providing biological evidence that the “zygote and early embryonic stages are clearly alive.” Of course early embryos were alive, argued Kass, because they “metabolize, respire, and respond to the changes in the environment; they grow and divide.” These functions are some of the most important markers of life—some of which were useful criteria for physicians and bioethicists who had to make life and death decisions. Further, Kass argued that the blastocyst was a “self-developing” “organic whole,” that was “genetically unique and distinct from the egg and sperm whose union marked the beginning of its career as a discrete, unfolding being.”

Kass turned to IVF pioneer Robert Edwards to support his stance. In the aftermath of Louise Brown’s birth, the British physician stated, “the last time I saw her, she was just eight cells in a test-tube. She was beautiful then, and she’s still beautiful now!” The fact that Edwards referred to a blastocyst that did not remotely resemble a human being as “her” was enough evidence for Kass that scientists like Edwards recognized that they were experimenting with the very beginnings of human life. Kass did not necessarily believe that the blastocyst was “endowed with a so-called right to life, [or] that failure to implant it is negligent homicide,” but he believed that because the

---

70 Richard McCormick, “The Ethical and Religious Challenges of Reproductive Technology,” n.d., 6, Richard McCormick Papers, Box 22, Folder 6, LUCA.
71 Kass, “‘Making Babies’ Revisited,” 36.
72 Ibid., 37.
early embryo was “at least potential humanity,” it deserved “feelings of awe and respect.”

“Feelings of awe and respect,” for many did not include experimentation or the wanton disposal of “extra” blastocysts or embryos.

Unlike many of his colleagues, Paul Ramsey was one theologian and bioethicist who did not necessarily believe that life began with conception. Rather, he thought that “life begins no earlier than the time when the cluster of cells with its unique genotype may segment into identical twins to whom we give proper names,” about 14-16 days after conception. Because of the possibility that a blastocyst or early embryo could still separate and become twins, Ramsey believed that life did not begin with conception. Ramsey did not stand alone in his field, though. McCormick pointed out that some bioethicists even argued “that there is a genuine doubt about whether we are dealing with a human person at this stage of development,” including Joseph Fletcher who thought that “the product of in vitro fertilization is but human tissue.” And as such, it was acceptable for scientists to conduct experiments on blastocysts and embryos just like any other “human tissue.”

While some contributors called for a cautious approach to IVF because of the moral status of the embryo, others failed to see the same moral quandaries. For example, Board member Clifford Grobstein regarded the embryo as live cells, viewing them not as “human ‘beings’ but ‘human materials.’” Embryos “should be handled with respect,” Grobstein argued, but they “need not be protected or preserved like human beings.” He wondered why Americans should not use these “human materials” to the benefit of the human race, as long as

73 Ibid., 38.
74 Ramsey to Editor, Time Magazine, 30 March 1971, Box 28, “Time” folder, DRLA.
they were not allowed to “live in the laboratory long enough to become feeling creatures.” Grobstein thought that it was ethically acceptable for researchers to create human embryos for research for up to four to six weeks.\textsuperscript{77} Howard University Medical Genetics chief Dr. Robert Murray tended to agree with Grobstein, but thought that there should be a shorter window of research time. According to Murray, research on the human embryo should be permissible until it reached fourteen days old when it would implant in the uterine wall.\textsuperscript{78} Both believed that IVF research was ethically acceptable because researchers were working with “human materials” instead of humans, but disagreed on the acceptable length of time for researchers to keep human embryos after fertilization.

At the EAB hearings and in the group’s discussion, the question of when life begins proved difficult to answer. While some, including Short, argued that it was impossible to scientifically prove when life begins, others were convinced that life begins at the moment of conception. Without answering this question, though, the EAB could not state for sure exactly what IVF practitioners and researchers were dealing with. Were embryos human life or human tissue? If indeed, blastocysts and embryos were living, self-contained, growing, individuals, how much respect were they entitled to? If blastocysts and embryos were mere human tissue, IVF research and clinical practice was as ethically and morally acceptable as conducting research on tissues collected from any other part of the human body. LeRoy Walters predicted that the moral status of the embryo was an issue in which there could be no national consensus, and that it would end up like the “ongoing debates concerning the ethics of abortion and fetal research.”\textsuperscript{79}

\textsuperscript{77} Ibid.
\textsuperscript{78} Ibid.
\textsuperscript{79} Walters, “Ethical Issues in Genetic and Reproductive Engineering,” 1.
On such moral issues, Walters failed to see how consensus could be achieved in any country.

**Fetal Research**

As the EAB deliberated, many commentators were reminded of the discussion regarding fetal research several years earlier. Bioethicist Leon Kass was one contributor who sought guidance from the Ryan Commission’s report. Noting that the abortion controversy continued to be a divisive issue in the United States, he realized that “the circumstances of laboratory-grown blastocysts and embryos are not identical with those of the analogous cases of 1) living fetuses facing abortion and 2) living aborted fetuses used in research.”80 For Kass, the most relevant difference was that doctors purposefully created IVF blastocysts and embryos, while fetuses facing abortion were often unwanted. For Kass, who was not a proponent of IVF research, “the most sensible policy [was] to treat the early embryo as a pre-viable fetus, with constraints imposed on the early embryo research at least as great as those on fetal research.”81 HEW standards for fetal research permitted studies on pre-viable aborted fetuses, but Kass argued that restraints on IVF should be at least as great. Although “no one would sanction the deliberate production of live fetuses to be aborted for the sake of research,” the EAB was “considering the deliberate production of embryos for the express purpose of experimentation.”82 Paul Ramsey, however, found Kass naïve for believing that “no one would sanction the deliberate production of live fetuses to be aborted for the sake of research.”83 Ramsey thought that without restraints on fetal research, some scientists would have no qualms producing fetuses for research purposes. However, many scientists, Kass thought, would “feel more restraint” when it came to experimenting on a “five-month-old or even a 12-week-old living fetus” than a blastocyst that

---

80 Kass, “‘Making Babies’ Revisited,” 35.  
81 Ibid., 39.  
82 Ibid., 36.  
83 Ramsey to Kass, 7 December 1978, 2.
did not remotely resemble a human figure and lacked the sense of feeling.\textsuperscript{84} Regardless, for Kass the purposeful creation of life for research purposes was a moral and ethical violation.

For some, the idea that embryonic research should face more constraints than fetal research seemed excessive. Because the federal government condoned fetal research up to the point of viability, IVF proponents argued that American scientists should gain funding to conduct research on clearly pre-viable human embryos. The sheer fact that the Ryan Commission found fetal research ethically acceptable implied that embryonic research was ethically acceptable as well. Some contributors maintained that because fetal research was deemed acceptable, there was no need for the EAB even to discuss IVF. By deciding in favor of limited fetal research, the Ryan Commission implied that embryonic research was acceptable.

Other contributors resurrected the fetal research debate in an effort to convince the EAB not to fund \textit{in vitro} fertilization research. For example, Richard McCormick brought up the issue of consent, which was increasingly important in medical ethics in the 1970s as Americans became aware of violations of reproductive rights. Opponents of fetal research noted that the fetus could not give its consent, and the only people who could give consent did not appear to have the fetus’ best interests in mind. With IVF, consent once again could only be gained by prospective parents who expected to benefit from the procedure, perhaps with the chance of “the risks being borne by the child and without its consent or possibility of consent.”\textsuperscript{85} The Nuremberg Codes for ethical research dictated that scientists must obtain informed consent from any patients or human subjects. There was no way to gain consent from an embryo.

\textsuperscript{84} Kass, “‘Making Babies’ Revisited,” 39.
Abortion

The connection to the contentious abortion issue made the question of when life begins pertinent to the discussion of federal funding for IVF research. For those who believed that life begins with conception, what was at stake if the government lifted the moratorium on IVF research was human. The creation and destruction of human life in a laboratory was no better than abortion—in fact, to some, it was worse. For some who testified before the Board, even the clinical application of IVF, intended to enable infertile Americans to have their own genetic offspring, could be unethical and result in the loss of human life.

LeRoy Walters recognized the importance of IVF practitioners’ procedures when exploring the ethics of IVF. For example, Steptoe and Edwards utilized the patient’s natural cycles and extracted one egg through natural ovulation, but Australian practitioner Carl Wood used hormones to stimulate superovulation which resulted in multiple eggs and a higher chance of fertilization.86 The intentional creation of multiple eggs to ensure a greater pregnancy success rate posed a problem for those who believed that life begins with conception. To ensure the mother’s safety, practitioners who practiced IVF using stimulated cycles did not always implant all of the embryos. Many times, following the creation of multiple eggs, the Australian team sometimes had “leftover” or “extra” eggs that were “discarded.” For those who believed that life begins with conception, the failure to implant all embryos following in vitro fertilization was a moral outrage.

86 Walters, “Ethical Issues in Genetic and Reproductive Engineering,” 2.
Paul Ramsey expressed concern about IVF practitioners discarding extra embryos following the procedure, and directly connected this practice to abortion. EAB member Sissela Bok wondered whether his objections to IVF “would vanish” if the procedure involved fertilizing only one egg at a time. For Ramsey, who believed that individuation marked the beginning of life, fertilizing and transferring one egg could be an acceptable solution to the abortion problem. But, the creation and transfer of one embryo was not the practice across the board, and not what Soupart set out to do in his research. Kass, too, believed that if one could guarantee IVF success with one fertilized egg, making superovulation unnecessary and resulting in no “extra” embryos to be used for research purposes, there was “nothing disrespectful going on.” IVF proponents argued that even when practitioners used superovulation, there was “nothing disrespectful going on,” and the abortion question was irrelevant. There was so much embryonic loss in natural reproduction, they argued, that extra unimplanted embryos to help ensure pregnancy in infertile couples was similar to what happened in nature. Kass responded by stating that “the natural occurrence of embryo and fetal loss and wastage does not necessarily or automatically justify all deliberate, humanly caused destruction of fetal life.” For Kass, the big difference was that Mother Nature did not intentionally create “extra” embryos knowing that they might be destroyed.

But even as a couple of bioethicists found “solutions” to the most contentious issue surrounding IVF, they recognized that others in a pluralistic society might not agree. Ramsey responded that the “abortion question” was crucial for policymakers to consider when making

---

87 Ramsey to Bok, 1 September 1978
88 Bok to Ramsey, 25 August 1978, 1-2, Box 3, “Sissela Bok” folder, Correspondence Series, DRLA.
89 Ramsey to Bok, 1 September 1978, 1-2.
90 Kass, “‘Making Babies’ Revisited,” 40.
91 Ibid., 41.
public policy decisions in a country that could not come to consensus. Kass argued that when looking at how to spend American tax dollars EAB members could not “ignore the deeply held convictions of a sizable portion of the population…that regards the human embryo as protectable humanity.” This population, Kass pointed out, had “been very much alienated by the numerous court decisions and legislative enactments regarding abortion and research on fetuses.” He argued that “we can ill afford to alienate them further, and it would be unstatesmanlike, to say the least to do so, especially in a matter so little important to the national health.” Arguing that “No amount of relieved infertility is worth the further disaffection,” Kass stated that he thought that a “prudent and wise” Ethics Advisory Board and DHEW Secretary should “refuse to lift the moratorium.” Kass made a clear recommendation against federal funding for IVF because of its continued connection to the contentious issue of abortion in the United States.

IVF, a tool to help relieve infertility, had inextricably been connected to abortion even before the reproductive technology became a clinical possibility. Because IVF created human life outside the body in a laboratory, it afforded scientists the opportunity to research on human life at its earliest stages, but as abortion became legalized in the United States, one of the unintended consequences was a highly organized movement to scale back abortion rights and anything that could be construed as disrespectful to nascent life. Despite potential solutions to the “abortion question,” some of the bioethicists and theologians responded to Califano’s call for comments still believed that the best recommendation that the EAB could make was to continue the moratorium on federal funding for IVF research. There were too many Americans, they argued, who felt alienated by the Roe v. Wade decision. This constituency would be outraged at

92 Ramsey to Bok, 1 September 1978, 1-2.
93 Kass, “‘Making Babies’ Revisited,” 58.
94 Ibid.
95 Ibid.
the idea of their tax money funding research that intended to create human life in a laboratory, only to result in disposal or destruction.

**Ethics Advisory Board Report**

Shortly after the public meeting in Bethesda, Maryland, members of the press suggested that the Ethics Advisory Board was moving “toward allowing American scientists to create human embryos for laboratory study.” Reportedly, Board member Dr. Eugene Zweiback stated that he was ready to condone IVF research immediately, but others were not quite so eager to move ahead. While he thought that “withholding therapy is equally as wrong as permitting bad therapy,” he “predicted that the advisory board as a whole [would] ‘slowly’ and ‘painfully’ conclude that only the laboratory research should be permitted at the start.” While at the September meeting in Bethesda, it may have seemed that the board was moving toward approving *in vitro* fertilization research, the truth was that the Ethics Advisory Board was experiencing a stalemate. Some members suggested that withholding this technology left the United States lagging behind other countries, and others argued that as the Board continued to deliberate, more and more infertile Americans were missing out on their window of opportunity. But, while these arguments were valid, they were not yet enough to sway members of the Board who found IVF research unethical because it required the purposive creation and possible destruction of human life via the embryo. To many Americans, the creation of human life in a laboratory was disrespectful to the sanctity of life, and the destruction of embryos was an outrageous moral offense.

---

97 Ibid.
98 Ibid.
At the Ethics Advisory Board’s ninth meeting in March 1979, it finalized its report for HEW Secretary Joseph Califano. The final report was very much a compromise between those who advocated for immediate IVF research and those who believed that the United States should move ahead cautiously. First and foremost, the Board had to make its most controversial decision: what was the moral status of the human embryo? In its “Review of Public Attitudes,” the Board noted that “the most frequently articulated argument against federal funding of IVF was based on the moral status of the fertilized egg and embryo.” Opponents of IVF research believed that human life should be respected from the moment of fertilization. They argued that “deliberately to create human life merely for experimental purposes…is immoral.”99 While Board members found the moral status of the embryo difficult to determine, and they ultimately decided that “the human embryo is entitled to profound respect; but this respect does not necessarily encompass the full legal and moral rights attributed to persons.”100 So, much like the Ryan Commission’s determination that the human fetus was not a human being in the fullest sense, the Ethics Advisory Board agreed that although the human embryo was more than mere tissue, it should not have the status of personhood. After determining the status of the human embryo, the Board could move on to making a decision about federal funding.

The Board ultimately decided that federal funding for IVF research was indeed “ethically acceptable” although “legitimately controverted.” However, the Board suggested that DHEW should provide funding for animal experimentation before lifting the moratorium on human in vitro fertilization research.101 More animal research might appease those who cautioned against

100 Ibid., 101.
unbridled scientific research on human embryos. Once HEW started funding human IVF research, Board members recommended that researchers should be prohibited from keeping embryos in the laboratory beyond the implantation stage (14 days after fertilization). The Board also specified that exogenesis, or extracorporeal gestation reminiscent of the Hatcheries prominent in Huxley’s *Brave New World*, should not be attempted in the lab. Finally, to quell other concerns about immorality related to the new reproductive technology, the Board also suggested that all IVF patients participating in the clinical application of the procedure should be married. So, while the Board suggested further animal research before moving forward with *in vitro* fertilization, it also clearly stated that IVF research with limitations was acceptable as well.

Ultimately, the Board favored lifting the moratorium on government funding for IVF research, although with a few reservations. Its report concluded that the technique was ethically acceptable, that it would yield important scientific research, and that the Department of Health, Education, and Welfare should consider supporting and funding such endeavors. Nonetheless, referring to the precedent set by *Griswold v. Connecticut*, the Board also warned against “unwarranted governmental intrusion into personal and marital policy.” This Supreme Court decision granted married couples the power to make their own reproductive decisions. Thus, the EAB determined that the role of government in IVF should not be prohibitory. Rather, the government should encourage Americans to become educated about reproductive technologies citizens so that they might make informed decisions on their own. After June 1979, the EAB

---

103 Grobstein, Flower, and Mendeloff.
concluded its consideration of the ethical issues surrounding IVF and members began to turn their attention toward other issues, including the “operation of the Freedom of Information Act in various HEW agencies.”

Not surprisingly, not everyone who read the report was pleased. One displeased individual was bioethicist and professor Paul Ramsey, who questioned the EAB’s recommendation when he argued that the EAB “used strange language” when it stated that federal funding for IVF research was “ethically acceptable but still legitimately controverted.”

His stance was that the Board provided the Secretary with “no guidance,” and effectively left “the question of funding to the Secretary,” by failing to address “the important question of public policy in this country entailed by possible Federal funding of Dr. Soupart’s proposed research.” For Ramsey, the Board’s study was inadequate because it did not provide the Secretary with a straightforward answer. Was IVF “ethically acceptable,” or was it “legitimately controverted?”

This question may have weighed on Califano’s mind as he crafted a response to the Ethics Advisory Board’s recommendations. Although Califano was not required to implement the Boards’ recommendations, many expected him to follow its advice and lift the moratorium on embryonic research that had existed since 1975. However, for nearly two months after receiving the report, Califano failed to respond. Disappointing many scientists, Califano elected

---

105 Ethics Advisory Board to mailing list, n.d., Box 80, Folder 6, “In Vitro Fertilization/Embryo Transfer Folder #3, May-Dec 1979,” Records of the Director, Records of the NIH, Record Group 443, NACP. Although undated, this letter was filed on June 18, 1979. Written on HEW Ethics Advisory Board letterhead, the unsigned note was sent to the Board’s mailing list, informing recipients to respond the letter if they wished to remain on the mailing list.

106 Ramsey Box 6 Do-Dy Correspondence Series, Ltr: Ramsey to F. William Dommel, Jr. Office for Protection from Research Risks, National Institutes of Health, Aug 27, 1979

107 Ramsey Box 6 Do-Dy Correspondence Series, Ltr: Ramsey to F. William Dommel, Jr. Office for Protection from Research Risks, National Institutes of Health, Aug 27, 1979

to solicit more advice on the ethics of human embryonic research before making a decision. To receive more feedback from the public, Califano published the Ethics Advisory Board’s report in the *Federal Register*, stating that he would accept recommendations for sixty days.\(^{109}\) Although the EAB had held public meetings throughout the country, and invited responses from scientists, bioethicists, and other experts, Califano wanted even greater public feedback for the “serious scientific, moral and social” decision that he had to make.\(^{110}\)

DHEW justified Califano’s decision to extend the public feedback period by focusing on the lack of consensus. While “some citizens [were] opposed to human *in vitro* fertilization,” others hoped “to avail themselves of the procedure in order to overcome infertility.” Califano’s decision was not an easy one. Despite the controversy over federal funding for controversial research, Califano reasoned that “the Department of Health, Education, and Welfare has a responsibility to protect the health of mothers and their offspring,” and “this responsibility extends to problems that may be associated with *in vitro* fertilization.”\(^{111}\) Perhaps recognition of this “responsibility to protect” was leading Califano and DHEW in the direction of providing funds for IVF research. However, the Secretary wanted to read all relevant information carefully to make sure he understood IVF and the issues surrounding the technology before making such a weighty decision.\(^{112}\)

Although Califano did not immediately respond to the EAB’s funding recommendation, he acted on another one of the Board’s suggestions by directing the NIH and the NICHD to report on the feasibility of increased IVF experimentation in animals. This report was to focus

---


\(^{110}\) Ibid.

\(^{111}\) Attachment, “Press Release,” in Donald Fredrickson to The Secretary, 4 May 1979, Box 80, Folder 6, “In Vitro Fertilization/Embryo Transfer Folder #3, May-Dec 1979,” Records of the Director, Records of the NIH, Record Group 443, NACP.

\(^{112}\) Ibid.
on the “usefulness and limitations of animal studies for providing a better assessment of the risks to both human mothers and their offspring conceived by means of in vitro fertilization.”

DHEW hoped to conduct research in animals to better understand the procedure, outcomes, and implications of human in vitro fertilization. Califano also ordered the officials at the NICHD to collect, analyze, and disseminate information on IVF in humans and animals from around the world, because “infertile couples, as well as investigators and clinicians and others, should be fully informed about the risks of such procedures and the likelihood of success in overcoming infertility.” While the moratorium on funding for human IVF research remained while Califano waited for the sixty-day public comment period to end, he ordered other initiatives that could possibly help infertile Americans in the long run.

**Conclusion**

Required to advise first the Department of Health, Education, and Welfare, and then its successor, the Department of Health and Human Services, about the acceptability of proposals for research involving human subjects, the EAB played a crucial role in the funding decisions for IVF. In the absence of the EAB or any viable counterpart until 1978, federal research funding for IVF was blocked, placing a de facto ban on requests for such support. The government would not fund any research involving human embryos that was not reviewed and determined ethically acceptable, but the Ethics Advisory Board was the only governmental apparatus to make this determination. Once Secretary Califano created the Board in 1978 in the months leading up to Louise Brown’s birth, members began studying the ethics of IVF research by holding public hearings and inviting experts to testify or present papers. The Board explored all aspects of in vitro fertilization—the science behind the technology, the procedure, its costs, the

---

113 Ibid., 2.
114 Ibid.
moral status of the embryo, the possible outcomes of going forth with such research, and the propriety of federal funding. Ultimately, the Board determined that federal funding for IVF research was ethically acceptable and recommended that the Secretary of Health, Education, and Welfare, lift the moratorium on IVF research intended to assist infertile Americans. The ultimate funding decision was left for the Secretary of Health, Education, and Welfare to decide.
CHAPTER IV. “NOT ALL RESEARCH...MUST BE FUNDED BY THE DEPARTMENT”¹

In 1979, the Ethics Advisory Board presented Secretary Joseph Califano with its recommendation that *in vitro* fertilization research was ethically acceptable and federal funding for such research was justifiable. Hesitant to make a decision before the public had the opportunity to participate in the discussion, Califano extended the public comment period on the EAB report and effectively left the decision up to his successor, Patricia Roberts Harris. When confronted with making a funding decision, Harris, too, extended the public comment period. Despite opinion polls that showed that a vast majority of Americans approved IVF, much of the public feedback HEW received during the extended comment period was negative, focusing on the status of the human embryo and the loss of early human life through IVF research. Califano and Harris, both bureaucrats appointed by a pro-life president, avoided making a controversial decision that could split the nation. Because abortion became a polarizing issue during the 1970s, this chapter argues that accepting the Ethics Advisory Board’s recommendation to fund limited IVF research was a political liability for federal bureaucrats. Discussing how representatives of the NIH and the NICHD encouraged federal support for IVF by emphasizing the possibilities of IVF research and the benefits childless Americans could reap, this chapter contends that the response from organized opponents of abortion was too strong for IVF research advocates to overpower. In a political climate where abortion opponents fought back against all things associated with IVF, the moral status of the human embryo became the focus of the question over IVF funding.

¹ Charles R. McCarthy to Director, NIH, 23 April 1980, page 2, Box 155, Folder 6, *In Vitro Fertilization/Fetal Tissue Research, 1973-1982*, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. This memorandum discussed a meeting to brief the Secretary on IVF and other issues on April 14, 1980.
Although the EAB responded favorably to federal funding for IVF research, it was up to the Secretary to make a final decision. This chapter explores the public response to the Secretary’s extension of the comment period, and shows how the continued connection to abortion led to secretarial inaction. Appointed by a pro-life president, the HEW Secretary could not easily agree to fund IVF research with federal money in the face of such strong opposition to the technology. Although the EAB recommended federal funding for IVF research, the connection between IVF and abortion led the HEW Secretary to shelf the issue. While Board members, who were meant to represent the medical, legal, religious, and bioethical communities, ultimately decided to look past the questionable moral status of the human embryo, the Secretary of HEW could not. The Secretary’s desk was the last stop before the moratorium would be upheld or removed. As such, the Secretary would receive the blame for any backlash to the decision. In a contentious climate, political appointees could not afford to be associated with policy decisions that possibly violated the pro-life coalition’s ideas of respect for human life. In the federal bureaucracy, the connection between IVF and abortion, first made in the aftermath of *Roe v. Wade*, became solidified as the Secretary of HEW refused to make a controversial decision to fund IVF research.

In his study on fetal research, Maynard-Moody recognized that after *Roe v. Wade*, “activists transformed antiabortion views from a major electoral issue to a political absolute.” Because of the Right-to-Life movement’s erasure of “any middle ground,” Califano and Harris, appointed bureaucrats under pro-life President Jimmy Carter, had a hard time dealing with the EAB recommendation. Once Right-to-Life advocates made the connection between IVF and abortion, the question of the moral status of the human embryo became critical. The Secretary

---

2 Maynard-Moody, 21.
could lift the moratorium on federal funding, much to the pleasure of scientists, researchers, and reproductive specialist, and infertile Americans, alienating anti-abortion activists, or leave the moratorium and risk the dissatisfaction of the scientific community. When the “antiabortion movement deliberately split the nation and government institutions into pro- and antiabortion sides,” Maynard-Moody writes, “fetal research was an obvious foil.”³ Fetal research—and by extension IVF—was not the foremost issue for antiabortion activists, but it became a battleground for the larger war. As this happened, “elected officials found themselves pressured into voting for bans on fetal research despite their generally pro-research orientation because the antiabortion movement demanded absolute adherence to its views.”⁴ Thus, funding IVF research would be a hard decision for even the most pro-research HEW Secretary in the political climate of the late 1970s, let alone a public official appointed by a pro-life president.

Califano quickly realized that the decision before him was thorny. As the EAB finalized its report and prepared to send it to him, right-to-life organizations wrote him a scathing public letter in opposition to federal funding for IVF research. Illustrating the association of IVF with abortion, right-to-life organizations published the letter in a display ad in the *New York Times* in March 1979. The groups—Americans United for Life, Massachusetts Citizens for Life, the National Right to Life Committee, The Ad Hoc Committee in Defense of Life, Inc., and The Value of Life Committee—began the letter with a quote from Califano from September 1978, around the time of the Ethics Advisory Board’s Bethesda, Maryland meeting. These groups agreed with Califano and countless other Americans that IVF “raises questions that reach to our

---
³ Maynard-Moody, 21.
⁴ Maynard-Moody, 21-22.
most profound moral and ethical beliefs.” As Califano “ponder[ed] whether taxpayers should fund test-tube fertilization of the human embryo,” they suggested that he consider some of their concerns before committing Americans’ tax money to this research. The groups involved in writing the letter believed that the “human embryo [would] be sacrificed for scientific study,” and could not stand by silently as the federal government funded research projects that sacrificed humanity for the sake of science.6

Along with concerns about the destruction of “extra” embryos in clinical IVF and IVF research, right-to-life groups were also worried about what would happen if abnormal fetuses resulted from IVF. IVF pioneer Patrick Steptoe’s response to a question asked by an interviewer for Contemporary Obstetrics/Gynecology did not allay these groups’ concerns. When asked the fate of abnormal fetuses resulting from IVF, Steptoe replied that he did not positively know, but “termination would be necessary.”7 The authors of the letter stated that IVF pioneer Patrick Steptoe was willing to terminate or abort any embryo or fetus that was discovered to be “abnormal” as a result of his procedure. The letter reminded Califano and the countless other Americans who read it along with him that IVF pioneers did “not really know yet what the full risks” of birth defects were as a result of IVF.8 Who knew how many embryos would be implanted only to be aborted once discovered “abnormal?” The decision whether or not to provide federal funds for IVF research would be difficult for anyone, but especially for Califano, a Catholic who attended Jesuit schools for most of his education. Although he recognizes the extent to which his Catholic upbringing shaped his life, Califano claimed that he was able to

---

5 Display Ad 559, New York Times, 11 March 1979, E5. Pro-life groups purchased advertising space in the New York Times as a way to publish their public letter to the Secretary.
6 Ibid.
7 Ibid.
8 Ibid.
separate his religion from his work, but one could see how this public letter could weigh especially heavily on the HEW Secretary.9

The letter writers continued to attack the idea of federal funding for IVF research by challenging the motives of the researchers and doctors interested in IVF. Were the scientists really interested in aiding infertile couples who desperately wanted to have babies of their own, or was there a more sinister motive behind their work? Noting the sheer numbers of American doctors and scientists who would want to pursue IVF research and clinical practices, the pro-life groups implied that not all practitioners were truly interested in assisting infertile Americans. While IVF research may have been the new and exciting branch of gynecology, these groups suggested that it would be “another violation of human integrity” to subject “unconsenting human beings, whether viable or not viable, to harmful research even for laudable scientific purposes.”10 Right-to-life groups had already witnessed what they believed to be “violations of human integrity” first through Roe v. Wade and then through the Ryan Commission’s acceptance of fetal research with limitations. The federal government had another opportunity to make policies surrounding human life, and this time, these groups hoped, it would make the right choice. These IVF opponents quoted “the distinguished ethician [sic], Paul Ramsey,” in his often repeated statement about IVF: “‘In vitro fertilization and embryo transfer should not be allowed by medical policy or public policy in the United States—not now, not ever.’”11

The authors closed their very public letter to Secretary Califano by stating, “We ask you, Mr. Secretary, that you please not further burden our consciences and the consciences of the tens of millions of Americans in whose name we speak by involving all taxpayers in a morally

11 Ibid.
abhorrent procedure.” Written on March 11, this *New York Times* letter was undoubtedly on Califano’s mind when he received the EAB’s report five days later.

The pro-life groups that signed their names to the *New York Times* letter to Califano were not the only Americans encouraging the DHEW Secretary to retain the moratorium on IVF research as the Board was finalizing its report. A member of the National Conference of Catholic Bishops wrote a letter to Secretary Califano in March 1979 to encourage an expanded public discussion of IVF. While experts had been involved in the EAB debate, he thought that the “issues at stake have not been seriously discussed much beyond that limited circle.” The bishop encouraged Califano and DHEW to reject proposals to support IVF research because of the dearth of information provided to laypeople, and because of the “abortifacient character of this procedure.” Recognizing that “different persons entertain different evaluations of the nature of the product of conception in its earliest stages,” the bishop chose the phrase “abortifacient character.” However, he believed that the “wide-spread, demonstrated opposition to government funding of abortion” showed a “powerful consideration against DHEW support of *in vitro* research and therapeutic application in humans.”

Although he focused on the connection between abortion and IVF, Kelly expressed concern about the technology’s other ethical issues as well. Perhaps recognizing the tendency of the media to place the anti-abortion and anti-IVF issue squarely on the shoulders of the Catholic Church, the bishop wrote that while “negative judgments with regard to both federal funding and the *in vitro* procedure are by no means peculiar to the Catholic Church,” they were “consistent

---

12 Ibid.
13 Thomas C. Kelly to Joseph Califano, 15 March 1979, Box 80, File 6, *In Vitro Fertilization/ Embryo Transfer* Folder #3, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Kelly was the General Secretary of the National Conference of Catholic Bishops.
14 Ibid.
15 Ibid.
with authentic Catholic teaching,” which condemned “the misuse of technology in ways that violate human dignity.”

Posing the question whether or not, “this progress, which has man for its author and promoter, make human life on earth ‘more human’ in every aspect of that life,” Kelly answered “no” for in vitro fertilization. Infertile Americans seeking to have children of their own certainly would have disagreed with Kelly. For many Americans, having children was one of the most important things human beings could do to express their humanity. The bishop ended the letter by reiterating the connection between IVF and abortion, “The abortifacient character of the in vitro procedure and public repugnance at government funding of abortion combine to indicate an ultimate decision against funding.” Bishop Kelly argued that federal funding should be put towards helping take care of children with birth defects instead of supporting a controversial technology. Kelly’s main argument against IVF stemmed from its “abortifacient nature,” but he also wondered about the ways in which the technology “violate[d] human dignity.” For many Catholics, and other Americans who believed that sexuality and reproduction should not be separated, the mere fact that life was being created in a laboratory instead of a marital bed was enough to violate human dignity.

In May 1979, after the EAB published its report, Califano responded to what he referred to as Kelly’s “thoughtful” letter first by recognizing the importance of the issue. The HEW Secretary assured Kelly that the EAB tried to gain as much public involvement as possible by holding ten public hearings, inviting the public to testify, evaluating over 2000 pieces of mail, and hearing testimony from experts. He also noted what a difficult time the Board had determining the moral status of the human embryo, and how to deal with “the related issue of the

16 Ibid.
17 Ibid.
18 Califano to Kelly, 5 May 1979, Box 80, File 6, In Vitro Fertilization/ Embryo Transfer Folder #3, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
inevitable loss of some embryos in the process of in vitro fertilization and embryo transfer.”

Califano reiterated the findings of the EAB—although the embryo was “entitled to profound respect, that respect does not necessarily encompass the full legal and moral rights attributed to human persons.” Califano stated that he thought that the government “owe[d] a decision, within a reasonable time, to those scientists and institutions who have submitted their research applications to the Department for support.” That decision, however, would prove more elusive even than the embryos fertilized in the earliest years of IVF research.

**Public Response**

After the EAB’s report and recommendations were publicized and then printed in the *Federal Register* in August 1979, the Department received nearly 13,000 public comments from June 18, 1979 through January 8, 1980. According to the NIH, the majority of the responses were “overwhelmingly negative.” Adding to the negative comments received from individuals, DHEW also received “several large petitions with a total of about 25,000 signatures,” which were “prepared by ‘Right to Life’ groups” opposing IVF research funded by the federal government. Further, about one hundred Congressmen penned fifty letters against federal funding for IVF research on grounds of ethics. Most of the negative responses expressed concern about “the destruction or disposal of embryos, the moral status of the embryo,

---

19 Ibid.
20 Ibid., 2.
21 Ibid.
22 Donald S. Fredrickson to The Secretary, 12 November 1980, page 2, Box 155, Folder 6, *In Vitro Fertilization/Fetal Tissue Research, 1973-1982*, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. This informational document was prepared by Charles McCarthy.
24 Donald S. Fredrickson to The Secretary, 12 November 1980, 2.
25 Abramowitz, “Competitive Funding of *In Vitro* Fertilization Research: To Be or Not To Be?” 3.
and the implications of this scientific capability for the future.” 26 Rather than considering the plight of the infertile who might benefit from federal funding for IVF research, responders instead discussed possible results—surrogacy, Aldous Huxley’s Hatcher’s egg donation, cloning, genetic engineering, animal/human hybrids, and perhaps other shocking unknowns. Dr. Susan Abramowitz later assessed the public comments in a paper for DHEW, which stated that the early arguments about the slippery slope of science and the “Brave New World scenario” were unfounded, because “if past concerns provide any prologue, it appears that our society has been able to avoid falling down the proverbial slippery slope.” 27 Many Americans clearly did not appear to find past scientific precedents as reassuring as Abramowitz. Much like bioethicists Ramsey, Kass, and McCormick, they did not necessarily trust scientists to operate under a moral code that would uphold their values.

While public comments spoke to fears of the slippery slope of science, they focused on the issues of the debate that connected IVF to abortion—the moral status of the embryo, the creation and destruction of human embryos for research purposes, and the disposal of extra embryos in clinical practices. Many letter writers believed that the human embryo represented protectable human life, leading them to argue that the federal government should not fund experiments intended to create embryos solely for research purposes. According to the NIH, many letter writers were not satisfied that clinical IVF practitioners would engage in moral protocols, as “Most of the letters presume[d] that many ova will be fertilized in order to produce one pregnancy—the rest being allowed to perish.” 28 These were the issues that most resonated

26 Ibid.
27 Ibid., 8.
28 Fredrickson to The Secretary, 12 November 1980, 2.
with the Americans who responded to Califano’s call—the issues that made IVF, a technology to create life, analogous to abortion, a procedure intended to end nascent life.

Americans answered Califano’s call for comments by contacting public officials who were expected to pass their views along. For example, a regional health administrator wrote to Julius Richmond, the Assistant Secretary for Health, to inform Richmond that his office had received “many phone calls in opposition” to Soupart’s application for NIH funding. 29 He wrote that “there was little opposition (actually mostly support) for the test tube baby in Britain,” even though the public seemed to oppose Soupart’s proposal. 30 Many Americans differentiated between clinical applications of IVF and IVF research that created and destroyed human embryos. The fact that Soupart’s research sought to ensure the safety of clinical in vitro fertilization was not enough to placate them. Or perhaps the acceptance of the “test tube baby in Britain” and the rejection of Soupart’s research stemmed from the fact that Americans were relatively uneducated on the subject of IVF. What most Americans knew of IVF came from the media which, in 1978 and 1979, mostly discussed its ethical implications or futuristic applications. 31 Further complicating the matter was the fact that a number of religious organizations and right-to-life groups encouraged opposition to IVF without attempting to educate members about the new technology.

One example of organizational misinformation against IVF research came in the form of a circular entitled “Make Your Convictions Known.” Stating that Americans had a duty to raise their voices against “evil that is so rampant in our land,” the author encouraged Americans to

29 G.A. Reich to Julius B. Richmond, 8 January 1980, Box 80, File 7, In Vitro Fertilization/ Embryo Transfer Folder #4, 1980-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Reich, the Regional Health Administrator from Region IV, wrote to Richmond, the Assistant Secretary for Health, to pass on public comments about in vitro fertilization.

30 Ibid.

31 Harris, 91.
write, telephone, send telegrams, or contact representatives in person to “voice opposition to these things which are against God’s word.” Pierre Soupart’s application provided an opportunity to Americans to raise their voices because his research sought to “develop from 40 to 400 test tube babies for experimental [sic] purposes. After the fetuses have been used for experimental [sic] purposes they would be allowed to die at 16 days.” The circular asked Americans to write to the Secretary of HEW, and “state briefly your biblical position as to why you oppose this type of research.”

When discussing Soupart’s research, the author only mentioned that Soupart planned to create and then destroy life in a laboratory. The writer failed to disclose that the purpose of the research was to verify that IVF did not lead to a higher incidence of chromosomal abnormalities than natural reproduction. In other words, the purpose of the research was to ensure the safety and efficacy of in vitro fertilization followed by embryo transfer, which many American supported according to opinion polls. The author only included information about Soupart’s research that would rally Americans to voice their opposition to federal funding for IVF research. The circular focused on the aspects of IVF research that connected the technology to the destruction of life.

NIH and DHEW representatives recognized that despite the overwhelming negativity, public opinion polls showed that a majority of Americans seemed to favor IVF and embryo transfer. According to the Gallup and Harris polls, even those who had no history of infertility supported IVF. A core of vocal Americans opposed federal funding for IVF research, but that did not necessarily mean that most Americans were against the technology. From the opinion polls, it would appear that a majority of Americans supported IVF yet remained silent, but it

32 Attached Circular, “Make Your Convictions Known,” in Reich to Richmond, 8 January 1980.
33 Fredrickson to The Secretary, 12 November 1980, 2.
remained to be seen whether or not this tacit support could compete with the very vocal opposition.

After the two month public comment period ended, Joseph Califano took no action and refused to follow or refute the Board’s recommendations. The overwhelming opposition to the EAB’s report made it difficult for Secretary Califano to make a decision on the acceptability of federal funding for IVF research. The vocal opponents of IVF most often voiced concerns about the moral status of the embryo and the purposive creation and destruction of human embryos—the two issues that most connected IVF to abortion. Califano failed to respond to the EAB’s report on the ethical acceptability of federal funding for IVF, effectively leaving the issue for the next DHEW Secretary, Patricia Harris, to decide.

Much like Califano, Patricia Harris did not immediately respond to the EAB’s recommendations. Although the EAB concluded that IVF research was ethically acceptable, there appeared to be too much public opposition to federally fund IVF research. Much like Califano, Harris extended the public comment period on the EAB report in 1979 because DHEW “learned that the appendix volumes containing the reports and studies of the expert witnesses were not available to the public from the Government Printing Office (GPO) until after the comment period closed.”34 In other words, the public did not have all of the information it needed to respond to the EAB report, and DHEW hoped to collect even more informed comments.

Like Califano, Harris continued to receive negative feedback about federal funding for IVF research. Dr. Patrick C. Walsh, Professor and Director of the Department of Urology at Johns Hopkins University, wrote to Harris in 1979, arguing that Pierre Soupart’s research on human embryos created through IVF should not be considered for funding from the NIH. He wrote, “Abortion is one issue, but willful creation and destruction of life for research purposes is another.”

For this professor, like many other Americans, research on human embryos was a moral offense worse than abortion. Harris also received correspondence from Father Edward M. Bryce of the Bishop’s Committee for Pro-Life Activities. Bryce sent the letter congratulating Harris on her new position before quickly turning to federal funding for IVF research. The Bishop unabashedly asked Harris to “decide against funding IVF projects.” When she wrote back to him, Harris sidestepped the issue by informing the Bishop that DHEW had received public comments and reopened the public comment period until January 8, 1980, after which the appendix to the EAB’s report, which included the “full text of the legal, scientific and ethical studies conducted by experts for the Board” would be available from the Government Printing Office. Harris upheld the legitimacy and thoroughness of the Board and refused to assure Bryce that she would prohibit federal funding for IVF research.

**The NICHD and IVF Research**

As Harris received letters during the extended public comment period, the National Institute of Child Health and Human Development (NICHD) was preparing a report for the

---

35 Patrick C. Walsh to Patricia Harris, 26 July 1979, Box 80, File 6, *In Vitro Fertilization/ Embryo Transfer Folder #3*, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Walsh was a professor and the director of the Department of Urology at Johns Hopkins University.

36 Rev. Edward M. Bryce to Patricia Roberts Harris, 16 August 1979, Box 80, File 6, *In Vitro Fertilization/ Embryo Transfer Folder #3*, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Bryce was a member of the Bishops’ Committee for Pro-Life Activities.

37 Harris to Bryce, 4 December 1979, Box 80, File 6, *In Vitro Fertilization/ Embryo Transfer Folder #3*, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
Secretary to assess federal funding for IVF research. The NICHD report, “Feasibility of Expanded Research on In Vitro Fertilization and Embryo Transfer,” focused on the possibilities of the technology. The premise of the document was that the promises of IVF “transcend[ed] the problems of fertility and infertility,” and the procedure “provide[d] scientists a unique tool by which to study life at its very origin.”38 The report explored the research and clinical possibilities of IVF, looked at the technology’s risks, and prepared a projected budget for IVF research if the Secretary chose to accept the Board’s advice. The NIH had supported IVF and embryo transfer in animals for more than twenty years, and Americans had come to view the procedure with optimism following Louise Brown’s birth, the paper argued. Furthermore, an American IVF clinic was soon going to be opened in Norfolk, Virginia.39 Federal funding for IVF research in both animals and humans was pertinent and necessary. Although the NICHD financially supported IVF research in animals, the report made the case that, “the best assessment of the safety and efficacy of human in vitro fertilization and embryo transfer can be derived only from research on human subjects and their gametes.”40 After assessing the risks and benefits, the NICHD report suggested that the Secretary should approve federal funding for human IVF research. Much like the EAB’s report, though, the NICHD stipulated that more research needed to be conducted on subhuman primates before “proceeding with support for research on embryo transfer in humans.”41 So, while the feasibility report proposed that the Secretary increase funding for IVF research in humans, it was reticent to provide funding for embryo transfer until

---

38 Enclosure, “Research on In Vitro Fertilization,” in Norman Kretchener to Director, NIH, 4 February 1980, Box 80, File 7, In Vitro Fertilization/ Embryo Transfer Folder #4, 1980-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Kretchener was the director of the NICHD in 1980.
39 Ibid., 2.
40 Ibid., 3.
41 Memorandum to the Secretary, “Issue for Decision: You are asked to approve proposals on In Vitro Fertilization (IVF) and Embryo Transfer and Dissemination of Worldwide Data on both Procedures,” 29 October 1979, Box 80, File 6, In Vitro Fertilization/ Embryo Transfer Folder #3, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
more information could be learned through animal research. According to the NICHD, the kind of research Soupart proposed was ideal for DHEW funding.

The NICHD showed that it had aspired to learn more about human IVF by supporting IVF research in animals. In 1979, the NICHD, which oversaw all IVF research supported by the NIH, supported twenty-seven research grants involving \textit{in vitro} fertilization in animals for a cost of about $1.6 million.\textsuperscript{42} The NICHD encouraged research in animals as an avenue for greater understanding of human IVF, particularly non-human primates because their reproductive systems were most comparable to that of humans. Nonetheless, the organization recognized severe limitations on obtaining the expensive nonhuman primates and saw that there was a “surprising absence of successful studies” of embryo transfer in non-human primates—“not a single live birth of documented \textit{in vitro} origin has occurred.”\textsuperscript{43} This lack of success led the NICHD to believe that it was “possible that new experimentation could produce techniques yielding far better results.”\textsuperscript{44} Although the NICHD still encouraged funding for IVF research in animals, the studies could not predict the results of human IVF, leading experts to believe that support for human IVF was essential.

So, in its report, the NICHD stated that there was “no doubt that more research is needed on both \textit{in vitro} fertilization and embryo transfer.” By 1979, three babies had been born as a result of IVF, but scientists still could not be sure about how successful the procedure could be in alleviating infertility.\textsuperscript{45} Regardless, with or without federal funding, the NICHD predicted that the procedure was going to be available in a clinical setting made possible by private funding.

\textsuperscript{42} “Feasibility of Expanded Research on \textit{In Vitro} Fertilization and Embryo Transfer,” 8, Box 80, File 6, \textit{In Vitro} Fertilization/ Embryo Transfer Folder #3, May-Dec 1979, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.

\textsuperscript{43} Ibid., 10.

\textsuperscript{44} Ibid.

\textsuperscript{45} Ibid., 2.
and the government had a responsibility to ensure the safety efficacy of the procedure.\textsuperscript{46} According to its reports, IVF without embryo transfer was quite successful, for “under highly specified procedure, fertilization has occurred in 90 to 100 percent of the cases when human eggs and sperm were exposed to each other \textit{in vitro},” which was a higher rate of fertilization than reported in lab animals or nonhuman primates.\textsuperscript{47} Further, the NICHD stated that the question surrounding IVF was not how to “achieve fertilization \textit{in vitro},” but whether or not the procedure would lead to any abnormalities, which could not accurately be answered through animal research.\textsuperscript{48} The area that human IVF appeared to still struggle with was in embryo transfer, which still had a much lower success rate in humans than in animals. The NICHD believed that “research on embryo transfer in relevant animal models may serve to clarify the conditions and requirements for safe and effective transfer of human embryos to women.”\textsuperscript{49}

The report stated that more research needed to be done to study the effectiveness of the procedure because so much more still needed to be known before clinical IVF became a common practice. At the time, it was not “possible to predict the number of times eggs might need to be exposed to sperm \textit{in vitro} in order for fertilization to occur, nor is it possible to estimate the likelihood of successful embryo transfer and birth of a child for any couple.”\textsuperscript{50} Unanswered questions continued to surround IVF, including whether or not it would result in a higher rate of embryonic loss, and whether or not the “body’s natural screening mechanism for aborting seriously damaged embryos [would] be effective following \textit{in vitro} fertilization and embryo transfer.”\textsuperscript{51} According to the best estimates, normal embryonic loss hovered around 37% in

\textsuperscript{46} Ibid.
\textsuperscript{47} Ibid., 12.
\textsuperscript{48} Ibid.
\textsuperscript{49} Ibid., 13.
\textsuperscript{50} Ibid., 3.
\textsuperscript{51} Ibid., 3-4.
natural reproduction, but the NICHD was unsure whether IVF patients would encounter higher rates as the procedure became clinically available.\(^5\) Identifying another area of IVF that could benefit from extended research, the report noted that IVF practitioners in Australia prescribed hormones to their patients to stimulate the production of multiple eggs in hopes of increasing success rates. The report noted that “treatment in these hormones has been known to cause cysts in the ovaries, and some studies in animals have shown that hormone administration is associated with higher rates of birth defects.”\(^5\) So, while administering hormones was becoming part of the IVF procedure in a clinical setting, the NICHD recognized that such practices could be dangerous to their female patients. The report also addressed the need for studies exploring how sperm should best be combined with the eggs in IVF, because in “normal fertilization, a single sperm fertilizes the egg while the other sperm are blocked from entering the egg. There is some evidence that the application of large numbers of sperm \textit{in vitro} may result in fertilization by more than one sperm.”\(^5\) The sheer fact that IVF took place outside the human body without any obstacles between the sperm and the egg led the NICHD to wonder whether IVF was fundamentally different than natural reproduction, and whether the differences would alter the fertilization process in significant ways. Ultimately, the NICHD identified a number of areas where IVF research should be expanded and federal funding for this expansion was appropriate to ensure the safety and efficacy of the procedure for future potential IVF patients. The NICHD estimated a cost to the federal government of $33.3 million over a five year period for its

\(^{52}\) Ibid., 3.
\(^{53}\) Ibid., 4.
\(^{54}\) Ibid., 5.
suggested research initiative that include more research on IVF-ET on sub-human primates and human IVF without embryo transfer.\textsuperscript{55}

Members of the NIH labored to convince the Secretary to accept the reports from the Ethics Advisory Board and the NICHD. NIH representatives felt “strongly that the Secretary should understand” these reports in favor of federal funding for IVF research.\textsuperscript{56} Before the Secretary even decided the “more fundamental question of whether human \textit{in vitro} fertilization research with (or without) embryo transfer may be funded at all,” the NICHD feasibility report recommended additional funding for IVF research.\textsuperscript{57} When she received the feasibility report, Harris wrote a “note calling for additional justification for \textit{in vitro} fertilization and embryo transfer research,” which for members of the NIH “appear[ed] to misunderstand” one of the fundamental points that both the NICHD and the EAB made. In their reports, each organization predicted that IVF would soon be available in a clinical setting so DHEW had “an obligation to carry out research to determine whether the procedure is likely to be efficacious and whether it is reasonably safe for both the prospective mother and her IVF-conceived child.”\textsuperscript{58} The Director of the NIH, recognizing the sheer amount of evidence in favor of federal funding for IVF research, suggested that the Secretary should undergo additional briefing before announcing her decision.\textsuperscript{59}

\textsuperscript{55}Memorandum to the Secretary, 29 October 1979.
\textsuperscript{56}“bel” to Fredrickson, 2 January 1980, Box 80, File 7, \textit{In Vitro Fertilization/ Embryo Transfer Folder #4}, 1980-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
\textsuperscript{57}Charles MacKay to Director, NIH, 27 December 1980, Box 80, File 7, \textit{In Vitro Fertilization/ Embryo Transfer Folder #4}, 1980-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. MacKay signed this memorandum about the HEW Secretary’s decision “Concerning the NICHD Report Concerning \textit{In Vitro} Fertilization and Embryo Transfer,” acting for Charles McCarthy, the Director of the Office for Protection from Research Risks.
\textsuperscript{58}Ibid.
\textsuperscript{59}Ibid.
Indecision

Harris made no announcement regarding the future of federal funding for IVF research in the United States in 1979, stating that she wanted more budget information before she made a decision. However, the new DHEW Secretary decided that she did not want the NICHD to set aside funding for IVF research for the following fiscal year. She chose to “postpone the decision until the comment period on the EAB report is closed,” stating that she needed “greater justification for such research.” For Harris the EAB and NICHD’s argument that clinical IVF would become available in the private sector regardless of federal funding was “not really relevant,” and would not influence her decision. She continued to wonder whether or not the federal government should support such research.

After the extended public comment period ended, the DHEW stalemate with IVF continued while Harris put off making a clear decision on federal funding for research. NIH Director Donald Frederickson noted in 1980 that “at some point,” the Secretary “need[ed] to make a decision on whether Departmental policy in this matter should be altered. She has to date withheld her approval, noting that greater justification was needed for such research; moreover, she has questioned whether government support of such research was appropriate.” HEW regulations still prohibited funding for human IVF research, although in fiscal year 1979, the NICHD funded twenty six research projects involving IVF in animals, totaling about one and a

---

60 Kathy Shroeher to The Secretary, 29 October 1979, pages 3-4, Box 80, File 7, In Vitro Fertilization/ Embryo Transfer Folder #4, 1980-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Shroeher, the Executive Secretariat, sent Patricia Harris this Action Memorandum asking the HEW Secretary to make a decision about federal funding for IVF research.

61 Ibid., 4.

62 Fredrickson to The Secretary, 12 February 1980, Box 155, Folder 6, In Vitro Fertilization/Fetal Tissue Research, 1973-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Fredrickson sent Patricia Harris this memorandum to discuss a briefing meeting about “issues of concern to the Secretary,” including IVF.
Because of the ban, though, Soupart’s research proposal continued to go unfunded despite the fact that the NIH had approved funding for his project in 1978. 64

Once she became the Secretary of Health, Education, and Welfare, Harris not only failed to respond to the Board’s IVF recommendations, but also abolished the EAB entirely. On September 30, 1980, Secretary Patricia Harris terminated the Ethics Advisory Board despite the fact that some of its “functions [were] required by regulation.”65 The EAB was still required to make recommendations to the Department of Health and Human Services (formerly DHEW) and no new board was appointed to replace it, although the Public Health Service Human Subjects Steering Committee was “searching for acceptable methods for the Department to address issues which otherwise would be referred to the Ethics Advisory Board.”66 According to Maynard-Moody, Harris “simply allowed the charter to lapse. Perhaps she thought reconstituting the EAB should be left to the next administration, or perhaps this decision was merely lost in the flurry of the election season.”67 However, bureaucrats elected by Ronald Reagan “never proposed reinstating the EAB.”68 The EAB, created to determine the ethical acceptability of controversial research, had likely become a casualty of the abortion controversy, and along with it, the possibility for federal funded IVF research died.

Members of the NIH and DHEW continued to discuss the propriety of federal funding for IVF research after the EAB and NICHD wrote their reports, and the Board was abolished. They

63 Ibid.
64 Ibid.
65 Director, Office for Protection from Research Risks to The Assistant Secretary for Health and Surgeon General, 21 August 1980, Box 79, Folder 7, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
66 Fredrickson to Assistant Secretary for Health, n.d., pages 3-4, Box 155, Folder 6, In Vitro Fertilization/Fetal Tissue Research, 1973-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP.
67 Maynard-Moody, 125.
68 Ibid., 126.
were waiting for the Secretary to make her final determination. Members of the NIH continued in their attempt to sway the Secretary in the direction of IVF funding, arguing in a briefing that IVF research provided scientists with a “unique” opportunity to study life at its origin, and that scientists could glean important information through the IVF procedure that they could not get elsewhere, including an understanding of the “poorly understood…mechanics of fertilization.”

The studies that could be done on human embryos created through *in vitro* fertilization, they said, could possibly “someday provide a basis for diagnosing and preventing congenital or developmental defects literally at their origin.” The possibilities seemed astounding, yet in 1980, the “future role of the NIH in research on *in vitro* fertilization and embryo transfer [was] an unresolved issue.”

Along with identifying the possibilities for scientific research, NIH and DHEW representatives recognized that IVF could help infertile Americans who represented approximately 10% of married couples in 1980. It was estimated that the number of American women who would only be able to have children through IVF varied between “several hundred thousand to over one million.” Infertile couples, according to the correspondence received by the Ethics Advisory Board, “strongly support[ed] the widespread availability of *in vitro* fertilization.” The dangers of IVF were unclear, but what was “evident” to the NIH and DHEW was that “only the first few days of a nine months human gestation are in any way different because of the application of *in vitro* fertilization techniques.” Further, representatives noted that they knew that “normal children can be born by these methods,” yet

---

69 Attachment, “Research on *In Vitro* Fertilization (IVF),” in Fredrickson to The Secretary, 12 February 1980, 1.
70 Ibid.
71 Ibid.
72 Fredrickson to the Secretary, 12 November 1980, 1.
73 Ibid., 2.
74 Ibid., 3.
75 Ibid.
they wanted to “know considerable more about the conditions which will maximize the rates of such success.” They needed to know more about the risks of IVF. Even though animal experiments had not yielded increased risks of abnormalities, many scientists agreed that more human research was necessary. And, according to the NIH, the moratorium on federal funding for IVF research had “a secondary effect, the virtual halting of all privately funded research in the United States on human *in vitro* fertilization.” Despite predictions that IVF research would thrive without federal funds, it was not being conducted with private money. While the lack of funding stymied IVF research, the first IVF clinic had opened in the United States by 1980 and the clinical practice was about to flourish.

With the knowledge that IVF clinics would likely be opening across the United States, NIH members took every opportunity to remind the Secretary that the EAB had deemed IVF research ethically acceptable. One of these opportunities came with a briefing for the Secretary for her upcoming appearance on the television program “Quest.” When preparing the Secretary for the program, Donald Frederickson reminded Harris that the EAB found IVF research without embryo transfer ethically acceptable as long as it complied with the provisions regarding government funded research. According to these criteria, the research had to be conducted: with the intent to determine the safety and efficacy of IVF research, with gametes obtained by people who had provided informed consent, and by scientists who did not sustain any embryos past fourteen days after fertilization. Furthermore, he reminded her that the Board determined that scientists could only conduct research involving embryo transfer if they used “gametes obtained

---

76 Ibid., 4.
77 Ibid.
78 Ibid.
79 Ibid.
80 McCarthy to Director, NIH, 23 April 1980, page 2.
from lawfully married couples.”80 According to Fredrickson, the Board made it clear that IVF research without embryo transfer should only be conducted temporarily, to gain knowledge about the safety and efficacy of the procedure before it became widely available for married couples in a clinical setting.

Taking advantage of an opportunity to once again make the case for federal funding for IVF research, Frederickson also prepared the Secretary to answer questions that focused on the funding decision. Frederickson argued that it would be unacceptable for her to merely state that there was no money in the fiscal year 1980 budget for IVF because it would “present the appearance of sidestepping a difficult decision,” and IVF research was not “a ‘line item’ which can either be included or excluded from the budget.”81 IVF research proposals could “compete with other proposals for funding priority” within the NIH—which had already approved Soupart’s request for research, pending Secretarial approval. The NIH had the money to fund IVF research, and the NICHD had given Soupart’s proposal a high priority rating. The NIH was just waiting for the Secretary to respond to the EAB’s report before providing Soupart with the funding he needed to begin his research. Before Harris’s appearance on “Quest,” Frederickson reminded the Secretary that the only thing standing between Soupart and other researchers and federal funding was her refusal to respond to the EAB’s report.82

Finally, Frederickson suggested that the new non-federally funded IVF clinic that had just opened at Norfolk, Virginia offered DHEW an opportunity to make sure the procedure was ethical and safe. IVF was being offered to Americans in a clinical setting, and federal funding for research remained controversial. For Frederickson, the fact that IVF was actually becoming

80 Ibid.
81 Ibid., 3.
82 Ibid.
available to Americans meant that the government had a responsibility to test the safety of the procedure. He thought that the government could get information from the Norfolk clinic, and as such it could inadvertently be involved in the research without funding the research outright.\textsuperscript{83} Although the Secretary replied that she did not “want to ban any line of inquiry, including \textit{in vitro} fertilization,” she argued that “not all research which is acceptable from an ethical standpoint must be funded by the Department.”\textsuperscript{84} Stating that the private sector could bear the burden of funding IVF research, Harris implied that she would not agree to fund Soupart’s IVF research, or anyone else’s for that matter. Because she and others were confident that IVF would develop in the private sector, she wondered whether federal funding was appropriate or necessary.

In a paper submitted to DHEW in 1982, Dr. Susan Abramowitz tried to assess both sides of the ongoing funding controversy, and analyze the options available to the Secretary. Abramowitz agreed with Harris in some respects, including that the federal government was not obligated to fund research just because it was ethically acceptable. Although the EAB found IVF ethically acceptable from a research standpoint, some argued that other healthcare concerns should be addressed before the government funded IVF to assist infertile Americans.\textsuperscript{85} As a rebuttal, though, the federal government had a system of scientific merit based upon peer review in place to determine funding priorities. It was not up to the DHEW Secretary to decide which research endeavors were more worthy than others. Soupart’s proposal had earned a high enough priority rating for the NICHD to agree to fund his experiments. That was the crux of the issue: if Harris decided to abide by the EAB report, she knew in advance that IVF would undoubtedly

\textsuperscript{83} Ibid., 3.  
\textsuperscript{84} Ibid., 4.  
\textsuperscript{85} Abramowitz, “Competitive Funding of \textit{In Vitro} Fertilization Research: To Be or Not To Be?” 8.
receive funding. The NICHD and its parent organization, the NIH, had been pushing for the Secretary to make a decision in favor of IVF since the EAB had issued its report in 1979.

Abramowitz reminded the Secretary about the different options for funding IVF research, including immediate federal funding, eventual federal funding, and no federal funding. If DHEW funded IVF regardless of the public’s lingering ethical concerns, ethical safeguards beyond the Ethics Advisory Board existed. IVF research would be subject to local review and peer review, both of which would ensure that IVF researchers employed ethical practices in their experiments. Further, if the Secretary decided to accept the recommendations of the EAB, a moratorium would remain on research involving “preimplantation embryos not directly related to improving an understanding of fertility,” as the Board “decided not to include this type of research in its overview.” According to the Ethics Advisory Board, researchers should only be allowed to conduct experiments on embryos which contributed to human knowledge of reproduction. Despite the ethical safeguards provided by the review boards and the knowledge that scientists could not conduct embryonic research without proper justification, federal funding for IVF research was still contentious. The decision to lift the moratorium, Abramowitz wrote, was “not without political liabilities. Some public protest, particularly from the right-to-life groups which have lobbied Congress, may be expected...” She also thought that “congressional opposition” as indicated by the 1978 congressional letter writing campaign against IVF, could possibly be a problem again.

Abramowitz reviewed the options that remained available for the Secretary, who appeared to be concerned about the continued opposition to DHEW funding for IVF research.

86 Ibid., 10-11.
87 Ibid., 11.
88 Ibid.
Abramowitz noted that the Secretary could appease both sides of the debate by announcing that the Department would not immediately provide any funding for IVF research, but it would eventually be available. However, she thought that putting off funding would only “result in the Department’s neglecting an important area of human concern affecting hundreds of thousands of childless, married Americans who may lose forever their only chance of having their own children.”\textsuperscript{89} Abramowitz, thus made the case for the childless Americans for whom funding for IVF research seemed to hold the most opportunity. However, she still mentioned the reality that the Secretary could decide to disregard the EAB report and keep the moratorium in place indefinitely. Even as she stated non-funding as a viable argument, she made the argument that the Secretary would likely be making such a decision for the wrong reasons. Abramowitz believed that it was the contentiousness of the issue in a country that could not come to consensus on abortion, fetal research, and the moral status of the embryo that would possibly lead the Secretary to make a decision against funding. Such a decision, she wrote, “ignores the fact that scientific merit rather than political considerations is the major criterion for the funding of Federal research.”\textsuperscript{90} According to Abramowitz and countless others, IVF research could increase scientific knowledge of the reproductive system, the earliest stages of human life, and much, much more.

\textbf{The Expansion of Clinical IVF}

By 1982, IVF was increasingly being applied in a clinical setting without the benefit of federal research money, leading some to believe that “potential consumers” might be at risk. Because it was such a new technology, Abramowitz stated that “potential customers have little in

\textsuperscript{89} Ibid., 9.  
\textsuperscript{90} Ibid., 11.
way of information on these procedures to judge the skill of medical practitioners providing such treatment.” Because “no formal standards exist[ed] defining acceptable practice,” patient consumers could be at risk. Federal research money for IVF could help individuals gain access to reliable information regarding IVF.91

With the continued absence of a response from Secretary Harris, the Director of the NICHD, Mortimer S. Lipsett, suggested to the NIH Director that with the expansion of clinical IVF throughout the country and indeed the world, the NIH could not renounce its duty “to conduct appropriate research on the safety and efficacy of the procedure.”92 Five years after the Board was created, and the NICHD agreed to provide Soupart with funding, the NIH refused to give up on federal funding for the research that its members deemed important and useful. Suggesting that the NIH should support research on IVF processes and the preimplantation embryo, Lipsett argued that the NIH had “little reason to postpone the request for action” because “Each year more groups are performing the procedures.”93 In fact, a September 1982 course on IVF procedures had “47 registrants from U.S. medical schools.” While the number of physicians interested in practicing this new technique continued to grow, the funding debate that originally began with the moratorium in 1975 and the creation of the Ethics Advisory Board in 1978 failed to be resolved. Because of the association of IVF with abortion in a pluralistic society, the ethical questions surrounding the procedure had yet to be answered, and as Lipsett discussed, the debate “show[ed] no evidence of reaching consensus.”94

91 Ibid., 7.
92 Mortimer S. Lipsett to Director, NIH, 27 July 1982, Box 155, Folder 6, In Vitro Fertilization/Fetal Tissue Research, 1973-1982, Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, NACP. Lipsett was the Director of the NICHD in 1982.
93 Ibid.
94 Ibid.
While consensus remained unattainable, the growth of clinical IVF was apparent, and Lipsett, like many others, thought that this fact should result in federal funding regardless of any lingering ethical debates. In 1982, as the funding debate between the NIH and the Department of Health and Human Services persisted, at least five American medical schools had either created IVF programs or were planning to create clinics, including Eastern Virginia Medical School in Norfolk, University of Southern California, University of Texas Medical School, Houston and San Antonio, and Yale. The NIH and NICHD continued to make the case for federal funding for IVF research, especially since the technology had been successfully used in the clinical setting, and was “rapidly expanding” throughout the United States.

Bioethicist LeRoy Walters, who had contributed a paper for the Ethics Advisory Board in 1978, referred to the Department of Health and Human Services’ conduct towards IVF as “benign neglect” in 1982. He noted that “the largest single funding source for biomedical research in the United States, has refused to take a position on research involving human in vitro fertilization or embryo transfer, despite having received a comprehensive 958-page report on this topic from an Ethics Advisory Board in 1979.” Despite the Board’s recommendation, in fiscal year 1981, the federal government spent approximately $2 million dollars on IVF research in animals and spent none on the clinical applications of human IVF. Walters believed that the Department had been “negligent in remaining silent about this important issue for two-and-a-half years,” and it owed the Ethics Advisory Board members and the American citizens whose taxes paid for the work of the Board the courtesy of a response. For Walters, even a negative

---

95 Abramowitz, “Competitive Funding of In Vitro Fertilization Research: To Be or Not To Be?” 1.
96 Walters, “Ethical Issues in Genetic and Reproductive Engineering,” 5.
97 Ibid., 5-6.
98 Ibid., 6.
decision was a “DECISION,” although he implied that a decision in favor of funding would be better.  

**Conclusion**

Neither Secretary Califano nor Secretary Harris responded to the Board’s report by making a decision. Both Secretaries delayed making the controversial funding decision as *in vitro* fertilization became synonymous with abortion for many pro-life Americans. In the years following *Roe v. Wade*, pro-life Americans who believed that life begins at conception condemned research on human embryos created solely for research purposes. In fact, many viewed research on lab-created embryos to be far worse than abortion. When women sought abortion to rid themselves of unwanted pregnancies, life was not created with the express purpose of disposing of it. Pro-life Americans, who coalesced as the Supreme Court made its *Roe v. Wade* decision in 1973, felt “alienated” by what they perceived to be the immorality of the legalization of abortion, and they worked to ensure that such disrespect for human life would not persist. Pro-life Americans were vocal opponents of federal funding for IVF research and the EAB’s recommendation that federal funding was ethically acceptable. The connection to abortion made the IVF funding decision a political liability first for Secretary Joseph Califano, and then his successor, Patricia Harris.

When Soupart died of lung cancer in June 1981, the Secretary still had yet to make a decision regarding federal funding for IVF research and the EAB had been terminated. Federal funding for IVF research would not become a reality, not because the Secretary announced a decision to continue the moratorium, but because the Secretary made no decision.

---

99 Ibid.
In the end, the lack of a funding decision became a negative funding decision that effectively prohibited the NIH from providing funding for human IVF research.
CHAPTER V. THE ABORTION STIGMA AND THE LOCAL MEDIA AT THE OPENING OF THE NORFOLK IVF CLINIC

After Louise Brown’s birth and the creation of the EAB in 1978, the nation’s first in vitro fertilization clinic readied itself to open its doors to infertile patients. This chapter discusses the creation of the clinic and the challenges its leaders faced in making the clinic a reality. The Eastern Virginia Medical School in Norfolk, Virginia was not created until 1973, and the chairman of its Department of Obstetrics and Gynecology, Mason Andrews, had a vision for the school’s success that included recruiting the prominent reproductive specialists Howard and Georgeanna Jones. Ultimately, the pair granted Andrews’ request and moved to Norfolk as the world witnessed Louise Brown’s birth and initiated plans to create an IVF clinic at the local medical school. From the beginning, Andrews and the Joneses met resistance from the local Catholic Church and right-to-life groups that connected the reproductive technology to abortion.

This chapter argues that, because of the early connection between IVF and abortion, the technology inspired resistance from opponents of abortion as it entered into its clinical stage in Norfolk. As Andrews and the Joneses fought to open the IVF clinic, the Virginian-Pilot and the Norfolk Ledger-Star engaged in what the clinic’s leaders viewed as a smear campaign against the endeavor. Privileging the viewpoints of the clinic’s opposition, the local newspapers, run by Landmark Communications, played an influential role in protesting the clinic as it took root in the Norfolk community. Andrews and the Joneses, refused to allow the opposition to prevent them from practicing in vitro fertilization, but in the early years of their collaboration, the three fought an uphill battle against anti-abortion activists and the local newspapers. Recognizing the power of the media to shape public opinion during the clinic’s early years, the clinic’s leaders challenged the portrayal of IVF in the local newspapers, demanding a more balanced
presentation of the IVF clinic and the technology it offered patients. American right-to-life groups used the same strategies against the Norfolk IVF clinic as they did against HEW funding for IVF research, writing letters to policy-making boards, appearing before hearings, publicly protesting, and writing letters to newspapers. However, the leaders of the IVF clinic fought back by attacking one of the opposition’s greatest tools: the media. While anti-abortion activists succeeded in stopping federal funding of IVF, they were not as effective in their attempt to prevent America’s first IVF clinic from opening its doors. The leaders of the clinic refused to allow what they considered to be a small but vocal segment of the population to prevent them from realizing their goals. Because these leaders were critical in beginning to separate the connection between IVF and abortion, it is important to begin with the people who were crucial to making the technology an American reality.

Howard and Georgeanna Jones

Howard and Georgeanna Seeger Jones met and began to date while in medical school at Johns Hopkins University, where they both found themselves drawn to research on reproductive problems. Howard Jones later acknowledged that it was “difficult” to explain their mutual affinity for reproductive medicine. “Perhaps it was the challenge of the unknown for the field was quite primitive compared to today,” he said. Endocrinology “was just beginning,” which, for the Joneses, “meant that the field was ripe for development.”1 Howard, a self-described “tinkerer,” became the surgeon in the family, while Georgeanna specialized in endocrinology. In each of their respective fields, both found great success and validation in their early years.2 When Georgeanna was just “three years out of medical school but still in training,” Richard Telinde, the Chairman of the Department of Obstetrics and Gynecology at Johns Hopkins,

2 Ibid.
invited her to organize and direct the hormone laboratory at the university.\(^3\) As Georgeanna embarked on her promising laboratory career, Howard left Johns Hopkins to serve in the military as a chief surgeon in Europe during WWII. Assigned “just five miles back of the front when the front was extremely active and casualties were heavy,” Jones operated on the severely wounded.\(^4\) He returned to Johns Hopkins and Georgeanna after the war, where he applied his wartime experience of “operating on severely wounded young healthy people,” which “required considerable surgical improvisations as standard operative procedures generally did not apply,” to his peacetime surgical practice. According to Telinde, Jones’s department chairman, reconstructive surgery on the fallopian tubes, “was quite impossible and a waste of time.” Using the “improvisation concept” he picked up during the war years, Howard sought to prove Telinde wrong by showing that tubal surgeries were possible.\(^5\) As Howard revolutionized aspects of reproductive surgeries, Georgeanna’s expertise in her field became clear when she “identified the luteal phase defect in which progesterone is deficient and the pregnancy fails to implant, or miscarries.”\(^6\) As future leaders of the first IVF clinic in the United States, Howard and Georgeanna Jones’s early careers helped prepare them for their IVF work. Howard’s willingness to adapt procedures and attempt new techniques and Georgeanna’s knowledge of hormones and recognition of the luteal phase defect would prove useful when the pair began practicing IVF.

In summer 1964, Howard and Georgeanna had their first real encounter with *in vitro* fertilization. Through a mutual acquaintance, Robert Edwards arranged a visit to Johns Hopkins.

\(^3\) Ibid., 3.
\(^4\) Ibid., 4.
\(^5\) Ibid., 5.
\(^6\) “Drafts and Notes Re Biography of E. Stanley and Howard Jones,” n.d., 42, Mason Andrews Papers, Box 1, Series I: Personal Papers, Folder 16, ODUA.
where he conducted IVF research using “slices of ovary” provided by Howard Jones.7

According to Jones, Edwards came to the university because “he was having difficulty in obtaining human eggs” in England, and had “heard that there was a chap at Hopkins who was not bound by conventional approaches.”8 Edwards’ visit and work sparked curiosity in the Joneses, who discovered an interest in this new reproductive possibility.9 Later, Jones made the case that even though Edwards claimed that he failed to fertilize an egg when he reported his Johns Hopkins study in 1966, he believed that “it is indeed likely that human fertilization was achieved” during their summer of collaboration.10 Although Edwards’ visit had sparked an interest in IVF for both Joneses, it would take another fourteen years and the birth of the world’s first “test-tube” baby before the pair pursued the new reproductive technology. The Joneses remained at Johns Hopkins, and carried on their careers, becoming prominent members of the reproductive medicine field. In the early 1970s, Jones became the Chairman of the Department of Obstetrics and Gynecology at Johns Hopkins, where he served until he “reached the mandatory requirement age” in 1978.11

The Joneses began their careers at a prominent American university with a long and distinguished history in medical research, and they ended up at a relatively new and unknown medical school that they would help put on the map. The Eastern Virginia Medical School (EVMS) opened first with basic science departments in 1973, and then expanded in 1974 by adding clinical departments such as the Department of Obstetrics and Gynecology.12 Mason Andrews, a prominent Norfolk local who was influential in the creation of the medical school,
had initially asked Howard Jones to be the chairman of the new obstetrics and gynecology
department in 1974, but when Jones turned him down to remain at Johns Hopkins, Andrews
decided to assume the position himself.\textsuperscript{13} However, Andrews remained steadfast in his desire to
bring Jones to the medical school, and saw his opportunity when the pair faced retirement at
Jones Hopkins. In an attempt to bolster the new medical school’s status by having such a
prominent pair of reproductive specialists, he once again invited the Joneses to create a Division
of Reproductive Endocrinology within his Department of Obstetrics and Gynecology. Despite
the fact that their children “thought their parents were off their rockers to begin such an uncertain
adventure,” and urged the Joneses to “act their age,” the pair refused to settle down and instead
moved to Norfolk where they would begin working at EMVS.\textsuperscript{14} At the time, there was no way
Andrews could have imagined how much attention the medical school would receive once the
Joneses arrived and started their work.

The Joneses moved to Norfolk on Louise Brown’s birthday in July 1978, a happy
coincidence which Jones described as “serendipitous” on more than one occasion.\textsuperscript{15} According
to Andrews and the Joneses, the impetus to create an IVF clinic at Norfolk began with a local
reporter who posed a simple, hypothetical question. The reporter first called Andrews to request
an interview to discuss Louise Brown’s conception in the days following her birth. Andrews, in
turn suggested the reporter telephone the Joneses, who he believed had more expertise in that
area. Interviewing the Joneses in their new home as they “were sitting on packing boxes,” the
reporter asked what it would take to make IVF a reality in Norfolk, and Jones replied that “it

\textsuperscript{13} Lisa Hope Harris, “Challenging Conception: A Clinical and Cultural History of In Vitro Fertilization in the
United States” (PhD diss., University of Michigan, 2005), 97.
\textsuperscript{14} “DRAFT/REMARKS FOR JONES INSTITUTE,” n.d., 4, Mason Andrews Papers, Unprocessed Portion, “Jones
Institute” Folder, ODUA. Also, “Drafts and Notes Re Biography of E Stanley and Howard Jones,” 46.
would take some money.” 16 His response was printed in the article that discussed Louise’s “miracle birth,” and among the article’s readers was a couple who had struggled with infertility and had gone to Andrews for help. After he referred the couple to endocrinology expert Georgeanna Jones, the pair rewarded the doctor who helped them achieve pregnancy not only by naming their daughter Georgia, but also by making a large donation to EVMS to start an IVF program.17

As the Joneses got started at EVMS, they recognized the sheer amount of work before them as they set out to create the nation’s first IVF clinic. Before officially beginning their clinical practice, the Joneses first created a laboratory “for tissue culture and cell growth to analyze chromosomes to determine if they are normal,” since in vitro fertilization was such a new reproductive technology still in its experimental stage.18 Jones, who admitted to being “intrigued” by IVF since Robert Edwards had visited Johns Hopkins, was excited at the prospect of this new venture, but remained cautious when it came to a field of reproductive medicine with which he had very little experience.19 Recognizing that he and Georgeanna could not start a clinic on their own, he noted that by the late 1970s, “reproductive medicine involved endocrinology, reconstructive surgery, the evaluation and investigation of male infertility, the role of immunology and genetics in reproduction, as well as a study of the role of infection and other agents in causing infertility.” For Jones, this meant that “the time had come when it became impossible for any one individual to acquire skills in all the diagnostic areas, let alone skills in all therapeutic modalities which could be utilized to solve any and all problems.”20 Any successful IVF clinic required doctors with different specialties—surgeons, endocrinologists,

---

17 Ibid.
18 “Drafts and Notes Re Biography of E Stanley and Howard Jones,” 43.
19 Ibid.
embryologists—along with laboratory technicians and nurses. Because it was “a completely new
concept to fertilize a human egg in vitro,” finding an embryologist proved to be a difficult task,
but Jones knew he could turn to geneticists who could “make the transition from culturing tissue
cells to culturing oocytes.” The creation of an IVF clinic was a daunting task, but the Joneses
had over three decades of experience with reproductive medicine, and were ready and willing to
accept the challenge.

Before they could get started with their clinic, though, the Joneses needed to jump some
administrative hurdles, including obtaining a Certificate of Need from the Health Department of
the State of Virginia. According to Jones, the certificate’s purpose was merely to “prevent
duplication of services in nearby hospitals and thereby to save expense,” and since there were no
other IVF programs in Virginia, or indeed, in the country, the Joneses believed that the Health
Department would easily grant the certificate. The Health Department set up a hearing in
September 1978 to determine whether or not to award the certificate to EVMS. Glen Mitchell,
the Director of Norfolk General Hospital, assured Andrews and the Joneses that they could gain
the certificate through the “administrative route,” and that they need not be present at the
hearing. Accepting Mitchell’s advice, the Joneses submitted an application describing the
proposed clinic to the Eastern Virginia Health Services Agency, but did not attend the public
hearing, a decision which proved to have negative consequences for the proposed clinic.
Newspapers published the meeting’s agenda, which included the clinic’s proposal for a
Certificate of Need, and “a large number of protestors appeared and objected to the granting of

21 Ibid., 9.
application to the EVHSA” comes from Harris, 110.
the Certificate of Need.” The Catholic Church and the Virginia Society for Human Life, one of the state’s pro-life organizations, gathered about fifty people together to oppose the certificate that would grant EVMS permission to fertilize eggs and study early embryos. Because of the protest, and without Andrews or the Joneses present to defend the clinic, the EVHSA refused to grant EVMS the certificate necessary to open its IVF clinic, although its leaders could try to apply “through the routine channel of a public hearing.” The public hearing would be held on October 31, 1979, and came to be known as the Halloween Hearing. The Joneses could not renovate rooms in the hospital for the proposed clinic, nor could they begin work fertilizing eggs. New to Norfolk, the couple’s IVF project came to a screeching halt because of the protest led largely by local anti-abortion opponents in the Virginia Society for Human Life (VSHL).

As the leader of the VSHL, Charles Dean Jr., was perhaps the organization’s most vocal member and ardent warrior against the IVF clinic which he viewed as an acceptance of pro-abortion policies in his home town. Described in one newspaper article as “a prosperous, Mercedes-driving, Norfolk business man,” Dean believed that IVF research was a “slippery slope” towards a “Brave New World.” Although his main opposition to IVF stemmed from his anti-abortion views, Dean echoed others’ concerns about the dangers of science and technology gone awry. In an interview, Dean stated that “it's morally unconscionable to use prospective children as human guinea pigs to satisfy the admittedly great desire of a woman to have a baby.” Despite his realization that women had “great desire[s]” to have babies, this local right-to-life leader remained unmoved by the longings of infertile women. Dean attempted to stop the opening of the IVF program by starting a “newspaper letter-writing campaign,” appealing to the

---

25 Harris, 110.
Virginia Attorney General for an injunction to stop the clinic from opening, even after he and the other protesters were successful in temporarily blocking the clinic’s application for a Certificate of Need. He was also thinking about the possibility of a lawsuit against the program in case he and his organization failed at the Halloween Hearing.28

Meanwhile, Georgeanna Jones attempted to assure Dean and the rest of Norfolk’s pro-life community that the IVF practiced at the clinic would not result in the loss of life by stating that “all fertilized eggs will be reintroduced to the mother.”29 Such assurances failed to garner support from the VSHL, which continued to fight against the creation of an IVF clinic in Norfolk. So, as the Joneses were planning the first IVF program in the United States, many women were clamoring to get on the program’s waiting list (150 in little more than two weeks after the Joneses announced the program). At the same time, local pro-life groups who associated IVF with abortion, were doing everything in their power to stop the program from starting.30 Until the clinic was granted its Certificate of Need, though, Andrews and the Joneses could not begin clinical work in Norfolk. While they waited, Andrews attempted to promote IVF and the proposed clinic in the media.

On October 11, 1979, Andrews submitted to an interview that quickly turned into an adversarial conversation about the new reproductive technology.31 As the Halloween Hearing was approaching, Andrews took advantage of the opportunity to defend the reproductive technology while interviewer Susan Lakany asked probing, often skeptical questions. Lakany began the interview by pointing out the lack of IVF research conducted on animals and

---

28 Colen, C1., Harris, 111.
29 Harris, 112.
30 Ibid., 100.
31 Mason Andrews, interview by Susan Lakany, 11 October 1979, Mason Andrews Papers, Unprocessed Portion, “Jones Institute 1978-1987,” ODUA. In her interview with Mason Andrews, Susan Lakany discussed the political, social, and economic issues surrounding IVF as the technology developed. Although I could find no evidence that the interview resulted in a published report, the interview is useful because it presents Andrews’ responses to many of the hot-button issues surrounding the technology.
questioned the propriety of opening an IVF clinic. The interviewer admitted her reservations about the new reproductive technology when Andrews refused her request to listen to a recording detailing the procedure. Steptoe and Edwards had yet to publish the results of their work, but Jones had made the recording after visiting the duo in England. Rebuffed by Andrews, Lakany stated that she had “no knowledge of what Steptoe and Edwards have done, except that there is a Louise Brown in the world and it’s not right I don’t think.”32 While Andrews undoubtedly agreed to the interview as an opportunity to promote IVF, the interview’s transcript makes it apparent that he and his interviewer entered into the meeting with different agendas. Expressing concern about the women undergoing IVF, Lakany asked, “are these women going to be just like guinea pigs, the ones where it does not work but you get scientific knowledge from them or what?”33 For Andrews, the way she posed the question indicated a “less than inquisitive, adversarial relationship” between the two of them.

Despite Lakany’s skepticism and their near-constant sparring, Andrews took advantage of the opportunity to refute the opposition’s view that IVF was inherently associated with abortion. Noting his and the Joneses sensitivity to the opposition’s complaints against the technology, Andrews stated that at the new Norfolk clinic, they “tried to avoid things that would bother people.”34 For example, the leaders of the clinic planned on using patients’ natural cycles and only fertilizing one egg, ensuring that all embryos would be transferred. Andrews hoped that this decision would placate the local opposition. And, he shifted attention to another reproductive technology that he thought anti-abortion activists should concentrate on: intra-uterine devices, or IUDs. Andrews indicated that pro-life activists who opposed IVF had misplaced their focus. Activists genuinely concerned about preserving embryos should try to

32 Ibid., 5.
33 Ibid., 6.
34 Ibid., 8.
“stop the millions of women a year who have an intrauterine device” from using that form of birth control.\(^{35}\) According to Andrews, with the IUD, fertilization still occurs, but the early embryo fails to implant in the uterine wall. According to others in the medical community, though, there is no proof that fertilization occurs with this method of conception. And, many IUDs use progestin to prevent ovulation, guaranteeing that fertilization does not occur. Although Andrews did not “want to knock the IUD,” he pointed out that anti-abortionists should realize that “there is something out of focus if one is really upset about that to pick on these poor women who are really doing everything possible to give that egg a home and to nurture it and to make it produce a life.”\(^{36}\) Andrews maintained that if the pro-life community consented to the IUD, it should also accept \textit{in vitro} fertilization.

As Andrews attempted to justify IVF to local media representatives, right-to-life organizations also endeavored to influence the media and through it public opinion. Michael Budde, the Director of Education for Americans United for Life (AUL) and the “head of its task force on \textit{in vitro} fertilization,” also discussed IVF in the weeks leading up to the hearing by writing an op-ed column for the \textit{Virginian-Pilot}.\(^{37}\) The Chicago-based AUL was “an advocacy and legal aid organization for anti-abortion activities.”\(^{38}\) Writing as a representative for the organization and leader of its anti-IVF task force, Budde’s editorial, “\textit{In Vitro} Fertilization: A No-Win Situation,” questioned the wisdom of IVF and explicitly stated that with this new

\(^{35}\) Ibid.
\(^{36}\) Ibid., 8-9.
\(^{37}\) Enclosure, “Information Concerning Michael Budde,” in Mason Andrews to Edward L. Breeden, Jr., Esq., 27 November 1979, Mason Andrews Papers, Unprocessed Portion, “Jones Institute 1978-1987,” ODUA. Enclosure: “Information Concerning Michael Budde,” 1. Andrews investigated anti-abortion activist Michael Budde in an attempt to discredit a vocal member of the opposition. In his investigation, he discovered that Budde testified under a false name, so he wrote to Breeden, a lawyer, to inquire whether Budde had violated the law. As evidence, he included an enclosure that discussed Budde’s background.
\(^{38}\) Ibid.
reproductive technology, the “killing of early human life” was “unavoidable.” And although he quoted Georgeanna Jones’s reassurance that children resulting from IVF were at no greater risks than naturally conceived children, Budde called her claims “wishful thinking.” As evidence, he looked to reproductive specialists John Biggers and Luigi Mastroianni, who, according to Budde, believed that IVF would lead to greater genetic abnormalities and hence the loss of life. Budde linked IVF and abortion when he wrote,

The Norfolk team, one suspects, is relying on natural death and late-term abortion to ‘eliminate’ the problem of more abnormal offspring produced in vitro. Such a reliance on second- and third-trimester abortion or death caused by genetic anomaly, while it may guard against the ‘birth’ of a handicapped child, in no way changes the brutal reality that such lives are indeed damaged. Aborting them does not change that. It merely means that one kills an offspring that may have been damaged as a result of in-vitro fertilization. Premature death of an abnormal offspring, either through abortion or through natural causes related to the abnormality, may allow us to avoid facing a man-made failure; it does not allow us to avoid facing the fact that we did indeed fail, and that another human being was injured or killed as a result.

The Norfolk team did not appreciate Budde’s article, particularly his assertion that the clinicians would abort genetically abnormal fetuses. Despite Georgeanna Jones’s announcement that the clinic sought to avoid the destruction of human life by implanting all fertilized embryos, anti-abortion activists continued their crusade against the clinic. Andrews and the Joneses also objected to the newspaper’s identification of Budde as an IVF expert, one who considered the technology akin to abortion. Such negative portrayals of IVF threatened the Norfolk clinic’s efforts to gain the Certificate of Need required to complete the renovations and open its doors to patients—especially if readers believed that Budde was in fact an IVF expert.

Both the leaders of the IVF clinic and the anti-abortion opposition turned to the media in hopes of gaining support during the final weeks before the Halloween Hearing. Charles Dean Jr.

40 Ibid.
and Norfolk’s pro-life faction had achieved temporary success during the first public hearings, but the Joneses and their supporters knew what to expect from the opposition and were prepared for the second hearing. On Halloween, EVMS wanted to show the strength of its support, too, so Andrews ensured that there would be an audience full of IVF supporters by cancelling campus activities for the afternoon so the medical students could be in attendance. According to Jones, though, “right-to-lifers” from “out of town” also came to protest the clinic at the Halloween Hearing, which lasted from two o’clock in the afternoon until about eight o’clock in the evening. Perturbed, but prepared, Andrews and the Joneses filled the audience with medical students as well as religious and civic leaders and infertile couples who supported the clinic.

One person who spoke in favor of the clinic was Dr. Roy Parker, of Duke University. According to Parker, Duke was planning a clinic simultaneously, but they were not “as far advanced” and did not “have the medical expertise in our faculty that is present in the Eastern Virginia School of Medicine.” He also argued that there was “no element of personal aggrandizement or sensational publicity in this effort,” and spoke of Howard and Georgeanna Jones in glowing terms as authorities in the field of reproductive medicine. The State of Virginia should recognize the rich potential of IVF and the strong medical team Andrews had put together, and grant the program its certificate of need, for “The combined talents of these two outstanding physicians bring to this medical center knowledge and skill that are not available in other centers of the world especially as it concerns the application of the techniques proposed in

---

41 Harris, 116.
43 Harris, 117.
44 Roy Parker, Untitled Document, 31 October 1979, 1. Mason Andrews Papers. Unprocessed Portion, Untitled Folder, ODUA. Parker, a professor and the chairman at the Department of Obstetrics and Gynecology at Duke University, testified before the Halloween Hearings in support of the Norfolk Clinic.
45 Ibid., 2.
He appealed to the EVHSA to grant the clinic its Certificate of Need, stating that “The time is now. I beg of you, please permit this project to go forward in the interest of the betterment of mankind namely those untold childless couples who want to bear and rear children for our future.” Parker made the point that while the pro-life community focused on the procedure’s connection to abortion, ultimately the Joneses wanted to create life through the new reproductive technology. Parker asked that as the EVHSA members made their decision, they consider the childless couples who so badly wanted children of their own.

Representatives of pro-life organizations also testified at the Halloween Hearing. For example, as the hearing approached, AUL leader Michael Budde traveled from Chicago to Virginia to lend his voice to strengthen the local opposition’s efforts to prevent EVMS from opening an IVF clinic. As the representative for Americans United for Life, which he called “a National Legal and Educational Organization…dedicated to the protection of human life at all stages of biological development,” Budde argued that IVF was inappropriate and morally objectionable. Although the purpose of the hearing was to determine whether or not the Norfolk clinic would be granted its Certificate of Need, Budde stated that “we are discussing more than a simple certificate of need for a medical facility. We are discussing what the Journal of the American Medical Association in 1972 called part of the drive toward ‘the production, or better the manufacture, of a human being to desired specification.’” Arguing that “decisions made here are certain to have far-reaching effects nationwide,” Budde urged EVHSA members to “remember the enormity of the responsibility you bear” and noted that “dozens of United

---

46 Parker, 31 October 1979, 2.
47 Parker, 31 October 1979, 2.
49 Budde, 31 October 1979, 1.
States senators and representatives” had “recently written to HEW Secretary Patricia Harris to voice their opposition to proposed Federal support.”50 Recognizing the “myriad ethical issues” that came together in the debate over IVF, Budde saved its connection to abortion for his closing words when he stated that “millions of americans [sic]…support the Pro-Life cause” and oppose “the additional risks to lives created by in vitro fertilization and the possible destruction” of life Budde hoped to persuade officials that each decision in favor of IVF would further the social acceptance of abortion.51

Andrews sought to discredit Budde, a central figure in the national opposition movement and even considered legal action against the pro-life activist. Andrews indicated that “Michael Budde” was an alias that the AUL member used for his anti-IVF work. Andrews and the Joneses, aggravated by the negativity surrounding the clinic that anti-abortionists like Budde seemed to exacerbate, looked for ways to discredit opponents whose sole work seemed to be harming the clinic. Perhaps seeking revenge on the pro-life organization for what he believed to be its attack on the clinic, Andrews wrote to an attorney to find out if providing a false name at a an “important” hearing violated public laws.52 Pro-life organizations had mobilized to fight against the IVF clinic, but Andrews and the Joneses made it clear that they would fight back. Despite the strength of the opposition, the Joneses had supporters at the Halloween Hearing to show the opposition that they, too, could mobilize. After the hearing was completed, Andrews began looking for ammunition to use against the clinic’s opponents, including Michael Budde.

As Andrews began to fight back against the pro-life opposition to the proposed clinic following the Halloween Hearing, the EVHSA board members had to decide whether or not to grant the clinic its Certificate of Need. In its project evaluation, the EVHSA noted the many

\[50\] Ibid.
\[51\] Ibid.
\[52\] Andrews to Breeden, 27 November 1979, 1.
aspects of the proposed clinic that led them to believe it was acceptable, could be successful, and deserved the Certificate of Need. First of all, the agency recognized that once successful, the IVF procedure involved more than just fertilizing an egg and transferring it to the female patient—it also required the “monitoring of pregnancy.”\textsuperscript{53} As such, the evaluation recognized that Andrews and the Joneses had addressed the controversial abortion issue, stating that they planned to deal with the possibility of any genetic abnormalities by evaluating the “various alternative courses of action, including elective termination of pregnancy,” and discussing the alternatives with the patient. However, it would be up to the patient to make the “final decision.”\textsuperscript{54} Contrary to the beliefs held by pro-life opponents of the clinic, the IVF practitioners would not force patients to undergo abortions upon the discovery of any fetal abnormalities. In evaluating the proposal for the Norfolk clinic, the EVHSA looked to the EAB report, and agency representatives noted that the EAB found IVF ethically acceptable, particularly among married couples.\textsuperscript{55} Surely what appeared to be federal support of IVF in 1979 bolstered the clinic’s viability in the eyes of EVHSA members. However, the EVHSA reviewers recognized that federal research money would not be available to the new clinic despite the EAB’s positive recommendations since the HEW Secretary had not lifted the moratorium on federal funding for IVF research.\textsuperscript{56} But, there were “no known existing programs” like the proposed clinic, and given the large number of patient inquiries—approximately 1,000 by 1980—there appeared to be a need for the program.\textsuperscript{57} Further, the program had been reviewed and approved by the Human Experimentation Committee of Norfolk General Hospital and the Eastern Virginia Medical

\textsuperscript{53} Eastern Virginia Health Systems Agency, “Project Evaluation,” 14 September 1979, 2. Mason Andrews Papers, Box 16, Folder 4, ODUA. This document is a report from the Virginia Health Systems Agency assessing the proposal and viability of the IVF clinic at Norfolk.
\textsuperscript{54} Ibid.
\textsuperscript{55} Ibid.
\textsuperscript{56} Ibid., 4.
\textsuperscript{57} Ibid, 3.
School, as well as the Ethics Committee of EVMS, the Executive Committee of the Norfolk General Medical Staff and the OB/GYN staff of Norfolk General Hospital. In their assessment of the proposed clinic, EVHSA members found a number of reasons for providing the proposed IVF program with the necessary Certificate of Need.

Nonetheless, board members had witnessed firsthand the strength of the clinic’s opposition through testimony and correspondence. They heard and read arguments against granting the Certificate of Need to the Norfolk Clinic, many of which argued that even as the clinic sought to help women become pregnant, the procedure would result in the loss of human life through the disposal of “extra” embryos or abortion of abnormal fetuses. The opposing arguments echoed those the EAB heard during its own public hearings. And, although such arguments did not stop the EAB from making positive funding recommendations to the Secretary of DHEW, the very vocal opposition did stop at least two DHEW Secretaries from acting upon the EAB’s recommendations.

However, the EVHSA members did not allow the pro-life opposition to sway their decision about the Norfolk clinic and the EVHSA decided to grant the clinic its Certificate of Need. The EVHSA noted that “The design of this particular research program eliminates some of those opposing arguments, mainly the retrieval and fertilization of multiple ova, and the resulting discard of those deemed unsuitable for return to the patient.” The EVHSA found that the costs were minimal, there were no other IVF programs in the nation, the program was consistent with the EAB recommendations, and it violated no laws.

---

58 Ibid., 4.
59 Ibid.
60 Ibid., 5.
61 Ibid.
Andrews and the Joneses celebrated when the Certificate of Need was finally granted in February of 1980. To create the new IVF clinic, the team renovated 120 square feet of existing space at the 644-bed Norfolk General Hospital to make room for an IVF laboratory. The hospital provided the space for the program that would be run by EVMS. Trying to differentiate their program from other IVF programs and distance themselves from the controversy surrounding IVF, the Joneses planned to name their enterprise “the Vital Initiation of Pregnancy Program (VIPP).” But the Norfolk clinic became known solely for its IVF program. The total cost of the project was estimated at just under $25,000, with an additional $8,000 for laboratory equipment. Leaders estimated that once the clinic began to accept patients, the costs per couple for laboratory charges and operating charges including “the retrieval procedure, anesthesia, and implant procedure” would be around $1,000.00, and the Joneses planned on waiving the professional fee “during the developmental stages of this project.” They now had a plan, the required Certificate of Need, and a lengthy list of prospective patients. Everything seemed to be falling into place, but Andrews and the Joneses would soon find that regardless of their success with the EVHSA, local pro-life opposition would continue and even escalate.

In the midst of the Halloween Hearing, and as the Norfolk Clinic was awaiting the granting of its Certificate of Need, leaders of the clinic found themselves at war with the local media. Anti-abortion IVF opponent Michael Budde had written an article responsible for instigating the troubles between the proposed EVMS clinic and the local newspapers, the Virginian-Pilot and the Norfolk Ledger/Star, but the struggle would prove longer lasting than anyone expected. Although Andrews and the Joneses believed that the newspaper presented

---

62 Ibid., 1.
63 Ibid.
64 Ibid.
65 Ibid., 3.
Budde as an IVF expert by publishing his article, Budde’s editorial against the clinic included inconsistencies, inaccuracies, and inappropriate quoting. Andrews, in particular, sought redress for the clinic, and demanded that the papers acknowledge that Budde was not an IVF expert and that his editorial inaccurately portrayed the procedure. In order to achieve these goals, Andrews enlisted the help of the reproductive experts that Budde had quoted and asked them to write letters to the paper in support of IVF. At the same time, he attempted to get the papers’ leaders to recognize their editorial failures by presenting Budde as an expert.66

Upon Andrews’ request, John D. Biggers responded to Budde’s op-ed in *The Virginian-Pilot* on Tuesday, October 30, in an article entitled “In-Vitro Fertilization: No Links to Abnormalities” to dispel some of the myths surrounding IVF. Although Budde quoted Biggers as saying that “that *in-vitro* fertilization probably causes a greater incidence of genetically abnormal human embryos and fetuses,” Biggers claims that he did “not recall ever having made such an explicit statement without qualification.” Biggers not only corroborated Andrews’ point that Budde did not understand IVF and merely sought to portray the technology in a negative light, but also praised the clinic and its leaders. For Biggers, the worst part of the editorial was that Budde had “unjustifiably brought into question the credentials of two internationally recognized experts—Dr. Howard Jones and Dr. Georgeanna Seeger Jones—and irresponsibly caused unnecessary anguish to a group of infertile couples throughout the world who are in need of help.”67 Wishing to “set the record straight,” Biggers insisted that there was “no evidence to support the view that *in-vitro* fertilization and embryo transfer will increase the number of abnormal babies born.”68 In closing, Biggers stated that, “By emphasizing the importance of

66 “Information Concerning Michael Budde,” 1.
68 Ibid.
fertilization and ignoring the phenomenon of natural embryonic and fetal wastage, Budde has tried to generate support for his preconceived ideas based on mysticism. He should recognize the risks to his credibility caused by distorting the hard facts of natural processes to support the axioms of a particular philosophy.”  

As a recognized reproductive technology expert, Biggers made a strong, public statement about the value of IVF.

Biggers was not the only expert Budde apparently misquoted in his editorial. However, after the publication of Biggers’ letter, the pro-life activist became more pro-active in correcting his errors. Instead of waiting for the possibility of reproductive specialist Luigi Mastroianni writing a public letter to discredit him, Budde addressed the issue himself. In his letter to Mastroianni, Budde wrote that he “inadvertently referenced” the specialist’s work “as a source attesting to the possibility of increased embryonic/fetal abnormality resulting from in vitro fertilization,” only later to find out that he “was in error.” Budde stated that he wanted to “explain the matter” to Mastroianni himself, although he had already sent “a letter of clarification” to the editor of the newspaper. 

Although Budde told Mastroianni that he had taken measures to rectify his mistake, nearly two weeks later, the correction had not appeared in the newspaper. For Andrews, the local paper’s failure to publish this letter of clarification was further proof that the newspaper shared Budde’s pro-life sentiments. In Andrews’ opinion, the newspaper was biased against the IVF clinic and lacked “journalistic fairness.”

Andrews also questioned the journalistic integrity of the reporters. According to Andrews, “One of the reporters covering the [Halloween] hearing told me that she was asked not

---

69 Ibid.


to devote space to analyzing the positions of the various speakers but to describe the atmosphere and the color.” For Andrews, the entire purpose of the hearings was for the EVHSA to judge the value and appropriateness of the clinic, based upon the testimony of the speakers. Yet, the reporter was told not to report such information. Andrews argued that the reporter failed to discuss the “staff analysis of all of the testimony,” although she “did devote approximately 1/3 of the article to Charles Dean and his allegations.” So, while the reporter did not discuss the actual hearing in her article, she presented the views of local pro-life advocate Dean, who led the crusade against the Norfolk clinic since the IVF team first applied for the Certificate of Need in 1978. Andrews believed that “it is awfully hard for the public to be able to make its best judgment if it cannot get the information.” While the newspaper presented false information before the public in the form of “expert” editorial, reporters failed to portray the sheer amount of support for the clinic. To Andrews, the local media provided a voice for the pro-life opposition but failed to do the same for the organizers of the clinic.

In an effort to smooth things over with the local newspapers, or more accurately to persuade the editor to publish less biased reports on IVF, Andrews met with Richard Gonder, the public editor of the *Virginian Pilot/Ledger Star* on November 22, 1979. The next day he sent a follow-up letter stating that he was greatly disappointed with their meeting. Writing that “we are obviously not seeking any redress or correction but seeking to put at your disposal information which may help us all to achieve mutual goals in a better manner,” he implied that all that he and the other leaders of the Norfolk Clinic sought to do was dispel the myths and misrepresentations of IVF in the region. Because of the newspapers’ slanted discussion of IVF, Andrews wrote

---

72 Ibid.
73 Ibid.
that any reader “whose principal information about in vitro fertilization…has been derived through our local papers labors under some handicap in trying to understand the situation.”\textsuperscript{75}

While Andrews and the Joneses thought that the newspapers’ accounts of IVF were overwhelmingly negative in their omission of the technology’s attributes, representatives of the newspapers responded to the IVF leaders’ claims by assuring them “that there was no ‘institutional bias,’” and they recognized that “‘both sides need to be heard.’” For Andrews, such a denial “indicated once more that we were in different ball parks.”\textsuperscript{76} He noted that the \textit{New York Times} and the \textit{Washington Post} both included articles on IVF and the Norfolk clinic, and “displayed a very different story which happened to be complimentary to this effort and to this community while still reciting the objections raised by opponents.”\textsuperscript{77} In stating this, Andrews illustrated the fact that while he accepted criticism of IVF, he insisted that it be accompanied by a discussion of the positive aspects of the new reproductive technology. In his view, the local newspapers failed to do this, for while they highlighted the perspectives of pro-life activists and “doctors of no professional distinction” who were opposed to IVF, they failed to mention the opinions of reproductive specialists, bioethicists, clergy, or other leaders who supported IVF.\textsuperscript{78} Andrews did not ask the local newspapers to stop publishing oppositional accounts. Rather he wanted them to recognize the widespread support for the new technology and local clinic so that the opposition would not appear stronger than it really was.

Andrews asked the public editor to write a letter of apology to Howard Jones. Recognizing that “he and Georgeanna took a great gamble in coming to Norfolk,” Andrews wanted Gonder to reassure the Joneses that the local newspapers’ editorial policies surrounding

\textsuperscript{75} Ibid.
\textsuperscript{76} Ibid.
\textsuperscript{77} Ibid, 2.
\textsuperscript{78} Ibid.
the clinic would change.79 Andrews wrote, “If you did feel so inclined and could merely write him something to the effect that you are glad they are here and that you hope the problems he has observed won’t occur in the future, it would be a humanitarian act and a civic contribution.”80 The success of the clinic Andrews sought to create depended on the Joneses, and the last thing Andrews wanted was for the pair to feel unwelcome in Norfolk.

As the clinic accepted the Certificate of Need in February 1980 and prepared to open its doors to IVF patients, Andrews’ disappointment with the local newspapers remained. Andrews wrote a letter to Frank Batten, the Chairman of the Board of Landmark Communications, which owned both the Virginian-Pilot and the Ledger Star. Andrews recognized that the newspapers’ “day-to-day policy is the responsibility of others,” however, Andrews wanted Batten to give him his personal opinion on what he saw as the unresolved issues between the Norfolk area newspapers and the IVF clinic.81 Andrews wrote that, “Our plea is to seek to achieve a relatively small hiatus in which a responsible scientific effort may be pursued under the meticulous scrutiny of Institutional Review, hospital committees, and even two Right-to-Life nurses working in the Operating Suite.”82 Others, more suited to the work, had judged the ethics of the clinic, and found the scientists acted responsibly and nothing was amiss. Now that the IVF clinic was a reality despite the best efforts of local and national right-to-life groups, Andrews particularly wanted the press to allow IVF patients to enter and leave the clinic without having to worry about the local media.83

79 Ibid.
80 Ibid.
81 Mason Andrews to Frank Batten, 27 February 1980, Mason Andrews Papers, Unprocessed Portion, “Jones Institute 1978-1987,” ODUA. Frank Batten was the Chairman of the Board of Landmark Communications, the company that owned the Virginian-Pilot and the Ledger Star.
82 Ibid., 2.
83 Ibid., 1.
After failing to get a satisfactory response from Batten, Andrews sent a letter to Charles Hartig, of the WVEC television station in Hampton, Virginia, with enclosures detailing his experience with Landmark media.\textsuperscript{84} By this time, the struggle became ideological for Andrews who had been juggling his battle with the local media on top of the clinic and his chairmanship of the Department of Obstetrics and Gynecology at EVMS. Recognizing the importance of protecting the rights of individuals, he increasingly saw the danger of what the local right-to-life activists sought to do: “History has shown us that more erosion of these rights can start with minor erosion whereby highly motivated, relatively small groups of persons with great zeal can force others to live by their own views; first in one apparently small area of activity and then in increasingly large areas.”\textsuperscript{85} And Andrews recognized the power of the media to provide a platform for “small groups of individuals with great zeal,” seeking to erode the rights of others. He thought that this was particularly the case in Norfolk and Eastern Virginia. Because it was ultimately up to the public to decide the fate of new medical technologies like IVF, “they greatly need objective information and journalistic opinion.”\textsuperscript{86} Fed up with biased reporting on the IVF clinic at Norfolk, Andrews began to contact other media outlets and experts in an attempt to discredit the newspapers that he believed were doing their best to disgrace his work.

After his failed efforts at reconciliation between the local media and IVF clinic, Andrews refused to let the media dictate discussions and continued to enlist experts to contradict inaccurate or biased publications regarding the procedure. For example, in 1980, the \textit{Virginian-Pilot} published an editorial stating that physicians could more effectively treat infertility from diseased fallopian tubes with laser surgery than IVF. Viewing this as yet another attempt to

discount IVF and the Norfolk clinic, Andrews sought help from Michael S. Baggish, a laser surgery expert, who obliged by writing a letter to the newspaper’s editor for publication. As the Secretary of the Gynecologic Laser Society and Chairman and Professor of Obstetrics and Gynecology at Mt. Sinai Hospital in Hartford, Connecticut, Baggish wrote that even as a pioneer “microsurgery of the fallopian tube utilizing the carbon dioxide laser,” he, along with other experts throughout the country, considered “that tubal laser surgery is still investigative.”

Writing that “the laser is not magical,” Baggish argued that laser surgery was a technique that “clearly” “will not and should not replace in-vitro fertilization.” IVF provided the last chance effort for many American couples to have their own genetic children, and in response to the opposition that made false claims to support their stance, he willingly wrote to the newspaper in support of the use of IVF as a reproductive therapy, stating that it could not be replaced by laser surgery. Andrews was grateful for his colleagues who assisted him in his battle against the local media’s portrayal of IVF as an unnecessary, dangerous, experimental procedure that would only result in the loss of human life.

Andrews and the Joneses worried about public perception of IVF as an ethical procedure, and recognized the importance of their own preparation in the face of opposition. In 1980, Jones realized that given the continued contentiousness of IVF and its connection to abortion, “the entire team must also be prepared to be personally abused publicly by components of the moral majority who will castigate them as immoral, ghoulish experimenters and agents of the devil.”

Still under fire after at the beginning of 1981, Andrews defended the clinic, what it sought to do,
and the ethical protections in place to safeguard patients and citizens. He stated that “We regret that our attempts to help infertile couples by-pass hopelessly damaged fallopian tubes has been so misunderstood and misrepresented,” and sought to dispel some of the misinformation surrounding the clinic. He noted that IVF at EVMS had already undergone the necessary review steps, and “carefully designed representative groups have examined this issue,” including the local Institutional Review Board, the citizen Board of EVMA and Medical Center Hospitals, the local Health Systems Agency, the State Advisory Committee to the Commissioner of Health, and even the Ethics Advisory Board created by HEW, all deemed IVF an ethical and beneficial procedure.

As the Jones clinic was beginning its practice, the leadership recommended that it was of “considerable importance for each member of the team to be thoroughly familiar with the developments in the ethical, social and legal areas” of IVF because the ethics of IVF continued to be questioned despite the success of its clinical applications.

As the Joneses faced criticism of their ethical and moral standards from religious groups, Howard Jones continued to reaffirm that IVF was a normal process, little different from surgery on the fallopian tubes of infertile patients. Using the same arguments that many pro-choice Americans used in the aftermath of the Supreme Court’s 1973 abortion decision, Jones pointed out that those who found IVF morally wrong need not use the procedure, but should not stop others from doing so. Much like Edwards, Steptoe, and other early IVF doctors facing

---

91 Ibid.
92 GENERAL TIDBITS, “Recent Developments in the Social, Ethical and Legal Areas of Assisted Reproduction,” n.d., 2. Mason Andrews Papers, Box 16, Folder 2, ODUA. “General Tidbits” was a document circulated at the Norfolk Clinic to keep all employees abreast of social, ethical, and clinical information involving IVF.
93 Harris, 102.
criticisms of their work, Jones insisted that his work was moral and ethical because it helped infertile couples achieve their heart’s desire: a baby of their own.

Critics contacted the clinic directly after it opened its doors to the public. In an anonymous letter sent to Mason Andrews, an IVF opponent argued that it was “an abomination” to create human life through *in vitro* fertilization because “these babys [sic] will have no souls.” The writer asked Andrews if he wanted “to be responceible [sic] for that,” and thought he would “loose [sic]” his own soul for his involvement in the project. “Please stop this I ask in Gods [sic] name,” the writer pleaded.95 Another letter, signed “Apostle of Our Lady working to spread Her warnings to the deceived,” charged that Andrews “other doctors who engaged in the creation of Test-tube Babies are playing with Eternal Disaster.” She suggested that Andrews “read what the Blessed Mother has to say about Test-tube Babies,” and “heed Her advice.”96 While those letters focused on the ethics of IVF and the presumed loss of human life that would result from the procedure, interestingly, the clinic also received some mail from a woman who said the clinic might “burn down” if they did not help single women as well as married couples.97

As the Joneses were planning their clinic amidst the controversy, they welcomed advice from IVF pioneer Patrick Steptoe who visited Norfolk to share his knowledge of the technique. Jones later recalled that “Steptoe proved extremely helpful,” and provided them with the “then conventional wisdom, which was to use the natural cycle, to inseminate as quickly as possible, to do our transfer not before the eight-cell stage, and to do the transfer at night.”98 Later, the Joneses would discover that the prevailing wisdom was not quite so useful, and even the IVF pioneers did not fully understand the human reproductive system or the technology that had

---

96 Ibid.
97 Andrews, interviewed by Lakany, 16-17.
enabled them to assist in Louise Brown’s conception. Nonetheless, once the Joneses began their IVF work, they accepted Steptoe’s advice, and among other things, relied on the patient’s natural cycle and turned away from using hormones to stimulate ovulation. Because of this choice, Jones had to “guess when the patient would ovulate by determining the LH surge,” which often resulted in predictions of night-time ovulation and ultimately egg retrieval. Because the Australian IVF teams chose to stimulate egg production by prescribing hormones, they did not share the same inconvenience of working around the clock. However, the Joneses and Andrews had pledged to the Norfolk community, and indeed the nation, that they would not use hormone stimulation to create “extra” eggs for disposal. For a while, at least, they followed Steptoe and Edwards’ protocol, experimenting as they went, much like the IVF pioneers before them.

Despite their “failure[s],” Jones noted that the clinic was “rather inundated by patients seeking care.” By December of 1980, “6,000 desperate couples” had applied for treatment at the new Norfolk Clinic, which to Jones signified the need for the procedure throughout the United States. He estimated that around 400,000 American couples who suffered from infertility because of “irreparably damaged or absent fallopian tubes” would potentially seek IVF. As the Jones team began accepting patients, it decided that at least during the first year, the clinic would only accept women who had both fallopian tubes surgically removed because they wanted to “be quite certain” that their patients became pregnant through the IVF procedure. This precaution combined with the team’s initial ability to fertilize eggs in vitro but failure to sustain a pregnancy led them to ask new questions about reproductive physiology and the IVF procedure. After experiencing countless failures early on, the team wondered whether the fallopian tubes

---

99 Ibid.
100 Ibid.
were in fact necessary to reproduction “above the function of providing transportation for the oocyte and for the sperm.”\(^{103}\)

The Joneses first year of applying IVF in a clinical setting proved disappointing. They could fertilize eggs but encountered unexplained difficulties when it came to transferring the embryos. Nonetheless, by fall of 1980, Howard Jones was claiming IVF expertise in the United States, even though his team had yet to achieve and sustain a pregnancy using the procedure. In a speech before the Florida Obstetric and Gynecologic Society, Jones stated that “efforts to improve upon the relatively low success rates of the English and Australians must, for the foreseeable future be confined to expertly staffed and equipped teams who are able to satisfy the requirements of strict institutional review boards and be monitored by them.” Stating that expertise in endocrinology, ultrasound, laparoscopy, genetics and tissue culture and early reproductive physiology were “imperative,” Jones implied that IVF in America should remain strictly limited for a while, at least.\(^{104}\) Although he and his team were new to IVF, Jones took on the role of IVF expert and implied that other obstetricians and gynecologists should avoid dabbling in the new reproductive technology unless they had the expert staff such an endeavor required. Stating that the work of the British and Australian IVF teams “whets our appetite, but impels caution,” he warned other reproductive specialists against rushing to offer the new reproductive technology.\(^{105}\) However, in the eyes of many pro-life Americans and organizations, Howard and Georgeanna Jones had done exactly what he warned other practitioners not to do: they had proceeded too quickly with IVF.

Despite his own warnings to other specialists about moving too quickly into unknown territory, the Joneses proceeded with their clinical practice. Given the overwhelming number of

\(^{103}\) Ibid., 8.


\(^{105}\) Ibid., 1.
applicants, the IVF team had to determine how to choose patients. Initially, the Norfolk clinic only accepted women with surgically removed fallopian tubes, but the clinic gradually began taking on patients with different types of infertility. Indeed, the Joneses later discovered that “the expectation of pregnancy” was lower in women with tubal disease than “for patients who have failed treatment for endometriosis, undiagnosed and undiagnosable [sic] infertility, DES exposure, as well as for patients who have a cervical factor, antisperm antibodies in the serum, and anovulatory problems.” As the clinic extended its services to patients experiencing different kinds of infertility, the Joneses simultaneously increased their success rate. As Jones would announce later in his career, “it is probably safe to say that in vitro fertilization should be investigated as a solution to any cause of intractable infertility where the egg and sperm can be obtained and fertilization allowed to occur in vitro.” Although initially conceived of as a technology for women who had tubal defects, within a few years of clinic practice in the United States, IVF became a reproductive technology with the potential to help nearly all infertile Americans.

The Norfolk clinic changed its criteria for selecting patients after it began to experience greater success with IVF. In the beginning, it refused to accept patients over the age of 35 because the Joneses, much like other infertility specialists, recognized that fertility began its natural decline in the mid-thirties for women. Accepting female patients above the age of 35 was likely to lower the clinic’s overall success rate. However, “this rule was gradually violated,” much like many other aspects of the early protocols, and the Joneses found that their early beliefs were incorrect and “that the pregnancy rate for patients in the age bracket 36-39 was better than

106 Howard W. Jones, Jr., “The Selection of Patients for In Vitro Fertilization” n.d., 2.Mason Andrews Papers, Box 16, Folder 2, ODUA. This paper discussed how the Norfolk Clinic chose its IVF patients.
107 Ibid., 8.
108 Ibid., 11.
for any other age group.” However, even as the Joneses achieved pregnancy and childbirth with a 41-year-old mother in 1984, they continued to question the success of IVF in women aged forty or above. Once again, the changes the clinic ultimately made in its early protocols and patient selection show that much like other early clinics, the leaders were experimenting with the procedure in an effort to make it more successful. Despite the fact that Jones took on the mantle of IVF expert, in the early years of the clinic, his knowledge of the IVF procedure was limited by the newness of the reproductive technology.

Patients not only had to meet the requirements of the new program, but they also had to have enough money to undergo expensive and still experimental treatment. In 1980, the costs of a procedure that had yet to produce a baby at the Norfolk clinic were around $1300 for each fertilization attempt. Ironically, perhaps, Jones predicted that the price would eventually come down as they “learn which measurements can be reduced,” and better understood the procedure. By making such a statement in 1980, the American IVF pioneer implied that once the clinicians actually became successful, the likelihood that patients walk away with a baby of their own would increase and the procedure would be more affordable as well. While to some, such patient-funded research practices might appear unethical, Jones assured his contemporaries that “patients are thoroughly informed concerning the developmental aspects of the program and the presently low chance of success.” Despite the expense of the experimental procedure and knowledge of its low success rates, American couples still applied to be chosen among thousands for entry into the IVF program at Norfolk.

---

109 Ibid., 3.
110 Ibid., 2.
112 Ibid.
113 Ibid.
Once again, Jones’ early speculations surrounding IVF were ultimately wrong. Although he believed the costs would eventually decrease as the technology became more widely available, the price of IVF only went up for patients. The Jones Institute, created in 1984, sent an undated notice to inform patients that the “billing of an IVF treatment cycle has been modified,” a euphemism for “increased.”\textsuperscript{114} Although the notice optimistically stated that health insurance plans were beginning to cover IVF, not all insurance companies funded the infertility treatment, and the cost of the “average cycle” with consultations, lab work, ultrasound, and surgery, had risen to $5,705.\textsuperscript{115} Further, payments were due at the beginning of each cycle, although the clinic assured patients that although the total payment was due “two or three days prior to scheduled retrieval,” women who failed to produce any eggs would “receive a full refund from the hospital in accordance with their procedures.”\textsuperscript{116} Nonetheless, the notice stated that, “Your IVF treatment cycle will not begin until your payment is received in full,” and the Institute would accept any form of payment on the first day of stimulation, except for personal checks, which “must be received at least three weeks prior to the start of stimulation.”\textsuperscript{117} Pregnancy test fees, which were not included in the estimate, were estimated at an additional $350.\textsuperscript{118} The costs of medication, also not included in the initial estimate, ranged, but were approximately $3,000.00.\textsuperscript{119}

By the end of 1980, the Joneses made another important change to their program at Norfolk when the team began to shift from using natural cycles to stimulated cycles. According to Howard, Georgeanna convinced him that “it was ridiculous to continue with the natural

\textsuperscript{115} Ibid., 2.
\textsuperscript{116} Ibid., 3.
\textsuperscript{117} Ibid.
\textsuperscript{118} Ibid., 2.
\textsuperscript{119} Ibid., 3.
cycle,” as other teams found success using stimulated cycles. Even Steptoe and Edwards had turned to hormones to stimulate ovulation. Despite the Joneses’ assurances that they would not stimulate the production of multiple eggs, the team quietly shifted to stimulated cycles within a year. For the local right-to-life opposition, the possibility that the Norfolk clinic would fertilize eggs and then not transfer all resulting embryos signified the loss of human life equivalent to abortion. The Norfolk team did not advertise this decision, and the Joneses were surprised and pleased that this decision gained little to no attention in the local media. Indeed, Harris stated that journalists continued to maintain that the Joneses retrieved only one egg, even as clinic shifted to fertilizing multiple eggs. Local journalists did not ask the Joneses about changing procedures, and the clinicians made no effort to raise awareness of the shift. Surprisingly, as the clinic opened and Andrews continued to battle against negative portrayals of the clinic in the local media, the clinic’s opposition failed to discover the controversial shift in the clinic’s practice.

While the choice to begin using stimulated cycles promised the convenience of ovulation on a time schedule, it did have its downside. The American practitioners had yet to find success using patients’ natural cycles, but when the Joneses began using hormone stimulated cycles no teams that used this method had achieved pregnancy through IVF in “normal menstruating women.” According to Jones, the other IVF teams found success achieving pregnancy in women with abnormal menstrual cycles, who were likely candidates for hormone prescriptions to induce ovulation anyway. The problem of how to use stimulated cycles for normal ovulating women remained. In other words, hormone therapies that worked for anovulatory women failed to work for women who experienced no problems with ovulation. Ultimately, the team, led by

---

120 Harris, 136.  
121 Harris, 140.  
Georgeanna Jones, found that when hormones were used to stimulate egg production on a more reliable schedule, the luteinizing surge that was necessary to prepare the uterus for pregnancy did not occur. The Joneses ultimately made up for this shortcoming by administering different hormones than the other international IVF teams used, human chorionic gonadotropin (hCG) combined with Perganol. Further the Joneses researched the effects of ovarian stimulation on the reproductive system, and found that at times the resulting changes confounded their “understanding of normal menstrual physiology,” and that “all patients did not respond the same to the same stimulatory dose.” Although the Jones team ultimately moved away from using natural cycles to stimulated cycles, Howard Jones was insistent that “at no time did the Norfolk program use a rigid stimulation protocol, rather the stimulation was modulated to accommodate to the variation in patient response.” Their new protocols appeared to work, for once the Joneses made the shift, they found success on their thirteenth try with Judy and Roger Carr.

The Carrs applied to the new IVF clinic at Norfolk after numerous ectopic pregnancies that left her fallopian tubes so “severely damaged” that “it was necessary to surgically remove them.” It appeared that their only hope for a child of their own was in vitro fertilization. Because Leslie’s condition fit the requirements of the Norfolk clinic, the couple was chosen among thousands of applicants to participate in the IVF program as the Joneses began using hormones to stimulate egg production after discovering how to overcome the luteal phase defect.

123 Ibid., 9.
124 Ibid.
125 Jones, “The Selection of Patients for In Vitro Fertilization,” 3.
126 Howard W. Jones, Jr., M.D., “The Selection of Patients for In Vitro Fertilization,” n.d., 8, Mason Andrews Papers, Box 16, Folder 2, ODUA.
127 “The Problem of Judy and Roger Carr (The Baby That Couldn’t Be),” n.d., Mason Andrews Papers, Box 16, Folder 6, ODUA. This is a pamphlet for the Norfolk Clinic that advertises their IVF services.
On April 15, 1981, the Joneses retrieved an egg from Judy Carr, successfully fertilized it, and Elizabeth Jordan was born on December 28, 1981.128

The birth of a healthy baby following the IVF procedure in the United States helped to legitimize the practice of IVF in America, and became a media sensation much like the birth of the world’s first “test-tube” baby. Indeed, the Norfolk team celebrated the birth of their first IVF baby. Mason Andrews, the chair of the Department of Obstetrics and Gynecology at EVMS, rejoiced in the clinic’s triumph, and expressed gratitude to the IVF pioneers who came before them. Extolling the “vision and persistent courage of a British Biologist, and a British Gynecologist,” Andrews stated that it was “the intelligence and dedication of the local E.V.M.S. and Norfolk General Hospital team lead and inspired by two of the world’s great physicians,” Howard and Georgeanna Jones, that made Carr’s birth possible. For Andrews, the birth of healthy baby Elizabeth following the IVF procedure, “in a small way, dramatizes the application of medical science to improvement of the lives of people.”129 In the face of pro-life and Catholic opposition during the Certificate of Need procedures, Andrews appreciated the fact that the “local and State authorities and peer groups” had properly assessed the “potential human benefit from this process,” by providing the clinic with permission to proceed.130 Andrews recognized, too, that without the “courage of many patients who seek to have a family of their own against substantial odds,” the clinic would not have been able to realize its potential. He failed to mention the substantial cost of the procedure for the patients, though, which also made the success possible by funding Norfolk IVF through its experimental phase. On what was clearly a momentous occasion, Andrews could not help but recognize that the location of the birth of the

---

128 Ibid.
130 Ibid.
first IVF baby born in the United States, the Virginia Tidewater region, was also the “initial site of the transplantation of British culture to this Continent has extended this tradition begun in 1607.”

For Andrews, the British-pioneered technology making its way across the Atlantic and enabling Elizabeth Carr’s birth represented History in the making with revolutionary potential.

As he celebrated and congratulated his colleagues, Andrews received letters congratulating him on the birth of the first IVF baby in the United States. Despite the critics, Dr. Gerald H. Holman of the Texas Tech University Health Sciences Center, believed that “it was good science, good medicine and good humanity” that resulted in the birth of a child to an infertile couple for the first time in American History.

Andrews’ “perseverance and leadership in developing the invitro [sic] fertilization program in Norfolk” made it possible, and he and the Joneses had weathered “what proved to be a greater storm than imagined,” in doing so, they brought hope “to several hundreds of couples throughout this country.”

By the time Elizabeth turned one year old at the end of December, 1982, the Norfolk clinic had seen the birth of nine more IVF babies in their program. In that year alone, the Jones team transferred nineteen fertilized eggs, which resulted in five pregnancies and no miscarriages, “even of so-called chemical pregnancies.” Between January 1981 and September 1984, Jones reported that the clinic initiated 825 stimulation cycles, of which 667 embryos were transferred to the patient.

According to Jones, this success rate was “statistically no different from the SART [Society for Assisted Reproductive Technologies] registry pregnancy rate as late

131 Ibid.
132 Gerald H. Holman to Mason Andrews, 27 January 1982, Mason Andrews Papers, Box 16, Folder 5, ODUA.
133 Ibid.
135 Jones, “The Selection of Patients for In Vitro Fertilization,” 2.
as 1996.” The Joneses’ success was a result of Georgeanna’s recognition of the luteal phase defect after the pair decided to induce ovulation by using hormone stimulation. The Carrs were the first family to benefit from this decision, although thousands more would follow. In 1981, though, this success did little to allay the concerns of the local right-to-life groups in Norfolk.

By 1981 the leaders of the Norfolk clinic had become weary of the local press after experiencing “grief” resulting from biased “media reports.” Recognizing that the media’s interest in the clinic was increasing as Judy Carr reached the end of her pregnancy, Andrews informed all employees that the best way to deal with reporters who telephoned requesting interviews was to refer them to the clinic’s public relations representative. At such a crucial time for the clinic, Andrews did not want to risk any of the clinic’s physicians or employees unwittingly providing the media with ammunition they could use against the clinic.

As late as November 1981, as the Norfolk clinic awaited the birth of Elizabeth Carr, Andrews continued to accuse the local newspapers of being uniquely biased against in vitro fertilization. For example, Andrews wrote a letter to Eugene Patterson, of the St. Petersburg Times in Florida, inquiring about proper policies for guest editorials. In his letter, Andrews asked about the professionalism of the newspaper, which published such an editorial despite its policy that guest editorials must be “well written” and “factual.” However, the letter’s tone was more accusatory. The focus of Andrews’ discontent this time was a guest editorial written by local right-to-life advocate Charles Dean Jr., who suggested that “powerful insiders” had

---

136 Jones, “IVF: Past and Future,” 9. SART is the Society for Assisted Reproductive Technologies, which was created as a professional organization for IVF practitioners. Unlike the American Fertility Society (AFS), SART members were required to be IVF practitioners. On top of being a professional organization, SART began collecting data about IVF successes in 1985.
138 Ibid.
“perverted the intended life saving purpose of the school” by allowing the IVF clinic to become a reality. For Andrews, “this proceeds on the assumption that in-vitro fertilization is pro-abortion,” an idea he vociferously refuted.  

Andrews also disputed Dean’s allegation that the medical school was losing benefactors over the in vitro fertilization clinic. Noting that “a current campaign to raise six million dollars for the Clinical Science Building for the medical school is almost complete a year ahead of schedule,” Andrews implied that the IVF clinic was in fact drawing positive attention from benefactors as well as the negative attention from right-to-life groups.  

According to Andrews, Dean’s article was not factual and included statements that were “personally abusive” and “manage[d] to hang the pro-abortion’ label on an institution which has done nothing to deserve it.” While Andrews could refute Dean’s claims against the clinic to show that although the editorial policy stated that guest editorials must be factual, he was irritated that the newspaper continued to privilege the pro-life opposition’s perspective despite his attempts to mend the relationship between the clinic and local news media. Further, he stated that he knew “of no previous column by a local non-professional” to appear in an op/ed page, and noted that “the editor generally supports the Right-to-Life position.” Andrews insinuated that the pro-life editor published Dean’s guest editorial because it supported his own views and agenda.  

Despite the upcoming birth of the nation’s first IVF baby, the local newspapers continued to connect the life-giving technology to abortion. For Andrews and other IVF leaders, the realization that the procedure enabled infertile women to have children of their own and that IVF success was within the Norfolk team’s grasp, should have persuaded the opposition to support

---

140 Ibid., 2.
141 Ibid.
142 Ibid., 1.
143 Ibid., 3.
the clinic. However, the leaders of the local newspapers, who according to Andrews shared the opposition’s values, continued to publish disparaging accounts of the clinic.

In his struggle with the local newspapers, Andrews sought assistance and support from reproductive experts and members of the media outside of Norfolk, but did not always agree with the responses he received. Patterson, the editor and president of the *St. Petersburg Times* in Florida, recognized Andrews’ displeasure with the newspaper, but wrote that “It’s a good newspaper, run by good people,” and stated that he thought that the practice of publishing “guest columns written by readers to be an ethical and desirable practice” for providing greater access for readers to share their ideas. The authors of guest editorials need not “be particularly expert in a field to qualify their opinions for the publication,” he insisted.144 Patterson did, however, agree with Andrews that “a newspaper bears a companion obligation to prevent misuse of its columns to misstate facts or to abuse others,” and recognized that the Dean editorial contained factual errors, against the policy stated in “the *Virginian-Pilot* editor’s own rules” for guest submissions. Moreover, “I find its pejorative terms about others to be abusive,” Patterson wrote, and as such, he would not have printed the editorial unless he “printed it side by side with a simultaneous column written in rebuttal by the holder of an opposite view.”145 Patterson suggested that Andrews “submit an immediate guest column” in rebuttal, because “American editors are free, God help us, to make bad judgments as well as good ones.”146 But Andrews, who had been engaged in an ongoing battle with the media for three years, recognized that writing rebuttals and corrections would do nothing to put an end to what he saw as the nearly continual disparaging accounts of the clinic in the local newspapers.

145 Ibid.
146 Ibid.
According to Howard Jones, “The Norfolk General Hospital engaged a newspaper clipping service to keep tract [sic] of the publicity associated with the early IVF efforts,” which collected around one-hundred editorials from across the country, “all of them favoring what was going on with one exception.” The exception was a newspaper published in Norfolk, the *Virginian Pilot-Ledge Star.* Jones stated that “The editorial policy of the Norfolk newspaper was consistently opposed to the effort,” of the IVF clinic at EVMS, even after the birth of the nation’s first IVF baby, which for many, legitimized the procedure. Indeed, cultural Historian Lisa Hope Harris supports Jones’s claim in her analysis of the media’s portrayal of IVF during the late 1970s, 80s, and 90s. She argues that even before Carr’s birth, many newspapers and magazines had begun showing support for the new technology, and even saw a shift in the language of IVF, as the *New York Times*, for example, stopped referring to “test-tube babies,” and instead discussed “IVF babies.” The technical language had superseded the language of science fiction that had dominated media accounts in the late 1970s. Norfolk’s local media, however, continued to refer to “test-tube babies,” and instead of beginning to show support for the technology, continued to publish editorials in opposition. And indeed, the local right-to-life activists failed to see how the birth of an IVF baby at the clinic should in any way lead them to alter their perceptions of the procedure. After Carr’s birth, Charles Dean Jr. stated that although many were celebrating “the apparently healthy condition of Elizabeth Jordan Carr as a confirmation of the appropriateness of the in *vitro* program,” Dean insisted that “the Right-To-Life community does not see it that way, and in our view, nothing has been done in the way of

---

148 Harris, 135-142.
allaying our concerns.” As indicated in the local newspapers’ publication of Dean’s November guest editorial, the local news media apparently shared his views. It was clear that the contentious relationship between the local newspapers and the IVF clinic would not improve despite what many still considered a miracle: the birth of America’s first IVF baby.

In late December 1981, as Andrews and the Joneses were celebrating Carr’s birth, *Virginian-Pilot* editor Terry Eastland wrote an editorial illustrating the local media’s continuing opposition to the clinic. Although the purpose of the editorial was to encourage support for a local home for the mentally challenged, the Hardee House, Eastland took the opportunity to criticize the Norfolk clinic. Beginning the editorial by discussing the work ethic, camaraderie, and general abilities of the residents, Eastland recognized that there were “three to five million Americans” who were “mentally handicapped,” and later insinuated that if IVF became a clinical reality throughout the country, there would be far fewer. What began as a human interest editorial in favor of group homes for the mentally handicapped shifted to a disparaging discussion of what Eastland considered to be the pro-abortion policies of the local IVF clinic. He wrote, “Children who have been brain damaged since birth are not the kind many parents would accept as their own, or many doctors, experimenting *in vitro*, would allow to be born. Mere blocks away from Hardee House, was born, this week, the nation’s first test-tube baby. It is doubtful that such babies will ever become candidates for Hardee House, because it is doubtful that any ‘defective’ fetus will ever be permitted to survive the mother’s womb.”

Despite constant reassurances from Andrews and the Joneses that the Norfolk Clinic did not and would not force patients to abort damaged fetuses, local newspapers took advantage of every

---

149 Charles Dean, Jr. to Robert W. Wentz, Jr., n.d., Mason Andrews Papers, Unprocessed Portion, “In Vitro Press, 1981-1982,” ODUA. Dean was the president of the Tidewater Chapter of the Virginia Society for Human Life, and Wentz was the chairman of EVMA Board of Commissioners.

opportunity to claim that the local clinicians supported abortion. Andrews and the Joneses decided to take legal action against the newspaper for publishing libelous statements against them.\footnote{Robert Nusbaum to Frank Capterton, n.d., Mason Andrews Papers, Unprocessed Portion, “In Vitro Press, 1981-1982,” ODUA.}

As Howard Jones later recalled in a speech, Eastland’s editorial “caught the eye” of one of Andrews’ friends, a local attorney named Robert Nusbaum. Nusbaum suggested that the editorial could be considered libelous, and that the only way to put an end to the nearly constant negative editorial policy was to take legal action against the local newspapers.\footnote{Jones, “IVF: Past and Future,” 11.}

Agreeing, Andrews and the Joneses secured Nusbaum as their legal representative. Nusbaum then informed Frank Capterton, the Vice President and Executive Editor of the Virginian-Pilot that he was representing the three against the defamation represented in the “Hardee House article.”\footnote{Nusbaum to Capterton, n.d.}

Explaining his reasoning, Nusbaum wrote that, “The quoted language, with the words taken in their commonly accepted meanings, defames our clients’ good reputations and attacks their worthiness to practice their professions as physicians and teachers. It falsely accuses them of having engaged, or being willing to engage, in grossly unprofessional, unethical and improper conduct, and otherwise impugns their integrity.”\footnote{Ibid.}

The article clearly implied that the Joneses would “abort a ‘defective’ fetus without the consent of the parents, and perhaps even without the knowledge of the parents.”\footnote{Ibid., 2.}

Andrews, the Joneses, and the other doctors at the Norfolk clinic, Anibal Acosta and Jairo Garcia, sued Landmark Communications, the company that owned the Virginian-Pilot and
the *Ledger Star*. In the suit, Nusbaum and the Norfolk clinic’s leaders cited two paragraphs from the “Hardee House” editorial that they considered libelous. These paragraphs included accusations that the local IVF practitioners would force the abortion of “brain damaged” children conceived at their clinic. The doctors argued that they had no requirements surrounding “defective” fetuses, and had no intentions of aborting IVF fetuses or even testing for genetic defects. After the doctors complained, the newspaper published a “clarification” on January 30, 1982, stating that the editorial had “not intended to characterize any particular *in vitro* program.” However, the correction did not actually retract the statements that connected IVF and abortion. The clinic’s physicians failed to see the value of the so-called “clarification,” for “in their suits, the doctors argue that the clarification ‘had the effect of readopting and republishing the libelous material…in a form defamatory to all doctors working in the field of *in vitro* fertilization.’” While the “clarification” stated that Eastland did not intend to malign the Norfolk clinic in his editorial, it implied that IVF fostered abortion, and that IVF practitioners would abort “defective” fetuses. For the Joneses, the so-called clarification did more harm than good.

As the clinic’s leadership fought its legal battle against the local newspapers, Andrews continued to squabble with the local press. For example, when a *Virginian-Pilot* article included a quote from Charles Hammond of Duke University about the Norfolk Clinic, Andrews wrote to Hammond to see if in fact he had made the statement attributed to him. Although Hammond

157 Ibid.
158 Ibid.
159 Ibid.
160 Ibid.
admitted that the quote was in fact his, he informed Andrews that the reporter had taken a single quotation from “5-10 minutes worth of conversation.” Hammond could not claim to be misquoted, but believed that the reporter twisted his words and took them out of context to make a different point than he intended. Hammond’s quote referred to a “huge investment” of energy and effort on the part of the leaders of the clinic, but he contended that the journalist had manipulated his words to make a statement about the rather large monetary investment IVF patients had to make. Hammond wrote to Andrews that he regretted if his “comments have caused any problem for you,” and stated that “obviously I meant them to be most positive and laudatory toward the accomplishment you and the group at Norfolk have achieved.”162 In response to Andrews’ letter, Hammond also wrote a letter to the editor of the *Virginian-Pilot*, in which he stated that the journalist misrepresented his words by using his quote in connection with more negative views of the clinic. Hammond ended his letter to the Norfolk paper with great praise for the clinic and its leadership, writing that he “continue[d] to be impressed with the fact that the proper focus of one department’s resources of personnel, time, space, energies, and dollars has allowed it to make one of the most significant contributions in human infertility in the United States.”163

Meanwhile, Andrews continued in his fight against the local media while negotiating his suit against the papers’ owners. He not only fought back against the negative portrayals that associated the clinic with abortion, but also anything that he thought maligned the clinic, often enlisting the help of colleagues whose quotations were misused by journalists.

---

162 Ibid.
Not every reproductive specialist whom Andrews contacted agreed to respond to the newspapers when Andrews requested assistance. For example, Andrews wrote about his ongoing battle with the local newspapers and right-to-life groups to Martin Quigley, who had started an IVF clinic at the University of Texas. Andrews asked Quigley to write a letter to the editor of the *Ledger Star*, in response to an article by medical reporter John McManus. McManus had described IVF at the Norfolk clinic as “‘mixing the ingredients of human life in a plastic bowl.’” Quigley, while finding the article to be more appropriate for *The National Enquirer* than a newspaper, opted not to write a letter to the editor, though, for he believed that doing so would “be merely calling additional attention to this article and would be bringing us down to their level.” He was, however, “thankful” that there was “no where near the problem with press” at his new clinic, which developed in a more accepting environment. Indeed, the IVF clinics that opened after the Norfolk clinic were not met by the same opposition Andrews and the Joneses faced. As the first IVF clinic in the United States, Norfolk paved the way for the clinic at the University of Texas and set the precedent for a successful clinic despite anti-abortion backlash.

While the leaders of the clinic awaited the outcome of the libel suit in the fall of 1982, Andrews continued to express his displeasure at local newspaper accounts of the clinic and its work, which he believed were full of negativity and glaring omissions. Such reporting failed to do justice to the community’s successful new IVF clinic, for which other newspapers had nothing but praise. In November 1982, he wrote a letter to the public editor of the *Virginian-Pilot* and the *Ledger Star* to criticize the papers’ unprofessional reporting of an *in vitro*

---

165 Ibid.
166 Ibid.
fertilization workshop held in Norfolk September 12-14, 1982. Insinuating that other papers 
granted the clinic the respect it deserves, he noted that while “The editor of the Richmond News 
Leader came to all of the sessions and reported them in a straightforward manner,” and the 
“medical reporter from the Nashville, Tennessee paper did likewise,” McManus, the local 
newspapers’ medical reporter “did not attend any of the sessions.” McManus wrote an article 
about the workshop, which “amounted to bits and pieces of possibilities which he may or may 
not have elicited in detail from these visitors.” Even when the local newspapers ceased in 
their outright attacks on the clinic for what editors saw as its pro-abortion policies, Andrews 
found that the negligence of the papers’ reporters represented a covert attack on the clinic’s 
reputation and success.

Andrews repeatedly corrected the local newspapers’ inaccuracies even after he and the 
other Norfolk IVF practitioners had sued Landmark Communications. Although he recognized it 
was “of extremely little importance in the full scheme of things,” the Virginian-Pilot/Ledger Star 
printed another inaccurate article by McManus in December 1982, which stated that Johns 
Hopkins had to reduce the size of its surgical program because Jones left the University to start 
the IVF program in Norfolk. Andrews noted that the leaders of the clinic had “repeatedly” 
told the newspapers’ journalists that the Joneses did not leave Johns Hopkins for Norfolk to start 
the IVF clinic, arguing that “the Joneses came to Norfolk without any intention of pursuing an In 
Vitro program and, in fact, came for other reasons.” Even as he recognized that such a 
misstatement had little impact on the clinic, Andrews wrote that “it is of a great deal of

---

168 Ibid.
170 Ibid.
importance to us and I would appreciate your correcting it.” For Andrews, the papers’ failure to accurately portray the clinic even in the face of a libel suit displayed the local print media’s commitment to fighting against what editors believed to be an immoral, unwelcome practice in Norfolk. Andrews was no longer willing to allow the slightest error to go unmentioned. A frustrated Andrews, described his problem with the local media as follows: “A recurring problem starts with a really wrong account of something. Secondly, a respectful, supplicant attempt to identify the problem and to document the accurate situation. Then, a letter or conference, occasionally involving top level management, with expressions of mutual good intent. Then, a repetition of exactly the same thing after a while.”

Despite his realization that his problems with the local media rarely reached a satisfactory resolution, Andrews continued to fight.

Ultimately, Andrews’ perseverance paid off as a result of the Norfolk team’s litigation in Jones, et al. v. Landmark. When Virginian-Pilot editor Terry Eastland wrote that IVF practitioners would abort defective fetuses, Andrews and the Joneses shifted their fight against the media to the courtroom. At the beginning of 1983, the team received a public apology and “a substantial sum of money” paying for the team’s “research for the next couple of years,” which, according to Jones, “turned out to be much easier than writing a grant request to the National Institutes of Health.” The settlement resulted in a monetary award for each of the clinic’s litigants. Each complainant—Andrews Howard and Georgeanna Jones, Jairo Garcia, and Anibal Acosta—ended up receiving checks for $20,000 which went to the development of the clinic. Nusbaum’s firm retained $45,600 in legal fees. After more than four years of struggling with the local newspapers, Andrews and the IVF team triumphed in the end. Ironically, the local

newspapers’ support of the clinic’s anti-abortion opposition ended up providing the practitioners with the funding needed to expand the practice.

In January 1983, *The Virginian-Pilot* offered an apology to the Norfolk *In Vitro* Clinic, stating that the reference to the clinic and its doctors in the “Hardee House” editorial was “an unfortunate mistake,” and that “The Virginian-Pilot had no evidence a year ago and has no evidence now that anyone participating in the Norfolk *In Vitro* Program has any bias against the mentally handicapped.”\textsuperscript{174} The apology went on,

In addition, those paragraphs could reasonably be read to imply that some or all of the Norfolk *In Vitro* doctors would, for reasons other than the desires or best interests of the patient, abort a mentally defective fetus of a patient who had become pregnant by the *in vitro* method. The *Virginian-Pilot* realizes that this is untrue and is understandably offensive to the doctors in the Norfolk *In Vitro* Program. In fact the Norfolk doctors have made it clear that here has never been an abortion performed on a patient of the Norfolk *In Vitro* Program nor, except in one case, has testing, of the type which would identify mental defects, been performed on any patient of the Norfolk *In Vitro* Program. The one exception was in a case involving a woman over the age of 37.\textsuperscript{175}

Not only did the clinic reap a financial reward, but it also achieved an ideological victory. The newspapers had privileged the pro-life perspective against the IVF clinic since the Certificate of Need fiasco. Finally, more than four years later, after countless articles and editorials that failed to portray the clinic properly, its leaders were receiving affirmation from the local newspapers. For them, the papers’ attacks on IVF were not only harmful to the Norfolk clinic, but to its patients at well. Andrews’ long fought battle with the local newspapers was reaching its end.

In what could be considered his final victory in Andrews’ war with the local media, Terry Eastland, author of the “Hardee House” editorial, left his position as the *Virginian-Pilot’s* editor in February 1983. Reflecting on his career in the Tidewater region in his final editorial, Eastland

\begin{itemize}
  \item \textsuperscript{174} “*In Vitro: An Apology,*” *The Virginian-Pilot,* January 20, 1983, Mason Andrews Papers, Unprocessed Portion, “*In Vitro Legislation,*” ODUA.
  \item \textsuperscript{175} Ibid.
\end{itemize}
avoided making any explicitly negative comments about the clinic or the libel suit against his editorial. Interestingly, among his list of “notable” events that occurred during his tenure, he recognized the birth of Elizabeth Jordan Carr. Stating that the procedure offered hope to childless Americans, Eastland seemed to have adopted a conciliatory tone, until he discussed some of the possible outcomes of IVF, including “growing and freezing ‘spare’ embryos for research purposes,” and the “cloning of human embryos.” Eastland also took the opportunity to discuss the freedom of speech and press. Contending that IVF research should be open for intelligent discussion between scientists and laypeople, Eastland insinuated that the clinic’s leadership had prohibited such a discussion from occurring in the Norfolk community. While Andrews believed that the newspapers misrepresented IVF and gave too much credence to the opposition while failing to explore the positive aspects of the technology, Eastland clearly disagreed. Perhaps believing that the clinic’s leadership had attempted to dominate and censor the discussion of IVF in the community by engaging in a libel suit, Eastland transitioned his discussion from IVF to “the litigious impulse,” which “continues to beat rapidly in the American breast.” Although he discussed an unrelated wrongful birth case in which a mother was awarded $100,000 after having her fifth child following a failed abortion, anyone following the IVF/media controversy in Norfolk would have recognized that the “litigious impulse” Eastland mentioned was a reference to the IVF clinic’s libel suit. While the exiting editor did not explicitly mention the case in his article, it was clearly on his mind as he moved from IVF to the “litigious impulse” and then ended with a discussion of the ever-changing and diverse media and the editorial policy of newspapers. He wrote, “Where I hope they will change the least is on the

177 Ibid.
178 Ibid.
179 Ibid.
editorial page, whose roots go deep in history, as newspapers go, and whose importance deserves to endure. It is on the editorial page that a community deserves the fullest expression of competing ideas and points of view. A community deserves, too, an editorial page that is fair but also tough, unafraid to take a stand and to keep standing.”

Eastland’s last editorial illustrates his conviction that he had not done anything wrong; he had merely taken a firm stand against what he believed to be the pro-abortion policies of Norfolk’s new IVF clinic.

Ultimately, the Norfolk IVF Clinic was a success story. The right-to-life opposition to IVF fought against the local clinic for more than four years, but failed to prevent the clinic from opening and found that despite negative portrayals of the clinic and its links to abortion, the clinic continued to grow and prosper. Ultimately, Andrews was correct in his assessment that only a vocal minority of Americans opposed the clinic and the technology. And, while this vocal minority was able to prevent federal funding for IVF research, EVMS received permission to start an IVF clinic from every review board it faced. EVMS gained funding as the clinic grew and expanded, drawing even greater support for the medical school’s other programs as it became successful and made a name for the school. Throngs of patients applied to the clinic even before it proved successful. Nonetheless, local right-to-life activists continued to view IVF as destructive of human life even after the birth of the nation’s first IVF baby, and the local newspapers continued to publish negative portrayals of the clinic. Frustrated with having to continually correct inaccurate accounts of the clinic in the Virginian-Pilot and the Ledger Star, the clinic’s leadership turned to the legal system to put an end to what they viewed as harassment. Ironically, the local newspapers ended up funding the clinic’s expansion when the clinic reached a settlement with Landmark Communications. This time, IVF came out victorious after its struggle with the right-to-life movement’s attempt to stigmatize it as a pro-abortion

---

180 Ibid.
technology. As Andrews and the Joneses engaged in their lengthy battle against the pro-life movement’s negative portrayal of IVF, other clinics began opening across the country, thus initiating the clinical phase of the reproductive technology. After the first IVF clinic’s successful fight against the anti-abortion opposition, the technology was still met with opposition. As the next chapter will show, the opposition to IVF shifted away from the rhetoric that linked IVF to abortion, and the technology became widely accepted in the United States. Together, the social acceptance of IVF and shifting oppositional rhetoric paved the way for policymakers to revisit the reproductive technology that DHEW was compelled to forsake.
CHAPTER VI. SEPARATING IVF FROM ABORTION

As the Department of Health, Education, and Welfare considered the ethical acceptability of federal funding for *in vitro* fertilization research in the United States, right-to-life activists connected the new reproductive technology to the contentious abortion issue by arguing that the reproductive technology resulted in the loss of early human life. By making this connection, anti-abortion activists successfully blocked NIH funding for IVF as decision-makers like Joseph Califano and Patricia Harris recognized the strength of the pro-life movement. By declaring that IVF was the moral equivalent of abortion, anti-abortion activists prevented HEW from providing funding for IVF research. The rhetoric against federal funding for IVF echoed the pro-life arguments directed against the Norfolk clinic. Nevertheless, since the Norfolk clinic’s opening, IVF spread throughout the country. As private sector clinics thrived, and IVF became widely available in the United States, the media extolled the technology while the opposition shifted and expanded in ways that ultimately separated IVF from abortion. This chapter argues that together with the support of the mainstream media, new forms of opposition arose that resulted in the increasing separation of IVF and abortion.

During the 1980s, self-identified radical feminists created an organization to educate women throughout the world about the risks of reproductive technologies. At the same time, the Vatican—which had avoided connecting abortion and IVF as many American pro-life activists did—now began to equate IVF with contraception given its role in separating sexual intercourse from reproduction. But the strength of IVF’s opponents was no match for the media in the pronatalist 1980s, which promoted *in vitro* fertilization for its ability to provide infertile couples with “miracle babies.” The connection to abortion that had plagued IVF in America even before Louise Brown’s birth was coming undone during the 1980s as Americans saw numerous
examples of how the reproductive technology could provide hope for infertile couples. Babies born as a result of this technology—not discarded embryos—had become the faces of IVF, making it harder for IVF’s opponents to focus public opinion on the technology’s negative aspects.

While the IVF debate raged among policy makers and society throughout the United States, the 1980s experienced a resurgence of pronatalism that grew out of a backlash against feminism, and the ascendance of a conservative administration, all bolstered by enthusiastic media support. This intense pronatalism coincided with a time period that witnessed the exponential advancement of science and technology in the field of infertility, bringing droves of Americans to the offices of infertility specialists despite the fact that infertility was not actually increasing. Although the pronatalism of the 1980s supports scholars Margaret Marsh and Wanda Ronner’s contention that social more than technological changes bring people into doctors’ offices, the availability of new reproductive technologies like in vitro fertilization and its successors—including gamete intrafallopian transfer (GIFT), zygote intrafallopian transfer (ZIFT), and Intra Cytoplasmic Sperm Injection (ICSI)—encouraged the infertile to seek professional help. The mainstream media simultaneously provoked criticism and lavished praise on women who sought infertility treatment in their late twenties, thirties, and even early forties, and embraced these reproductive technologies, urging women who had delayed childbearing to reset their biological clocks.

While the media had discussed infertility before 1978, this attention became even more focused after the birth of the world’s first “test-tube” baby, the debates of the Ethics Advisory Board, and eventually, the U.S.’s first IVF baby. As IVF developed in the United States, the mainstream media focused on its benefits, often extolling reproductive technologies for offering
the means to turn back the biological clock. American culture scholar Lisa Hope Harris contends that the mainstream media supported and even helped perpetuate *in vitro* fertilization as the technology became available throughout the country. Focusing her study on the media’s effect on the development of IVF in the United States, Harris argues that “The media invented a crisis in infertility among professional women who delayed childbearing and then interpreted IVF as a solution to age-related infertility.”¹ Noting the “sheer volume of coverage of infertility and IVF” in the American media, Harris states that “few personal crises become so powerfully fused to a sense of profound social crisis that they generate endless iterations of their core narratives.” She argues that the media’s interest in IVF lay in the fact that “IVF touches on nearly all of the topics that are generally treated as newsworthy: government, scandal, crime, public protests, innovation, and matters of birth and death.”² Assessing the language the media used to discuss IVF, she notes that even before Elizabeth Carr’s birth in 1981, the mainstream media began to refer to IVF as a “technique” rather than an “experiment.”³ The ethical questions that had dominated the mainstream media’s discussion of IVF during the 1970s were replaced in the 1980s by stories of infertile women who had “delayed” childbirth for too long, who turned to reproductive technologies like *in vitro* fertilization for salvation.⁴ Although Mason Andrews and the Joneses experienced the denigration of IVF at the hands of the local media that was dominated by conservative voices, they recognized that the coverage of IVF in the mainstream media was more positive in the national media.⁵ As IVF developed independently of the federal government, it permeated society and many Americans came to accept it as harmless, useful, and

---

¹ Harris, 190.
² Ibid., 28.
³ Ibid., 140.
⁴ Ibid., 142.
even conventional, severing the connection that pro-life advocates had fostered between IVF and abortion since the 1970s.

**Pronatalism**

Opposition to IVF was no match for media attention to motherhood throughout the 1980s. In order to gain a better understanding of some Americans’ willingness to pay any price to have a child of their own, it is crucial to understand the different forces that contributed to infertility and the sudden interest in its treatment during the 1980s. Pronatalism reemerged after the Population Control Movement that began out of fears of overpopulation in the 1960s and 1970s lost much of its popular following when more widespread use of birth control and abortion led to a declining birth rate. Illustrating the shift from population control to pronatalism, a 1985 *Vogue* article included the tale of a man who felt criticized for his decision to start a family in the 1970s only to find that in the 1980s, having a baby had transformed into a “big achievement.”

For some women, the fruits of feminism included the confidence to pursue education, careers, and families. They believed that they truly could have it all. The backlash against feminism also assumed a pro-motherhood stance during the late 1970s and early 1980s, and it comes as no surprise that the Population Control Movement ebbed and a pronatalist decade began. The popular media supported this backlash against feminism and the pronatalism with which it was coupled, as well as social theorists’ fears that an American “birth dearth” had replaced uninhibited population growth as the real population problem. By supporting and encouraging motherhood during the 1980s—especially mothers who were “elderly primagravidas”—the media supported the development of IVF and other assisted reproduction technologies without which many of these older women could not reproduce.

---


Of course, the media, broadly stated, is in no way monolithic; nor has it ever been. Nonetheless, the media is a valuable forum for the expression of societal ideas and values in the past and the present. One can look to newspapers, magazines, movies, and music to understand the spirit of the time, and different forms of the media have the ability to shape what people think of themselves and their place in society. The mainstream media paid expansive, positive attention to IVF as the technology became clinically available, helping to make it a technology that Americans were willing to embrace.\(^8\) As the media focused on the possibilities IVF provided infertile Americans, the new reproductive technology became less foreign and more acceptable to Americans. Historian Elizabeth Siegel Watkins recognizes the power of the media in shaping public opinion in her history of the birth control pill, *On the Pill: A Social History of Contraceptives*. Attributing tremendous power to the media, Watkins argues that magazines, newspapers, and news reports were particularly influential in serving as the public’s primary source for the “social, moral, economic, and medical” implications of new technologies such as the birth control pill.\(^9\) While media scholars have pointed out that the media may not be able to shape what Americans think, it is critical in shaping what Americans think about. Further, the media confers status on certain ideals merely by consistently covering topics that uphold certain social norms.\(^10\) During the 1980s, the American media was critical in framing IVF discourse for Americans, when different journals and magazines focused on the supposed infertility

\(^8\) Although the attention paid to the media’s coverage of IVF is limited in this study, Lisa Hope Harris makes it the focus of her dissertation on the development of IVF in the United States. While this scholar cannot claim to have read all articles written on IVF in the American media, Harris conducted expansive, systematic primary research on IVF in popular magazines and newspapers. My research in popular magazines corroborates her account, as does Susan Faludi’s discussion of IVF and the media in *Backlash*. Both scholars agree that the media was incredibly influential in encouraging the development of IVF in the 1980s.\(^9\) Elizabeth Siegel Watkins, *On the Pill: A Social History of Oral Contraceptives* (Baltimore: The Johns Hopkins University Press, 1998), 6.\(^10\) Michael R. Real, “Media Theory: Contributions to an Understanding of American Mass Communications,” *American Quarterly* 32, no. 3 (1980): 741.
“epidemic” in America and presented solutions to what seemed a sudden and pervasive problem among American women.

In the early 1980s, a new French study of 2000 women indicated that the onset of infertility began sooner than physicians had thought, and only increased with age. This news took the American media by storm. Suggesting that women’s reproductive window was much shorter, the study alarmed Americans at a point in time when American women increasingly pursued higher education and a career before focusing on creating a family. A 1982 article in the New England Journal of Medical actually recommended “that career women reconsider the decision to postpone having children.”¹¹ To the extent that these recommendations filtered into the mainstream media, they led at least some professional women in their late-twenties and early-thirties to feel “depressed, panicked, and betrayed.”¹²

Recognizing the widespread distress caused by the French study, the American Fertility Society (AFS) attempted to publicize its own statistics regarding age and infertility. According to its calculations, “a twenty-five-year-old woman has a 75 percent chance of conceiving a child after six months of trying. In the late twenties, that drops to 47 percent; in the early thirties, 38 percent; in the late thirties, 25 percent, and after age forty, 22 percent.”¹³ However, when faced with evidence that the French study had exaggerated the early onset of infertility, newspapers printed corrected reports in the back sections of newspapers and magazines where they often went unnoticed.¹⁴ The AFS’s more nuanced numbers seemed less newsworthy than the alarmist reports coming from the French study, and the mainstream media and women’s fashion

---

magazines began announcing America’s supposed age-related infertility problem. One 1982 article warned women that there was “almost [emphasis added] an epidemic of fertility problems” in the United States. Other magazines avoided absolute statements by writing that it was “hard to tell,” but they nevertheless speculated that “infertility may [emphasis added] be on the rise.” One article tracked this presumed rise in infertility, correlating it with an increase in doctors’ prescriptions for fertility drugs. As Marsh and Ronner argue, however, this evidence merely showed that prescriptions for infertility were on the rise—not necessarily the incidence of infertility, particularly age-related infertility.

During the 1980s, journalists became less reserved in their discussions of infertility when they began pointing to “American women’s present tendency to postpone marriage and childbearing” as the foremost cause of infertility, despite the fact that demographic evidence showed that age-related infertility was the least of America’s reproductive concerns. To put it simply, most fertility problems were experienced by younger women. While the number of doctor visits for infertility treatments rose from 600,000 in 1968 to 1.6 million in 1984, demographers argued that “overall infertility was not increasing significantly” in the early 1980s. Indeed, in *American Demographics*, William D. Mosher stated that Americans were actually less likely to be infertile during the 1980s than they were in the 1960s.

Despite the media-proclaimed infertility epidemic, infertility was not actually on the rise among most members of the American population. And despite media attention to career women in their thirties who had postponed childbearing, the real increase in infertility was

---

15 Bennetts, 387.
16 Clark, 102.
17 Ibid.
occurring among Americans in their early twenties. For example, Mosher found that, “among couples aged 20-24…the percent infertile increased from 4 percent in 1965 to 11 percent in 1982.”\(^{20}\) Furthermore, the demographer noted that “Infertility is also more common among black couples than among white, and more common among the less educated than the more educated.”\(^{21}\) So, while the media portrayed infertility as a problem for educated women in their thirties who had postponed childbearing, the Americans who were likely to suffer from infertility were more likely to fall into three different demographic categories: young, uneducated, and black. This early-onset infertility was attributed to the realization that many women were engaging in sexual intercourse at younger ages and contracting sexually transmitted diseases that, if left untreated, could impair fertility. Legal scholar Lori Andrews quotes “national surveys of metropolitan teenagers in 1971 [in which], 46 percent of the never-married women had sexual intercourse by the time they were 19; by 1979 the figure was 69 percent.”\(^{22}\) She attributed the divergent numbers for this group to a rise in sexually transmitted diseases, particularly gonorrhea and Chlamydia, which became a growing problem in the United States in the 1960s and 70s. By the 1980s, the Centers for Disease Control researchers noted that about one million Americans contracted sexually transmitted diseases annually.\(^{23}\) Indeed, feminist author Susan Faludi argues in *Backlash: The Undeclared War Against Women*, that in focusing so much attention on the “infertility epidemic” of thirty-something career women, the American government neglected the real problem—the infertility of “young women of all races,” but particularly the “infertility rates of young black women.” She notes that while sexually transmitted diseases such as chlamydia are easily curable when detected early, the disease was

\(^{20}\) Mosher and Pratt, 3.
\(^{21}\) Mosher, “Infertility: Why Business is Booming,” 42.
\(^{23}\) Ibid., 29.
“one of the most poorly publicized, diagnosed, and treated illnesses in the country,” despite the fact that it “was costing more than $1.5 billion a year to treat.”

And despite the media’s focus on age-related causes of infertility, the inability to have children resulted from many factors. Even women who were proactive in their reproductive health found that some causes of infertility were physiological and beyond their control. For instance, Diethylstilbestrol (DES), which was given to pregnant women in the 1950s to lower the risk of miscarriage, diminished the reproductive capabilities of the “DES daughters,” leaving them with misshapen fallopian tubes, cervix, or uterus, and compromising their ability to conceive or carry a child. While it appears that many drugs that were intended to treat other ailments decreased fertility as a side-effect, some contraceptives also resulted in permanent infertility in women who used them. One infamous example of this is the Dalkon Shield, an IUD which was a small, often T-shaped piece of plastic or metal that doctors placed in the woman’s fallopian tubes to prevent any fertilized eggs from reaching the uterus and implanting. In the 1970s the IUD was a popular method of birth control, and it was not until many women reported problems with the Dalkon Shield that doctors discovered the full implications of its use. Causing ectopic pregnancies and pelvic inflammatory disease, the Dalkon Shield resulted in scarred and blocked of the fallopian tubes.

In its focus on career women, the mainstream media failed to discuss other hazards that affected women’s reproductive health. Legal analyst Lori Andrews recognized that in the United States, “changes occurred and nobody asked about their effect on fertility,” until it was often too late. Andrews recognized the demographic changes that led Americans to marry and have children later in life, but she also discussed the occupational hazards and unknown side effects of

24 Faludi, 30-31.
26 Ibid., 19.
prescription medications that, like DES, had unintended consequences. At least according to one study, scientists found chemicals at the workplace, such as “lead, pesticides, polystyrene, xylene...benzene, and mercury” could diminish workers’ fertility. Andrews also recognized the frightening possibilities of prescription medicines where the long-term effects are still unknown, as she argued that, “In 1982, 1.42 billion prescriptions were written—a 70 percent increase since the U.S. Food and Drug Administration started keeping records in 1964. From the standpoint of fertility, it is frightening how little we know about the effects of drugs on our ability to have children.” DES was not the only prescription drug that had unforeseen negative side effects on fertility. Tagamet, a prescription drug for treating ulcers was later found to lower men’s sperm count by forty-three percent. Furthermore, another prescription medication, Azulfidine, which doctors prescribed for stomach and colon problems in the 1950s, was considered a possible contraceptive candidate for men in the 1980s. Although the media focused on American women’s age-related infertility, there were countless causes of infertility that journalists neglected.

Obviously, then, not everyone who wanted a child could produce or obtain one, particularly because the availability of adoptable infants decreased during the 1970s and early 1980s, adding to the demand for reproductive technologies such as IVF. As demographers pointed out, while infertility rates remained roughly the same, about twice as many Americans went to their doctors for infertility treatments during 1983 than in any year between 1972 and 1980. Certain historical developments such as the availability of contraception and abortion—

27 Ibid., 21-22.
28 Ibid., 24.
29 Ibid.
30 Ibid., 25.
31 Mosher, “Infertility: Why Business is Booming,” 42. Around two million Americans sought infertility treatment in 1983, while during the 1970s, the numbers remained steady at about one million visits per year.
thanks especially to the Supreme Court *Roe v. Wade* decision in 1973 and the increased social acceptability of single parent families—reduced the number of adoptable infants. For example, in *Wake Up Little Susie: Single Pregnancy and Race before Roe v. Wade*, historian Rickie Solinger suggests that the sexual revolution shifted the way Americans thought about white single women who engaged in premarital sex and as a result paved the way for the legalization of abortion and the social acceptance of single pregnancy.\(^{32}\) Rather than viewing white women who found themselves single and pregnant as psychologically unstable and unfit, policy makers began to view these women as “typically accepting premarital sex as ‘a perfunctory aspect of the dating system.’”\(^{33}\) Thus, the perceived normality of premarital sex paved the way for social acceptance of contraceptives and single parenthood as well as the legalization of abortion.

Domestic adoption was available to fewer infertile Americans, although international adoption became a more likely possibility beginning in 1973.\(^{34}\) Political scientist Andrea Bonnicksen found that the rate of domestic adoption fell from 69,000 in 1970 to 25,000 in 1977, and Andrews noted that the percentage of unwed teenagers choosing to put their babies up for adoption dropped from thirteen percent in 1971 to four percent in 1978.\(^{35}\) But beginning in the 1980s, infertile Americans could turn to IVF, a technology lauded by the mainstream media throughout the 1980s.

Despite the fact that doctors recognized myriad causes of infertility, age-related infertility in American women dominated the media throughout the 1980s as journalists increasingly blamed professional women for their infertility problems. For example, NBC correspondent


\(^{33}\) Solinger, 226.


Maria Shriver referred to childlessness as “the curse of the career woman.” Many magazine articles in the 1980s issued warnings for career women who, naively placed their faith in feminism, and prioritized their careers above family. These women, the media warned, might wake up one day to “baby fever.”

According to the media, this “baby fever” was closely connected to second-wave feminism. The second-wave feminism that emerged in the 1960s asked women to question their role in a paternalistic society, and achieved a number of its goals, including gaining more opportunities for women in the United States. However, by the 1980s, many women witnessed what they considered to be a backlash against feminism. As conservatives gained political power, their renunciation of feminism gradually became more accepted in society as feminists and their goals of sexual equality became scapegoats for any dissatisfaction experienced by American women. One manifestation of the backlash against feminism that took root in the 1980s was pronatalism and the emergence of policies crafted to support of American families. Members of the mainstream media engaged in this backlash and questioned whether feminists had erred all along—had they pushed the wrong agenda by not focusing on women as mothers? So, in its discussion of the shortcomings of feminism, the media promoted and extolled motherhood while at the same time directing infertile women to reproductive technologies such as \textit{in vitro} fertilization.

As some feminist leaders downplayed differences between women and men during the second wave, some disillusioned followers thought that feminists had prioritized the wrong agenda. The media charged feminists with distorting relationships between men and women so completely that neither gender knew how to interact with the other. Conservative journalist Mona Charen, the author of a \textit{National Review} article appropriately titled “The Feminist
Mistake” argued that feminists emphasized the wrong agenda and refused to admit their mistakes. In “The Awful Truth about Women’s Lib,” second-wave feminist Erica Jong agreed with Charen, arguing that the feminist movement sacrificed its “enormous political constituency” by concentrating on issues such as “lesbian rights and the E.R.A.” instead of “pragmatic problems of working mothers.” Erica Jong argued that the feminist movement had taken attention away from the real issues that interested women—maternity leave, for example. She pointed out that ongoing lack of federal support for pregnant women allowed employers to fire those who went on leave to have a baby. Thus, Jong argued that if feminists operated in the best interests of American women, they would focus on gaining federal initiatives for working mothers. In these ways, architects of the backlash against feminism promoted pronatalist policies in the United States by emphasizing feminists’ failure to fight for children, mothers, and motherhood. Indeed, even as Charen admitted that she did not consider the feminist movement “an unredeemed disaster,” she highlighted her disapproval of what she perceived to be the feminist agenda. While discussing the achievements of the women’s movement, she included “high incomes, our own cigarette, the option of single parenthood, rape crisis centers, personal lines of credit, free love, and female gynecologists,” but stated unequivocally that “In return, [the women’s movement] has effectively robbed us of the one thing upon which the happiness of most women rests—men.” Jong paid homage to the women’s movement by noting its triumphs, but ultimately decried its leaders for failing to realize the importance of men and babies.

38 Jong, 93.
39 Ibid.
40 Charen, 25.
41 Ibid.
The media warned career women that they might come to regret the lifestyle choices they made, suggesting that much like some housewives in the 1960s, working women would soon find themselves posing the question: “Is this all there is?”42 Barbara Ehrenreich, Ph.D., and fellow at the Institute for Policy Studies, argued that feminism promised to provide career women with the fulfillment that they did not believe they could achieve as homemakers.43 However, despite some feminists’ beliefs that professional careers could provide satisfaction, Ehrenreich and others insinuated that career women would eventually desire something more: a family of their own.

As part of the backlash against feminism, the mainstream media blamed infertility on the increasing trend of more women pursuing careers, and was full of dire warnings for these women. In a Life magazine article titled “Baby Craving: Facing Widespread Infertility, A Generation Presses the Limits of Medicine and Morality,” Anna Quindlen questioned middle-class women’s priorities and their ultimate revelations when she stated:

The irony is that while many Americans waited until everything else was running like clockwork—career, marriage, bank balance—the only part of the plan gone kaput is the babymaking. This is a new story, in which the generation that managed gleefully to separate sex and procreation finds to its sorrow that the two cannot always be reunited.44

Noting that the number of women delaying their first pregnancy until their thirties had quadrupled in the previous twenty years, Quindlen quoted one fertility specialist who explained that they “[paid] the price for waiting.”45

Numerous articles in the mainstream media informed career women that they could find themselves among the infertile if they did not hurry. An article in Vogue magazine aptly titled “Baby Fever” provided the example of a successful photographer who invested great sums of

43 Bennetts, 326.
44Quindlen, 23.
45 Ibid.
money and a lot of energy into having a child, only to give up unsuccessfully at age fifty. Journalist Leslie Bennetts portrayed this photographer as being among “those seized by last-minute desperation” who “often go to extraordinary lengths to conceive.”46 Bennetts expressed sadness for women who had finally decided to have children but could not do so because they had waited too long, however she failed to consider the possibility that these women might have been infertile even in their reproductive prime. Such articles warned readers to make thoughtful decisions so they would not share the same fate as their unfortunate, infertile counterparts.

The mainstream media celebrated successful actresses, bankers, CEO’s, and executives who felt incomplete before their decision to have a child. One journalist quoted the head of the Women’s Hospital of Texas who observed that “a lot of career women thought they wanted no babies. They’re uneasy at 30. They’re terribly uneasy at 35.”47 The article “Baby Fever,” described the phenomenon of working women who had previously determined that they were not suited for motherhood but were becoming “obsessed with having children.”48 Those most susceptible to “baby fever,” according to the media were often women in their late twenties and thirties—women so overcome by this “biological imperative” that they would go to any lengths to have a baby of their own, including seeking medical assistance through techniques like in vitro fertilization.49

Magazines included articles that discussed how “glamorous” it was to be an “elderly primagravida,” or middle-aged first-time mother.50 A McCall’s article, “Hollywood’s Late-Blooming Moms,” discussed the phenomenon of the seemingly sudden turn to motherhood among some of Hollywood’s older leading ladies, and labeled this new leading role the

46 Bennetts, 387.
47 Reed, 54.
48 Bennetts, 325
49 Ibid., 326.
50 Norwood, 175.
The article suggested that these women, including: “Sally Field, 41…Mia Farrow, 42…Shelley Long, 39…Bette Midler, 42…Cybill Shepherd, 38…[and] Jaclyn Smith, 41” were great role-models for American women. Offering praise to these actresses in their late-thirties and early-forties that were having their first children in the middle of successful careers. Described as breaking down “outmoded taboos” in Hollywood that considered “movie stardom and maternity (at any age)…antithetical,” these actresses set an example for women challenged by the difficulties of balancing work with family. The article suggested that working women should be like these Hollywood mothers, and find “enlightenment” by starting a family.

As some members of the American media castigated career women for taking chances by waiting to start families and have children, others reinforced the pronatalist sentiment of the 1980s by celebrating their turn towards motherhood. The media implied that it was better for educated, middle- and upper-class women to become pregnant for the first time during their mid-to late-thirties and early forties than remain childless forever. The author of a 1982 *Time* article, “The New Baby Bloom,” focused on first-time mothers in their thirties and forties, questioning why there was “an astonishing 15.2% rise in the birth rate of women who were once thought to be slightly beyond their child-bearing years: the 30- to 44-year-olds.” In response to his question, the author quipped, “Is it some side-effect of jogging? Microwave ovens?” But of course, he found the answer in the women of the Baby Boom generation who fell within that age category and had postponed having children to focus on their careers. Although the article

---

52 Ibid., 41-42.
53 The term “elderly primagravida” comes from Norwood, 175, while Reed illustrated the idea that the media celebrated women having their first child, even in their thirties.
54 Reed, 52.
55 Ibid.
recognized the new trend and seemed to relish the fact that so many career women had chosen motherhood and managed to make it work, it was not without warning. The author mentioned that older women did not just face possible infertility but, if they did become pregnant, also a higher mortality rate and greater risk of miscarriage.\(^{56}\)

Nearly a decade later, *Working Woman* magazine countered some of the arguments made against older mothers. The fact that journalists continued to contemplate the strengths and weaknesses of older first-time mothers for almost an entire decade is indicative of the debate’s lasting legacy. A 1990 article titled “Older Mothers, Healthy Babies” challenged the notion that older women faced risks that younger women avoided, including harm to themselves and their future children. Writing that “first births among women in their 30s and 40s have more than doubled—a trend that has raised some concern in the medical community,” the author noted that although doctors appeared to be concerned, women were increasingly having their first babies later in life.\(^{57}\) Challenging the notion that older women faced medical risks that they might not have confronted at an earlier age, the article attempted to provide some encouragement to women who wanted to concentrate on their careers first. But this was a magazine written for working women. Most mainstream magazines encouraged women to reproduce in their twenties to avoid many of the complications that “elderly primagravidas” faced.

So, on the one hand, the American media was pleased to see Baby Boomer career women *finally* making the decision to have families; yet at the same time it proffered a scathing critique of these older first-time mothers. Perhaps the reasoning behind this backhanded, Janus-faced celebration is that while the career-first-then-family model was acceptable for women who had already waited too long to have children, the media did not encourage younger women to follow

\(^{56}\) Ibid, 59.
the same model. Even with this wake-up call, there were “not enough women over 35 having children to make up for all the younger women who are deciding not to have children.” The media used the older, infertile career woman with “baby fever” as an example for younger women who considered putting careers before family.

The media supported and encouraged the expansion of IVF in the pronatalist 1980s, contributing to its disconnection from the abortion issue. As the media embraced IVF for its ability to turn back the biological clock for career women, and embraced reproductive technologies as life-creating rather than life-destroying, the connection between abortion and IVF became even more tenuous. The media downplayed the ethical concerns over IVF that had dominated its discussion of the technology during the 1970s, and made the technique seem desirous, practical, and even commonplace. IVF provided Americans with opportunities to have genetic children when infertility rendered such a feat impossible. This “miracle” became the focus of media discussions of IVF in the 1980s.

Feminist International Network of Resistance to Reproductive and Genetic Engineering

Even as media extolled the virtues of IVF in the 1980s, new critiques of reproductive technologies—critiques that had nothing to do with abortion—emerged. This new opposition to IVF appeared as a feminist critique of reproductive technologies as they were applied in patriarchal societies. Some feminists who witnessed the emergence of reproductive technologies like IVF expressed ethical concerns that had little to do with the moral status of the embryo or abortion. Some feminists created an international group to combat the explosion of clinics offering reproductive technologies, and their criticisms of IVF came from a woman-centered perspective. Exploring the ways in which reproductive technologies could harm women who

58 Jennet Conant, “No Baby On Board: Three’s a Crowd,” Newsweek, 1 September 1986, 68.
sought infertility treatment, members of Feminist International Network of Resistance to Reproductive and Genetic Engineering (FINRRAGE) questioned the popular notion that women benefitted from IVF.

Only rarely did the earliest critics of reproductive technologies voice concerns about how IVF affected female patients, but this changed with the creation of FINRRAGE. In 1984, feminists from around the world, including Gena Corea, Renate D. Klein, Janice Raymond, Rita Arditti, Shelley Minden, and Robyn Rowland formed FINRRAGE. Throughout the 1980s and 1990s, the group represented the feminist opposition to IVF, as these founding women sought to stop what they considered the misuse of the female body by science and medicine. Reproductive engineering was, they declared, “another attempt to end the self-determination” of women’s bodies.59 While formulating a number of different arguments against the proliferation of reproductive technologies like IVF, FINRRAGE members believed that rather than giving “women greater reproductive freedom,” as supporters purported, IVF merely reinforced heteronormative patriarchal roles.60 FINRRAGE members were not the first feminists to challenge IVF—they were preceded by feminists Judith Lorber and Ruth Hubbard. Expressing her concerns early on, Lorber wrote a letter to the editor of the *New York Times* the day after Louise Brown’s birth, suggesting that women should be cautious about IVF in a paternalistic society. She imagined a world in which male scientists continued researching reproductive technologies and successfully created an artificial womb, rendering most women superfluous.61 Although FINRRAGE members were not the first feminists to critique IVF, this group represents


the most vocal and prolific feminist opposition to the technology. In spite of the national media’s overwhelmingly positive portrayal of IVF in the 1980s, these feminists thought that “there [was] little cause for women to celebrate” the new reproductive technologies.\(^{62}\)

Prescriptions of hormones to stimulate ovulation often had uncomfortable side effects, and invasive surgery was unpleasant at best, but many infertile women agreed to tolerate these in the hopes that they might produce a biological child. The technology, with only a ten to twenty percent success rate, took a physical, financial, and emotional toll on the infertile women who hoped they would be among the small minority that brought home a baby of their own. Radical feminists in FINRRAGE sought to challenge the mainstream media’s emphasis on IVF’s successes so infertile women throughout the world would gain an awareness of the reality of reproductive technologies and women’s engagement with IVF.

The pessimism FINRRAGE creators and members expressed stemmed from what they saw as a long history of abuse of women at the hands of the mostly male medical profession. This perspective grew out of what scholars now refer to as the Women’s Health Movement (WHM) that began during the early 1970s with a loose collective of activists. Into Our Own Hands: The Women’s Health Movement in the United States, 1969-1990, by Sandra Morgen details the emergence and growth of the movement from her perspective as a medical anthropologist and women’s health collective employee.\(^{63}\) Recognizing that for the vast majority of history, women’s health had been in women’s hands, feminists in the Women’s Health Movement believed that the male-dominated health care system “overmedicalized the routine passages of women’s reproductive lives,” and they sought to take back control over


women’s reproductive health. The WHM included self-help education through the publication of books like the Boston Women’s Health Collective’s *Our Bodies, Our Selves*, and demonstrations on how to conduct self cervical exams, as well as the opening of women-controlled health clinics, some of which offered low-cost abortions. Many of these health clinics, like the Berkeley Women’s Health Clinic, offered assistance to all women, regardless of how much they could pay. Participants in the Women’s Health Movement believed that women needed to be educated about their reproductive health and have access to birth control, abortion, or sterilization regardless of race or class. Stemming from the Women’s Health Movement that came before it, FINRRAGE emphasized the importance of education to make women fully aware of the implications of the new reproductive technologies.

In 1984, FINRRAGE published the first edition of *Test-Tube Women: What Future for Motherhood*, its first book criticizing reproductive technologies throughout the world. Edited by group founders Rita Arditti, Renate Klein, and Shelley Minden, the book operated much like a manifesto that explored glaring problems with IVF. As a publication from an international group of women, this volume included voices from women throughout the world who confronted and used reproductive technologies. This thirty-six essay volume provided a different view of reproductive technologies than that which the mainstream American media provided. The 1984 edition of *Test-Tube Women* was followed by a 1989 edition, in which the authors expressed even more frustration over the social acceptance of reproductive technologies, which continued to thrive despite FINRRAGE’s work. In a preface to the 1989 edition of *Test-Tube Women*, the editors wrote, “In 1984 we were skeptical—and we knew a great deal less than we know now. In 1988 we are angry and outraged about the continued experimentation on women’s bodies, about

---

64 Ibid., 72.
65 Ibid., 60.
the infliction of violence and pain, about the perpetuation of lies, about the increasing control of our reproduction.”66 These women expressed optimism, however, that it was “not too late to say ‘no’ to these technologies.”67

In between the two editions of this powerful book and indeed afterwards, FINRRAGE members were busily writing other works to raise awareness of the shortcomings of reproductive technologies. In 1987, Gena Corea wrote *Man-Made Women: How New Reproductive Technologies Affect Women*; in 1989 Renate Klein wrote *The Exploitation of a Desire*; in 1991 Susan Hawthorne and Renate Klein published *Angels of Power and Other Reproductive Creations*; and in 1992 Robyn Rowland wrote *Living Laboratories: Women and Reproductive Technologies*. Much like *Test-Tube Women*, these books personalized women’s experiences with IVF and other technologies hoping that they might present a counterpoint to the national media’s overwhelmingly positive portrayal of IVF.

According to members of FINRRAGE, the mainstream media played a powerful role in Americans’ social acceptance of IVF and other reproductive technologies during the 1980s. Indeed, some of these feminists believed that the media played a crucial role in perpetuating pronatalist sentiment throughout the decade, and some saw media pressure as one way infertile women were manipulated into seeking reproductive technologies. For example, Robyn Rowland believed that the *Life* magazine article entitled, “Baby Craving,” expressed how “The desire to have children is being re-created into a need that must be satisfied.”68 FINRRAGE members saw the mainstream media as expanding its role as a vehicle of social pressure for women to conform to their idealized role as mothers by presenting “an uncritical view of the

---

67 Ibid.
technologies” that provided infertile women the opportunity to become mothers. In their 1989 edition of *Test-Tube Women*, editors expressed anger about what the media chose to present and omit to readers about reproductive technologies. The editors wrote, “The media also fosters the view that a ‘technological fix’ will solve the life crisis that infertility can produce. It does not publicise [sic] how much more difficult it is for people to finally adjust to a life without their own biological child (or another child) after years and years on the emotional roller-coaster of IVF: hopes up and down.” So, FINRRAGE members criticized the media for presenting reproductive technologies through rose-colored glasses while refusing to discuss the negative impact such technologies could have on women. Indeed, as Lisa Hope Harris documents, the mainstream media overwhelmingly celebrated IVF’s successes while rarely discussing the stories of women for whom IVF failed. Such imbalanced coverage presented readers with the false reality that the procedure worked more often than not, even though the media acknowledged IVF’s very low success rate of about fifteen percent. Endless reports on one IVF success story after another provided readers with the hope that they, too, could find success through reproductive technologies. As the “media…glorified *in vitro* fertilization,” FINRRAGE members hoped to raise awareness of the technology’s shortcomings that the mainstream media rarely exposed. In their separate studies on the media and its relationship to IVF, scholars Susan Faludi and Lisa Hope Harris accept FINRRAGE’s claims that the media embraced the new reproductive technologies during the early to mid-1980s.

Many FINRRAGE members considered IVF a form of both physical and emotional torture for infertile women. In contrast to IVF doctors, researchers, and advocates who touted

---

70 Ibid.
71 Harris.
the ability of reproductive technologies to provide infertile women with choices and options, and agency, FINRRAGE members argued that IVF offered false choices to infertile women by presenting them with an option that they could not easily refuse—the option of possibly becoming pregnant. For example, Barbara Katz Rothman contended that although the advent of reproductive technologies seemed to provide women with more choices, it actually took away women’s ability to choose. IVF became a necessity for infertile women who had the means to afford the technology. Those who opted not to use it would have to live with the knowledge that they could have done more in their quest for a biological child. Along with the burdens of hormone treatments, temperature taking, daily hospital visits, and surgery, infertile women also had to deal with the “burden of not trying hard enough” when they decided forgo treatment or to stop it once they had started. Rothman was skeptical that one could even think of IVF in terms of choice. “The social structure creates needs—the needs for women to be the mother,” she argued, while the “technology…enables people to make the needed choices.” According to Rothman, in a patriarchal pronatalist society, infertile women had no choice but to pursue whatever technology might enable them to have children, even when that technology subjected them to experimental and painful procedures.

Once women made the decision to participate in IVF or other reproductive technology programs, knowing when to give up proved to be difficult. Because of IVF’s low rate of success, patients did not often become pregnant after their first attempt, and most underwent IVF multiple times. Writing under the pen-name Margaret Lewis in *Infertility: Women Speak Out*, an Australian woman shared her experiences, stating that “I really think that hope, in this case, is

---

73 “Preface,” in *Test-Tube Women: What Future for Motherhood?*, xi
like a whirlpool. You’re ready to try one more procedure, one more operation. It’s very hard to stop.”75 In their desire to have a child of their own, infertile women found it very hard to make the decision to stop treatment, because of the hope that perhaps the next time would be successful. While some doctors took it upon themselves to suggest that women give up, many others allowed infertile women to try the procedure as many times as they were physically able to—often ending only when patients reached the upper age limits. Indeed, the Jones Institute posted a sign that distilled this attitude into a pithy saying: “You never fail until you give up trying.”76 Implying that infertile women would eventually find success and achieve pregnancy if they continued treatment, the message reinforced the idea that the technology did not fail the women. Infertile women failed themselves by giving up on their pursuit of motherhood.

Canadian Kirsten Kozolanka discovered first-hand how in vitro fertilization presented infertile women with a false option by providing a treatment that was difficult to refuse. She wrote, “Over the years of our treatment, we invest so much time and energy in our goal that it is not easy to know when to stop trying when almost daily technological breakthroughs offer new hope. The doctors cannot tell us where the end of the road is; they do not know themselves because the limits of what they can do are constantly changing.”77 Recognizing that the invention and availability of more and more reproductive technologies prevented women from giving up on treating their infertility, Kozolanka argued that women always had one more new thing to try before they gave up. And, she saw that for many women, the low success rates mattered little, because infertile women who sought reproductive technologies always thought they were going to be “the one”—the one who is successful out of all the women in the waiting

76 Harris, 182.
77 Kirsten Kozolanka, “Giving Up, the Choice that Isn’t,” in Infertility: Women Speak Out About their Experiences of Reproductive Medicine, ed., Renate D. Klein, 121-130 (London: Pandora Press, 1989), 122.
room. These women had hope during each successive treatment that “this time it was going to work.” After four years of infertility treatments, Kozolanka’s story ended with a pregnancy and the birth of a healthy daughter. Unfortunately, though, for many of these women, their “time” never came despite numerous IVF attempts. FINRRAGE members argued that the psychological pain caused by infertility that was only compounded by living in a paternalistic and pronatalist society that offered reproductive technologies as the cure.

As feminist members shared their overwhelmingly negative view of IVF and its effect on women, distrust of doctors and researchers was a recurring theme in FINRRAGE writings. For example, Julie Murphy referred to IVF doctors as “egg farmers” and believed that they merely viewed women as “baby makers,” “egg storers,” or as “fertile fields to be farmed” in their efforts to gain prominence and prestige. In a 1991 special section of Ms. Magazine, “Women as Wombs,” Janice Raymond expressed her skepticism of reproductive specialists and scientists by accusing them of inventing the demand for IVF by encouraging patients to pursue unnecessary treatment. Arguing that scientists “created” the “script of infertility” to justify their own desire to test new techniques, Raymond noted that “medical fundamentalists” had changed the definition of infertility to being unable to conceive after one year of trying, “thereby confusing the inability to conceive with the difficulty in conceiving quickly.” Finally, citing that “between 1965 and 1988, membership in the American Fertility Society jumped from 2,400 to 10,300 Raymond argued that “the only fertility epidemic is of fertility specialists.” As more physicians entered the field of reproductive technologies, she argued, they created a demand for

78 Ibid., 128.
81 Ibid.
their services by changing the definition of infertility and encouraging patients to pursue reproductive technologies.

Most commonly, medical practitioners labeled patients infertile after being unable to conceive for at least twelve months. However, such a diagnosis did not always mean that a couple could not naturally conceive a child given more time. In a report for the National Center for Health Statistics, demographers W.D. Mosher and W.F. Pratt noted that even couples who had difficulty conceiving after trying for three years could potentially “conceive in the future.” These demographers used the term “subfecund” to label such couples—not infertile, which has different connotations. Labeling a couple “infertile” implies the inability to conceive, while “subfecund” suggests the inability to conceive quickly—not never. Pratt and Mosher used the term “sterile” to refer to couples who were literally unable to conceive due to medical complications. Further, in *Family Planning Perspectives*, John Bongaarts wrote that “actual infertility levels” were lower than most people imagined, because infertility focused on “rates of conception during one year of exposure,” and “a substantial proportion of women who do not conceive in one year do so after a longer duration of exposure.” Basing rates of infertility on twelve months greatly “exaggerate[d] the risk of ultimate involuntary childlessness.” Nonetheless, infertility specialists welcomed new patients like never before during the 1980s. Americans visited their doctors about one million times a year because of infertility problems between 1972 and 1982, yet in 1983, they went to their doctors two million times because of infertility.

84 Ibid.
psychological as well. As Arthur Greil noted, “the process of ‘becoming infertile’ is a dialectical one in which husbands and wives interpret, respond to, and give meanings to physical symptoms and psychological conditions.” Because of this, “couples without documented medical problems can feel infertile even if they have not tried to conceive for the 12-month period indicated by the medical definition.”

Although some thought the medical community’s definition of infertility exaggerated the so-called epidemic, average Americans were likely to consider themselves infertile even before they tried to conceive for a full year. While some FINRRAGE members blamed reproductive specialists for creating the infertility epidemic, others recognized a far more complicated scenario.

In the same edition of *Ms.* Magazine, Robyn Rowland argued that infertility specialists valued women solely for their reproductive parts, instigating a “‘battle’ between the natural functioning of a woman’s body and medical improvement.”

She was particularly disturbed to find that “an underlying anger at the woman’s body for not performing as instructed repeatedly surfaces in the language used by doctors themselves. They set up a situation in which the uterus is seen as deliberately rejecting their control and they blame the uterus for the mishaps of reproductive technology programs.” She argued that in this way, the doctors, the technology, and even the embryo remained blameless, while infertile women were blamed for their bodies’ failure to respond to the technology. Doctors used what Rowland called “reprospeak,” blaming women’s inefficient, unresponsive, or unpredictable bodies when IVF failed, rather than science, technology, or even themselves. But, of course, when IVF was successful, the practitioner

87 Greil, Leitko, and Porter, 174.
89 Ibid.
90 Ibid.
91 Ibid., 40.
eagerly accepted the credit, congratulatory remarks from colleagues, and gratitude from the couple.⁹²

Many FINRRAGE members’ skepticism of IVF and other reproductive technologies stemmed from their belief that the medical establishment was co-opting women’s procreative powers. While Gena Corea pondered whether the creation of human life in the lab at the hands of a (usually male) doctor “reduce[d] power of the mother and her claim to the child,” she and other FINRRAGE members thought that men were jealous of women’s procreative powers. These women believed that research in the field of reproductive technologies was driven by man’s desire to control the reproductive process.⁹³ Corea thought that as more reproductive technologies were gaining social acceptance and becoming commonplace, “Man is possessing woman’s procreative power. She is losing it. She is a thing. She is a vessel for the babies men make.”⁹⁴ As reproductive specialists used infertile women’s bodies to satisfy their desire to harness the power of creation, feminists in FINRRAGE like Robyn Rowland believed that “The woman truly becomes the incubator/laboratory.”⁹⁵ And, in the end, most women who sought infertility treatment came away with no baby.

---

⁹² Harris includes a prime example of reproductive specialists’ accepting responsibility for IVF successes in her 2005 dissertation. She discussed how one of the doctors at the Norfolk IVF Clinic, Jairo Garcia, passed the news onto Howard and Georgeanna Jones that Judy Carr had become pregnant following in vitro fertilization, by meeting the Joneses at the airport with a Mother’s Day card for Georgeanna. After all, this was the couple’s first IVF pregnancy, and indeed, the United States’ first “test-tube” baby.

⁹³ Genoveffa Corea, “Egg Snatchers,” in Test-Tube Women: What Future for Motherhood?, eds. Rita Arditti, Renate Duelli Klein, and Shelley Minden, 37-51 (London: Pandora Press, 1989), 39. In regards to the realization that most IVF practitioners were men, “Katharina Stens,” a contributor to Infertility: Women Speak Out, wrote, “I began looking for a woman doctor as I was furious with all those men who had been rummaging around my lower abdomen… I didn’t think I could stand any more of this permanent humiliation, and hoped for more understanding and sympathy from a woman… I can relax my abdominal walls better, when I’m lying half naked and shivering on the examination table, legs raised and spread out, infinitely vulnerable.” “Give Me Children, or Else I Die,” Katharina Stens* 11-18 in Infertility: Women Speak Out About their Experiences of Reproductive Medicine, ed., Renate D. Klein, 11-18 (London: Pandora Press, 1989), 16.

⁹⁴ Corea, “Egg Snatchers,” 45.

⁹⁵ Ibid.
Noting that reproductive technologies did not cure infertility, but rather “only provide[d] children to a small percentage of couples—most white, middle-class, married, and heterosexual,” Janice Raymond worried not only about eugenics in the Western world, but also the use and abuse of women in less-developed countries at the hands of unscrupulous researchers. In the preface to Test-Tube Women: What Future for Motherhood? FINRRAGE members and editors Minden, Arditti, and Klein argued that past experiences suggested real reasons for women to worry about the misuse of reproductive technologies. These women feared the “white medical and scientific establishment” would mislead and exploit women, particularly “women of color, poor women, lesbians, disabled women, and elderly and young women” much as they had when researching the “old” reproductive technologies—namely contraceptives such as “the Pill, Depo-Provera and IUDs, in particular the Dalkon Shield.” Examples of the use and abuse of the women listed above can be seen in historian Laura Briggs’ excellent account of the development of the Pill, Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico. Briggs recounts how the developers of the Pill made it available for the United States market by experimenting on poor women in Puerto Rico during the 1950s. Scientists exploited poor, often uneducated women in their quest to develop the Pill, which, to FINRRAGE members showed that reproductive medicine had a history of exploitation. Jennifer Nelson’s study, Women of Color and the Reproductive Rights Movement, also illustrates and justifies FINRRAGE’s concerns by discussing the forced sterilization of minority women. Exploring how minority feminists in the United States pushed mainstream feminism beyond its focus on abortion rights, Nelson shows how women of color expressed outrage at the violation of their reproductive rights

at the hands of the male medical establishment. While FINRRAGE members continued to express concern about the exploitation of poor or minority women at the hands of infertility specialists, members recognized that in the case of IVF and other “new” reproductive technologies, “mainly white and middle-class women” served “as experimental guinea pigs.”

FINRRAGE members believed that scientists chose mostly middle-class white women to be the “guinea pigs” in their experiments involving the new reproductive technologies because such technologies increased rather than limited women’s reproductive potential. Further, middle-class couples could pay for the costly treatments that remained uncovered by most health insurance providers. To be considered an optimal candidate for infertility treatment, “a woman must demonstrate her worthiness…she must fit the practitioner’s notion of a ‘good mother.’” How did reproductive specialists choose “good mothers?” Rebecca Albury stated that the first condition of being a “good mother” in the eyes of the doctor is that she must be married. Prospective IVF patients also had to “demonstrate the suitability of her skills and motives for parenting,” and be a “‘good patient.’” A “good patient” was one who did exactly as she was told without asking too many questions. In this way, doctors acted as gatekeepers of reproductive technologies—by refusing women who did not display the “right” motivations for seeking to become mothers, women who could not afford the technologies, or women who are not involved in the “right” kind of relationships.

FINRRAGE members also worried that IVF could lead to genetic engineering and the perpetuation of eugenics. Recognizing IVF practitioners’ power to deny certain people the right

---

101 Ibid.
to participate in fertility treatment programs, including unmarried women, lesbians, uneducated or overeducated women, or women of a lower socioeconomic status, many members worried that IVF would lead to genetic engineering “according to someone’s idea of ‘improving the race.’” Some feminists feared that the availability of “designer babies” would empower scientists to decide “what kind of children are acceptable.” FINRRAGE members had no faith that scientists and medical researchers would not pursue genetic engineering, especially given their triage approach to patients. Thus, feminists reiterated the *Brave New World* fears opponents of IVF first levied during the 1970s: surely once scientists had the capabilities, they would use genetic engineering to create some sort of misguided “super-race.”

However, even as FINRRAGE members addressed the decades-old connection between IVF and genetic engineering, unlike most other critics of the technology, they considered it a form of eugenics. Careful to make the distinction between positive and negative eugenics, feminists argued that these technologies increasingly made positive eugenics a possibility. While the forced sterilization of African Americans and “welfare mothers” in the United States up until the 1970s represented a form of negative eugenics, positive eugenics is marked by encouraging those who are “fit” to reproduce, rather than denying the right of the “unfit” to reproduce. Since IVF was an expensive treatment that relatively few could afford, it encouraged the procreation of educated, middle- and upper-class infertile couples throughout the world. Thus, FINRRAGE members viewed IVF and other reproductive technologies as a form of positive eugenics because it provided an opportunity for wealthy but infertile couples to reproduce.

---


103 Ibid., 96.
These feminists feared that the expansion of reproductive technologies would lead to genetic engineering or the creation of designer babies. In her essay, “Egg Snatchers,” Gena Corea asked a biologist who specialized in reproductive technologies whether women would eventually be able to “choose a frozen embryo, genetically unrelated to herself, and bring it to an obstetrician who would implant it in her body.” “Eventually that will happen,” the biologist replied. But whereas the biologist considered this technology a means to improve on natural reproduction, Corea considered it a frightening possibility. While the biologist was interested in bettering the race through eugenics, Corea feared for the women who might not be able to afford to purchase their own embryos, or the women who wanted to reproduce naturally, implying that “natural” babies might not be able to compete with “super” babies. Corea implied that genetic engineering could merely present one more obstacle for the economically disadvantaged who could not afford to pursue reproductive technologies. She wondered how the advent of “super” babies would further oppress the world’s poor and worried about what attributes would be embraced to create “better” humans. Along with Shelley Minden, Corea questioned who would decide what qualities were acceptable and which characteristics should be engineered out. Whose ideas of eugenic improvement would gain ascendancy and what would be the results of accepting “designer genes,” they wondered

FINRRAGE presented a different form of opposition to IVF as it became available in clinics throughout the United States. Focusing on women’s engagement with reproductive technologies, feminist members of the organization revisited old critiques of IVF and put a feminist spin on them, but also introduced new ideas into the receding discussion of the ethics of IVF. As an international organization, FINRRAGE organized to educate women throughout the

---

world about the pitfalls of reproductive technologies like IVF: they recognized that treatment included physical and emotional pain for female patients, they believed that the mostly male reproductive specialists sought to harness and perhaps steal woman’s reproductive powers and treated women like guinea pigs, and they worried about the eugenic possibilities that could result from genetic engineering. As FINRRAGE members hoped to counter the media’s mostly positive approach, they did not represent the only new criticisms of IVF that emerged in the 1980s.

**IVF and the Vatican**

The Catholic Church officially expressed its opposition to IVF in 1987. Surprising to many, the Vatican did not denounce IVF for its connections to abortion. Despite the fact that the Catholic Church had “represented the only organized opposition to abortion” before the 1970s, it had other reasons for denouncing the reproductive technology.\(^{106}\) Together with the mainstream media’s embrace of IVF for its life-creating possibilities, and new feminist critiques of IVF, the Vatican’s IVF pronouncement weakened the strength of the pro-life opposition to IVF.

After experiencing the strength of the American pro-life opposition to IVF first-hand, Howard and Georgeanna Jones were surprised to find that the Vatican’s position on IVF had little to do with abortion. To the Joneses, Catholics in America seemed to dominate the pro-life movement and opposition to *in vitro* fertilization, and they assumed that the Vatican shared and even encouraged its American members’ opposition to reproductive technologies. However, when the Joneses were invited by the Pontifical Academy of Science to visit the Vatican and discuss IVF in 1985, they discovered that although international Catholic theologians made the same connections between IVF and abortion made by American Catholics, at the fore of their

\(^{106}\) Quote from Jennifer Nelson, 9.
discussions of IVF was the unitive and procreative aspects of the conjugal act. The pair spent five days discussing IVF with Church leaders and other reproductive specialists to “inform the Holy Father about IVF so that a decision could be made about the licitnous [sic] of this procedure.” If the Pope determined IVF was illicit, Catholics would be forbidden from using the reproductive technology. However, a decision that IVF was licit meant that it fit within the moral norms of the Church and was a valid treatment for infertility. According to Howard Jones, on the last day of deliberations, the group conducted a poll in which the “nine non-medical theologians voted 8 to 1 to consider the procedure which we had described as licit.” In other words, eight of the nine Catholic theologians at the meeting found IVF acceptable based upon their extended discussion of the procedure. However, Jones noted that “one dissenter,” Monsignor Carlo Caffarra, made the argument that IVF was illicit because it removed reproduction from the bonds of conjugal marriage, and connected IVF to the Church’s prohibition on birth control in the encyclical *Humanae Vitae*. Ultimately, the Catholic leadership favored Caffarra’s perspective despite the overwhelming support for IVF at the Pontifical Academy of Science’s meeting. When the Vatican issued an encyclical with its stance on IVF in 1987 entitled *Donum Vitae*, it stated that IVF was illicit because it separated the procreative and the unitive aspects of the conjugal act, which *Humanae Vitae* held as inseparable.

Issued by the Congregation for the Doctrine of the Faith and put into action by Pope John Paul II, *Donum Vitae* declared embryonic research, reproductive technologies like IVF,

109 Ibid.
110 Ibid.
cryopreservation, and surrogacy IVF illicit.111 At the forefront of the encyclical’s stance was the sanctity of marriage and the conjugal act, not the connection between IVF and abortion. The Vatican believed that the human life begins at conception, and Donum Vitae acknowledged that the human embryo was entitled to profound respect but used other justifications to declare IVF illicit.112 The encyclical focused on issues of marital dignity and the dignity of the conjugal act. Religious scholars Thomas A. Shannon and Lisa Sowle Cahill stated that Donum Vitae uses “A traditional good of marriage, the fidelity of the spouses,” “as a critical moral value.”113 According to the Catholic Church, spouses were only supposed to pursue parenthood through each other via the conjugal act—not with the interference of a third party, whether it be a reproductive specialist, egg or sperm donor, or surrogate mother.114 The encyclical affirms the Church’s belief that “every pregnancy must occur within heterosexual marriage and be the result of the conjugal act between the husband and wife.”115 Although the document recognized suffering as a result of infertility and married couples’ right to have children, it makes the point that “marriage does not confer upon the spouses the right to have a child, but only the right to perform those natural acts which are per se ordered to procreation.”116 So, although the encyclical viewed the destruction of fertilized eggs as equivalent to abortion, its rejection of IVF was based on the Church’s commitment to the sanctity of marriage and the inseparability of the unitive and procreative aspects of the conjugal act.117

The Vatican’s 1968 encyclical, Humanae Vitae, set the precedent for Donum Vitae. As the development and availability of the birth control pill marked the coming of the “reproductive

111 Shannon and Cahill, 54.
112 Quote Shannon and Cahill, 95.
113 Ibid., 59.
114 Ibid., 59.
115 Ibid., 61.
116 Ibid., 55-56, recognizes suffering from infertility on 55, quote from 56.
117 Ibid., the idea that the encyclical viewed the destruction of fertilized eggs as equivalent to abortion comes from page 64.
revolution” in the 1960s, Pope Paul VI issued *Humanae Vitae*, banning the use of birth control in the Catholic Church.\(^{118}\) This declaration stated that every sexual act in marriage must allow for reproduction, or that the conjugal act must remain open to both its unitive and procreative purposes. In other words, because the Catholic Church viewed sexuality as having dual purposes, procreation and marital unity, these functions must not be separated. Not only should the conjugal act of marriage unite husband and wife, but also allow them to generate new life.\(^{119}\) Catholic theologian Richard McCormick described *Humanae Vitae* as positing that “intercourse is a single act with two aspects or inner meanings,” and that these two meanings were “by divine design inseparable.”\(^{120}\) Thus, the Vatican stated that the use of contraception was illicit because it separated the unitive and procreative aspects of the conjugal act. As the Vatican explored the morality of IVF, it recognized that, ironically, IVF had the same effect as contraception: it separated what was inseparable in the eyes of the Catholic Church by divorcing the procreative and the conjugal act.

Perhaps the views expressed in *Donum Vitae* should have come as no surprise based upon the knowledge of the Catholic Church’s encyclical against contraception and its stance on earlier reproductive technologies. In 1949 Pope Pius XII declared that artificial insemination by husband (AIH) “must be rejected.”\(^{121}\) Stating that in the case of artificial insemination, the ends did not justify the means, Pius XII implied that infertile couples should accept their infertility rather than seek medical help, because the “procreation of a new life” should be “according to

---


\(^{119}\) Ibid., 218.

\(^{120}\) Ibid., 219.

the will and plan of the Creator.” In 1951, Pius XII continued to justify his reasoning for prohibiting AIH when he told the Italian Catholic Union of Midwives that “artificial insemination converts marriage and the home into a mere biological laboratory.” According to Catholic theologian McCormick, the Catholic Church’s renunciation of AIH can be traced back to the 19th century, when in 1897, Pope Leo XIII determined that it should not be allowed. Thus, the Catholic Church had a history of declaring all forms of reproductive intervention, except for the rhythm method or withdrawal, illicit.

The Catholic Church reaffirmed its commitment to the inseparability of sexuality and reproduction before human IVF even became a reality. As early as 1956, even before the appearance of *Humanae Vitae*, Pius XII rejected “a selfish avoidance of children in marriage” while at the same time rejecting artificial insemination and other forms of procreation that separated “biological activity from the personal relation of the married couple.” Pius XII emphasized the inseparability of the unitive and procreative aspects of the conjugal act, which McCormick recognized as making a strong case against IVF decades before it became available. Indeed, in a 1956 address the Pope specifically mentioned IVF when he stated that “On the subject of the experiments in artificial human fecundation ‘in vitro,’ let it suffice for us to observe that they must be rejected as immoral and absolutely illicit.”

Much like artificial insemination, *in vitro* fertilization separated reproduction from the conjugal act at a point in time when the Catholic Church was committed to the inseparability of the two. As a Catholic theologian and bioethicist who had been interested in IVF years before Louise Brown’s birth, McCormick recognized that the Vatican’s encyclical against IVF was inevitable based on the

---

122 McCormick, “Therapy or Tampering?,” 7.
124 Ibid., 2.
125 Ibid., 4.
126 Ibid.
teachings of Pope Pius XII. Indeed, in the early 1980s, even before the 1987 issuance of *Donum Vitae*, there was evidence that McCormick’s predictions would come true. In 1983, the Pope condemned experimentation on the human embryo, but failed to mention IVF, and Caffarra declared IVF illicit before 400 obstetricians and gynecologists meeting at a Conference in Italy. While the Joneses’ surprise at the Vatican’s failure to prohibit IVF for its connection to abortion was warranted, the Church’s responses to previous reproductive interventions set the precedent for *Donum Vitae*.

Regardless, Georgeanna Jones expressed her surprise and discontent with the Vatican’s issuance of *Donum Vitae* after what she considered to be a successful visit at the Pontifical Academy of Science. Inspired to write a scathing reply to the encyclical in support of IVF, Georgeanna began her letter by stating her qualifications, “I write as a practicing gynecologist with a long record of investigative work in the field of reproductive physiology and, perhaps even more importantly, as a wife of 46 years and the mother of three children with successful marriages of 19, 15, and 14 years, respectively.” Georgeanna Jones established herself not only as a reproductive specialist, but as an advocate of marriage. Georgeanna mentioned how she and Howard were delighted to be invited to the Pontifical Academy of Science at the Vatican, in hopes that the invitation was an “expression of openness and genuine interest” in their work. The Joneses discovered that while eight of the nine non-medical theologians embraced this openness, Georgeanna stated that she was disappointed when Caffarra, “one of the archconservative theologians of the Vatican” continued to view IVF as illicit. However, she shared her amazement to find out that Caffara’s view of IVF as illicit “had nothing to do with

---

127 Ibid.
130 Ibid.
abortion, which was the issue often raised in the United States.\textsuperscript{131} The Joneses had participated in the Vatican’s study of IVF in 1985 prepared to defend IVF against its connection to abortion, only to find new opposition to the technology they had fostered in the United States.

Recognizing that the Pope had supported Caffarra’s view that IVF was illicit because it separated the conjugal act and procreation, Georgeanna Jones challenged what she believed to be an outmoded definition of conjugal love. She expressed her disdain with the Catholic Church’s emphasis on the definition of conjugal love as intercourse because it “leads to the conclusion that intercourse is reproduction, and that if reproduction is the function of intercourse, then all intercourse should be open to reproduction, and reproduction without intercourse is illicit.”\textsuperscript{132} She thought that it was “unjust to burden Catholic couples with a medieval definition” of conjugal love. Rather, she in her view, “Conjugal love between two human beings should first be a bond of admiration, respect, and mutual interests, which produces a lasting spiritual union usually consummated in the physical union of the conjugal act, intercourse.”\textsuperscript{133} By differentiating between conjugal love and the conjugal act, Georgeanna argued that for infertile couples, seeking reproductive technologies was a natural extension of conjugal love. She thought the Catholic Church placed too much emphasis on the conjugal act when it should have recognized the value of expressions of conjugal love, which could include IVF itself. While she conceded that “reproduction with family formation is surely one of the great pleasures and benefits resulting from the commitment made between two individuals joined in conjugal love,” she stated that human reproduction was not always successful. Through \textit{Donum Vitae},

\begin{flushright}
\textsuperscript{131} Ibid. \\
\textsuperscript{132} Ibid., 2. \\
\textsuperscript{133} Ibid.
\end{flushright}
Georgeanna Jones argued, the Catholic Church prevented at least some of its followers from achieving the fulfillment of conjugal love.\textsuperscript{134}

Further, Georgeanna challenged the Catholic Church’s commitment to the inseparability of the unitive and procreative aspects of the conjugal act by arguing that the separation of the two was inevitable during the human life cycle and pointing out inconsistencies in Church policies. Jones noted that “intercourse still furnishes…its natural function of pleasure and solice [sic] to the elderly” even after couples passed their childbearing years.\textsuperscript{135} Nonetheless, according to \textit{Humanae Vitae} and \textit{Donum Vitae}, the conjugal act must be more than just unitive—it had to be procreative as well. She wondered if the Vatican sought to condemn postmenopausal women and their husbands to abstinence, as well as infertile couples. She suggested that the Vatican should consider revising its policies against not only reproductive technologies, but contraception as well, for she believed they were based upon an outdated view that reproduction and intercourse were inseparable. Georgeanna also saw inconsistencies in the Vatican’s policies. Noting that the Vatican had “made an exception for rhythm contraception,” Georgeanna wondered why the more natural contraception was acceptable if, indeed, it had the same effect as other methods of contraception: separating sexual intercourse from reproduction.\textsuperscript{136}

Georgeanna pointed out that many members of the Catholic hierarchy agreed with her. Discussing her participation in the Pontifical Academy’s study of IVF, she noted that when Caffarra declared his view that IVF was illicit, he reminded the other theologians that by accepting IVF as licit, they had to “reconsider all of the past pronouncements on the subject of reproduction.” Georgeanna noted that “the next theologian pointed out that if in accepting IVF as ethical, then all other pronouncements on reproduction needed to be revised; perhaps it was

\textsuperscript{134} Ibid.
\textsuperscript{135} Ibid., 3.
\textsuperscript{136} Ibid.
time." Instead, the Vatican reinforced its commitment to the inseparability of the unitive and procreative purposes of the conjugal act and *Humanae Vitae* when it presented its views of *in vitro* fertilization.

Georgeanna thought that *Donum Vitae* made a “mockery” of the Academy. In fact, Georgeanna wondered if the Pope even received the Pontifical Academy’s IVF study because it appeared to her that the Church made its decision without knowledge of the overwhelmingly positive discussion. She and Howard never received a final draft of the Pontifical Academy’s document that was prepared for the Pope. Stating that “no such document has ever been circulated,” Georgeanna concluded that perhaps “His Holiness has never read or heard the scientific discussions by the physicians or ethical judgments of the theologians convened for the express purpose of evaluating the scientific and ethical considerations of IVF.”

To her, “the recent Vatican publication therefore seems to make mockery of this activity of the Pontifical Academy, which was established during the Renaissance to preclude another Galileo affair.” She hoped that the Vatican would “listen to the collective wisdom of the many dedicated and brilliant ethicists and scientists within its walls,” but failed to see any evidence that the Pontifical Academy’s study of IVF had been considered in the Vatican’s decision-making process. She concluded her letter by stating,

> When our investigations indicate either additional functions, such as pleasure in intercourse, or additional therapeutic measures for correction of defects, such as IVF for the treatment of infertility, we should accept these findings as another evidence of God’s will for us to be inquisitive and rational. For this is a world of reason which God in His mercy has provided for us. When we know the facts, we must sometimes change our definitions and even our minds.

---

137 Ibid., 4.  
138 Ibid.  
139 Ibid.  
140 Ibid., 5.
Many theologians had recognized widespread opposition to *Humanae Vitae* even before the Church issued *Donum Vitae*. Georgeanna Jones was not the only person making the argument that the Catholic Church’s emphasis on the unitive and procreative aspects of the conjugal act was outdated. By his 1981 publication of *How Brave a New World?* McCormick offered his opinion that *Humanae Vitae* was subject to “strong objections” and had “very little evidence that will sustain it.”141 Church members voiced strong dissent against the controversial encyclical, which McCormick credited with resulting in “a reconsideration of authority in the church.”142 Catholics questioned whether or not the Church had gone too far in its unequivocal statement that contraception was intrinsically wrong for separating the unitive and procreative aspects of the conjugal act. As such, many members of the Church refused to follow the Vatican’s ban on contraception. Regardless, the Catholic Church embraced the encyclical and even based its view of IVF on *Humanae Vitae*. Indeed, after the Vatican issued *Donum Vitae*, Catholic couples continued to pursue IVF, and according to McCormick they justified their violation of Catholic doctrine by challenging the encyclical’s logic. Many Catholic couples recognized that *Donum Vitae* declared that “nothing may be done that is a substitute for sexual intercourse,” and responded that “We don’t consider these technologies as a substitute for sexual intimacy.”143 Rather, couples told McCormick that they viewed IVF and other reproductive technologies that afforded them the possibility of having biological children as “an extension of our intimacy.”144

---

142 Ibid., 260.
143 McCormick, “The Ethical and Religious Challenges of Reproductive Technology,” n.d., 12. Richard McCormick Papers. Folder 22, Box 6, LUCA. Although the paper does not include a date, it was based upon his experience with the American Fertility Society Ethics Committee, so McCormick would have given this presentation after he became a member of the Ethics Committee in 1986.
144 Ibid.
McCormick recognized that the Church members responded *Donum Vitae*’s determination critically. When Catholics asked whether or not engaging in IVF and other reproductive technologies would “actually be a supportive intervention to [their] family,” he recognized that the answer was “sometimes ‘yes.’” He believed that “most contemporary theologians (and quite a few bishops) would support an affirmative answer, saying ‘Yes, we cannot support the prohibition, at least as an absolute.’”145 McCormick stated that he would not unequivocally tell a Catholic couple seeking advice that IVF was always morally wrong. He, like other Catholic theologians, viewed IVF much like Georgeanna Jones did: it promised to enhance conjugal love by providing infertile couples the opportunity to have children.

McCormick stated that although IVF removed “the origin of the child from the sphere of specifically marital love,” he believed that the “artificially produced child” could be a product of marital love in the “debodified” sense.146 While he agreed with the Church’s prohibition on abortion, he thought that the leadership should rethink its position on IVF and contraception, and recognized that at times the Catholic Church used outdated definitions when it came to procreation and sexuality. The primary purpose of sexuality was procreation. “Therefore,” he wrote, “whenever I would use human sexual expression in a way which makes that impossible, or frustrates it, that is in abuse of that faculty.” He thought that this represented a “rather narrow dimension of the person.”147 While McCormick believed that the Catholic Church had a commitment to remain steadfast to its opposition to abortion, he thought that that was not the case with “some of the reproductive interventions or contraception.”148

145 Ibid., 16.
148 Ibid., 17.
Members of the Catholic Church, including theologians and laypeople alike, viewed *Donum Vitae* with skepticism, while the Church demonstrated its commitment to its denunciation of contraception in *Humanae Vitae*. While IVF practitioners, including Georgeanna Jones, expressed their disdain for what they saw as the encyclical’s outdated views, Catholics refused to accept the encyclical, and infertile members of the Church continued to seek IVF treatments. As the Vatican failed to focus on the connection between abortion and IVF that American pro-life Catholics emphasized, it contributed to a phenomenon already in progress in the United States during the 1980s: the separation of IVF from the controversial abortion issue.  

**Conclusion**

Despite widespread support for IVF, feminists organized to voice their opposition to reproductive technologies, which, in their view, resulted in the exploitation of women. As FINRRAGE introduced new critiques of reproductive technologies, the Catholic Church made its stance on IVF official with *Donum Vitae*: the reproductive technology was illicit, not for its connection to abortion, but for its ability to separate sexual intercourse from the conjugal act. As the mainstream media supported and encouraged the expansion of IVF, feminists entered new oppositional rhetoric into the IVF debate, and the Vatican denounced IVF for reasons other than its connection to abortion. The correspondence of these three phenomena contributed to the separation of IVF and abortion, setting the stage for new government involvement in IVF. The ethical debate surrounding IVF that centered on abortion and stymied federal funding for the new reproductive technology during the late 1970s and early 1980s would not be repeated as the federal government sought once more to engage with *in vitro* fertilization during the early 1990s. Because IVF had been successfully separated from the abortion issue for the vast majority of Americans by the end of the 1980s, there was little controversy when the federal government
once again became involved with IVF. By the mid-1990s, it became apparent that IVF was a technology that scientists and doctors would continue to use. Policymakers focused on the morality and ethics of *in vitro* fertilization when the technology first appeared, but later, when it became apparent that IVF would be welcomed in mainstream American culture, the government would shift to a focus on consumer protection.
CHAPTER VII. GETTING A “FAIR SHAKE” FOR IVF CONSUMERS AND SHAKING OFF THE ABORTION CONNECTION

The development of in vitro fertilization in the United States occurred entirely in the private sector, slowed by governmental refusal to make a definitive decision on federal funding for IVF because of the connection its opponents made between it and abortion. As the demand for in vitro fertilization in the United States increased, doctors and researchers set out on a quest for other, perhaps more effective, forms of reproductive technologies such as gamete intrafallopian transfer (GIFT), ICSI (intra-cytoplasmic sperm injection), ZIFT (zygote intrafallopian transfer), and expanded the possibilities of these technologies through cryopreservation. In vitro fertilization was changing the face of reproduction and parenthood in America, as ethical debates expanded from the “brave new world” concerns about the slippery slope of science and questions of when life begins to the unique problems arising out of clinical practice. During the 1980s, as more and more couples opted to freeze rather than dispose of leftover embryos, legal commentators pondered what would happen to the frozen embryos if the parents died or divorced. Moreover, the development of IVF and related technologies also added new possibilities for gestational surrogacy. With IVF, a man and a woman could produce an embryo completely unrelated to the gestational mother who could carry it for nine months before giving the baby to the genetic parents. Controversies such as the notorious “Baby M” case showed that surrogate arrangements were not always easily executed, and assisted reproductive technologies could lead to troubling new questions about parentage.

As the possibilities of IVF and other reproductive technologies became apparent during the technology’s decade of clinical expansion, the connection between IVF and abortion collapsed under the pressure of pronatalist media support in the 1980s. Further, the emergence of new oppositional voices that failed to connect IVF and abortion further weakened pro-life activists’ criticisms of the burgeoning technology. For example, members of the radical feminist group, FINRRAGE vociferously denounced reproductive technologies as tools for exploiting women. Thus it focused the effect of IVF on women, not embryos. Around the same time, the Catholic Church declared IVF and other reproductive technologies illicit because they separated sex and reproduction. Interestingly, while pro-life American Catholics focused their critiques of IVF on the loss of human life through the creation and possible destruction of human embryos, the Vatican failed to see a connection between IVF and abortion. Even as new oppositional voices emerged to critique the technology, by the late 1980s, it became clear that consumer demand for IVF was increasing as clinics spread throughout the country.

Without federal funding or regulation, IVF and related technologies expanded and thrived in the United States. But without federal oversight, the field of reproductive technologies developed problems that would surely not have arisen had the government (via the Department of Health, Education, and Welfare and its successor, the Department of Health and Human Services) not turned its back on *in vitro* fertilization when it was in its earliest stages. Because these institutions withheld federal funding for IVF, they missed the opportunity to exert control over the development of the technology. Indeed, even NIH employees argued for federal funding for IVF as a way to ensure federal involvement in the technology’s advancement. However, the incentive of federal regulation and control over IVF was not strong enough to justify federal funding for IVF research in the face of pro-life opposition. Because of the dearth
of federal funding for IVF research, privately funded infertility centers began to offer IVF, with the Jones Clinics at the Eastern Virginia Medical School in Norfolk, Virginia, being the first. As this “miracle cure” for infertility was promoted in the media, more and more universities, hospitals, and clinics began to offer IVF as a treatment beginning in the early 1980s. There certainly were enough patients who wanted to try IVF to support these clinics throughout the country, and practitioners recognized and tried to fulfill this demand.

As the field expanded, both inside and outside observers became aware that the practice was riddled with problems, many of which stemmed from the lack of regulation. What ultimately resulted from this realization was a congressional hearing to discuss consumer protection issues—a hearing held an entire decade after the creation of the EAB. Consumer protection concerns would inspire the federal government’s first foray into IVF policymaking. Although the 1980s witnessed the increasing separation of IVF and abortion in popular society, pro-life Americans continued to relate the two. Some lawmakers continued to speak out against any federal funding for IVF because of its abortifacient potential and the disrespect for human life that they believed the technology represented. However, as IVF’s unregulated growth continued, the Democratic Representative from Oregon, Ron Wyden, member of the House Committee on Small Business and Chairman of the Subcommittee on Regulation, Business Opportunities, and Energy enjoyed widespread bipartisan support when he initiated consumer protection legislation for IVF patients.

This chapter explores the consumer protection hearings, arguing that federal regulations to protect consumers of IVF remained the only viable outlet for IVF. Lingering connections between IVF and abortion continued to make federal funding for IVF improbable; however, congressmen across the board accepted the value of protecting the patient-consumers of IVF
through federal regulation. Although abortion continued to be a divisive issue in the United States, congressmen from both parties agreed to pass legislation to protect consumers of IVF—a reproductive technology that had been connected to the controversial issue since Congress discussed the Protection of Human Subjects in 1974. Consumer protection would not inspire the same ethical and moral debates that plagued funding discussions. Rather than discussing fears associated with the technique and the creation of human life in a laboratory, legislators would discuss the ways in which they could assist those who were suffering from the unfulfilled desire to have children and the often duplicitous commercial market of reproductive technologies. “Protecting” IVF patients seemed to be the least the government could do. Moreover, it shifted attention away from the status of the embryo and toward the safety of the consumer. The separation of \textit{in vitro} fertilization and abortion in government policy was nearly complete as policymakers focused their attention on issues of consumer protection and away from the moral status of the embryo.

In some ways, the success of Wyden’s consumer protection initiative comes as no surprise, but in other ways, its success represented a shift in the politics of federal regulation. Although the United States government had a long history of involvement in consumer protection, by the 1980s, American lawmakers relied more on deregulation than regulation. In \textit{A Consumer’s Republic: The Politics of Mass Consumption in Postwar America}, Lizabeth Cohen argues that prosperity changed the way Americans thought about their roles in society and their government. During this golden age of consumerism, Cohen discusses how presidents from John F. Kennedy to Jimmy Carter emphasized the government’s role in protecting consumers.\footnote{Lizabeth Cohen, \textit{A Consumer’s Republic: The Politics of Mass Consumption in Postwar America} (New York: Alfred A. Knopf, 2003), 346.} In a special message to Congress in 1962, Kennedy vowed to protect consumers in a Consumer
Bill of Rights which emphasized consumers’ “right to safety, to be informed, to choose, and to be heard.”³ Policymakers and consumer activists recognized that “powerful new technologies created new hazards as well as new opportunities,” as the 1950s saw the emergence of new products, chemicals, prescription drugs, clothing, vehicles, and other products that contained hazards for consumers.⁴ During the “heyday of the consumer movement,” between 1967 and 1973, Cohen stated that “more than 25 major consumer and environmental regulatory laws passed, and hundreds remained under consideration. Regulation increased noticeably.”⁵ As lawmakers began taking the initiative to protect consumers through regulation, opinion polls showed that Americans supported federal protective measures as they lost confidence in retailers, advertisers, and products.⁶

Despite public support for government consumer protection, Cohen began to see a shift that marked the waning of what she called the third wave of the consumer movement by the end of the 1970s.⁷ Attributing this decline to several factors, Cohen believes that the economic crisis of the 1970s contributed greatly to the downfall of consumerism, along with the movement for deregulation that began with Ford.⁸ Carter’s presidency marked a turning point for the consumer movement, positing that his “malaise speech” rejected the ethic of consumerism by its implication that Americans were too greedy.⁹ Further, she states that in an effort to “explore new avenues in government policy,” Carter continued the deregulation policies Ford started, which only increased when Ronald Reagan became president in 1981.¹⁰ Stating that these presidents concluded that “some of the policy directions in the previous era had been

³ Ibid., 345.
⁴ Ibid.
⁵ Ibid., 357.
⁶ Ibid., 363.
⁷ Ibid., 387.
⁸ Ibid.
⁹ Ibid., 389.
¹⁰ Ibid.
misguided.” Ford, Carter, and Reagan refuted regulation, “once a prime consumerist strategy for coercing private companies into upholding the public interest, [it] became viewed as stifling growth and penalizing consumers through its tendency to create expensive bureaucracy and suppress healthy competition.”11 Thus, Ford, Carter, and Reagan promoted deregulation “in the old language of serving the consumer interest.”12 By 1980, in the name of helping American consumers, Carter’s administration had deregulated railroads, trucking, airlines, and financial institutions in an effort to promote competition.13

Following such deregulation, Cohen argues that the Consumer’s Republic went into retreat in the 1980s and 1990s. Calling this era the “Consumerization of the Republic,” Cohen tracks the persistence of the language of consumerism even as citizens and policymakers began to reconsider their related roles. In the 1980s and 1990s, Americans, as consumer citizens, increasingly treated government as a business to be judged like other purchased goods: “by the personal benefits they derived from them.”14 In this relationship, government officials judged “potential actions by whether or not they lowered costs for consumer/citizens,” and not necessarily on the quality of their legislation.15 This represents a marked change from the Consumers’ Republic of the post-World War II era in which Americans were “a people of plenty” and business and government leaders developed a political culture that “expected a dynamic mass consumption economy not only to deliver prosperity, but also to fulfill American society’s loftier aspirations” of more equality, political freedom, and democratic participation.16 Such goals, Cohen believes, eroded as the “Consumers’ Republic” became the “Consumerization of the Republic.”

---

11 Ibid., 390.
12 Ibid., 392.
13 Ibid., 393.
14 Ibid., 397.
15 Ibid.
16 Ibid., 403.
Wyden’s attempt to regulate the field of reproductive technologies rested on important historical precedents. American presidents and lawmakers pledged their support for consumers as recently as the 1960s and 1970s, and opinion polls showed that Americans embraced and appreciated regulations that helped them navigate the expanding world of consumer products. However, Wyden’s legislation was surprising, for it sought to regulate the infertility business even as the federal government turned increasingly towards deregulation. Wyden framed his legislation as a measure that would not cost the federal government any extra money. Against common wisdom about the impact of government regulation on the market, he claimed that his bill would encourage competition among successful IVF clinics. Wyden resurrected the language Kennedy used in 1962 by showing that IVF consumers were being exploited in an unregulated industry.

**The Expansion of IVF in the United States**

Howard and Georgeanna Jones opened the first American IVF clinic in Norfolk, Virginia, but it did not take long for other universities, hospitals, and clinics to begin offering IVF as well. By 1988 when the House Small Businesses Committee held its first congressional hearing on consumer protection, more than 150 American clinics offered IVF, with five states including New York, California, Texas, Ohio, and Florida boasting ten or more centers each. Un fortunately, while the number of clinics offering IVF and related technologies grew, the AFS and the federal government began to question the abilities of infertility specialists. In the early 1980s, many infertility specialists who wanted to offer IVF looked toward established IVF experts such as Howard and Georgeanna Jones (who learned their technique from British IVF

---

pioneers Robert Edwards and Patrick Steptoe) and Dr. Richard Marrs of the Hospital of the Good Samaritan in Los Angeles, California (who spent three months in Australia learning the trade) to teach them the intricate IVF process. However, as the number of clinics grew and more researchers published articles on the mechanics of the IVF process, infertility specialists who had no appreciable experience with an established IVF clinic began opening centers offering the new reproductive technologies. In 1986, *BusinessWeek* declared that “IVF is a long way from becoming the stork of the 1980s,” because of the high costs and low success rates associated with the procedure. While well-trained and experienced reproductive specialists witnessed a relatively low success rate, untrained practitioners’ success was often much worse. Indeed, Charles Hammond, an endocrinologist at the Duke University Medical Center recognized that levels of expertise ranged widely among IVF practitioners. He stated, “American clinics range from being well-established and well-staffed to those that are significantly less qualified.” As IVF expanded throughout the country in an unregulated fashion, IVF patients could not be sure about the credentials or expertise of their infertility specialists as they underwent expensive, time-consuming, and uncomfortable treatments.

Dr. Gary B. Ellis, the Project Director of the Office of Technology Assessment’s study on infertility, estimated that by 1988, 20 to 30 percent of all IVF programs in the United States were for-profit enterprises. Indeed, in a 1987 *Forbes* magazine article aptly titled “Easier than Selling Soap,” the author discussed how IVF, “potentially a market in excess of $400 million annually,” had turned into an “appealing investment for venture capitalists.” Although not all

---

19 Ibid.
20 Sana Siwolop, “*In Vitro* Fertilization Isn’t the Stork of the ‘80s—Clinics that Offer Test-Tube Conception have Long Waiting Lists, High Costs, and a Dismal Success Rate,” *BusinessWeek* 3 March 1986, 88.
venture capitalists hurried onto the bandwagon because they “couldn’t see how IVF could ever become a cookie-cutter operation,” others “seem[ed] more interested in selling stock than in actually serving customers.” For example, the author used “Cambridge, Mass.-based In Vitro Care, Inc., which raised over $4 million in public stock offering in October 1985,” and by February 1987 had yet to open a single clinic.23 By the mid- to late-1980s, in vitro fertilization was more than an infertility treatment: it was a growth industry that held out the promise of great profits.

However, IVF was not the only medical field to experience commercialization during the 1980s. Catholic theologian Richard McCormick saw the commercialization of medicine in the United States as a general problem. Arguing that “medicine is one of the most noble and sacred professions we know,” he recognized that a shift in the relationship between doctor and patient had occurred by the 1980s. Historian David Rothman identified this transition in physician-patient relationships much earlier. Tracing the shift in medicine back to the post-World War II era, in Strangers at Bedside, Rothman argues that as the distance between patients and physicians grew in an era when medicine itself expanded, doctors became “strangers” and “hospitals were strange institutions.”24 McCormick continued to see these trends throughout the 1980s, and believed that a significant number of Americans agreed. Discussing the “divorce of the profession from those values that make health care a human service,” McCormick cited a 1989 Gallup Poll of 1500 people in which 67% thought that doctors were too interested in making money.25 McCormick thought that the “erosion of the physician-patient relationship” was a result of “the loss of a culture of compassion and care,” which was “being replaced by a

23 Ibid.
24 Rothman, 11 and 13.
business ethos.” He stated that “instead of the patient being the end or purpose, she becomes a means to something else.” The practice of medicine was increasingly relegated to the marketplace as the physical and emotional distance between doctors and patients seemed to be eroding. Further, the commercialization of medicine was the subject of a 1995 *New England Journal of Medicine* article by Boston University’s George Annas. Exploring how the “market metaphor” changed the way Americans thought about medicine, Annas stated that “The ideology of medicine is displaced by the ideology of the marketplace. Trust is replaced by *caveat emptor*... Business ethics supplant medical ethics as the practice of medicine becomes corporate. Nonprofit medical organizations tend to be corrupted by adopting the values of their for-profit competitors.”

Thus, although IVF treatment became the target of consumer protection hearings in 1988, it was not the only area in the medical field that had been invaded by commercialism.

Even as commercialism pervaded medicine as a whole during the 1980s, IVF seemed particularly prone to corruption. As the practice of *in vitro* fertilization gained momentum in the United States during the early to mid-1980s, more and more clinics opened, and problems in the practice of IVF surfaced. Infertility specialists sometimes lacked training when they started their own clinics, and around a quarter of all clinics in the United States functioned as for-profit enterprises that offered great monetary incentives for IVF practitioners. Further, many of the private for-profit clinics lacked the regulatory oversight that hospital Institutional Review Boards provided. IVF success rates were low—at about 10 to 20 percent—and many Americans recognized that the expensive reproductive technology did not provide a cure to infertility, though it resulted, for some lucky infertile couples, in a genetic child. Despite these problems,

---

26 Ibid.
27 Ibid.
28 Ibid., 16.
29 Ibid., 17.
Americans visited infertility specialists in record numbers in their quest for a biological child of their own, often unaware of their chosen clinic’s viability or doctors’ motives.

The American Fertility Society

Because the reality of IVF in the 1980s was that any obstetrician/gynecologist could start an infertility clinic and offer IVF and/or other reproductive technologies, the American Fertility Society suggested standards for IVF practitioners in an attempt to regulate an unregulated field. Pioneers in the field of reproductive medicine created the AFS in 1944 when they realized that the field of infertility was full of questions that needed addressed and there was “no organization or medium for the free discussion of the infertility problem.”

Reproductive medicine was a burgeoning new field at the time, and these specialists recognized that although there was “an abundance of fertility-related information to be found in many medical journals,” “the scattering of fertility information” made “it hard to access.” AFS founders focused on “advancing knowledge and expertise in reproductive medicine,” and in 1950 began publishing a journal, *Fertility and Sterility*. In January 1984 the AFS published an article discussing minimal standards for IVF programs in *Fertility and Sterility* in an attempt to exercise some control over the rapidly expanding field.

As minimum requirements, the AFS stated that any program offering IVF or other reproductive technologies should gain approval from “a properly constituted Institutional Review Committee.” This provision surely stemmed from the AFS’s recognition that private clinics lacked the oversight that governed IVF programs in medical schools and hospitals. Further, the standards stated that all IVF clinics should have the

---

31 Ibid., 16.
32 Ibid., 5 and 35. Although the founders initially suggested that the Society remain limited to “a small number of highly qualified persons,” the AFS had over 11,000 members in the United States and 108 countries worldwide by 1994. (page 17)
34 Ibid.
personnel, including at minimum, practitioners experienced in endocrinology, laparoscopic surgery, male reproduction, and tissue culture and fertilization. Moreover, the “director of the program [should] have clinical experience and competence.”\textsuperscript{35} The minimal standards also included provisions for confidential record-keeping that included a discussion of all aspects of the practice, including success and failure rates, number of stimulation cycles, transfers, and pregnancies. Finally, recognizing the particular vulnerability of infertile Americans, the AFS also suggested that “special attention be given to the emotional needs and emotional support of these patients.”\textsuperscript{36} However, these minimum standards for IVF clinics were not really standards, but, at their best, suggestions—at their worst, like tips for starting a successful IVF clinic. And, although many of the reproductive specialists who began offering IVF belonged to the American Fertility Society, the Society failed to ensure that its members complied with the minimum standards. The AFS saw itself as an educational organization to disseminate information to reproductive specialists, not as a regulatory board.

The AFS published its minimum standards for IVF in 1984, and in the same issue, the AFS Ethics Committee put forward its “Ethical Statement on \textit{In Vitro} Fertilization” which discussed the practice of IVF for specialists. To uphold ethical standards, the AFS recommended that IVF should be made available only to patients for whom all other infertility treatments had proven unsuccessful, and that the patients should be fully informed about the procedure and required to sign a consent form. Further, the 1984 ethical statement included a discussion of ethical practices for extra embryos, suggesting cryopreservation or research on embryos donated

\textsuperscript{35} Ibid.  
\textsuperscript{36} Ibid.
for purposes of research for up to fourteen days. Finally, the AFS ethics committee declared the use of donor sperm and oocytes ethically acceptable.  

By 1986, as the practice of IVF spread throughout the country, the AFS Ethics Committee turned its attention toward new ethical issues when it published an article called “Ethical Considerations of the New Reproductive Technologies.” In a couple of short years, the expansion of IVF led experts in the field to consider new ethical implications of the IVF procedure as it emerged in the absence of federal funding and regulation. By 1986, the AFS Ethics Committee was concerned about the rapid expansion of IVF throughout the country, as more practitioners offered the new reproductive technology, for in its 1986 report, the Ethics Committee suggested that practitioners abide by guidelines to help ensure quality care in the field of reproductive technologies. The discussion of being ethically responsible shifted from a conversation about embryonic experimentation and donor materials to one about the importance of providing patients with “full disclosure of success rates and risks,” to help them make informed decisions. Furthermore, the AFS Ethics Committee also recognized the need for more research on IVF to make the procedure more successful, and thought that federal funding would help the practice of IVF in the United States, which, to some was spiraling out of control. The Ethics Committee believed that HHS funding could not only “improve upon techniques” but also “help develop guidelines to restrict” the use of IVF to “qualified individuals.” Thus, as early as 1986, the AFS Ethics Committee shifted its discussion of ethics in reproductive

39 Ibid., 42.
technologies from the moral questions surrounding the beginning of life that were the focus of
the 1970s to the ways specialists approached and treated consumer-patients.40

“Are We Exploiting the Infertile Couple?”

The AFS continued to represent itself as a leader in the field of reproductive technologies
when, in 1987, the “Editor’s Corner” of the Society’s monthly journal, Fertility and Sterility,
focused on issues of exploitation in the business of infertility. As part of AFS’s educating
mission, each month the journal’s editor devoted the “Editor’s Corner” section of the publication
to discussing more than just the clinical aspects of IVF research. In 1987, the editor of the
journal, Richard Blackwell, along with ten other leaders in the field of reproductive technologies,
 wrote an article titled, “Are We Exploiting the Infertile Couple?” exposing the field for its
shortcomings.41 While Blackwell and the other contributors noted the fine line between
exploitation and legitimate treatment, they defined the mistreatment of patients in accordance
with the dictionary definition, interpreting it to mean taking one’s benefit at the expense of

---

40 Harris discusses the advent of AFS’s minimal and ethical guidelines in her dissertation, making the claim that the
group sought to present itself as “the authority on ethical IVF and reputable IVF doctors.” For Harris, the AFS set
ethical guidelines when it did because it was “proactive self-regulation,” that was a “strategic move” geared towards
“directing public discourse about the problem and potential solutions.” She wrote, “Like many professional groups
Facing challenges from actual or prospective clients, organized fertility doctors sought to set standards for
themselves and enforce them upon all practitioners.” However, the fact that the AFS failed to see itself having any
regulatory role, its efforts to “self-regulate” were strictly limited to “directing public discourse” without acting upon
regulations. Furthermore, the realization that in 1986, the AFS Ethics Committee continued to argue for the value of
federal funding, and indeed federal regulations through restrictive guidelines demonstrates that even as the AFS
began self-regulating, it still welcomed a certain level of government intervention in reproductive technologies.
Harris, 258-263, and 1988 Wyden Hearing, 42. Testimony of Edward Wallach.

41 Richard E. Blackwell, et al., “Are We Exploiting the Infertile Couple?” Fertility and Sterility 33 no. 1 (November
1987): 735. The article’s contributors included: Bruce E. Carr, from the Department of Obstetrics and Gynecology
at The University of Texas Southwestern Medical School; R. Jeffrey Chang, from the Department of Obstetrics and
Gynecology at The University of California, Davis; Alan H. DeCherney, from the Department of Obstetrics and
Gynecology at the Yale University School of Medicine; Arthur F. Haney from the Department of Obstetrics and
Gynecology at the Duke University Medical Center; William R. Keye, Jr. from the Department of Obstetrics and
Gynecology of the University of Utah; Robert W. Rebar from the Department of Obstetrics and Gynecology at the
Northwestern University Medical School; John A. Rock from the Department of Obstetrics and Gynecology at The
Johns Hopkins Hospital; Zev Rosenwaks from the Department of Obstetrics and Gynecology at the Eastern Virginia
Medical School; Machelle M. Seibel from the Department of Obstetrics and Gynecology at the Harvard Medical
School; and Michael R. Soules from the Department of Obstetrics and Gynecology at the University of Washington
School of Medicine.
another. Many people would argue, however, that this definition of exploitation simply described capitalism in action. Regardless, the authors argued that infertility specialists had been lured away from standard medical ethics by the malpractice crisis, the development of new technology, and the entrance of for-profit organizations into the infertility arena.42 Interestingly, perhaps preferring to believe that the field could indeed manage itself, Blackwell, et al., did not include the lack of government regulation in this short list. Nor did they explain clearly how and why these forces necessarily led to less than truthful practices in infertility treatment. Blackwell also defended physicians’ mistakes when he wrote, “If…substandard or unnecessary medical care is rendered to the infertile couple, exploitation has occurred. Fortunately, we believe that the majority of physicians think that the therapy they are providing to the infertile couple is appropriate, and exploitation is often unintended.”43 Key problems in the field included the improper use of credentials, the misuse of new reproductive technologies, and misleading success rates.

Although the American Board of Obstetrics and Gynecology (ABOG) certified its members to evaluate infertile couples, this certification did not necessarily indicate expertise in the area of IVF treatment. Such skills were not standard in the training of gynecologists and obstetricians and required specialty training. However, as was often the case, a “short weekend post graduate course” offered doctors an opportunity for knowledge on the technology and provided them with certificates “suitable for framing” after completion. In fact, the AFS offered “postgrad” courses at its annual meetings, and although advertisements did not mention the possibility of obtaining certificates worthy of framing after completing, the society lured professionals to its seminars and meetings by holding them at exciting locations. For example,

43 Ibid.
in 1981, *Fertility and Sterility* advertised its 38th annual meeting, held in Las Vegas by including photos of half-dressed showgirls and discussing how the meeting would offer “a variety of entertaining leisure time features, including scintillating shows, dining affairs and tours to exciting points of interest.” Even as Blackwell and the other authors criticized practitioners who went to opened clinics after participating in a weekend seminar, the AFS lured reproductive specialists to their meetings through advertisements that emphasized the entertaining rather than the educational aspects of the courses.

Blackwell feared that a doctor’s participation in such seminars and classes could mislead patients who saw certificates on their practitioners’ walls and assumed that they were infertility or IVF specialists (as many then called themselves). The courses were intended to expose gynecologists to the new techniques, not to train them to perform complicated procedures. But, because there was no monitored credentialing process in the field, unqualified doctors could claim to have the training and skills to perform IVF. IVF pioneers like the Joneses sometimes exacerbated the problem by conducting workshops, seminars, and clinics to teach other reproductive specialists about IVF. As early as 1982, reproductive specialist Martin Quigley recognized the problems posed by such educational programs when he wrote a letter to Mason Andrews, recognizing the “superb workshop” that the Joneses had conducted. However, his “only misgivings [were] that everything seemed so certain and easy as presented, that I am afraid a large number of individuals and institutions that are not appropriately committed, staff, or equipped will attempt *in vitro* fertilization to the detriment of patients and those of us who have been working for a long period of time.”

---

inexperienced practitioners into the field of IVF would be detrimental to the patients, but to experienced practitioners as well.

Along the same lines, Blackwell and his co-authors discussed how doctors could also use their membership in the American Fertility Society and the Society for Assisted Reproductive Technology (SART), another professional society for IVF practitioners, to mislead patients into thinking that they were part of an accredited treatment institution. Typical patients likely viewed membership in such an organization as proof that their infertility “specialist” was specifically trained in the field of infertility treatment. What most patients did not realize, however, was that membership in AFS was “open to all individuals who express an interest in the field and pay modest membership fees.”47 Interest, however, did not connote expertise. And, as Blackwell pointed out, patients are “generally unaware of the difference between membership in professional societies that are open versus those with limited (peer review) membership.”48

Emphasizing research and the education of doctors, the AFS resisted assuming an oversight role. According to former AFS president Dr. Benjamin Younger, if the society attempted to monitor the field by limiting membership, it would be working against its goals by “restricting education opportunities.”49 But while the mission to educate represented a noble cause, mere information dissemination did not stop what Blackwell called the misuse of new reproductive technologies—misuse which followed from a lack of education and credentials. Without a credentialing system to identify and monitor doctors who were qualified to practice IVF, educational programs could, at times enable unqualified physicians to open IVF practices and take advantage of the infertile. In the case of reproductive technologies, educational programs without a credentialing system became potentially harmful to IVF patients. Although

48 Ibid.
patients surely saw AFS membership as a sign of their physicians’ expertise, in reality, membership meant very little without a credentialing system.

Unlike the AFS, SART had some requirements for membership, stipulating that doctors must perform at least forty IVF stimulation cycles per year for at least one year to be eligible.\textsuperscript{50} This number should not be confused with forty patients, or forty pregnancies, but rather the number of times that the doctors used hormones to stimulate a patient’s ovulation cycle. SART’s membership requirements emphasized neither success nor proof of mastery, prioritizing quantity over quality in ways that could actually encourage exploitation by providing doctors with incentives to perform unnecessary procedures to reach the minimum number of cycles.

Problems of quality versus quantity also surrounded the discussion of truth in advertising, the final issue raised by Blackwell and his co-authors in the 1987 editorial. “No area of reproductive endocrine/infertility practice has been more preoccupied with pregnancy rates than IVF,” they wrote, declaring this emphasis understandable given the “emotional and financial pressures that fall upon couples who undergo this process.”\textsuperscript{51} Furthermore, when the end-goal of a procedure is purportedly to provide patients with a “miracle baby,” it only makes sense that both practitioners and patients focused on pregnancy rates. IVF clinics and doctors were able to advertise falsely because they could calculate their success rates a number of different ways. Pregnancy rates, for example, could be “reported in terms of pregnancies per attempt, pregnancies per fertilization, and pregnancies per transfer. Therefore, what constitutes a pregnancy rate can be confusing to the lay public.”\textsuperscript{52} Rather than informing the patient of the actual take-home baby rate out of all of the stimulation cycles, or all of the attempts at fertilization, doctors could instead emphasize the number of embryos transferred, thereby

\textsuperscript{50}Blackwell, et al., “Are We Exploiting the Infertile Couple?” 735.
\textsuperscript{51} Ibid., 738.
\textsuperscript{52} Ibid.
making the denominator a smaller number and inflating their take-home baby rates.

Furthermore, some doctors chose to emphasize pregnancy rates rather than take-home baby rates, which, too, could be misleading depending on whether they were referring to chemical pregnancies (shown by an increase in certain hormones on the pregnancy test, which can often be misleading given the hormonal stimulants administered to most IVF patients) or clinical pregnancies (the presence of a fetal heartbeat). Either way, the decision to choose pregnancies over the take-home baby rate also gave the illusion of an increased success rate, given the number of women who experienced ectopic pregnancies, spontaneous abortions, or miscarriages. Thus, some consumer-patients experienced a brief pregnancy without achieving the final product—a baby of their own. IVF doctors manipulated the numbers to make their success rates appear more impressive, and unless patients were taught to pay attention to language and ask questions about the numerators and denominators that resulted in their clinic’s “success rates,” these consumers often began treatment ill-informed about their actual chances of bringing home a baby.

Although Blackwell’s article did not advocate government regulation, it was nonetheless credited with spurring the creation of a Congressional committee to explore consumer protection issues involving in vitro fertilization in 1989. Wyden recognized the importance of the Fertility and Sterility article and the “distinguished fertility specialists” who wrote it when he stated that “The first people to blow the whistle on infertility scams were the fertility professionals themselves.”53 However, Blackwell was not the first person to bring attention to the plight of the consumer-patients of IVF. In response to a 1986 New York Times opinion editorial that focused on the well-being of the “baby-to-be-made,” political scientist Andrea Bonnicksen wrote a letter to the newspaper’s editor arguing that IVF created a new class of consumers, who needed

protection themselves. Bonnicksen recognized that “couples caught in the struggle of infertility [were] vulnerable consumers,” because of their desperation to have a biological child. About one year before Blackwell’s editorial in *Fertility and Sterility*, Bonnicksen pointed out that these patients were “susceptible to misleading claims of *in vitro* administrators about success rates.” Arguing that the field of reproductive technology had become “big business,” she thought that the time had come to “recognize its consumer implications” and “educate the public accordingly.”

**54** Bonnicksen contended that an educated citizenry was necessary to avoid the pitfalls of medicine shrouded in big business. She realized that patients needed to approach IVF as they would any other consumer good or service. Further, the federal government began paying attention to the commercial development of IVF as early as 1985, when the House Committee on Government Operations requested that the Office of Technology Assessment (OTA) evaluate “the workings of the government around the issue of infertility and its treatment.”

**55** The OTA issued a report, lambasting the federal government for failing to respond to the recommendations of the EAB and refusing to reconstitute a new Ethics Advisory Board. The Office blamed the unregulated nature of IVF on federal failure to provide any research funding which left the costs associated with experimentation with the procedure to patients, scientists, and pharmaceutical companies.

**56** Regardless, Blackwell’s often-cited article addressed and explicated the three major areas that its authors identified as susceptible to potential exploitation, and the grievances listed became the focus of government debate when the Subcommittee on Regulation, Business Opportunities, and Energy held hearings. The hearings focused on consumer protection issues, and included discussions regarding the technology’s success rates, advertising, and accreditation process.

---


**55** Harris, 266.

**56** Ibid., 271.
Representative Wyden stepped into the fray to hold congressional hearings in an effort to 
uncover exploitative practices, discuss causes, and explore possible solutions that would make 
the reproductive technologies more consumer-friendly. Wyden held two hearings, the first in 
1988 and the second in 1989, both of which included testimonies from infertile couples, 
representatives of infertility support groups, infertility specialists, and government officials. 
Noting that the “infertility industry has mushroomed,” Wyden began the first meeting with some 
statistics regarding the use of reproductive technologies in the United States.\textsuperscript{57} Although IVF 
accounted for only roughly 7 percent of infertility treatments, Americans spent an estimated $30 
to $40 million dollars on the procedure each year. One might assume that a procedure that netted 
such a large sum of money would yield good results; Wyden pointed out that “over half of the 
169 clinics doing \textit{in vitro} in 1987 had never produced a baby.”\textsuperscript{58} This was a fact that most of the 
patients who paid nearly $5,000 for each attempt at a “miracle baby” of their own did not know. 

Wyden began both hearings with testimony from IVF patients, calculated to dramatize 
the human impact of IVF. Unlike the mainstream media’s focus on IVF successes throughout 
much of the 1980s, the witnesses related negative experiences with IVF that highlighted their 
inability to gain reliable information about the procedure and the success rate of their chosen 
clinic. At the 1988 hearing, the first witnesses to testify were Bill and Vicki Eckhardt. 
Discussing how she had been fitted with a Dalkon Shield when she was nineteen years old, Vicki 
attributed her infertility to this contraceptive device which caused scarring that blocked both of 
her fallopian tubes.\textsuperscript{59} At nineteen, Vicki had turned to this IUD, an unregulated reproductive 
technology that ultimately caused infertility and led her to seek out another unregulated 

\begin{footnotes}
\item[57]1988 Wyden Hearing, 1.
\item[58]Ibid.
\item[59]1988 Wyden Hearing, 3. Testimony of Vicki Eckhardt.
\end{footnotes}
reproductive technology, in vitro fertilization. Vicki had heard of Dr. Cecil Jacobson, an infertility “specialist” in Virginia whom her gynecologist encouraged her to see. In 1981, Jacobson told Vicki that “he would make sure [she] got pregnant,” and they would begin the process with a surgery to repair her blocked fallopian tubes.60

Vicki’s story illustrated the damage that an unethical and manipulative doctor could do to a patient. After her surgery, Jacobson started her on hormone treatments that included human chorionic gonadotropins (HCG). Shortly thereafter, he informed her that she was pregnant. Of course, Vicki told the subcommittee that she and Bill were “thrilled” when Jacobson told them the news, and she immediately began preparing for the baby by reading books, taking better care of her body, and even looking at baby clothes. Unfortunately, as early as eight to ten weeks later, one of Vicki’s bi-weekly sonograms showed that the “baby was dead and had been absorbed.”61 Vicki and Bill continued to be treated by Jacobson for four years following this incident, during which, Jacobson told the couple that Vicki was pregnant seven more times. Each time, he told them the same thing within the first twelve weeks—the early fetus had spontaneously aborted and had been reabsorbed in the uterus, a medical possibility in very early miscarriages. It was not until the couple gave up on hormone treatments and sought IVF that they started to question whether any of her “pregnancies” had been real. They did not realize that Jacobson had indeed been lying to them until they saw a special report on the unscrupulous doctor on television. Vicki had never been pregnant at all, yet Jacobson told her eight times that she was going to have a baby. The Eckhardts were not the only infertile couple fooled by Jacobson, who called himself “the babymaker.”62

Hearings conducted by a committee of the

60 Ibid.
61 Ibid.
Virginia Board of Medicine in 1989 brought similar cases to light. Some of Jacobson’s other patients testified that he told them they were pregnant and shown them sonograms, “pointing out nonexistent heartbeats, fetal movements and thumb-sucking,” only to announce that they had experienced miscarriages weeks later. Based on these testimonies, the Virginia board revoked Jacobson’s medical license, and in 1992, a federal jury found Jacobson guilty on fifty-two counts of fraud and perjury for, among other things, inseminating unknowing patients with his own sperm.

Dr. Cecil Jacobson was able to take advantage of infertile couples’ vulnerability because of the lack of regulation in the field of infertility. Discussing how he had pulled the wool over her eyes, Vicki stated that, “Dr. Jacobson is very smooth and very convincing. He has all these plaques on his walls and letters even from the Presidents of the United States.” Why would Vicki and Bill Eckhardt even think to question this fertility doctor? They had been referred to him by another trusted gynecologist, and Jacobson had his own practice and was well-known in the area. Bill and Vicki Eckhardt had no reason not to trust Dr. Cecil Jacobson. Yet, at the same time, they had no reason to trust him any more than a “used car salesman,” a career path Vicki thought Jacobson should have pursued instead of gynecology. The Eckhardts noted that they would have expected a used car salesman to tell them whatever he needed to in order to make a sale, but they did not expect that from a doctor. At the time of the hearing, Jacobson was still practicing, and according to Vicki’s sources, he was planning to open his own IVF clinic.

Much like the 1988 hearing, the 1989 hearing began with testimony from a woman who had been struggling with infertility and who ultimately turned to IVF. The difference, however,

63 Elmer-DeWitt and Thompson, “The Cruelest Kind of Fraud.”
66 Ibid.
was that actress Jo Beth Williams, RESOLVE’s National Infertility Week spokesperson, considered herself to be one of the luckier consumers of reproductive technologies. Although she and her husband spent “2 ½ years going to several doctors who were gynecologists and claimed that they also did infertility,” they ultimately found an accredited infertility specialist.\(^{68}\)

Further, not only was she grateful to be in a financial position to afford multiple reproductive treatments with minimal help from her insurance, but she was also fortunate because her infertility specialist “told [her] his result statistics,” and was “caring and concerned and positive without building false hope.”\(^{69}\) Despite her faith in the honesty and integrity of her doctor, after multiple attempts and two failed pregnancies, Williams concluded that she was unable to carry a child to term and, with her husband, adopted a son. At the time of the hearing, however, the couple was planning to try IVF or GIFT again because “that seed of hope never seems to die.”\(^{70}\)

Unlike the Eckhardts, who shared their experiences during the first hearing, Williams stated that she believed that “all the doctors [she] dealt with were good doctors, were honest men, and were kind men.” She “certainly didn’t think they were deliberately trying to exploit [her] in any way.”\(^{71}\) Furthermore, Williams’ experience with infertility treatment was arguably less negative than Bill and Vicki Eckhardt’s. Both couples—the Eckhardts and Williams and her husband—did have one thing in common: despite negative experiences, they were still attempting to become pregnant through \textit{in vitro} fertilization at the time that they testified at the subcommittee’s hearings. Both couples retained hope that they could find resolution through the reproductive technologies that had, to date, failed them.

\(^{68}\) \textit{1989 Wyden Hearing}, 122. Testimony of Jo Beth Williams.  
\(^{69}\) Ibid, 123.  
\(^{70}\) Ibid.  
\(^{71}\) \textit{1989 Wyden Hearing}, 127. Wyden questions Jo Beth Williams.
During the 1989 hearing, Wyden highlighted infertile couples’ desperation to become pregnant, illustrated by the couples who continued to seek treatment despite numerous failures. Despite the fact that in her testimony, Williams used the word “desperate” to describe infertile Americans three times, and mentioned how “vulnerable” they were and how this population would “try anything,” Wyden still wanted Williams to clarify this point. He asked her, “In terms of the couples, couples that you have seen and worked with—is it your sense that many of them are just so desperate that they will try almost anything?”\(^{72}\) Of course, Williams, who had already made this point, responded, “Absolutely…you do become desperate…”\(^{73}\) Discussing the desperation and vulnerability of infertile Americans seeking to have a baby made the claim for consumer protection much richer. The desperation of IVF consumers made their exploitation at the hands of unscrupulous practitioners seem even more egregious.

Wyden also invited representatives from organizations like the De Miranda Institute and RESOLVE, support groups for infertile Americans. The 1989 hearing included testimony from Ann Petter, the president of RESOLVE, a consumer advocacy organization that was created by Barbara Eck Menning in 1974, which focused on the need for some sort of regulation in the face of inflated success rates, ineffective clinics, and false advertising. However, the 1988 testimony from Carol Peters of the De Miranda Institute was much more effective in helping lawmakers realize the extent to which government regulations could help infertile Americans who sought treatment. Peters and Gina de Miranda founded the Institute in 1987 because they recognized the need for consumer protection in the field of reproductive technologies despite the passage of legislation that required health insurance coverage of IVF. Peters stated that their “charter [was] simple: Protect the infertile, one of the most vulnerable groups of consumers to arise in modern

\(^{72}\)Ibid.  
\(^{73}\)Ibid.
times.” To follow their mission of helping this “vulnerable group of consumers,” the Institute provided infertile Texans with a telephone help-line, and made “political representation of the infertile and prevention of infertility” one of its main goals. Representatives of the De Miranda Institute tried to arm these couples with the knowledge that not all reproductive “specialists” were experts who provided quality care. The Institute provided individuals with advice about infertility practitioners by helping them find successful doctors with credentials.

Peters shared stories of infertility—her own as well as those of the Institute co-founder Gina De Miranda and some of the couples who turned to them for help. And, much like the Eckhardts’ testimony, the tales Peters told were full of heartache and grief for infertile Americans. Peters stated that it was the Institute’s goal to “eliminate stories” where infertile couples experienced physical and emotional pain at the hands of inept practitioners. For example, she noted how one woman nearly went blind after being treated with the ovulation-stimulating fertility drug Clomid. Despite the warning provided by the makers of Clomid that one of its side effects “can be visual disturbances and treatment should be reevaluated if this occurs,” her doctor, apparently ignorant of the drug’s side effects, “told her that it was her glasses.” Even as some women experienced serious side-effects because of ill-informed infertility doctors, the infertility of others derived from careless doctors in their past. Peters testified that one woman’s “chlamydial infection went undetected for eight years, even though she visited her OB/GYN every year from the time she was 16.” Upon discovering her malady, the doctor told his patient that the $40 test to check for Chlamydia “was too expensive to do

---

75 Ibid.
76 Ibid, 6.
77 Ibid.
78 Ibid, 7.
Because her physician thought the $40 test was too expensive, the board member, who ultimately had two blocked fallopian tubes, could only hope to conceive a child through \textit{in vitro} fertilization.\footnote{Ibid.}

Not only did doctors make mistakes that led to infertility, but at times IVF specialists approached women about the procedure at moments when they were extremely vulnerable. Relating how she was approached by a doctor seeking to open an IVF clinic while she still in the hospital recovering from an ectopic pregnancy, Peters noted that although the center had yet to open, the doctor told her that she would have a twenty-five percent chance of having a baby through his services. The doctor was obviously not quoting his own success rate, for he had not even opened his clinic yet. Regardless, he found prospective patients at the hospital, still suffering from the physically and emotionally painful loss of a pregnancy. Obviously this doctor, whom Peters had never seen before, had been aware of her situation and her surgery, and approached her about a procedure that could possibly help her conceive a child at one of her most vulnerable moments—just as she was dealing with the reality of her diminished reproductive ability.

Although the De Miranda Institute provided educational resources for infertile couples, the organization’s president admitted that education could do only so much in a \textit{caveat emptor} industry” that was growing so rapidly.\footnote{Ibid, 8.} So the question remained: what would help prospective IVF patients as they sought treatment? When Wyden questioned the Eckhardts and Peters, he said that their testimonies merely reinforced what the subcommittee had already thought: “the infertility industry is over-promising.”\footnote{1988 \textit{Wyden Hearing}, 9.\textit{Wyden questions Peters and the Eckhardts.}} From these testimonies, Wyden concluded that doctors
were promising women more than they had the power to fulfill, a fact that the infertile often failed to recognize. In his questioning of Vicki Eckhardt, Wyden showed that although she no longer saw Cecil Jacobson, she did not know enough about the IVF clinic she was attending in Fairfax, Virginia. Stating that the literature provided by her clinic quoted a twenty to thirty percent success rate, Eckhardt was unaware of the Office of Technology Assessment’s report that showed “the real success rates [were] closer to 10 percent in some of the best clinics.”

Eckhardt’s discussion of her treatment at the hands of Jacobson represented an extreme case of exploitation. However, Wyden thought that even though exploitative practices like Jacobson’s were not widespread in the IVF field, the practice of clinics overstating success rates was rampant. Wyden showed that even after Eckhardt had been duped by one reproductive specialist, she had been misled by yet another different infertility clinic that misrepresented its rate of success. “It is pretty hard to be a good consumer of medical care when there is virtually no objective information, isn’t that correct?” Wyden asked Vicki.

The fact that infertile Americans like the Eckhardts and Williams, and representatives from organizations like RESOLVE and the De Miranda Institute were invited to testify at these hearings indicated the subcommittee’s interest in helping infertile Americans and protecting consumers of reproductive technology.

Government officials and reproductive specialists also testified to the unsavory aspects of the field. Expert testimony showed that in the field of reproductive technologies, the cost was high, success rates were low, not all practitioners were experts, and false advertising had become a problem. IVF was costly: the cost of diagnosis and treatment could exceed $22,000 per attempt, and infertile couples also had to worry about the opportunity costs of travel time and

---

missed work.\footnote{1988 Wyden Hearing, 16. Testimony of Gary B. Ellis.} Gary Ellis of the Office of Technology Assessment worried that couples, who spent their hard earned money and precious time in doctors’ offices did not know that the majority of IVF clinics in the United States had “little or no success.”\footnote{Ibid., 17.} The high costs of the procedure seemed incongruous with its low success rate—a success rate so low that many wondered whether the procedure should be considered experimental or therapeutic.

This question proved difficult to answer, as some witnesses such as the OTA’s Gary Ellis recognized that “no blanket answer to that question is possible,” and other reproductive specialists argued that IVF had passed its experimental stage.\footnote{Ibid.} Ellis thought that the question of IVF’s status was difficult to answer because success rates varied widely by clinic. As University of Minnesota bioethicist Arthur Caplan explained, although the treatment might be experimental at a “center beginning to use IVF,” “in the hands of other practitioners who have been doing it, it may be therapeutic.”\footnote{1988 Wyden Hearing, 29. Wyden questions Arthur Caplan.} Thus, even the question of whether or not IVF should be treated as a therapeutic or experimental treatment had no definitive answer almost ten years after the birth of the world’s first “test-tube baby.” Caplan recognized, however, that labeling IVF therapeutic would merely raise the expectations of infertile Americans, so he recommended that clinics be required to reveal information about their own charges and success rates to help IVF patients become better consumers with realistic expectations about the technology.\footnote{Arthur Caplan, “Ethical and Policy Considerations Regarding In Vitro Fertilization,” in 1988 Wyden Hearing, 72-73.}

While Ellis and Caplan approached the experimental nature of IVF in a more nuanced fashion, the AFS and ACOG had already declared IVF “non-experimental.” Such a declaration represented the best interests of each group, for calling the procedure non-experimental helped gain insurance coverage for IVF, thereby bringing more patients to the offices of practitioners.
Even as some state legislatures began to require that health insurance companies cover IVF, many carriers did not include the high-tech infertility treatments. However, Ellis reported that many IVF practitioners found “disingenuous ways to invoice for infertility services, as to obtain reimbursement from insurers for their patients.”

Doctors could combine treatments that insurance providers agreed to cover with those necessary for the IVF procedure as a strategy for gaining some reimbursement for their patients. For example, if “some embryos happened to be left behind” during a uterine sounding, then certainly that was just an added bonus to the patient. In other words, some physicians implanted fertilized eggs under the guise of diagnostic tests that would be covered by health insurance companies. Had the procedure been written up as an embryo transfer rather than a uterine sounding, the patients would have had to pay the entire costs of the procedure out of their own pocket. Some might argue that the manipulation of the insurance companies by some IVF doctors violated ethical standards, but the hearing remained focused on consumer protection. Wyden’s main purpose was to flesh out unethical practices that negatively affected IVF patient-consumer, not insurance companies.

Even when Wyden asked Ellis whether such practices were “plain out-and-out fraud,” he seemed satisfied when Ellis answered that IVF practitioners were “placed in an ethical dilemma,” where they could help their patients only through “subterfuge.”

Ironically, perhaps, IVF specialists’ unethical practices towards health insurance companies represented evidence that many practitioners were indeed looking out for the best interests of the consumers.

AFS’s and ACOG’s declaration that IVF should be considered non-experimental therapeutic treatment created a conundrum. By declaring IVF a therapeutic procedure, more health insurance carriers would help pay some of the associated costs, but this pronouncement

91 Ibid, 23.
92 Ibid.
would also prevent the National Institutes of Health—which funded only experimental research—from funding clinical IVF. However, DHEW had never lifted its moratorium on federal funding for IVF research so even if IVF remained in the experimental phase, researchers were unlikely to receive federal funds. Perhaps the AFS and ACOG were willing to take a gamble on gaining some insurance coverage for their patients rather than research money from NIH. If specialists announced that the treatment had entered the therapeutic stages and was no longer experimental, they were likely to gain health care coverage for their patients. ACOG and AFS chose the route where funding for their practice was more likely, albeit more indirect. In many states, this strategy worked. As the AFS declared “IVF a bona fide surgical treatment for infertility,” state legislatures—starting with Maryland in 1985—began requiring health insurance companies to cover IVF.

Not everyone celebrated AFS’s and ACOG’s triumph in gaining health insurance coverage for IVF. Caplan shared his concerns with the subcommittee about whether insurance carriers should be forced to pay for IVF expenses at all. Although he thought that asking whether “public money should go toward” a technology where “the success rate is 6 or 9 percent,” was a “legitimate question,” he recognized that “couples who are infertile find themselves in a terrible bind.” And, once again, Caplan recognized when the AFS and ACOG declared that IVF was no longer experimental, they blocked possible research funding that could lead to vast improvements in the field. With such a low rate of success even in the country’s best clinics, many saw the need for more IVF research.

94 Harris, 256.
96 Ibid.
As outsiders of the reproductive technology continually cited IVF’s low success rates, reproductive specialists countered that the technology’s success rate could not be adequately appreciated without acknowledging the inefficiencies of natural reproduction. AFS President Benjamin Younger began his testimony by discussing the reproduction inefficiencies even in the healthiest couples. In comparison to the chances of natural conception by a fertile couple in any given month (25% to 30%), and the rate of miscarriage (30% of all conceptions), IVF success rates did not seem so low.  

Because IVF was a procedure to help infertile couples conceive, Younger implied that the technology’s success rate would be expected to be lower than that of natural reproduction. Younger was certainly not the first infertility specialist to share this point. In *Manufacturing Babies and Public Consent*, Jose Van Dyck explores the popular acceptance of the new reproductive technologies in the mainstream media and medical journals such as the *New England Journal of Medicine*, recognizing that the media largely accepted “the premise that IVF is advantageous, successful, and desirable as a cure to infertility.” For Van Dyck, by comparing IVF’s low success rate to the “disadvantages” of the natural cycle, infertility specialists and the media perpetuated “the myth that men can do better than God.”

Margarete Sandelowski, on the other hand, argued in *With Child in Mind: Studies of the Personal Encounter with Infertility* that physicians used natural conception as a “standard against which the effectiveness of conceptive techniques is compared.” She stated that reproductive technologies allowed “a couple who had virtually no chance to conceive [to] be brought up to nature’s standard.”  

---

99 Ibid., 130.  
managed to outdo nature, Sandelowski believes that IVF practitioners comforted themselves by recognizing the inefficiencies of natural reproduction in the face of their own low success rate.

Even though IVF specialists justified IVF’s low success rates by comparing them to the inefficiencies of natural reproduction, they had difficulty justifying the proliferation of unsuccessful clinics. Reproductive specialist Richard Marrs informed the subcommittee, “the bottom line is that even though we know more about the technologies today in comparison to 10 years ago there is still no set recipe or cookbook approach that has been shown to be widely effective in generating reproducible pregnancy rates.”\textsuperscript{101} However, IVF was being touted by doctors and the mainstream media as a “miracle cure” for infertile couples that carried a very expensive price tag. What the media failed to recognize, though, was that not all clinics were staffed by experts who could claim success.

According to data from the OTA, twenty-five percent of the clinics offering IVF in the United States failed to treat their patients successfully. Inexperienced IVF practitioners accepted patients before they could claim expertise in the burgeoning field. While Younger tried to downplay the fact that certain clinics were not producing, Marrs emphasized the impact of such incompetence. He calculated that the 28 clinics that achieved no pregnancies accounted for “2.5 percent of the cycles that were performed,” and “if you consider[ed] an average cost of $5,000 per patient cycle that accounts for $1.8 million in patient cost.”\textsuperscript{102} Even though Marrs could not have calculated the emotional and physical costs patients faced when they unwittingly chose unsuccessful clinics, the financial cost alone was staggering. By the 1989 hearing, however, Younger pointed out that “only 16 of 133 clinics or 12 percent had yet to produce.”\textsuperscript{103} As practitioners at new clinics gained hands-on experience with IVF, the number of failed clinics

\textsuperscript{101} 1988 Wyden Hearing, 32. Testimony of Richard Marrs.
\textsuperscript{103} 1989 Wyden Hearing, 130. Testimony of J. Benjamin Younger.
appeared to decrease, giving credence to Ellis and Caplan’s point that in some clinics, IVF remained experimental. However, even as more clinics achieved IVF success by “producing” a live birth, their success rates remained incredibly low.

As a discussion of success rates came to dominate Wyden’s hearings, it became clear to Wyden that when it came to IVF, even calculating success rates was tricky. Wyden began to recognize that how clinics determined their success rates and communicated them to patients was of great importance. “The only statistic that really matter[ed] to patients is the birth of a live child,” but because take-home baby rates were lower, some clinics instead chose to calculate their success by pregnancy rates. Some clinics determined their success rate by egg recovery even though the IVF procedure often began with hormone stimulation. By skipping over parts of the process, and viewing success as pregnancy instead of a live-birth, practitioners had subtle ways of inflating their rates of success.

Quigley believed that IVF clinics should use a clear numerator and denominator to determine their rates of success—the number of live births divided by the number of egg recovery procedures. He recognized that for patients, much of the expense, discomfort, and risk began with egg retrieval. Although the results of calculating success rates using these standards would be lower than, for example, using embryo transfer rather than egg retrieval, some argued that even Quigley’s formula exaggerated the rates of success. Indeed, as Gary Ellis pointed out, even SART—the society over which Quigley presided—used stimulation cycles rather than egg retrievals as the basis for determining members’ eligibility. Obviously SART recognized that IVF treatment often began with hormone stimulation—not egg retrieval.

104 1989 Wyden Hearing, 133. Testimony of Martin M. Quigley.
105 Ibid.
While many clinics calculated their success rates according to egg recovery, a number of practitioners argued that hormone stimulation more accurately marked the beginning of the procedure. Although Marrs had at one point agreed with Quigley that the egg recovery procedure should have been the denominator for determining IVF success rates, the rising costs of the stimulation cycle changed his mind. He stated, “today, if we fail to stimulate properly and drop a cycle, it is somewhere in the range of close to $2,000” once the costs of all the drugs and monitoring were taken into consideration. He also noted that if patients had “three cycles that fail[ed] to stimulate, they could be spending $6,000 or $7,000 and never get a chance at a pregnancy.”

Not only was the financial investment high for a stimulation cycle, but both Marrs and Ellis also agreed that for patients, the emotional investment in in vitro fertilization began with the hormone treatments, if not before. Next, women who participated in even the first stage of the procedure were in fact taking risks. In the 1988 hearing, Gary Ellis pointed out that one out of every one thousand women went to the hospital due to the hyperstimulation of their ovaries. And, many women did in fact experience discomfort when it came to their hormone treatments—whether from the side effects of the drugs, or the daily injections, the stimulation cycle certainly was not easy for women. For patients, IVF treatment began with the administration of hormones to stimulate ovulation. SART judged its member-physicians by the number of hormone cycles they stimulated. Yet, in calculating their success rates, some IVF practitioners refused to consider hormone stimulation. Although the hormone stimulation process was expensive and painful for women, twenty-four percent of the 11,588 stimulation cycles were cancelled in 1987. This means that IVF was unsuccessful for nearly 3000 patients at the earliest stage of the treatment—these patients did not even proceed to the egg recovery

107 **1988 Wyden Hearing**, page number needed.
stage. By considering egg retrieval the beginning stage of IVF, and not hormone stimulation, IVF practitioners could quote a higher success rate, because the rate did not include the many individuals who failed, for whatever reason, to move beyond hormone stimulation. Indeed, after egg retrieval, the odds of moving on to the next step of embryo transfer were much higher.\textsuperscript{109} Despite the fact that for most patients, IVF began with hormone stimulation, clinicians preferred to use egg retrieval as the starting point for determining IVF success rates.

While it may seem hypocritical, or, as Ellis thought, ironic that the president of SART chose not to use stimulation cycles to determine rates of success, practitioners did have their reasons for using egg retrieval to determine their success rates.\textsuperscript{110} While this choice may appear to be purely self-serving, some practitioners bypassed hormone stimulation in favor of egg retrieval when calculating their success rates in an effort to ensure quality service for their patients. When Wyden questioned Quigley about this inconsistency, Quigley stated that even though the hormone treatments were getting more expensive, the cost was still very low compared to that of egg recovery.\textsuperscript{111} Because of the lower cost and the realization that “around

\textsuperscript{109} Ibid. Although data are available for 1988 as well as 1987, I refer to the 1987 data because there appears to be less confusion among questionnaire responders about this year. Further, in 1988, because not all cycles begun during that year were completed in that year, clinics wrote the number of “continuing pregnancies,” or pregnancies that were expected to go to term. Without knowing each clinic’s criteria for developing their “continuing pregnancy” numbers, it is difficult to know for sure whether these pregnancies actually did result in a live birth. Regardless, the data from 1988 shows an increased rate of success from each step to the next. Whether this is because of increased knowledge and expertise in the field or because clinics were not reporting their completed data for that year, is not known. For 1988, the data show that of 13,840 stimulation cycles, 20% failed. This is less than the 24% failure rate of 1987. Also, in 1988, 88% of all egg recovery procedures (11,032) resulted in embryo transfers. Out of this, there were 577 live births and an additional 1,148 “ongoing pregnancies,” which resulted in an expected success rate of 15.6 percent. Because this number is so much higher than the previous year’s results, I am skeptical about the criteria clinic’s used to determine their “ongoing pregnancies,” despite Quigley’s statement that he subtracted thirty percent of the ongoing pregnancies to illustrate the worst-case scenario. Regardless, Quigley stated that “the true live birth rate calculated for 1987 is actually probably higher than the data allows” because there were more cycles completed in 1987 than 1986, and thus, the number of births in 1987 were not necessarily a result of the 1987 cycles started, but rather from the 1986 cycles. This, of course, is subject to how each clinic responded to the questionnaire and relates back to the point that these questionnaires were not perfect due to their unclear nature. Despite his concerns, and position that the success rate might actually be higher, it seems as though Quigley was merely making more excuses for the field.

\textsuperscript{110} 1989 Wyden Hearing, 162. Testimony of Gary Ellis.

\textsuperscript{111} 1989 Wyden Hearing, 145. Wyden questions Quigley.
20 to 25 percent of stimulation cycles…terminated before an attempt at egg recovery was made,”
Quigley stated that IVF practitioners cancelled cycles for women whom they thought unlikely to
become pregnant. Quigley worried that if the stimulation cycle became the basis for
determining success rates, practitioners would feel like they would be “forced to carry patients
through the whole system to try to eke out a few more pregnancies.” Once again, the fact that
IVF treatment was driven by success rates could harm rather than help patients.

Indeed, some thought that pressure to increase success rates to lure patients to clinics also
led to unethical practices. For example, the need to boost rates of success led some practitioners
to transfer three, four, or more embryos back into the woman’s uterus. As bioethicist Arthur
Caplan stated in the 1988 hearing, “All Centers should understand that fetal reduction can only
be used as an emergency procedure, not an insurance policy against intentional risk taking.”
In other words, some doctors might have been willing to risk the health of the mother and her
offspring by implanting multiple embryos if they thought it would boost their success rate and
bring more consumers to their office. In contrast to other medical fields, an emphasis on rates of
success could actually endanger IVF patients. Nonetheless, when choosing an IVF clinic,
patients had little to go on beyond success rates.

At the hearings, government officials and reproductive specialists recognized that for
patients, obtaining clear, unbiased, unadulterated information about IVF clinics could be
difficult. Not only did clinics inflate their rates of success, but many advertised their clinics in
deceitful ways by manipulating their own numbers or passing off other clinics’ success rates as
their own. When calculating the success rates by egg retrieval and live births, the average rate of
success for American IVF clinics was only 11.6% in 1987. This number was much lower than

---

112 Ibid.
113 Ibid.
114 Caplan, “Ethical and Policy Considerations Regarding In Vitro Fertilization,” 73.
many clinics quoted their patients.\(^{115}\) Even if clinics were not necessarily lying about their success rates, they often inflated their birth rate. AFS president Benjamin Younger argued that “every time [he] had the opportunity to look at somebody’s advertising and their data,” at the very least they were taking “data and put[ting] it into the framework that is most favorable for attracting patients.”\(^ {116}\) So, although many clinics were not providing patients with the whole truth, Younger believed that they were not being untruthful. Practitioners were merely choosing to utilize the most appealing statistics to lure more patients to their practice.

OTA official Gary Ellis presented the hearing panel with examples of false advertising he found throughout the country.\(^ {117}\) In the *Washingtonian* magazine, a local clinic claimed that it was the “largest and most successful GIFT program” in the area, and that GIFT was “the latest and most successful treatment for infertility.”\(^ {118}\) Ellis challenged the clinic’s claim that GIFT was the most effective treatment for infertility as a bold lie and questioned its claim to be the most successful clinic in its area. As OTA found out in its investigation into infertility treatments, doctors repeatedly reported that the most successful treatments for infertility were “drug stimulation, drug therapy to induce ovulation, surgery to correct tubal defects, and artificial insemination.”\(^ {119}\) Ellis stated that he “had to smile when [he] heard Younger state that of the many advertisements he’s examined…the ad actually was found not to be lying.”\(^ {120}\) He was armed with examples that contradicted Younger’s stance that IVF practitioners did not purposefully lure unsuspecting patients to their practices through deceit.

Another IVF clinic advertisement in the *Chicago Tribune* cited misleading statistics claiming a “pregnancy rate of over 30 percent.” By providing “a clear numerator,” but no

\(^ {115}\) 1989 Wyden Hearing, 133. Testimony of Martin M. Quigley.
\(^ {116}\) 1989 Wyden Hearing, 144. Testimony of Benjamin Younger.
\(^ {117}\) 1989 Wyden Hearing, 156. Testimony of Gary Ellis.
\(^ {118}\) Ibid.
\(^ {119}\) Ibid.
\(^ {120}\) Ibid.
denominator, the ad concealed as much as it revealed. Was the pregnancy rate thirty percent of stimulation cycles, egg retrievals, or embryo transfers? The advertisement did distinguish between pregnancy and live births, claiming that “more than 20 percent of IVF attempts result in a live birth of one or more children,” but the problem of the missing denominator still existed. Nonetheless, the ad insinuated that the clinic’s infertile patients had a 20-30% chance of bringing home a baby of their own. This “take home” baby rate was still about twice as high as most clinics could have reported if they calculated the success rate from the beginning of the procedure, the stimulation cycle.

The Fertility Institute of Boca Raton advertised in Better Homes and Gardens. Nestling its text among pictures of babies, this ad claimed a thirty percent success rate for the clinic. In the context of the photographs, Ellis argued that “there’s no ambiguity there whatsoever.” The success mentioned in the advertisement must refer to “taking home a baby.” Although the Institute had not actually delivered a live birth yet, it claimed a success rate of thirty percent because “4 of [its] first 12 patients participating in [its] IVF program [had] achieved pregnancy.” According to the advertisement, the clinic’s “first test tube baby is due this October.” This and other advertisements did not skew numbers, but it manipulated figures to make the clinic appear more successful than it actually was despite its strange admission that its first baby had not actually been born yet. Infertile couples who saw this ad would likely equate pregnancy with a live baby, and assume that if four out of their first twelve patients became pregnant, then their own chance of success would be about thirty percent at this clinic, even if that clear statement did not appear on the advertisement.

---

122 Ibid.
123 Ibid.
124 Ibid.
Ellis noted that he had reviewed “the data that was collected by the subcommittee” for the Fertility Institute of Boca Raton, and it only confirmed his suspicions about the institute’s ambiguous advertising. What he found was that “4 of the first 20 patients at this clinic were pregnant. That would mean 4 of the first 12, yes, and then zero for 8 from that point.”125 Although the advertisement technically did not lie, as Younger would have certainly pointed out, the advertisement was in fact misleading. Four out of twenty patients achieving a pregnancy was quite a different statistic than the advertised four out of twelve patients.

William C. MacLeod of the Fair Trade Commission (FTC) also testified at Wyden’s hearings about his organization’s efforts to assess claims of false advertising in the field of reproductive technologies. The FTC gathered information before passing it along to its Division of Service Industry Practices (DSIP) which analyzed the material. MacLeod confirmed some of Ellis’s testimony when he stated that there were “several companies that made success rate claims in patient brochures, advertisements, or in patient interviews that required further inquiry on our part regarding whether these claims may be misleading consumers as to their chances of achieving success if they enrolled in the program.”126 However, MacLeod could not provide detail about where these clinics were located or what exactly they claimed. He stated, “As you know the rules of the Federal Trade Commission do not allow us to make public the investigations that we are undertaking unless and until a law enforcement action has resulted from that investigation or the investigation has been closed.”127 The FTC not only monitored ads in magazines and requested pamphlets and information from IVF clinics, but it also fielded tips and complaints from the public, hoping that “consumer attention to this issue” would guide the way. However, MacLeod also pointed out to Wyden that the FTC had limited ability to bring

---

125 Ibid.
charges against individual clinics, because the Commission’s “mandate is for fraud or deception that occurs on an interstate level.”\textsuperscript{128} The Federal Trade Commission had a limited ability to retroactively police \textit{in vitro} fertilization clinics, and yet it was the only government agency that had any power to oversee the reproductive technology.

Because confusion over clinic success rates represented a major problem in the field of IVF, during the year between the two hearings, Wyden surveyed all IVF clinics in the United States. The subcommittee sent the voluntary questionnaire to 224 clinics, and 192 responded—168 of which actually performed IVF or GIFT.\textsuperscript{129} His questionnaires asked: how long the clinic offered IVF and GIFT, how many patients it served, how many stimulation cycles it started, how many embryos it transferred, how many pregnancies it had achieved, and how many live births resulted during 1987 and 1988. Furthermore, it also asked about the causes of patients’ infertility and the age of the women. Finally, the questionnaire asked clinics to describe their practitioners’ professional training.

Problems with the questionnaire prevented it from being as helpful as it might have been. Some respondents were confused about the time frame of the questions. Should they include babies born in 1988 but conceived in 1987 in their 1987 or 1988 success rates? Others delayed their response to ensure that they had all data possible from 1988.\textsuperscript{130} Moreover, the questionnaire was purely voluntary and clinics did not have to provide any evidence for their figures. In fact, some practitioners even warned the subcommittee to expect the submission of

\textsuperscript{128} Ibid, 176.
\textsuperscript{129} 1989 Wyden Hearing, 1. Wyden’s opening remarks.
\textsuperscript{130} One example of a misinterpretation of the questionnaire can be found by a letter from practitioner Kathryn Honea to Ron Wyden. In the letter, she stated that she, “along with, apparently, many others, put the number of women who delivered in the year 1987, and the number of women who delivered during the year 1988, rather than, the number of women who conceived in 1987 and 1988, but delivered at a later time period.” Kathryn Honea to Ron Wyden, 21 May 1989, in 1989 Wyden Hearing, 10. Furthermore, Martin Quigley stated that while some clinics returned their questionnaires as early as November 1988, others did not submit their results until shortly before the hearing in March, 1989. 1989 Wyden Hearing, 134.
false data. If clinics misrepresented their success to patients, how could they be expected to provide accurate data to the subcommittee? Recognizing that Wyden had “no proof of accuracy,” Machelle M. Seibel of the Beth Israel Hospital IVF/GIFT program stated that she could not “see how this questionnaire resolves the intended purpose as people may not report their results to you any different than they do to anyone else.”¹³¹

Nevertheless, the questionnaire provided new insights into the IVF field. Unlike statistics sought by SART, in which members anonymously sent their information to provide a survey of the field in general, Wyden’s questionnaire printed the clinic’s name. This way, patients could, for the first time, look up their clinic’s statistics and compare them to other clinics in their area. This would provide more competition and allow patients to become informed “consumers” of IVF.

A number of clinics sent pamphlets for their practices along with their responses to the questionnaires, oftentimes reinforcing the OTA’s position that false advertising was rampant in the field of reproductive technologies. Although many clinics likely sent pamphlets with their questionnaires to reinforce their clinical legitimacy, a number of the pamphlets did not provide complete or clear information. For example, the pamphlet from the IVF program of the Alta Bates Hospital in California stated that by September 1987, their program had helped produce twenty-six live births. However, they also stated that “pregnancy can be expected in one out of four treatment cycles. This 25% success rate per attempt is similar to the conception rate of normally fertile couples in a single month.”¹³² The clinic informed patients that they would have a one in four chance of pregnancy without specifying what they considered to be the start of the cycle. Further, the pamphlet maintained that infertile couples, many of whom had tried a number

¹³¹ Pamphlet, Beth Israel Hospital IVF/GIFT Program (Boston MA), in 1989 Wyden Hearing Appendix, 768.
¹³² Pamphlet, Alta Bates In Vitro Fertilization Program (Berkeley, CA), in 1989 Wyden Hearing Appendix, 371.
of alternatives before turning to IVF, would have the same chance of conceiving a child as any perfectly fertile couple would in a given month. Such a statement certainly raised patients’ expectations of the clinic. The fact that the clinic sent its pamphlet to the subcommittee that was investigating truth in advertising indicates that its practitioners found nothing awry in the way they presented information to their patients.

However, not all clinics that sent pamphlets to Wyden’s subcommittee included such promising language. For example, the IVF program at Century City Hospital in Los Angeles stated that “the chances of achieving pregnancy through in vitro fertilization and embryo transfer range anywhere from 5% to 30% per attempt. The likelihood of success is dependent to a great degree on such variables as the couple’s age and initial reasons for the couple’s infertility.”\(^{133}\) This program’s description of rates of success was much more accurate. Not only did the pamphlet provide such the low estimate of five percent, but it also discussed the variables that led to such a diverse spectrum of success. Yet another program, IVF Illinois, provided clear, realistic information in their pamphlet, which stated that “the maximum rate of success per egg in any one cycle is likely to be in the 20-30% range.”\(^{134}\) The quoted success rate of twenty to thirty percent was high, but the pamphlet declared its rate of success per egg—after retrieval, the egg had a twenty to thirty percent chance of being fertilized and successfully transferred to result in a pregnancy, or perhaps a live birth. Although this clinic was guilty, like many others, of failing to provide a clear definition of “success,” whether it be pregnancy or live birth, the clinic could be redeemed because the pamphlet went on to state that, “Despite the encouraging statistics, it must be emphasized that successful conception and childbirth for any specific couple

\(^{133}\) Pamphlet, Century City Hospital (Los Angeles, CA), in 1989 Wyden Hearing Appendix, 428.
\(^{134}\) Pamphlet, IVF Illinois IVF Program, in 1989 Wyden Hearing Appendix, 618.
cannot be guaranteed by any IVF program even if the couple undergoes multiple attempts.”\textsuperscript{135}

Thus, this pamphlet was much more realistic in its portrayal of the exigencies of IVF. While this statement probably did not deter couples from attempting IVF, it did not sugar-coat the practice’s success rates, either. Although the Century City and IVF Illinois pamphlets painted a more realistic picture of IVF, they were both guilty of inflating success rates to thirty percent, when take-home baby rates were around ten to fifteen percent at the most successful clinics.

The focus of Wyden’s hearings on the development of IVF in the United States ultimately became how to protect consumers from an expensive, unregulated field which had the potential to harm patients both physically and emotionally. Problems that became clear at the hearings included the realization that IVF was taking place in for-profit clinics as well as not-for-profit institutions, its practitioners had “vastly differing qualifications” and sometimes exhibited “questionable advertising practices” that exaggerated success rates, and there was “virtually no professional or Government oversight of this booming industry.”\textsuperscript{136} While witnesses presented many issues that needed to be worked out in the field of reproductive technologies, Wyden remained focused on the idea that IVF patients needed reliable information to help them become good consumers. Wyden realized that the Department of Health and Human Services had “the authority to keep information on clinics and to educate physicians on technology,” and that they also had “the authority to do education and outreach on sexually transmitted diseases.”\textsuperscript{137} For Wyden, this was good news, because he could gain government oversight of IVF “without passing massive new Federal programs and regulations.”\textsuperscript{138} While Wyden appreciated the fact that the HHS could oversee IVF, there were a number of people who continued to see the

\textsuperscript{135} Ibid.
\textsuperscript{136} \textit{1989 Wyden Hearing}, 2. Wyden’s opening remarks.
\textsuperscript{138} Ibid.
Department’s refusal to fund IVF research as the initial cause of all the field’s problems. Some saw HHS as the problem, rather than the solution. In a Virginian-Pilot article, Howard Jones implied that the problem of IVF was not specialists exploiting infertile couples by advertising false success rates, but rather low success rates as a result of federal refusal to fund IVF research.

During the hearings, both Caplan and Ellis blamed the disbanding of the Ethics Advisory Board in 1980 for creating an industry in which patients paid exorbitant amounts of money for treatments that may or may not be experimental or therapeutic. Caplan argued that clinics that failed to produce even one IVF baby could call their use of IVF therapeutic “because the Federal Government has blocked the research to allow us to know what [was] going on.” Even as Ellis argued that the erratic development of IVF throughout the country was a direct result of the federal government’s refusal to support IVF research, Wyden continued to focus on issues of consumerism. Wyden stated that the re-creation of the EAB offered “a chance to protect consumers, to rationally debate very tough issues, very controversial issues, a forum to debate them and get protection for consumers.” However, the original EAB commissioned in the late 1970s certainly did not view the protection of consumers as central to the ethics of IVF or as within the purview of the board’s work.

And yet, by 1988, a discussion of the ethics or morality of IVF had shifted from debates about the slippery slope of science to the economic mistreatment of consumers. Certainly Caplan had it right when he explained that the Ethics Advisory Board was disbanded because “there are some questions involving research with human reproductive materials, embryos, and perhaps fetuses that are better left untouched, unmentioned, and undiscussed.” This was also the route taken by the 1988 subcommittee—rather than discussing the implications of IVF

140 Ibid.
141 Ibid.
research, Wyden and those testifying focused on the mistreatment of consumers. Both Caplan and Ellis thought that one of the most important steps to advancing the efficacy of reproductive technologies in the United States, however, was to reconstitute the Ethics Advisory Board to finish the discussion that began in 1978. Nonetheless, as clinical IVF rapidly spread throughout the country, policymakers such as Wyden saw consumer protection as a necessity. Wyden’s hearings did not focus on the “questions involving research with human reproductive materials, embryos, and perhaps fetuses that are better left untouched, unmentioned, and undiscussed,” but rather found a safe outlet for federal IVF policy: consumer protection.

**IVF and Abortion**

In 1988, as Wyden initiated hearings on the IVF that traced the development of the unregulated field to the federal government’s failure to fund IVF research, some congressmen revisited the connection between IVF and abortion. In July, HHS announced its intentions to reconstitute the Ethics Advisory Board and some members of Congress immediately responded to this possibility by denouncing federal funding for the reproductive technology, which they continued to connect to abortion.\(^{142}\) For example, Representative Donald E. Lukens of Ohio presented his congressional colleagues with old testimony against federal funding for IVF. Using the testimony of Henry Hyde of Illinois and Christopher Smith of New Jersey, Lukens reminded his fellow congressmen that the moratorium on IVF research should be maintained because IVF was a challenge to the sanctity of life by “discarding, freezing, and experimenting upon human embryos.”\(^{143}\) Even as the mainstream media supported the expansion of IVF throughout the nation and new opponents of IVF ignored the status of the human embryo, the destruction of human embryos continued to bother Lukens, Hyde, and Smith. Smith noted that


\(^{143}\) Donald E. Lukens, “Consider the Sanctity of Life,” 100\(^{th}\) Cong., 2\(^{nd}\) Sess., *Congressional Record* 134 no. 8 (July 26, 1988): E 2484.
even IVF practitioners “admitted being deeply troubled concerning the discarding of excess embryos.” In a *Washington Post* article, infertility specialist Robert Stillman, for example, explained that rather than actively destroying extra embryos at his clinic, practitioners allowed them to grow until they became nonviable outside the womb and self-destructed. Stillman referred to embryo wastage as “a shameful and wasteful act” that “gives us pause.”

Smith took this as evidence that “a decade of limited IVF experimentation has shown that the considerable broadbased opposition that IVF encountered in the late 70’s appears to have been justified, well-informed and well-founded.” For Smith, the fact that even IVF practitioners regretted the destruction of so many embryos indicated that the ethical concerns over the status of the human embryo and the moratorium on IVF research were justified.

Lukens also quoted testimony from Senator Henry Hyde, who continued to see a threat to the sanctity of life in “the deliberate destruction of the unborn in many IVF programs both before and after transfer to the mother’s womb.” Hyde correlated the practices of “selective reduction” to preserve the health of expectant mothers and their fetuses *in utero* to abortion. IVF practitioners sometimes turned to “selective reduction” after transferring numerous embryos to the mother’s uterus to ensure a higher success rate following IVF. However, because of the dangers to women pregnant with multiples, doctors selectively terminated some of the fetuses *in utero*. According to Hyde, the doctors “inject potassium chloride into their hearts so they will die without endangering the one or two children they intend to preserve for live birth.” While Hyde considered “selective reduction” a form of abortion, he also viewed the accidental loss of embryos as the “moral equivalent of early abortion.” Hyde cited statistics from the Norfolk

---

144 Ibid.
145 Ibid.
146 Ibid.
147 Ibid.
Center, where practitioners created 4500 fertilized embryos in the laboratory, from which only 230 live births resulted. Instead of referring to IVF as a “procedure for producing children,” Hyde thought that it would more aptly be described as “a fairly efficient procedure for preventing children from being born alive, with a 95 percent success rate!” Hyde concluded that “While some abuses along these lines might be reduced by regulation of IVF, others remain so integral to the procedure at this stage of its development that the federal government could not support it without funding morally unacceptable mistreatment of the human being at its earliest stages of life.” Thus, in the late 1980s, even as clinical practice expanded throughout the United States and the Vatican failed to see the connection between IVF and abortion as a problem, Hyde continued to consider embryonic loss following IVF as the moral equivalent of abortion. Without explanation, HHS failed to follow through on its pledge to reconstitute the Ethics Advisory Board. Surely, its decision related to the fact that pro-life Americans continued to view federal funding for IVF research as unacceptable because of its association with abortion.

In between Wyden’s first and second hearing in 1989, though, Republican pro-life Senator Orrin Hatch took the opportunity of infertility week to discuss the fertility center at the University of Utah for its “outstanding work.” Recognizing the increase in demand for infertility services in the midst of the Wyden’s hearings, Hatch extolled the University of Utah fertility center for its “excellent program,” that was “staffed with senior level professionals,” who had “extensive training and experience in all levels of infertility.” Not only did the center offer reproductive technologies like IVF and GIFT, but it also provided patients with the

---

148 Ibid.
149 Ibid.
opportunity to freeze their embryos for future use, which, for Smith and Hyde, indicated
disrespect for the sanctity of human life. Frozen embryos represented human life in limbo—
perhaps the genetic parents would use the frozen embryos to complete their families, or perhaps
they would not. For those who believe that life begins at conception, human life was indefinitely
suspended in ice—or more accurately liquid nitrogen. Even as other pro-life congressmen
denounced IVF and embryo freezing, pro-life Senator Hatch extolled an IVF clinic run by his
constituents. Citing Wyden’s report, Hatch pointed out that the University of Utah had a “rate of
success for IVF” that was “twice the national average.”¹⁵¹ In his glowing portrayal of the
University of Utah IVF clinic, Hatch neglected to mention any ethical concerns that connected
IVF to the abortion issue even as it lingered on the minds of other pro-life congressmen.

Although IVF was becoming separated from the abortion issue throughout the United
States, some pro-life congressmen reminded their fellow policymakers on Capitol Hill that
federal funding for IVF research remained contentious. However, Hyde implied that federal
regulation of IVF was acceptable, even to pro-life Americans. Even pro-life congressmen who
believed that the practice of IVF presented a challenge to the sanctity of human life recognized
the inevitability of its development and growth in the private sector of a free-market economy.
However, pro-life politicians held firm to their commitment to block federal funding for IVF
research, much as they sought to do with abortion throughout the 1980s, making Wyden’s
attempts to regulate IVF even more important.

Consumer protection involving IVF and other reproductive treatments was a safe issue
for policymakers, as the protection of American consumers inspired little controversy. Thus, the
act that was passed in 1992 ignored the ethical entanglements of the abortion connection as it
attempted to establish standards for an existing medical field. The 1988 and 1989 hearings

¹⁵¹ Ibid.
before the House Subcommittee of Regulation, Business Opportunities and Energy illustrated that American couples would seek IVF despite its relatively low success rates. Each year more and more couples turned to the technology. What the hearings also showed was that while even doctors in the field recognized the need for improvement and more regulation, many, with the exception of Richard Marrs, continued to justify and rationalize poor practices and misleading statements. The need for external regulation was clear.

**Wyden’s Bill**

Ron Wyden recognized that “one in six American couples is infertile” and were “willing to do virtually anything to have a baby,” including spending thousands of dollars and undergoing physical and emotional trauma.\(^{152}\) His two year investigation of reproductive technologies led the Oregon congressman to come to the conclusion that “many of these desperate couples cannot even find understandable and unbiased information about the performance of our fertility clinics.”\(^{153}\) Estimating that infertile Americans spent about $1 billion dollars on reproductive technologies annually, Wyden saw practitioners in the field of reproductive technologies misleading their patients by falsely advertising higher rates of success than they actually achieved.\(^{154}\) Although Wyden recognized that “many fertility specialists are honorable and caring,” he thought that “too many have misrepresented their credentials, engaged in questionable advertising, and misused reproductive technology.”\(^{155}\) Because of this, he introduced The Fertility Clinic Success Rate and Certification Act, which he hoped would “send a message that government understands the anguish that millions of infertile couples are

---


\(^{153}\) Ibid.


experiencing and is willing to be their advocate.”\textsuperscript{156} The goal of his legislation was to ensure that infertile Americans had access to objective information about IVF centers throughout the country, including realistic rates of success. By publishing the success rates of individual clinics annually, Wyden hoped expected that “such information should help weed out questionable programs and make all clinics more accountable.”\textsuperscript{157} His ultimate goal was to enable IVF patients to function as informed consumers.

Ultimately, after both hearings and much testimony about how to protect IVF consumers, Congress passed the Fertility Clinic Success Rate Certification Act of 1992 as a bipartisan measure. The act sought to “provide the public with comparable information concerning the effectiveness of infertility services and to assure the quality of such services by providing for the certification of embryo laboratories.”\textsuperscript{158} According to the legislation, all infertility clinics that offered IVF must report annually to the Secretary of HHS through the CDC, disclosing their pregnancy success rates and the identity of their embryo labs.\textsuperscript{159} However, the bill stipulated that the Secretary “shall take into account the effect on success rates of age, diagnosis, and other significant factors” for their effects on each clinic’s live birth rate. Further, the act clarified what Wyden saw to be one of the most confusing issues about IVF success rates for consumers. The act determined the statistics that each clinic would use to calculate its rate of success, by stating that the basic live birth rate should be calculated by dividing the number of pregnancies resulting in a live birth by the number of ovarian stimulation procedures and oocyte retrieval.\textsuperscript{160} Recognizing the disagreement among IVF specialists at the hearings over what marked the

\textsuperscript{156} Ibid.
\textsuperscript{157} Ibid.
\textsuperscript{159} \textit{Fertility Clinic Success Rate and Certification Act of 1992} 102\textsuperscript{nd} Cong., 2\textsuperscript{nd} Sess., \textit{Congressional Record} 138 no. 95 (June 29, 1992): H 5349.
\textsuperscript{160} Ibid.
beginning of the procedure, Wyden’s bill sought to standardize success rates by making the numerator and denominator the same for all clinics. For IVF patients, treatment began with hormone stimulation, but many specialists preferred to calculate success rates at the next step of oocyte retrieval. So the bill allowed for success rates to be tabulated from both points. For Wyden, having standardized success rates was the most important thing. Standardization cleared up any confusion about which clinics performed the best. If consumer-patients had access to reliable information with which to compare IVF clinics, they could become informed consumers.

Wyden’s investigation also showed that human embryo labs remained entirely unregulated, so his legislation sought to rectify this. He noted that all other clinical laboratories were already required to meet standards based upon the Clinical Laboratory Improvement Amendments of 1988, but embryo labs had managed to remain outside the scope of such regulation. With Wyden’s bill, human embryo labs had to gain certification and meet accepted standards for personnel, equipment, and recordkeeping. According to the bill, the Secretary of HHS would set standard requirements for the embryo labs, after which states could use accreditation organizations approved by the Secretary to “inspect and certify embryo laboratories.” The inspections were to “be periodic and unannounced,” or “be announced in such circumstances as the Secretary determines will not diminish the likelihood of discovering deficiencies in the operations of a laboratory.” Independent inspectors who reviewed embryo laboratories’ operations would ensure that the labs complied with quality assurance standards. Even as the federal government set standards and initiated a system of inspection, Wyden assured his fellow congressmen that the federal and state governments would not incur any costs.

for the regulation, as the “states and the Secretary would be authorized to assess fees so the clinics would pay the cost of the quality assurance program.”

Conclusion

The dismantling of the Ethics Advisory Board in 1980 froze government funding for research in the field of reproductive technology, an event identified by many witnesses as the root of IVF’s developmental problems in the United States. Without government regulation and involvement, the costs of IVF would remain high, the technology’s success limited, and clinic advertising misleading. The legislation enacted in 1992 reduced exploitation of the patient, but still failed to provide funding further research and development of the technology. Because the connection between IVF and abortion hindered federal funding for experimental research on IVF, exploitative and untruthful practices emerged in the largely unregulated medical field. In Wyden’s hearings that began in 1988, the discussion of ethical IVF had shifted from protecting human life at its earliest stages to protecting the patient-consumers of the reproductive technology. The regulatory consumer protection act of 1992 was designed to protect consumer-patients, and although it provided no federal funding for scientific research, it initiated the regulation and standardization of IVF in the United States. In the 1989 hearing, Wyden had stated that he was “going to be very active this session to try to promote additional funds for research,” because he though infertile Americans were “paying daily” because of the federal government’s refusal to fund IVF research. And, indeed many agreed that he was correct; the development of IVF could be attributed to the 1975 moratorium on federal funds for IVF research. Nonetheless, even as Wyden achieved success with his consumer protection legislation, his attempts to gain federal funding for IVF research were futile because even as

---

most Americans failed to see the connection between IVF and abortion—two reproductive procedures aimed at achieving vastly different ends—pro-life Americans and policymakers continued to voice their opposition to funding for IVF research. Indeed, in a 1990 Virginian-Pilot article, Jones recognized that “The Bush administration announced not long ago that it would continue to deny federal funding for human embryo and fetal research,” and thought that “such wrangling needs to be replaced by people coming together in a less politicized manner, both within and outside government, to search for some consensus. As matters now stand, researchers are leaving the field and millions of infertile couples are frustrated.” Even as federal funding for IVF research remained out of reach, Wyden was able to pass legislation to protect consumer-patients of IVF. Despite the field’s high costs and low success rates, Wyden believed that by annually publishing a registry of all IVF clinics in the United States, infertile Americans would be armed with knowledge necessary to become good consumers. The consumer protection act represented the federal government’s only viable option for IVF policymaking. Consumer protection represented morally neutral, widely supported government policy when it came to in vitro fertilization, a reproductive technology that had been overshadowed by the abortion issue despite its role in creating human life.

---

CONCLUSION

IVF became linked to abortion during the early 1970s, creating an impasse in government policy on IVF research. By the late 1980s, however, the government had shifted its agenda from protecting the embryo from research to protecting the consumer-patient. Richard Blackwell’s 1987 article, “Are We Exploiting the Infertile Couple” spurred governmental discussions in 1988 when the Subcommittee on Regulation, Business Opportunities, and Energy held hearings that led to the Fertility Clinic Success Rate and Certification Act of 1992. The hearings and resulting legislation focused on protecting exploitable patient-consumers of IVF instead of the moral and ethical issues of the technology. The development of IVF in the 1980s, the support of the mainstream media, and divergent voices of opposition that arose during the 1980s paved the way for the federal government to approach IVF from a different vantage point. The focus on protecting IVF consumers instead of IVF embryos allowed the government to legislate the field of in vitro fertilization despite its tenuous, yet continuing, connection to the abortion issue. Specifying standards to assure truth in advertising and the quality of physicians’ performance, the Fertility Clinic Success Rate Certification Act of 1992 is the federal government’s attempt to regulate IVF as the technology became less contentious and more acceptable, albeit still problematic.

The act attempted to protect patient consumers through regulation, without providing federal funding for scientific research. Rather than fund research that could potentially improve IVF success rates, congressmen who were concerned about false advertising sought to regulate the medical procedure. Consumer protection involving IVF and other reproductive treatments represented a safe issue for policymakers, while funding for research remained untenable. American society had come to accept the new reproductive technologies for their procreative
powers, but research on human embryos remained politically contested in the United States because of its early connection to abortion. In its ability to provide childless Americans with babies, clinical IVF had become acceptable and mainstream by the end of the 1980s while anti-abortionists continued to fight against embryonic and fetal research, maintaining the belief that life begins at conception.

Government policies for IVF have important implications for other technologies associated with abortion. First, the EAB found IVF to be ethically and morally acceptable, but HEW and the reorganized HHS refused to fund human IVF research because of the technology’s link to abortion. The EAB, which was required to decide the ethical acceptability of federal funding for its research, was disbanded shortly after it deemed IVF ethically acceptable. Required to advise the Department of Health and Human Services about the acceptability of proposals for research involving human subjects, the EAB played a crucial role in the funding decisions for IVF. In the absence of the EAB or any viable counterpart, federal research funding for IVF was blocked, placing a de facto ban on requests for such support. The government would not fund any research involving human embryos that was not reviewed and determined ethically inoffensive, but the Ethics Advisory Board was the only governmental apparatus to make this determination. Without the EAB to determine the ethical culpability of an experiment involving human embryos, there was an unsaid understanding that federal funding would not be provided for such ventures. Thus, medical researchers and scientists ceased to submit proposals for research on IVF to the federal government.

NIH bureaucrats pushed for HEW to fund human IVF research after deciding that it could be beneficial and had great potential to help scientists understand human origins and development. Despite its high priority rating by NIH officials, HEW Secretaries recognized that
the IVF funding issue was a political liability because of its connection to abortion. During the late 1970s, *Roe v. Wade* had divided the nation, and appointed bureaucrats did not want to be responsible for the fallout that would inevitably result from such a controversial decision. Thus, the federal government provided no funding for IVF research, leaving it to develop independently of governmental requirements and regulation.

Despite the dearth of federal support for IVF, some American researchers were able to scrape together the funds necessary for IVF research. Doctors Howard and Georgeanna Jones, a husband and wife team at the Eastern Virginia Medical School in Norfolk, Virginia were the first to raise enough money to open a clinic and begin researching IVF. After a newspaper published Howard Jones’s comment that all it would take to produce a child via IVF in the United States was money, donations began pouring in and the unexpected funding provided the pair with the opportunity to start the country’s first IVF research clinic involving human subjects. Mason Andrews and the Joneses successfully brought the clinic to Norfolk, but they faced opposition from anti-abortion activists who focused on hypothetical lost embryos and aborted abnormal fetuses following IVF. The entrenchment of the IVF clinic in Norfolk despite the anti-abortion opposition marks the beginning of the separation of IVF from abortion. Andrews and the Joneses met success in 1981 with the first baby born of the IVF procedure in the United States, and clinical applications of IVF soon spread to other universities and hospitals. Reproductive specialists found alternative means to fund their ventures, without spending American tax dollars. The costs of research on this procedure in America in the 1980s were funded solely by grants from pharmaceutical companies, departmental funds, and patient fees. In turn, the lack of federal funding led to extensive costs that inevitably trickled down to the patients in an environment where health insurance often covered the very minimal portions of the
“experimental” treatment, if any at all, and clinics were largely unregulated and of uneven quality.

As clinical IVF was expanding throughout the country, the connection between IVF and abortion became strained. More Americans sought reproductive technologies to treat infertility at the same time that the United States witnessed a resurgence of pronatalism. Popular culture emphasized the benefits of bearing and parenting children. In this environment, Americans embraced and applauded reproductive technologies like IVF for their ability to help women—at least those who could afford the expensive treatment. The mainstream media and popular culture focused on IVF’s procreative powers rather than its connection to abortion. At the same time, the Vatican and radical feminists separately voiced opposition to reproductive technologies. Although the groups’ concerns were vastly different, neither opposed IVF for its connection to abortion. These disparate forces worked together to pave the way for the federal government to revisit its policies on in vitro fertilization as it had developed without any regulation.

The federal government’s failure to fund research on in vitro fertilization has left an important legacy for infertile Americans, and, more broadly, American medicine and science. IVF became big business. The lack of government funding, regulation, and involvement permitted false advertising of higher success rates to lure patients into the offices of infertility specialists. In their desperation to have children, consumers of such medical technologies paid exorbitant fees that usually remained uncovered by health insurance companies. Attempting to alleviate some of the exploitation of the consumer/patient, the federal government enacted legislation in 1992. The government’s recognition of the importance of such procedures was hit and miss, though, much like the reproductive technology itself.
Reproductive technologies such as IVF relied on embryonic research for their development. Although the federal government became more proactive in the field of assisted reproduction by passing a consumer protection act involving IVF in 1992, it has yet to fund research for human IVF. This moratorium has left the world’s foremost biomedical research institution, the National Institutes of Health (NIH), far behind other countries in this technological contest. The federal government has made some concessions to the infertile American population via the consumer protection act by imposing standards and requirements for advertising, but it has refused to fund IVF research. The government eventually legislated to amend the problems that possibly could have been avoided if it had initially funded the technology’s development. As the technology developed, independently of the federal government, it permeated society and many Americans came to accept IVF as harmless, useful, and conventional, and its connection to the abortion issue weakened. The medical field was not without problems, though. Because the federal government was not involved in the regulation of IVF, clinics suffered no consequences for exaggerated rates of success, and their consumers paid exorbitant fees for “specialists” with sometimes limited experience. The federal government eventually took action as the technology increasingly became separated from abortion during the 1980s.

The policy history implications of this study are important. The federal government responded to IVF in two very different ways over the course of little more than a decade. It first denied that it had any responsibility or stake in the new reproductive technology by refusing to fund its research and development. At the end of the pronatalist 1980s, when the mainstream media accepted and promoted IVF and infertile Americans sought the technological treatment, policymakers decided that government action was necessary to protect the consumers of IVF.
from its developmental path for which the American government was at least partially responsible. The government refused to fund human IVF research because of the ways in which anti-abortion activists had connected the reproductive technology to the controversial procedure. As a result, IVF was condemned to the private realm and infertile Americans have paid a high price financially as well as emotionally.

Questions regarding whether or not the government should fund such ventures or whether it is the federal government’s duty to police the health care field remain controversial. IVF, ET, and GIFT have increasingly become socially acceptable, but research on human embryos remains politically contested in the United States. And, as can be seen in the stem cell research debate, connections to abortion have continued to leave some avenues of scientific research dead in their tracks in the United States.

When Congress passed the Consumer Protection Act of 1992, the controversy surrounding IVF had not ended, nor was its connection to abortion entirely severed. The technology became disconnected from the abortion controversy enough for policymakers to revisit government IVF policies, but not enough for HHS to provide funding for IVF research. In fact, federal funding for IVF research would remain a subject of controversy throughout the 1990s and early 2000s, along with fetal research and stem cell research.

At the end of the conservative, pro-life Reagan-Bush era, when Bill Clinton took the Oath of Office in January 1993, he reopened the issue of federal funding for embryonic research when he “asked the NIH to develop rules to guide embryo research.”¹ The result was the creation of the Human Embryo Research Panel (HERP), which suggested that the federal government could

¹ Harris, 335.
fund human embryo research within fourteen days of conception and with limitations and restrictions. Not surprisingly, anti-abortion activists rallied against this recommendation much as they had after the EAB’s 1979 recommendation. Cultural scholar Lisa Hope Harris quoted the President of the American Life League as responding to the recommendation by stating that embryonic research was “equivalent to ‘killing little boys and girls.’” Meanwhile, “supporters of HERP’s recommendations pointed out that much privately funded embryo research was already underway,” and “federal financing would allow at least some guidelines and restrictions to be imposed on what was otherwise and entirely unregulated enterprise.” Similar to the argument NIH representatives made for federal funding for IVF research in the late 1970s and early 1980s, the potential for federal regulation was used to justify funding. In the interim, the United States had witnessed the increasing separation of IVF and abortion, but embryonic research remained anathema to pro-life Americans. Congress responded to HERP’s recommendations by issuing an NIH appropriations rider that effectively banned federal funding for embryonic research.

In 1999 President Clinton reopened the issue of federal funding for embryonic research when he “asked the National Bioethics Advisory Committee (NBAC) to investigate the ethics of funding embryonic stem cell research.” Once again, this advisory board suggested that stem cell research—research on “stem cells derived from both aborted fetuses and human embryos”—should be funded by the federal government. Once again, the issue of federal funding for research involving human embryos created through IVF got mired in the abortion controversy. When President George W. Bush replaced Bill Clinton in the Oval Office, like his father, he embraced conservative politics and an anti-abortion stance that included a ban on federal funding

---

2 Ibid., 336.
3 Ibid.
4 Ibid.
5 Ibid., 355.
6 Ibid., 356.
for research on human embryos either to improve IVF or study stem cells.\textsuperscript{7} In 2001, Howard Jones, who had firsthand experience with the effects of pro-life opposition to human embryonic research, wrote a letter to President Bush in support of stem cell research. Jones tied the anti-abortion stance with the Catholic Church, and wondered whether “a President of the United States should establish a government policy based on a religious decision.”\textsuperscript{8} Jones argued that instead of upholding the Oath of Office he took as President of the United States, Bush’s policies were more “consistent” with “a papal decree which stands in the way of medical research approved by numerous ethicists and religious authorities, and is sorely needed by mankind.”\textsuperscript{9} He believed that “the normal obligation of government” was “to support stem cell research in every way.”\textsuperscript{10} IVF has paved the way for new kinds of research and the potential for new and unimagined medical possibilities. But, much like IVF research in the early 1970s, stem cell research was blocked by its dependence on human embryos and questions of when human life begins. If life begins at conception, as many anti-abortion activists claim, embryonic research creates and destroys human life.

The moral status of the human embryo has remained politically contested. Most recently, as George W. Bush prepared to leave the Oval Office in 2009, he signed the Provider Refusal Rule, which “required the Department of Health and Human Services to cut off federal aid to health programs and institutions that discriminated against people who object to abortion” because of religious beliefs.\textsuperscript{11} The rule defined abortion to include procedures or pills that terminated “the life of a human being \textit{in utero} between conception and natural birth, whether

\begin{itemize}
  \item \textsuperscript{7} Ibid., 357.
  \item \textsuperscript{8} Ibid., 2.
  \item \textsuperscript{9} Ibid.
  \item \textsuperscript{10} Ibid.
\end{itemize}
before or after implantation.” This rule is based upon the supposition that conception marks the beginning of human life. When Barack Obama took office, he “directed the Department of Health and Human Services to rescind this law.”\textsuperscript{12} The abortion debate has not disappeared, nor have many of the questions raised by IVF and related reproductive technologies. Had President Obama not rescinded the Provider Refusal Rule, it would have had great implications for reproductive technologies as well as family planning services.

The “naturalization” of IVF has become complete in American society.\textsuperscript{13} Most Americans think of IVF as a means to achieve a family and of the babies that result as normal. However, the abortion debate has continued to divide Americans. Anti-abortion activists continue to focus on finding ways to scale back or overturn the contentions 1973 decision. Yet, a reproductive technology that was very early associated with abortion has become mainstream in American society. The objective of this dissertation was to explain how and why this has happened, and yet it has left out one very important aspect of IVF. As political scientist Andrea Bonnicksen succinctly stated, “There is something joyful about IVF.”\textsuperscript{14} As a technology to provide infertile Americans the chance to create or carry a baby, IVF is special. It does not always work. In fact, most often, IVF is not successful. However, for many infertile Americans, the potential to have genetic children is priceless. Because of the joy that this reproductive technology can bring to American families, IVF transcended its connection to abortion.

The same has not necessarily been true for other lines of research that have been linked to abortion. Scholar Steven Maynard-Moody argues in his book about fetal research that “On the surface, the fetal research controversy is kindled by the connection of fetal research and

\textsuperscript{12} Ibid.
\textsuperscript{13} Becker, 19.
\textsuperscript{14} Personal conversation with Bonnicksen, August 15, 2011.
abortion.” However, he maintains that Americans have an ambivalence toward science, exhibiting an “addiction to progress and… [a] fear that science erodes human values.” In the case of fetal research, as chapter one of this dissertation shows, scientists can achieve great ends with fetal research. But, for many laypeople, the reality or even the idea of research on a human fetus can be unsettling. Questions of whether or not this research erodes human values or if the potential benefits outweigh the potential harms are bound to arise. In comparison, however, IVF inherently has the potential to embody human values. Providing infertile women the opportunity to give birth to their offspring can advance humanity. When IVF is successful, it can provide instant gratification. In opposition, the benefits of fetal research might not be seen for years. IVF does, however, have the potential to erode human values—extracorporeal gestation, human cloning, genetic engineering, and sex selection remain ethical concerns surrounding the technology.

Americans have seen the rise of IVF in the 1990s and 2000s, and new questions have arisen as a result of IVF and other reproductive technologies. Although this study of IVF and its connection to the abortion controversy ends with consumer protection legislation in 1992, Harris’s dissertation covers the clinical application of IVF through the 1990s and early 2000s. Harris contends that during the 1990s IVF lost some of its luster as the media became disillusioned with the reproductive technology and raised awareness of the field’s shortcomings. Harris writes about how journalists no longer “had anything good to report about IVF. The IVF industry began to look more and more like ‘big business,’ which many critics argued was inappropriate in the field of medicine.” During the 1990s, views of IVF as big business continued to abound, even as the Consumer Protection Act went into effect. Some clinics, for

---

15 Maynard-Moody, 4.
16 Harris, 296.
example, offered “money-back guarantees” if treatment failed. The American Medical Association decided that these promises “violated basic principles of medical ethics.” Others wondered if IVF specialists made such guarantees to ensure a steady flow of business in the competitive world of reproductive technologies, only to trick patients into buying more services.17

Media commentators also wondered about the misuse of reproductive technologies. They questioned IVF’s ability to turn back the biological clock and asked whether “IVF doctors were treating impatience,” rather than infertility.18 Reports of unethical or unprofessional IVF doctors continued to surface, including Dr. Ricardo Asch, who “fled to Mexico” after he allegedly transferred embryos to the wrong patients.19 Other less sensationalized cases have emerged where doctors have accidentally impregnated patients with the “wrong” embryos, resulting in legal questions about the nature of the family. Multiple pregnancies, a result of the desire to boost rates of success, have become controversial as a possible side-effect of IVF. IVF has been extended to post-menopausal women who either used embryo donors or had prepared by storing their own embryos years before. Interestingly, though, according to Harris, at the same time that the media became disillusioned with IVF, “post-menopausal pregnancy was overwhelmingly constructed as desirable,” and “babies of older mothers, the media suggested, were more wanted and perhaps more loved.”20 Some of the same pronatalist arguments from the 1980s were rehashed even as the media changed its view of IVF in the 1990s.

Embryo freezing has opened a host of legal issues over who owns the embryos, what happens if the “parents” die, and what to do with “leftover” embryos. The status of the human

17 Ibid., 314-316.
18 Ibid., 303-304.
19 Ibid., 308.
20 Ibid., 323-324.
embryo became even more complicated with the advent of cryopreservation and sometimes indefinite frozen embryo storage. Americans who sought infertility treatment and used hormones to stimulate the production of multiple eggs often had extra embryos that could be frozen for potential later use. Some couples, however, found that they did not need the frozen embryos but had difficulties relinquishing—or destroying—the embryos that could potentially become their children after so many years of infertility.21 According to Harris, “most experts agreed that the majority of stored embryos would remain in limbo for perpetuity: never used for pregnancy, but never destroyed.”22 Now, not only was the moral status of the embryo unknown, but so, too, was the legal status. Questions arose regarding whether frozen embryos were property, and if so, who owned them.23

Despite the media’s critique of IVF, and its controversial applications during the 1980s and 1990s, the field continued to grow and expand. New concerns have come into the fore, and old conversations have been rehashed in the years since IVF was first implemented in the United States. In short, the ethical concerns surrounding the technology have not disappeared, nor has the connection between IVF and abortion. These connections will likely always be a part of the reproductive technology, although some diminish further into the collective memory. Many Americans fail to associate IVF with abortion today. Instead, they associate IVF with babies, perhaps unaware of the technology’s low rate of success. Certainly problems, controversy, and ethical debates have remained in the reproductive technology arena, and likely will. But, there is “something joyful,” something special about IVF’s potential regardless of the controversies that have surrounded it since the early 1970s.

21 Ibid., 335.
22 Ibid.
23 Ibid.
BIBLIOGRAPHY

Manuscript Collections

Mason Andrews Papers, Perry Library, Old Dominion University (Norfolk, VA).

Paul Ramsey Papers, Rubenstein Library Archives, Duke University.

Records of the Office of the Director, Records of the National Institutes of Health, Record Group 443, National Archives and Records Administration (NARA), College Park, Maryland.

Richard A. McCormick, S.J. Papers, 1940-2000, Loyola University Chicago, University Archives.

Government Documents


Fertility Clinic Success Rate and Certification Act of 1992 102nd Cong., 2nd Sess., Congressional Record 138 no. 95 (June 29, 1992): H 5349.


Lukens, Donald E. “Consider the Sanctity of Life,” 100th Cong., 2nd Sess., Congressional Record 134 no. 8 (July 26, 1988): E 2484.


Newspaper, Magazine, and Journal Articles

Advertisement, Fertility and Sterility 36 no. 2 (August 1981).


“Minimal Standards for Programs of In Vitro Fertilization,” *Fertility and Sterility* 41 no. 1 (January 1984).


**Books and Essays**


**Websites**