Whose moral knowledge as truth?
The reconstruction of “the family’s best interest” in the American public controversy surrounding human embryonic stem cell research

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ABBREVATIONS

Newspapers:
National
CST: Chicago Sun Times
HC: Houston Chronicle
NYT: New York Times
USA: USA Today
WP: Washington Post

California:
AP: Associated Press State & Local Wire (CA)
SB: Sacramento Bee
SDUT: San Diego Union-Tribune
SFC: San Francisco Chronicle

Missouri
AP: Associated Press State & Local Wire (MO)
SLPD: St. Louis Post-Dispatch

Scientific Terms
HEr: Human embryo-destructive research
hESC: human embryonic stem cell
IVF: in vitro fertilization
An INTRODUCTION
The American controversy over human embryonic stem cell research

The public controversy over human embryonic stem cell (hESC) research undoubtedly began on November 6, 1998. On that day, James A. Thomson and six other authors published a three page article in the journal *Science* called “Embryonic stem cell lines derived from human blastocysts.” In their article, Thomson et al. stated that they had derived “[embryonic stem] cell lines originating [human] embryos” (Thomson, Itskovitz-Eldor, Shapiro, Waknitz, Swiergiel, Marshall, and Jones 1998: 1145) with the characteristics of renewability and pluripotency.¹ Then, having shown that they had developed a process to derive human stem cells with these two rare properties (by destroying human embryos), Thomson and his team notably argued that

> The standardized production of large, purified populations of [embryonic stem] cells… will provide a potentially limitless source of cells for drug discovery and transplantation therapies. Many diseases, such as Parkinson's disease and juvenile-onset diabetes mellitus, result from the death or dysfunction of just one or a few cell types. The replacement of those cells could offer lifelong treatment. (Thomson et. al. 1998: 1146-7)

Through these claims, Thomson et. al. announced to the world that they had found the scientific key to developing cures not just for “many diseases,” but for diseases severely impacting people’s quality of life, for which no cure yet existed.

¹ As Bush's Domestic Policy Council recently argued: “Embryonic stem cells have two properties that make them promising for research and cell therapy. First, they can be grown in tissue culture, and therefore provide an abundant, renewable source of cells. Second, they are pluripotent and can (theoretically) be directed to become virtually any cell type of the adult body” (Domestic Policy Council 2007: 13)
Because of this, since the media accepted Thomson’s scientific credibility, the media noted these claims with great seriousness and bravado. On the same day of the article’s publication, newspapers across the nation featured front page articles proclaiming the wonders of Thomson’s team’s recent scientific development. Most even quoted Thomson directly. As the *Chicago Sun Times* cited,

"Although a great deal of basic research needs to be done before these cells can lead to human therapies, I believe that in the long run they will revolutionize many aspects of transplantation medicine," said James A. Thomson, a developmental biologist at the University of Wisconsin in Madison, who led one of the studies published in the journal *Science*. (CST 11/6/98)

Thus, through these two media outlets—the widely read interdisciplinary journal of *Science* and the nation’s daily print newspapers—Thomson et. al. notified the scientific community at large of their “revolutionary” innovation.

But Thomson (and eventually other scientists as well) did more than just make claims of therapeutic promise in order to spark the extensive public controversy over hESC research. Human embryonic stem cell scientists also made it clear early on that they wanted to gain federal financial support for conducting research on hESCs. At this time, in November of 1998, federal funding on human embryo-destructive scientific research was not legally allowed; Thomson and others looked to change that law. As the *Washington Post* noted,

… in the political arena, the new work has reignited a smoldering debate over a four-year-old congressional ban on the use of federal funds for human embryo research. With the therapeutic potential of embryonic cells suddenly very real, advocates are calling for a reexamination of that ban, saying the development of lifesaving applications will be hindered if federal dollars remain off-limits. // Such a reexamination would pit antiabortion forces and other strong proponents of the funding ban against a powerful biomedical research lobby that has in recent years become popular with Congress and the public. (WP 11/6/98)

Thus, although Thomson and other scientists claimed that his lab had developed the potential to one day cure many significant diseases, as well as that the institution of
science would be able to better develop such cures with the financial support of the American government, certain individuals and organizations in the American public (namely, many associated with the pro-life movement) challenged the government’s willingness to give hESC research that support.

Simply, many pro-life activists, politicians and interest groups understood Thomson’s development as ultimately marginalizing the absolutely sacred moral status of nascent life. As Richard M. Doerflinger of the National Conference of Catholic Bishops stated, “scientific progress must not come at the expense of human dignity” (NYT 12/3/98). As well, the Rev. James Burtchaell argued that:

"There's no way to look at this that doesn't taint researchers with the original sin," Burtchaell said. "You can't say, 'They're lost, so can we rescue some benefit from them?' They're lost because we considered them unwanted in the first place." (CST 12/15/98)

Although Thomson’s team had developed a process that might aid in the development of cures disease, the process of deriving human embryonic stem cells required that five day-old human embryos be destroyed; consequently, the pro-life movement reacted strongly against scientists’ suggestions that hESC research be federally funded.

This moral disagreement—whether to better develop cures for “many diseases” or whether to maintain “human dignity”—has been the fundamental basis for the public controversy over hESC research in America. Thomson and other scientists knew (based on science done previously on other sorts of human stem cells and embryonic stem cells of other mammals), that hESC research had the potential to progress society through the development of medical therapies and, because of that,

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2 As the NIH notes, “Day-5 blastocysts are used to derive ES cell cultures” (NIH 2001). This means that hESC scientists destroy five day old embryos in deriving hESCs.
was an *intrinsically moral* endeavor. Others in American society, however, knew that the derivation of human embryonic stem cells destroyed (nascent) human life and, because of that, was *intrinsically immoral*. Following Thomson’s development, the institution of science’s endorsement of it, and the strong negative reaction of the pro-life movement to its announcement in the public arena, these two groups of claimants—scientists and the pro-life movement—created a public controversy around what the proper place of hESC research would be in American society.

**Controversy as a battle over the definition of truth**

Many scholars have considered the relationship between the ability to define truth and access to greater influential power in society. Prominently among them, Michel Foucault argues that “truth is a thing of this world… [which] induces regular effects of power” (Foucault 1980: 131). Foucault here contends that truth, as we come to know it, is a social construction. But not only that—Foucault further argues that truth is often “produced and transmitted under the control, dominant if not exclusive, of a few great political and economic apparatuses” (Foucault 1980: 131-2). He essentially claims that society’s empowered elites dominate the production of truth in society, to their benefit.

If those elites ruling over Foucault’s “great political and economic apparatuses” are in fact able to successfully define truth throughout society, then society will, by definition, believe—to the point of knowing without thinking critically about—that truth. As Andrew Feenberg notes, scholars of critical theory have defined such relationships as being hegemonic. He explains that “hegemony is a form of domination so deeply rooted in social life that it seems natural to those it
dominates” (Feenberg 1992). Because of the invisible manner that elites construct knowledge of the world, the ability of elites to influence what the public understands as rational is perhaps the ultimate dominating power relationship in society. If the public does not know that elites are manipulating their conceptions of truth in the world, how can they counteract that influence and even begin to determine their own interests?

More specifically on this relationship between producers and consumers of knowledge, Foucault speaks about the interactions through which social actors negotiate definitions of truth. He posits that parties with opposing interests have much at stake in securing the ability to define “the ensemble of rules according to which the true and the false are separated and specific effects of power attached to the true” (Foucault 1980: 132); these battles are more significantly focused on the matter of “the status of truth, and the economic and political role it plays” (Foucault 1980: 132). In this way, Foucault understands that these “battle[s] ‘for truth,’ or at least ‘around truth’” (Foucault 1980: 132) largely occur because of the power derived through the ability to not only construct broadly accepted truth, but to influence the status of that truth in society. Hence, intense interactions resembling wars or battles—commonly called public controversies—often crop up in society’s public realms because of the power at stake through the ability to control truth and its status in society.

Following Foucault’s theory, this thesis will show that the political battles around human embryonic stem cell research have been battles over the definition of truth. More specifically, I look to show that the truth at stake in these battles has been
a moral truth. The claimants in this discourse have fought over how American society should morally understand hESC research and, then, also over the relationship society should have with hESC research in light of that moral knowledge. From day one of this particular public controversy, the actors holding each of the conceptions of truth discussed above—that of hESC research as immoral because it requires the marginalization of nascent life and that of hESC research as moral because scientists argue it holds much therapeutic promise—have struggled in many different political arenas in American society for dominance.

However, the question of why these moral truths matter to people in the first place still remains. The high status of these now contradictory moral conceptions is by no means obvious, so in chapters one and two I look to draw out the complexity of these conceptions.

**The controversy, situated**

The controversy over hESC research is not the first time that the moral conception of science as progress and the moral conception of nascent human life as absolutely sacred have come into conflict. Human embryo-destructive research (HEr) first appeared in the public discourse in 1969, when Robert Edwards and Patrick Steptoe announced in the journal *Nature* that they had successfully fertilized the first human embryo, *in vitro*. Edwards and Steptoe’s research, in which, as they publicly announced, they had created a human embryo and then destroyed it, was understood by many around the world and in American society as killing human life.

Thus, I show in chapter one that, following from the 1969 development, from the 1973 Supreme Court decision of *Roe v. Wade* (which brought abortion politics to
the forefront of American society), and the birth of the first “test-tube baby” in 1978 (again, attributed to Edwards and Steptoe), much controversy surrounded the issue of human embryo-destructive research in the 1970s. Similarly to the discourse over hESC research, the public discussion over IVF also dealt with the contradictory moral notions of science as the potential for progress and nascent human life as absolutely sacred.

The issues of hESC research and other HEr differ, however, in that hESC scientists have been able to claim a more significant type of potential for progress than their predecessors. While researchers on IVF only claimed to work towards curing fertility, hESC scientists claimed to have the potential to cure life-altering (and even life-threatening) diseases. Simply, it seemed more imperative to the public that disease be addressed as compared to fertility. If anything else, infertile couples could always adopt. The diseased, however, have no other recourse available to them but to survive as best they can manage. Because of this, where the controversy over IVF fizzled into the 1980s, even though scientists had proven its potential, the controversy over hESC research looks to enduringly maintain its political viability.

Why morality matters: hESC research and the pro-life movement

This public controversy has become important to all parties involved in it, but it has seemed particularly important—even existentially so—for the pro-life movement. I argue in chapter two that the draw of hESC research to the pro-life movement has much to do with how pro-lifers conceive the world and their place in it. In *Abortion and the Politics of Motherhood* (1984), Kristin Luker observes that people understand society and see their place in society in different ways—they hold
different worldviews. She shows that these worldviews are important to people because they often become the basis for their identities and other existential matters, such as what people perceive to be the meaning of their lives. Because of this, when people’s worldviews are challenged, they may easily take such challenge as a personal affront.

Thus, the fundamental reason the pro-life movement is so upset by hESC research has to do with the symbolic significance of the moral status of nascent life in their worldview, where “a decision about the moral status of the embryo is an implicit statement about the role of children and women in modern American society” (Luker 1984: 7-8). As Luker claims, “participants in the abortion debate, therefore, are defending a worldview—a notion of what they see as sacred and important—as well as a view of the embryo” (Luker 1984: 7). As Christian Smith similarly argues in *Moral, Believing Animals*,

…in the end [views on the morality of nascent life] are essentially faith commitments to deep beliefs that turn out to be ‘true’ only within larger frameworks of belief and practice built up themselves on deeper sets of unverifiable assumptions and beliefs. (Smith 2003: 51)

Hence, Luker and Smith argue that for many, the abortion debate is not just about the embryo but is more importantly about the “larger frameworks of belief and practice” on which the abortion debate holds significant implications.

Specifically, Luker shows that the abortion debate has become “so passionate and hard-fought because it is a referendum on the place and meaning of motherhood in society” (Luker 1984: 193). Noting that incredibly strong emotional feelings very often drive activism, Luker argues that these emotions arise because, in these debates, the winner will define the nature of the dominant worldview in society—a matter
integral to people’s identity and conception of the importance of their life, such as the socially produced ‘meaning of motherhood’ and their conception of the family that has so often been tied in with our conceptions of motherhood. Thus, what is at stake in the hESC discourse for the pro-life movement is a matter of being able to maintain the power needed to preserve the status of their paradigmatic knowledge in American society. Because of the pro-life movement’s want to maintain the status of the traditional conception of the family—which they see as marginalized by hESC research because of its association with abortion—the pro-life movement has argued that hESC research should be considered to be an intrinsically immoral endeavor.

The success of science and society’s perceived interests

While the pro-life movement’s primary fundamental interest has been protecting the status of its worldview in American society, I argue, also in chapter two, that proponents of hESC research have a different motive. Scientific researchers of human embryonic stem cells, as with scientists of any sort, want their work to be supported by society. As Adele Clarke notes,

Lines of scientific work become vulnerable to controversy because scientists must claim that particular scientific findings are useful… to succeed in obtaining resources they must in some sense claim that their science is ‘socially necessary.’ (Clarke 1990: 19)

Moreover, as Bruno Latour argues in The Pasteurization of France “when scientists… are successful in creating a vast, inside world, it [necessarily] means that others have more or less the same goals” (Latour 1988: 157-58). As Clarke and Latour have identified, “good” and successful science is, by definition, science that society chooses to support. Alternatively, scientists only fail to garner the necessary
support to continue their work, when they have failed to align their goals with those of “others.”

Thus, I also argue in chapter two that advocates of government financial support for hESC research (henceforth referred to as pro-funding claimants) merely want to align their own interest—that society support hESC research—with the interests of the public and policymakers. Specifically, through a number of strategies—namely, making claims in the public discourse founded on the credibility and authority of the institution of science as well as on the social situation of those constructed as needing science and the promised fruits of hESC research—pro-funding claimants have argued that hESC research should be considered an intrinsically moral endeavor.

The public discourse theorized

The pro-life movement and pro-funding claimants have worked to further their interests in what I refer to as the public discourse over hESC research. In *Shaping Abortion Discourse*, Ferree et. al. explain that

> Public discourse is public communication about topics and actors related to either some particular domain or to the broader interests and values that are engaged. It includes not only information and argumentation but images, metaphors, and other condensing symbols. (Ferree, Gamson, Gerhards, Max and Rucht 2002: 9)

Adding to that, they define the “public sphere” as “the set of all forums” (Ferree et. al. 2002: 10), where each forum contains an arena on which the discourse occurs, a gallery (the set of individuals watching rather than participating in a given discourse) and a backstage (where the planning happens). While many forums exist within the public discourse, Ferree et. al. argue that one holds particular importance. As they state, “for various reasons, general-audience mass media provide a master forum”
(Ferree et. al. 2002: 10). Notably they argue that the mass media often act as a central force in public discourse, if for any other reason than because “all of the players in the policy process assume its pervasive influence (whether justified or not)” (Ferree et. al. 2002: 10).

Given the media discourse’s prominence in the public discourse as a whole, as well as because of the dearth of other resources for knowing about hESC research, the actors and the frames that the media has privileged in its reporting on hESC research have undoubtedly influenced the moral understanding that the American public has come to hold. As I show, the media’s presentation of the news accounts for much of the way that Americans have come to understand hESC research and its role in American society. Not only has the media’s interest in credible sources and controversy biased its presentation of hESC research in the news, but the media have also chosen to exploit one of the public’s “cultural resources” for understanding the role of hESC research because of its particularly newsworthy characteristics; over time, the media increasingly presented individual’s struggles with disease along side of their presentation of various political controversies over hESC research. This enabled the American public to morally understand hESC research through a new framework, in light of the pain brought onto individuals and their families by disease and the hope of those individuals that hESC scientists eventually develop the cures they have promised.

3 Like most other modes of science, the public cannot directly know about hESC research and thus must gather information about it from the media (Shapin 1994: 409). While they may then be able to interpret the information presented by the media in light of their own personal experiences and other “cultural resources” (Gamson 1992: 117), the public must gather their initial knowledge of hESC research through the news.
Because of the media’s influence on the public’s knowledge, and because people hold an interest in hESC research for reasons explained in the sections above, the media’s reporting over hESC research has greatly (though not entirely) shaped the current place of hESC research in American society. Thus, in order to more fully understand the place of hESC research in American society, I have conducted an analysis of the American media discourse over hESC,\(^4\) the details of which I draw out in chapters three and four.

The public discourse in action

Much of what this thesis will explain is how and why the public discourse evolved as it has. Through an analysis of actor interests, actor strategies, and the structure of American politics as applicable to hESC research policy, in chapters three and four, I explain why and how pro-funding claimants wanted and were also able to politicize hESC research in different political arenas with various levels of success. As figure A shows, over time, the discourse has moved between geographically located arenas and varied greatly in intensity. More specifically, beginning in November of 1998—the start of the public controversy over hESC research in America—figure A (on page 13) shows that the media covered hESC research in steady but relatively small amounts from 1998 through early 2001.

Then, in 2001, for a month preceding and then following President Bush’s August 11\(^{th}\) policy decision regarding the provision of federal funding for hESC research, the all of the nation’s papers essentially covered hESC research on a daily basis. In attempt to broker a policy compromise between pro-funding and pro-life claimants, Bush proposed to allow scientists “to explore the promise and potential of

\(^4\) For further detail about the method used in my media analysis, see Appendix A: Methodology.
Figure A: Frequency of hESC research coverage in National, CA and MO print media from Nov. 1998 to Nov. 2006.
stem cell research without crossing a fundamental moral line” (Bush 2001) by funding research on already derived hESC lines, but not on lines derived after the date of Bush’s speech. (Un)surprisingly enough, neither pro-funding nor pro-life claimants accepted Bush’s so called compromise as morally legitimate. While scientists claimed that it would limit their future research, the pro-life movement argued that Bush had supported the destruction of human life.

However, following the terrorist attacks on September 11, 2001, the media’s coverage of hESC research dipped down to practically no coverage at all and took much time to work up to a significant intensity again. When hESC research again emerged in the national media discourse (because of the advocacy work of pro-funding claimants), it arose both in the national arena—in connection with the 2004 Presidential election—as well as in the California state public arena because of the California ballot initiative Proposition 71.

Although pro-funding claimants did not cease their advocacy of hESC research to federal policymakers, because President Bush and many other conservatives strongly resisted the idea that the government further support hESC research, pro-funding claimants decided to take their advocacy efforts to the state level as well. More specifically, after finding little willingness to fund hESC research among the most likely state legislatives, pro-funding claimants decided to take up their cause with the ‘the people’ through California’s ballot initiative process. Here, after searching for numerous other viable political arenas, pro-funding claimants found a policymaking arena willing to accept their claims and to distribute state capital accordingly. In November of 2004, the people of California agreed to give $3
billion in state bond money to human embryonic stem cell research, to be distributed over 10 years.

Still, pro-funding claimants did not give up on federal policymakers. By May of 2005, because of their perseverance, the House had passed the Stem Cell Research Enhancement Act of 2005, which “would permit federal money to fund research on stem cells taken from days-old embryos stored in freezers at fertility clinics and donated by couples who no longer need them” (WP 5/19/05). Although it took the Senate over a year to follow suit, Senate majority leader Bill Frist—who had publicly announced his “break with the White House by supporting expanded federal funding for embryonic stem cell research” (USA 8/1/05) in July of 2005—eventually managed to convince his Republican peers that hESC research be considered in morally different terms than the issue of abortion.

Not only do ‘credible’ scientists claim that hESC research holds the potential to develop cures for the diseased and injured, but, under the Stem Cell Research Enhancement Act, government funded research would only destroy the lives of embryos that had already been discarded as extras from in vitro fertilization procedures. The potential for those embryos to become human life had already effectively been eliminated. Because of these practical matters, the Senate passed a version of the House’s original act in July of 2006. However, President Bush, in an act of loyalty to his socially conservative base, promptly vetoed the passage of that act. Neither house of Congress had the necessary support to override Bush’s veto.

But, in the months leading up to Bush’s veto, pro-funding claimants had also been working in Missouri to pass a ballot initiative, Amendment 2, which “would
amend the state constitution to [explicitly] allow research using embryonic stem cells” (USA 10/26/06). Similarly as with Congress and President Bush earlier that year, pro-hESC research claimants seemed to be fighting the pro-life movement against the odds, in a conservative-dominated arena. However, like in the Congressional debate, because pro-hESC research claimants managed to portray hESC research—through visually and verbally jarring demonstrations of the effects of disease on life—as inherently moral because of its potential to develop cures for those who badly needed them, pro-hESC research claimants ultimately succeeded in Missouri as well.

Rather than being a destructive endeavor that contradicted the best interests of the family and society as the pro-life movement wished to portray, pro-funding claimants were able to construct hESC research as fundamentally pro-family. Human ESC research promised to help many real people live better lives in the future, and because of that, the pro-funding conception of moral knowledge ultimately trumped the pro-life movement’s conception in Missouri.

Thus, over the course of this thesis I show that the controversy over hESC research has revolved around the conception of the family in American society. Ultimately, I argue that pro-funding claimants have succeeded in pushing their cause to the public only because they also succeeded in fundamentally altering the dominant conception of the family and the interests of the family in American politics. By giving the public reason to consider the future of their own family outside of just the symbolism of the fetus (as was largely the case in the controversy over abortion), pro-funding claimants ensured that the public would positively associate hESC research
with hope for a healthier and happier family, as opposed to negatively associating it with the destruction of nascent human life. Although it is yet to be seen if this shift will affect government policy over other pro-life related issues, I demonstrate that society’s changing conception of the family, more than any other factor, explains the nature of the hESC research controversy over the past nine years.
Chapter ONE
The history of the American discourse over human embryo research

The scientific and political history of human embryo-destructive research\(^5\) has influenced the development of the discourse surrounding embryonic stem cell research in a number of ways. Human embryonic stem cell research is a subset of human embryo-destructive research and, at an even broader level, of (non-embryo-destructive) biomedical research. Because embryonic stem cell research is related to these more general categories, the history behind them also situates embryonic stem cell research in society. Much occurred in the three decades prior to Thomson et. al.’s 1998 innovation that influenced American society’s reaction to embryonic stem cell research.

Drawing out these broader historical discourses will set the stage for the immediately controversial emergence of the American discourse on hESC research; it will show that the knowledge driving the controversy surrounding hESC research had already been politicized upon the discourse’s emergence. The prior politicization of biomedical research and human embryo-destructive research heavily influenced the speed and intensity with which embryonic stem cell research became a politically controversial issue following Thomson et. al.’s development of the science necessary to make hESC research feasible.

By making claims about hESC research in the political arena, scientists politicized their knowledge of hESC research and thereby enabled other institutions

\(^5\) From here on, it should be assumed that the term human embryo research always refers to human embryo-destructive research.
and individuals to made politically significant claims of expertise over that knowledge, as well. Once hESC research had been deemed pertinent to society at large by the media and then, more importantly, by Clinton’s Administration, the stakes over the control of that knowledge become far greater than before. As Steven Epstein points out in *Impure Science* (1996), when policymakers call on scientific knowledge and expertise to solve political controversy,

…this ‘scientization of politics’ simultaneously brings about a ‘politicization of science’: the fact that the political disputes tend to become technical disputes means that different parties rally their own experts to support them in a controversy, very much like lawyers offering to the jury a parade of expert witness. (Epstein 1996: 6)

Moreover, in addition to scientists, because of hESC research’s already established moral nature, in the debates over hESC research ‘expert witness’ has also come from ethicists, theologians, politicians and experts of other backgrounds. Because of the similarly controversially moral nature of human embryo-destructive research, both the scientists’ and the other disciplines’ expertise had been politicized long before the hESC research discourse emerged.

Like hESC research, human embryo-destructive research, such as that done in developing IVF technology, also (obviously) destroyed nascent human life. Moreover, like with hESC research, the expertise of scientists, ethicists, theologians, politicians and others were as well at play in the political debates over human embryo-destructive research. However, none of these institutions and their values

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6 The Clinton Administration officially recognized hESC research only four days after Thomson’s Nov. 6 announcement. As Wade of the New York Times reported: “Officials of the National Institutes of Health are seeking legal advice as to whether the Congressional ban on fetal research applies to the primordial human cells that scientists announced last week they had isolated and grown in the laboratory for the first time.” (NYT 11/10/98).
have always been politically significant or controversial. In light of this, this chapter follows to show how human embryo-destructive research initially became politicized in American society. The chapter will specifically detail the politicization of human embryo-destructive research in terms of the moral controversy—that of science as progress vs. the absolute sanctity of nascent life—that ultimately defined its politicization and, decades later, the initial politicization of hESC research.

The politicization of the values

While the fundamental values of the hESC research discourse have undoubtedly existed for millennia in some form, neither of the two most obvious values that have driven the controversy of the embryonic stem cell research—the value of nascent human life as absolutely sacred and the value of the progressive ability of science—had effectively entered the American political arena until after World War II.

Two particularly significant thematic patterns have emerged in the discourse over human embryo research. First, perhaps most importantly to the existence of this discourse, without particular advancements in society’s body of scientific knowledge with regard to the human embryo, its discourse would not exist. But these scientific innovations (which have been the subject of the discourse that follows) have not simply appeared without explanation; rather, they developed only because scientists had the scientific base of knowledge and the economic incentive to do so. Notably, the reproductive technology of in vitro fertilization arose through privately financed

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7 The value of technological and scientific research to society has long been discussed in the public discourse in various ways. However, only in the Enlightenment period was the moral value of scientific progress brought out in explicit terms (Callahan 2003: 13). As well, human societies have written about the moral status of nascent human life dating back to “the Pythagoreans and Ancient Greece” (Luker 1984: 11)
human embryo-destructive research because of changes in American’s understanding of infertility—which led to the development of an American market for IVF procedures serving “7000 couples” even in 1987 (Bonnicksen 1989: 25)—as well as because scientists had developed knowledge of the human embryo such that IVF became possible in 1978.

Second, over time, policy-makers’ actions regarding biomedical research and human embryo research have been influenced by a number of identifiable interests and goals. While the political (in)feasibility of past scientific and embryo research policy measures at the federal level has been determined by many interest-shaping factors, two notably contradictory factors stand out.

The most obvious of these factors affecting the willingness of politicians to take certain actions have been the political implications arising because of the highly contentious public controversy in America over abortion. The abortion discourse has greatly shaped the moral status of nascent human life as well as the status of nascent life’s significance in American society. Because human embryo research often deals with issues relating to the moral status of nascent human life (as abortion also does, though in a much different way), the American public discourse over abortion has affected public policy on human embryo-destructive research throughout the history of its discourse.

The other notable factor is that of advocacy for technological (and specifically biomedical) progress in the American political arena. Political advocacy for federal support of biomedical research formally began following WWII and, as Daniel Callahan (2003, 2007) and Judith Robinson (2001) have shown, has been historically
very effective at garnering federal financial support for scientists claiming to be
conducting research with therapeutic promise. Understanding how these early
campaigns essentially single-handedly brought about the politicization of science will
be crucial for understanding the place of science in politics today.

The early campaign for science

To an extent, Americans have always valued scientific progress. Since the
beginning of its history, America has had a long line of technological optimists and
inventor-entrepreneurs. Daniel Callahan, in *What Price Better Health?*, addresses this
aspect of American history in speaking of America’s “tradition of exuberant
optimism going back to Thomas Jefferson and Benjamin Franklin” (Callahan 2003:
19). But even considering this ideological tradition, scientific progress has not always
been a political issue—a matter that Callahan recognizes. As he states, this tradition
only “began to deserve some credibility by the early twentieth century,” when science
first began to nurture the “hope and optimism” that would continue to grow over the
course of the century, as science continued to advance the average quality of life in
American society.

As Callahan explains, in the very early 1900s, various corners of American
society began lobbying the federal government to support science. He notes that the
private sector began this push by establishing private laboratories that “slowly set the
stage for the federal support of research that was to be the mark of the second half of
the twentieth century” (Callahan 2003: 17). The beginning of this private push is best
marked with “the establishment in 1901… of the nation’s first independent medical
research organization, the Rockefeller Institute for Medical Research”—which had garnered $65 million in support by 1920 (16).

But strong and growing private research effort aside, Callahan explains that “in the early twentieth century there was little public support and few strong voices pushing for the research process” (Callahan 2003: 17). Simply, medicine had not yet done enough to warrant great respect from society’s public sphere—“American medicine” did not even begin to gain significant “public prestige” until the 1920s (18). Before then, the institution of science had neither given society reason to believe in its ability to produce therapies, nor had it expressed interest in federal support to develop that ability. Although Victoria Harden has traced the official roots of the NIH back “to 1887, when a one-room laboratory was created within the Marine Hospital Service” (Harden 2007), the government did not begin to seriously fund scientific or medical research efforts until decades later.

Only once the private achievements of science gained a certain level of respect in the American political arena—just before and during World War II—did scientists gain federal funding to do scientific research and produce scientific knowledge (theoretically) for the good of society. As Harden explains, in 1930, Congress passed “the Randall Act [which established] the National Institute (singular) of Health (NIH)” (Harden 2007), and promised the NIH a more official stream of federal funding with which to “apply fundamental knowledge in chemistry to problems of medicine” (Harden 2007). As Harden notes, this legislation “marked a change in the attitude of the U.S. scientific community toward public funding of medical research” (Harden 2007).
However, because of the plight of the Great Depression and the turmoil of World War II, the NIH only began receiving significant funding until the mid 1940s. Once the War ended and the nation’s political attention and financial resources had been freed up to be distributed elsewhere, the NIH grew with abandon, in step with the possibilities of American biomedical research that were also greatly increasing. As Callahan notes, the NIH’s budget increased three-fold between the years of 1948 and 1955 (from 29 to 98 million)—an increase in support which “can be credited, in great part, to the dedication of a series of talented NIH directors, strong bipartisan leadership in congress, and highly skilled lay proponents” (Callahan 2003: 21).

![Figure B: Annual NIH Budget Allocation, 1938-1961 (NIH 2006)](image)

Moreover, of these proponents, Callahan states that the most notable were “Mary Lasker and her friend Florence Mahoney, who used their wealth and political skills to advance the cause of research in general and of the NIH in particular”
In an unpublished paper, Callahan further speaks of “two wealthy philanthropists [Lasker and Mahoney],” who, in the mid 1940s, first began to use the now “tried and true methods of [campaigning for the federal funding of scientific research]” (Callahan 2007: 7). As Dorothy Nelkin similarly reports with regard to the effectiveness of these campaigns in securing positive media coverage for science, “in the 1940s the proliferation of cancer stories in the press helped convince Congress to give research support to the National Cancer Institute” (Nelkin 1987: 75). Additionally, Robinson further explains that these stories did not simply occur, but were brought on in large part because of encouragement from the newly formed “Lasker Foundation,” which “would provide ‘seed’ money with the object of encouraging government follow-up on research projects that showed promise” (Robinson 2001: 47).

In explaining the forces behind the establishment of the National Cancer Institute, Nelkin, Robinson and Callahan show that scientific research first came to be seen as deserving of the federal government’s financial support because of campaigns arguing that science improves the well-being of society. These campaigns also began building up the credibility and social status of the institution of science. They marked the beginning of its politicization. Because of this campaign and its publicity in the media, the national budget for biomedical research began to increase at a notably faster rate than it had before, as a result of people in society paying increasingly more attention to the potential for science to make their lives better. Following this initial
upward trend, the NIH budget has kept rising, on average over 19 percent a year, from 1945 to 2005.\footnote{Data from (National Institutes of Health 2007), based on my own calculations.}

**Human embryo-destructive research in America**

Under this light of the expansion of federal support of science as a morally requisite public good, scientists gradually brought the issue of human embryo-destructive research into the public and political arenas. But in order for the public and policymakers to view human embryo-destructive research to be viewed positively in any way, American scientists had to gain the minimal base of knowledge needed to conduct ‘promising’ human embryo research. American scientists have not always known enough about the human embryo to undertake the kind of complex research they began doing with success in the later 1960s. Andrea Bonnicksen, in her book *In Vitro Fertilization* (1989), summarizes the early work done in this field as follows:

> In 1827, modern discoveries started when scientists identified mammalian ova outside the body. this was followed by an external fertilization of mammalian egg and sperm in 1875 and the viewing of the human ova for the first time in the 1930s. (Bonnicksen 1989: 12)

In the early days of human embryo research, scientists certainly did much research on the human embryo—that early research just never seemed promising enough to offer society much direct medical benefit.

Then, as now, such research resulted in the demise of many fertilized human embryos. But even so, this research did not garner much attention from the public, the media or policy makers—most likely because researchers of the human embryo were looking neither to publicize their research widely nor for the public’s support of their endeavor. The primary reason for the covert nature of their science at the time was
that the powerful Catholic Church detested such work.\textsuperscript{9} From what I can tell by looking at the media records available (primarily using the \textit{New York Times} Historical Backfile) and reading through other historical accounts of human embryo research, research on human embryos had been noted very little in the American public arena prior to 1969.

However, with the occurrence of an important ‘breakthrough’ in scientists’ ability to manipulate the human embryo in February of 1969, the \textit{New York Times} began to cover topics related to human embryo research more frequently and in different ways. On February 14, Robert Edwards and Patrick Steptoe published an article in the widely read scientific journal \textit{Nature}, in which they explained that they had achieved “the first fertilization in a test tube of a human egg with a male sperm” (NYT 2/14/1969). This event provided the necessary initial momentum for claimants in the public arena to begin publicly considering destructive scientific research on human embryos. The publication of their article was covered by the major papers in the US and in Europe (they worked in Britain); although human embryo research by no means emerged as a issue of great interest to either the public or to policy makers just yet, February of 1969 marks the point at which many people in America and Europe first became aware of the existence of scientific research on human embryos.

\textbf{Transition to the ‘modern’ era of human embryo research}

Perhaps much of the reason that Edwards and Steptoe’s announcement received the international media coverage which it did is that Edwards and Steptoe seemed to offer legitimate promise that their research would soon result in significant

\textsuperscript{9} As one 1961 \textit{NY Times} headline exclaimed, “Scientists grow a human embryo: Test-tube experiment ends after 29 days in Italy—Vatican assails it” (NYT 1/14/61)
benefit for society. As the *New York Times* reported, “Test tube babies may not be just around the corner… but the day when all the knowledge necessary to produce them will be available may have been brought a stage nearer by the work of Dr. R. G. Edwards and his colleagues” (NYT 2/14/69). Additionally, Bonnicksen notes that both Edwards and Steptoe, among others, felt quite optimistic about the significant benefit their research might soon bring—an optimism which the media reflected in their reporting. Bonnicksen has recorded the feelings of these first ‘modern’ researchers of the human embryo, as shown in the following passage:

Steptoe looked at his backlog of infertility patients and thought that his IVF work would give him ‘a chance indeed to uphold the rights of women and allieviate, as my mother would have wished, some of the wrongs done to them.’ When Edwards… saw a human egg preparing itself for fertilization… he felt positively biblical: ‘Why, it meant that possibility infertility in some women could be cured. (Bonnicksen 1989: 13)

Hence, Edwards and Steptoe’s ‘breakthrough’ enabled scientists to begin making claims about the potential benefit of their research—an apparently newsworthy matter that the media chose to play up in their reporting of IVF from this point on. As this 1970 *New York Times* article on IVF decrees:

The day appears to be rapidly approaching when it will be possible to remove egg cells from women unable to bear children, fertilize them in a laboratory with sperm from their husbands, culture them into many-celled embryos and reintroduce them into the womb. (NYT 10/27/1970).

This article took an especially laudatory tone, at one point proclaiming that IVF research “not only promises to aid sterile women but also make possible observation… of some birth defects” (NYT 10/27/1970).

But the media’s early reporting on human embryo research did not contain only reports of the soon to be possible wonders of science. Interestingly, the only other pre-*Roe* article relating to human embryo research published by the New York
Times, written in 1972, drastically changes tone from these two previous articles. The article specifically warns society of the perils of research on human cloning, and also speaks briefly (and negatively) of other types of “destructive research” which disrespect human life’s “humanness” (NYT 3/5/1972). Additionally, other social critics, such as the professor of religion Paul Ramsey, “who saw every problem with IVF” (Bonnicksen 1989: 15), bioethicist Leon Kass,¹⁰ and many spokespeople of the Catholic Church also came out against human embryo-destructive research.

Even early on, a small pattern of conflicting interests between those claiming scientific expertise and those claiming ethical expertise began to emerge. The media’s portrayal of the political conflict between these contradictory interests also began to take shape, in three notable ways. First, the media made a point of highlighting the potential gains science might one day give to society; second, the media had noted multiple times that certain people in society objected to human embryo-destructive research on ethical grounds; and third, the overarching media frame that almost immediately emerged in the media’s reporting on HER portrayed human embryo research as a controversial, black and white issue. Following from the first two minor frames (or, perhaps vice-versa), this third frame of controversy laid the groundwork for the newsworthiness of HER; a frame of controversy over the issue of whether to allow HER to continue in society not only implies that people disagree over this issue, but that they disagree passionately.

The semi-politicization of human embryo research

¹⁰ Leon Kass has long been on the record as being against scientific research that marginalizes the moral worth of any human life. Bonnicksen mentions that early on he had notably argued against supporting IVF research because “infertility is hardly a matter of vital national interest—at least not unless and until the majority of women are similarly infertile” (Bonnicksen 1989: 20).
Although scientists had been conducting HEr for over a decade, prior to 1973 human embryo research received very little attention from the media and even less from politicians. What little attention HEr did receive from the media, was generally framed in the light depicted above. This lack of attention by the American political and public discourses to research on human nascent (pre-born) life, however, changed drastically with the Supreme Court’s decision on *Roe v. Wade* in January of 1973. The morality of human embryo research first became an issue in the early 1970s because of the occurrence of the Supreme Court’s nationally polarizing decision on the legality of abortion with *Roe v. Wade*.

The accounts of Dorothy Wertz and Bonnicksen identify *Roe* as being the major marker of the American public debate on human embryo research. As Wertz argues, “since 1973, when elective abortions became legal, the government has refused to fund therapeutic research for fear it would encourage abortions” (Wertz 2002: 143). Similarly, Bonnicksen observes that the Supreme Court’s decision on *Roe* “gave rise to a tenacious group of attentive citizens, organized around the National Right to Life Committee” who built up a strong “right-to-life lobby” (Bonnicksen 1989: 76). Bonnicksen contends that

\[\ldots\text{wary of what IVF might portend, skittish about the abortion controversy, and aware of efforts by Edwards and Steptoe… federal officials took steps to prepare for the likelihood that researchers would send proposals involving IVF to agencies such as the [NIH].} \] (Bonnicksen 1989: 77)

Along with Wertz and Bonnicksen’s more brief explanations, J. Kyle Kinner and President Bush’s Council on Bioethics (PCB) explain the rather complicated politics that followed to play out after the Court announced their decision on *Roe*. 
As Kinner tells, in early 1973, after the Supreme Court had announced its decision on *Roe v. Wade*, “the Department of Health and Human Services… imposed a temporary moratorium on federally funded research on [nascent human life]” (Kinner 2000: G-3).\(^{11,12}\) Kinner as well cites that “the following year, Congress applied its own moratorium to all human fetal and human in vitro fertilization… research until [DHEW] could adopt comprehensive regulations to address those issues” (Kinner 2000: G-3). Hence, directly following *Roe v. Wade*, both the Executive Branch (under President Nixon and then, in 1974, under President Ford) as well as the Congressional Branch of the American federal government instated moratoria on the Federal funding of scientific research on human embryos.

Kinner then explains that, with the passage of its moratorium in 1974, “congress concurrently established the National Commission for the protection of Human Subjects of Biomedical and Behavioral Research to examine bioethical issues and to make recommendations” (Kinner 2000: G-3). In their white paper “Monitoring Stem Cell Research” (2004), President Bush’s Council on Bioethics (PCB) adds that by instating this commission, “Congress explicitly [looked to develop federal] guidelines for human fetal and embryo research, so that standards for funding might be established and the blanket moratorium might be lifted” (PCB 2004). In 1975, a year after its conception, the commission recommended that DHEW “lift the

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\(^{11}\) Because the Department of Health, Education and Welfare came before the Department of Health and Human Services, some authors have used one and some the other, but regardless of the title they use, all the authors refer to the same organization (what is now DHHS) in speaking of either department. DHEW officially became DHSS “on May 4, 1980” (DHHS 2005). Additionally of note, clarifying DHEW’s role in making the Federal government’s human embryo research policy, DHEW oversees the National Institutes of Health, which “is the primary Federal agency for conducting and supporting medical research” (NIH: About).

\(^{12}\) It should be explicitly noted here that the Secretary of DHHS sits on the President’s Cabinet and is also appointed by the President. In this way, the President clearly has much (if not total) influence over the decisions made by the Secretaries of the executive departments.
Along with that recommendation, the commission also “called for the establishment of an Ethics Advisory Board within [the Department of Health, Education and Welfare] to propose standards and research protocols for potential federal funding of research using human embryos and to consider particular applications for funding” (PCB 2004). A year later “[DHEW] adopted the recommendation in 1975, [to establish] an Ethics Advisory Board” (PCB 2004). In doing so, it “put in place regulations requiring that the Board provide advice about the ethical acceptability of [human embryo related] research proposals” (PCB 2004).

However, although DHEW had been “legally permitted to act [since 1975], the Secretary of [DHEW] did not direct the EAB to perform a funding review of proposed research until September 1978” (Kinner, 2000: G-3). Simply, DHEW had little reason to take action until then—pro-funding claimants did not have the moral authority to force the DHEW to direct its EAB to consider their claims until Steptoe and Edwards showed that human embryo-destructive research had certain therapeutic potential.

However, in 1978, Steptoe and Edwards again announced that they had made another ‘breakthrough’ in IVF research. As Jane Maienschein states, in July of 1978, Steptoe, Edwards and others “demonstrated the astonishing efficacy of [IVF]” (Maienschein 2002, 14). They did so by enabling “Lesley Brown… to become pregnant despite a defect in her oviducts, a common cause of infertility,” which thereby allowed her to give “birth to a healthy girl” (NYT 7/27/78). This development, which enabled the world to begin to see the vast potential for HEr to
benefit society, immediately became one of the strongest challenges to the government’s HEr funding moratorium.

Because Steptoe and Edwards’ ‘breakthrough’ enabled people everywhere to see that human embryo-destructive research could offer concrete benefits to society, they were far more likely than before to see it in a positive light. Considering America’s now (almost 40 year) long tradition of granting federal funding to those conducting science of value to society, it then seemed more pertinent than ever that human embryo-destructive research continue with additional federally supplied financial support. Soon after the procedure had been developed, Americans came to see IVF as “a ‘last chance’ and a ‘last hurrah’ for biological parenthood” (Bonnicksen 1989: 24). Others have also noted that the American public generally saw Steptoe and Edwards’ technological innovation as a good thing.13

Thus, the public’s appreciation of IVF technology gave pro-funding claimants the not just the scientific credibility, but also the moral authority, to push DHEW to direct its EAB to finally “perform a funding review of proposed research” (Kinner, 2000: G-3). Even then, however, DHEW certainly did not rush a consideration through its ethics board. DHEW did not publicize their decision “not to offer funding for human embryo studies” (PCB 2004) until May of 1979. As the PCB explains, “the Ethics Advisory Board concluded [in May of 1979] that research involving embryos

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13 As Richard McCormick, a Georgetown ethicist, ranted in a New York Times editorial, “the reaction of very many” to “the birth of Louise Brown” was one of “joy and gratitude” (NYT 8/6/78). Likewise, Maienschein retrospectively notes that “because of the evident therapeutic benefits to otherwise infertile patients, and perhaps because Steptoe did not announce his efforts until they had been successful, the public accepted this innovation [of IVF technology] as a medical advance” (Maienschein 2002: 14). Moreover, more concretely, Bonnicksen reports that in 1982, “sixty percent of Americans polled approved of IVF for infertile married couples” (Bonnicksen 1989: 18).
and IVF techniques was ‘ethically defensible’” (PCB 2004). But in order to break this funding moratoria, DHEW still needed to follow through with that recommendation and appropriate their funding accordingly. DHEW, under President Carter, ultimately chose not to adjust their funding priorities as such. As Kinner reports, “no action was ever taken by the Secretary [of DHEW] with respect to the [Ethical Advisory] board’s report, and the 1978 EAB expired in 1980” (Kinner 2000: G-3).

While pro-funding claimants had enough power to force the government to stop ignoring them, they did not here have enough moral authority to overrule the power held by the pro-life movement. Ultimately, because of the pro-life movement’s ability to define the moral status of nascent life in the political arena, pro-funding claimants could not claim adequate therapeutic promise to gain the federal government’s financial support. Then, because Carter’s administration “failed to appoint a new EAB to consider additional research proposals, the [DHEW] effectively forestalled any attempts to support… experimentation involving human embryos” (Kinner 2000: G-3); as the PCB similarly reports, following these actions, “funding [for any sort of research on human embryos] was therefore rendered impossible in practice.” (PCB 2004).

Through a combination of this series of bureaucratic maneuvers and simple inaction, both Congress and the DHEW essentially postponed their decision-making

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14 Specifically, the President’s Council on Bioethics further explains that the EAB supported human embryo research on the condition that the “research did not take place on embryos beyond fourteen days of development and that all gamete donors were married couples” (PCB 2004). But as well, the EAB also argued that while “such work was ‘acceptable from an ethical standpoint,’… [it thought that] it ‘should not advise the Department on the level of Federal support, if any,’ such work should receive” (PCB 2004).
power regarding the funding of human embryo research. They placed that power instead on committees and/or boards of different sorts, which they contrived in order to give their ultimate policy decision both ethical credibility and political viability and also to allow themselves to avoid having to make a politically difficult decision for the time being. When pro-funding claimants gained the scientific grounding on which they could credibly claim that the human embryo-destructive research held great clinical potential, even the EAB had to act. But the EAB’s action was merely symbolic in any case—Carter’s Secretary of HEW ultimately ignored its advice and chose not to allow the NIH to fund IFV research. The political consequences of acting against the pro-life movement’s wishes, given their great moral ownership over federal policy related to the moral status of nascent human life, would have been too politically detrimental.

The continued deadlock of contradictory interests

Even though much of the American public as well as the Ethics Advisory Board found IVF and IVF research to be ethically acceptable and beneficial to society, “a de facto ban on funding [IVF research] remained in place through the 1980s” (PCB 2004). In light of the history of the NIH and the prevailing belief at the time of the progressive necessity that science be well funded (fueled, as it was, by various publicity campaigns), it is highly unusual for the federal government to have rejected the requests of the proponents of biomedical research. Yet for over two decades the federal government did exactly that with human embryo-destructive research. As Scott notes in Stem Cell Now regarding this funding, “with one short
lived exception, the ‘temporary’ moratorium has passed its thirtieth anniversary—no
government funds are allowed for embryo research” (Scott 2006, 152).

In weighing the costs and benefits of taking action towards either federal
funding or federal regulation, America’s federal policy makers of the 1970s, ‘80s and
‘90s ultimately decided that neither action was worth risking. Politicians thus avoided
confronting the issue of federal policy regarding HEr from the beginning of its
discourse, and they continued to do so through the 1990s. Even when “in early 1993,
the new [Clinton] administration proposed, and congress passed, sweeping legislation
intended to… [nullify] the regulatory provision mandating EAB review that had also
become a de facto ban on IVF and human embryo research [funding]” (Kinner 2000,
G-3), no funding toward HEr was ultimately approved. As Scott explains, “pro-life
supporters” responded to this action by sending Clinton “thousands of letters”
imploring him not to allow the NIH to grant funding to HEr (Scott 2006: 154).
Because of this reaction, “Clinton quickly backtracked… [and] the NIH didn’t
proceed with funding because it feared congressional backlash” (Scott 2006: 154).

Then, “in 1995… Congress [passed a bill] prohibiting the use of any federal
funds for research that destroys or seriously endangers human embryos, or creates
them for research purposes” (PCB 2004: Chapter 3). As the PCB explains,

This provision, known as the “Dickey Amendment” (after its original author, former
Representative Jay Dickey of Arkansas)… effectively prohibits the use of federal
funds to support any research that destroys human embryos or puts them at serious
risk of destruction. (PCB 2004: Chapter 3)

This ban remained in place through 1998, to the beginning of the American discourse
over embryonic stem cell research. Because hESC research, by definition, involves
human embryonic stem cells, which must be derived from human embryos through a
process that kills the embryo, hESC research arguably falls under the jurisdiction of this law. Figuring out how to garner federal funding for hESC research in the face of Congress’s annual renewal of this law would become one of hESC scientists’ greatest challenges on the road to garnering government financial support.

Conclusion

Although the American discourse over embryonic stem cell research only emerged in November of 1998, much relevant public discussion preceded its emergence. Two contradictory interests—one driven by the belief that the absolute moral status of nascent human life must be preserved, and the other by the desire to advance particularly America’s biomedical base of knowledge—have long propelled the controversial nature of the American discourse over human embryo research. That this dichotomy had existed in the discourse of human embryo-destructive research for so long surely shaped the way American society perceived and responded to the news of Thomson et. al.’s development of the process through which to derive reproducible, pluripotent human stem cells from human embryos.

When certain events then brought the matter of the destructive scientific research on human embryos to the forefront of the political arena, the great significance of these two values in American society had already been politically confirmed. These events—namely various ‘breakthrough’ and embryo-destructive scientific innovations and the public discussion that followed them—merely gave reason for those holding these two contradictory values to begin battling over another particular issue in the national political arena. These events made it impossible for both interests to hold influence over and be supported by society at the same time.
Whereas before the emergence of the discourse over human embryo research, the values of the absolute sanctity of nascent life and the progression of society through scientific research did not seem contradictory, the development of IVF technology meant the values could now come into direct competition with each other. With scientists’ success in showing that human embryo research held great therapeutic potential, society could no longer uphold both of these values at the same time. To further understand the controversy behind the debates over the federal policy of HEr, the roots of these values as well as the dynamics of the political power behind these values over time must additionally be explored.
Chapter TWO
The formation of the frameworks in the hESC research debate

By the time that human embryonic stem cell research had entered the American public discourse, in late 1998, following the publication of Thomson et. al.’s article, the greater discourse over human embryo research had emerged and immediately been shaped by primarily two concepts—that of the absolute sanctity of nascent human life and that of scientific progress as ultimately beneficial for society. Having already drawn out the progression of Federal action on human embryo research and made explicit the role played by these two particularly values, I will now explain the social status and discursive credibility of those particularly valued concepts.

Only by understanding how pro-life Americans’ morally absolute and sacred valuation of nascent human life derives from their deeply held worldviews—centered around a traditional conception of the family—will the necessity of the great status of this value for the pro-life movement become evident. Similarly, only with the comprehension that Americans value the institution of science in large part because of its ability to portray itself as progressive/socially beneficial and trustworthy, will the basis of the institution of science’s credibility in society become clear. This credibility underlies the authority of the scientific expertise on which hESC scientists have been able to make claims in the public discourse.

On the American conception of nascent life as absolutely sacred
As Kristen Luker explains in *Abortion and the Politics of Motherhood* (1984), societies have long considered the status of nascent life as relating to the ethical and moral matters of abortion. She cites that the issue was first raised in writing by the Romans: “abortion was so frequent and widespread that it was remarked upon by many authors” (Luker 1984: 12). Luker then asserts that “abortion is ignored in the most central Judeo-Christian writings” (Luker 1984: 12), and that “from the third century A.D. onward, Christian thought was divided as to whether early abortion—the abortion of an ‘unformed’ embryo—was in fact murder” (Luker 1984: 12).

As Luker holds, the rather undefined nature of these views essentially remained the status quo of Western Society up through the 19th century. Americans, “therefore, did not inherit an unqualified opposition to abortion” (Luker 1984: 13), but rather built the first society in the history of the world to insist on such hard, uncompromising laws. As she notes, it was only “in the second half of the nineteenth century abortion began to emerge [anywhere] as a social problem” (Luker 1984: 20). Towards this end, Luker explains that “most prominently, physicians became involved [in the debates], arguing that abortion was both morally wrong and medicinally dangerous” (Luker 1984: 20).

They were effective in doing so; Luker concludes that as a result of these efforts, “between 1890…and the 1950s, both the public and the medical profession accepted these laws [banning abortion] as a legitimate part of American life” (Luker 1984: 41). Although discussion about abortion no doubt happened in private spaces during this period, “abortion was not a public or social issue [during this time]…because medical ownership of abortion…served to undercut potential opposition from
all other quarters” (Luker 1984: 41). Additionally, Luker notes that although “there was so little public opinion on abortion between 1890 and 1960… the lack of public discussion about abortion should not make us believe that abortion did not exist” (Luker 1984: 48); rather, because the medical field had acquired ownership of the abortion issue, debates on abortion stayed out of public spheres until abortion reformers mustered sufficient challenge of medical ownership over abortion during the 1960s. Before then, abortions largely occurred quietly, out of the view of the public eye (Luker 53).

But as obstetrics technology progressed, and “as abortions necessary to save lives became a medical rarity… [some doctors] began to look forward to a day when abortions would never need to be performed” (Luker 1984: 55). As Luker argues, “these technological advances permitted (and indeed forced) physicians to make more and more nuanced decisions about abortion” (Luker 1984: 193). Luker thus posits that the existence of the medical necessity of some abortions had been “[obscuring] the fact that two very different notions of the word life and two very different beliefs about the moral status of the embryo had concurrently existed” (Luker 1984: 56), and that they now had reason to become pertinent. But this change in technology only partially brought out people’s differences into the public sphere.

Luker explains that abortion also emerged as a social problem in the 1960s because of the “dramatic changes [to the] traditional [lives that women led]” (Luker 1984: 115). Primarily, Luker notes that “more women went to work… Moreover, women in this period increasingly began to combine motherhood and careers” (Luker 1984: 115). But she also observes that “the period after 1960 saw a dramatic decline
in the marriage rate,” that “the steady increase in divorce during [the ‘60s and ‘70s]
meant that there were increasing numbers of women who had to work to support
themselves and their children” and as well that “as family sizes began to decline,
women were increasingly faced with long periods of time after the period of active
childrearing had ended” (Luker 1984: 116). All of these factors contributed to the
probability that “an unplanned pregnancy [would] be seen as a tragedy” (Luker 1984:
118) by particularly women throughout society, and thus also to the ability of the pro-
choice movement to initially mobilize.

By 1967, notably through the efforts of Planned Parenthood and the American
Law Institute, “[abortion reforms had been placed] on the agenda of half the state
legislatures and had already been passed in California, North Carolina, and Colorado”
(Ferree et. al. 2002: 28). In 1969, the National Abortion Reform Action League
formed, and, in 1970, “feminist Grassroots groups” began to emerge and organize
mass demonstrations (Ferree et. al. 2002: 29). But abortion had still not yet been
politicalized. As Ferree et. al. explain, “the alignment of the abortion issue with the
[Democratic] political party position was not entirely clear at this point” (Ferree et. al.
2002: 29). Although many of these events provoked the budding pro-life movement
towards some relatively small amount of initial organization, the issue of abortion had
not been entirely un-tabooed throughout the American public arena just yet. This only
really happened following the Supreme Court’s decision on Roe v. Wade.

As Ferree et. al. explain, under these social and political context, “the
Supreme Court agreed to hear challenges to abortion laws in Texas (Roe v. Wade) and
Georgia (Doe v. Bolton) in 1972” (Ferree et. al. 2002: 30). As is commonly known,
the Court, through its eventual decision on both of these cases (but most notably on *Roe*), legalized abortion across the United States—a legal change of much importance both within and to those in American society, for a number of complex reasons.

The Court’s decision on *Roe* immediately and vividly brought out the ethical question of how to define the moral standing of nascent life into the American public sphere. In its highly visible and significant legal statement, the Supreme Court defined the moral standing of nascent life as relatively less than that of the mother (see *Roe v. Wade* 1972). Notably, this statement rubbed many people’s moral intuitions the wrong way and, because of that, “provoked… a massive response from people who had tolerated (or at least lived with) what were in effect very liberal abortion laws for years” (Luker 1984: 139).

As Luker explains, much of the reason *Roe* provoked such outrage from so many corners of society and had such a substantial affect in mobilizing the pro-life movement is that “those with pro-life sympathies” were “accustomed… to thinking that their [moral valuation of the embryo] was the majority opinion” (Luker 1984: 140). In the aftermath of *Roe v. Wade*, that their view so clearly wasn’t the only one or even the dominant one in American society struck them “like a bolt out of the blue” (Luker 1984: 126). Luker records one activist’s flabbergasted reflection about the seemingly unconcerned state of America right after the decision as follows: “I thought the American public would stand up and scream bloody murder, and they didn’t. Even the Catholic bishops in this country didn’t scream bloody murder—which is what abortion is” (Luker 1984: 126).
The Court, in mandating that abortion be explicitly available in American society, thus “alerted a whole new group of people to the fact that abortion reform was a powerful movement across the nation” (Luker 1984: 141). As Luker notes “the pro-life people we interviewed saw in the Supreme Court decision a way of thinking that seemed bizarre and unreal” (Luker 1984: 140). Thus, *Roe* explicitly yanked out the different conceptions of the moral status of nascent life into the public sphere of American society and forced them into a contradictory situation, where both conceptions could no longer exist in peaceful ignorance of each other. While the pro-choice movement had already mobilized and gained significant political power, *Roe* created the shock needed to mobilize the pro-life movement, and for the pro-life movement to begin amassing its own political power.

But the reason the pro-life movement found success following the Court’s decision on *Roe v. Wade* cannot simply be explained in that people wanted to stand up for the rights of human fetuses. As Luker and Faye Ginsburg argue, the pro-life movement’s mobilization following *Roe* had much to do with activists’ conceptions of motherhood and the family. As Luker observes, pro-life activists were “people who had direct experiences with pregnancy… they were people whose values made pregnancy central to their lives” (Luker 1984: 145). Similarly, Ginsburg, in *Contested Lives* (1989), also notes that “[pro-life activists’] commitment to the right-to-life cause is connected to experiences of pregnancy and motherhood” (Ginsburg 1989: 195). Essentially, Ginsburg explains that because pro-life activists see “motherhood as an achieved rather than a natural state” (Ginsburg 1989: 195), for them, society
accepting the moral devaluation of the embryo is analogous to it accepting the
devaluation of the importance of motherhood in society.

Thus, both writers explain that pro-life activists feel so strongly about the
abortion issue not only because of their knowledge of the absolute sanctity of nascent
life, but because they see the occurrence of abortion in America as symbolizing “a
general breakdown of sorts in moral values” (Ginsburg 1989: 127) throughout
America; pro-lifers view American society’s acceptance of abortion as “[a symptom]
of an increasingly selfish and materialistic society” (Ginsburg 1989: 128). Through
their activism, they look to privilege values such as motherly “nurturance” over “the
values of materialism and competitive individualism [which] they see as negative
social forces” (Ginsburg 1989: 194).

Pro-life activists (and presumably also non-activists who hold pro-life views)
privilege a lifestyle that is a product of a certain ‘traditional’ lifestyle and worldview.
Much of this has to do with the role of women in society, and how changing the
‘normal’ roles of women in society will necessarily lead to many other changes—in
the family structure, in the work world and otherwise—as well. As Ginsburg argues,
many people feel so strongly about the abortion issue because they are “invested in a
cultural and social system—by choice and by circumstance—that connects their
understanding of the desirable female life course not only to childbearing and a
husband but to a society that values the work involved in the nurturance of others”
(Ginsburg 1989: 128). Luker analogously states that

…by bringing the issue of the moral status of the embryo to the fore, the [post Roe]
round [of the abortion debate] focuses on the relative rights of women and embryos.
Consequently, the abortion debate has become a debate about women’s contrasting
obligations to themselves and others… this round of the abortion debate is so
passionate and hard-fought because it is a referendum on the place and meaning of motherhood. (Luker 1984: 193)

Hence, as Luker and Ginsburg argue, Roe specifically devalued the worth of the embryo and in doing so also devalued the mothers potential relationship with her aborted embryo; following Roe, those valuing the role of motherhood in their own lives as well in American society at large “were faced with a Supreme Court decision that seemed to devalue not only the status of the embryo but pregnancy itself” (Luker 1984: 145). And moreover, because of that, in their acceptance of abortion, Americans seemed to privilege the non-mother roles of women over both the life of their potential child as well as over their potential motherhood—an idea that many people with more traditional worldviews found to be not only shocking but also absurd and incomprehensible. For them, Roe represented “a frighteningly radical departure from traditional views” (Luker 1984: 141), and in doing so “called into question not only beliefs about the embryo but also beliefs about society in general” (Luker 1984: 141).

Because of this, the availability of abortion in American society became symbolic of widespread and seemingly ‘out of the blue’ social change. Roe v. Wade, more than any other event at that time, symbolized the deflation of traditional values and the respect increasingly given in society to new alternative lifestyles and the subversive beliefs held by those living non-traditional lives. For these reasons, “it is not surprising that the [abortion] contest arouses such passion… both groups lay claim not only to moral authority, but to a particular view of culture” (Ginsburg 1989: 219). As Ginsburg concludes, the “cultural contradiction between the domains of production and reproduction”—“the experiential dissonance between motherhood and
wage labor” (Ginsburg 1989: 219)—fundamentally drove the controversial nature of the abortion debate in early post-Roe America.

The pro-life movement’s connection between the moral status of nascent life and their conception of motherhood, along with the connection between their conception of motherhood and their value systems and worldview, explains why the pro-life movement holds the sanctity of nascent life in such high regard. In turn, this also explains why the pro-life conception of nascent life as absolutely sacred has been entirely central to the controversy surrounding the moral status of nascent life in America over the past four decades. As Luker notes,

Motherhood is an issue because two opposing visions of motherhood are at war. Championed by ‘feminists’ and ‘housewives,’ these two different views of motherhood represent in turn two very different kinds of social worlds... While on the surface [of the debate] it is the embryo’s fate that seems to be at stake, the abortion debate is actually about the meanings of women’s lives. (Luker 1984: 194)

Thus, by drawing women’s lives (and thus, also the lives of their families) into the abortion debates, the pro-life movement makes the status of nascent human life in American society symbolic of the status held by the (traditional) conception of the family in America.

If American society chooses to marginalize the status of the embryo, by the pro-life movement’s logic, Americans necessarily also decide to marginalize the traditional conception of motherhood and the family. For good reason, the pro-life movement has carried this line of logic over to the discourses over human embryo-destructive science in America as well. If they loose what ownership they have over setting the moral status of nascent human life outside of abortion policy, they fear that their ability to set policy over abortion will also begin to fail. Said otherwise, if the pro-life movement loses the debates over HEr, they fear that the embryo will become
an entity deserving of only relative moral status in the minds of Americans, instead of being treated as sacred and symbolic life as they understand. Thus, if American society decides to support the federal funding of embryo destructive research, that decision will symbolize a visible snub from American society to those believing in human nascent life’s absolute sanctity and, more importantly (to them), to the rest of their ‘traditional’ values and worldview.

**On the American belief in the benefit of scientific progress**

In their white paper “Monitoring Stem Cell Research,” President Bush’s Council on Bioethics opened their second chapter by citing that “the federal government makes significant public resources available to biomedical researchers each year—over $20 billion in fiscal year 2003 alone—in the form of research grants offered largely through the National Institutes of Health” (PCB 2004). By 2005, that number had reached over $22 billion (National Institutes of Health 2006). The President’s Council explains the allocation of this money by observing that “this level of public expenditure reflects the great esteem in which Americans hold the biomedical enterprise and the value we place on the development of treatments and cures for those who are suffering” (PCB 2004). As they allude here, the widely accepted rational behind America’s investment in biomedical research (in which human embryonic stem cell research categorically fits) is that such scientific research will make all American’s lives healthier more than any other endeavor that the NIH might plausibly spend its budget allotment on. True to this ‘common knowledge,’
using simple measures such as polls\textsuperscript{15} or by observing the popular support of hESC research at the voting booth, as with California’s support of Proposition 71,\textsuperscript{16} the American public certainly does seem to highly value scientific research.

The development of this value to its current heralded state may, at first glance, be quite simply explained through its foundation in the broadly perceived effects of the innovations of scientific research throughout American society. In many notable ways, scientific research has raised the quality and length of life not only in America but in many locations across the globe as well. The scientific innovations of antibiotics, immunizations and other more costly drugs and procedures have meant that many Americans have lived significantly better lives than they did before scientists developed these innovations. Callahan supports this in noting that “the NIH has made significant contributions to American and international health—but almost always, by steady, incremental gains, not sudden breakthroughs” (Callahan 2003: 23).

As Neil Postman similarly notes, the developments of ‘modern’ science have allowed Americans to think that “disease could… be conquered but only by aggressively ferreting it out diagnostically and just as aggressively treating it” (Postman 1992: 95-6). Because of the notably significant improvements in the health of Americans that have occurred as the result of certain scientific innovations, Americans have personally experienced the effects of science. They feel the effects of these innovations every day. Thus, this experience of directly benefiting from the

\textsuperscript{15} When asked "Do you support or oppose embryonic stem cell research?,” 61% supported hESC research in January of 2007, 59% supported the research in June of 2005 and 63% supported hESC research in April of 2005 (ABC News/Washington Post 2007).
\textsuperscript{16} In November of 2004, the state of California approved a ballot initiative granting hESC research $3 billion dollars in state bonds.
fruits of society’s endeavor into science has at least partially shaped what all people in American society know about scientific research.

At least in part because of the widely perceived benefits of science for society, Americans recognize scientific and technological research as a social good. Because they see the great benefit that has come of scientific research in the past, they place much faith in the ability of science to continue benefiting society in the future. But the institution of science’s credibility in the public discourse is far more complex than just that. I will follow to show that the institution of science’s great credibility public discourse relies significantly on both its positive relationship with the media as well as its ability to present itself as trustworthy to society.

As Steven Epstein theorizes, the credibility of any claimant in the public discourse rests on the status of a claimant’s authoritative power and on a claimant’s trustworthiness. As Epstein argues,

Credibility… rests on the duel support of power and trust. On one hand, credibility is both a stake and a weapon in the skirmishes between all those who are in competition to say what the world is like. On the other hand, credibility is the mechanism for forging durable relationships within which knowledge can reliably be exchanged. The construction of credibility is thus simultaneously an outcome of the competing forces brought to bear in struggles and a marker of the thickening of social ties. (Epstein 1996: 25)

Now, applying Epstein’s theory to the institution of science’s development of credibility, the institution has gained credibility as a claimant in the American public discourse because it has been able to build up the authoritative expertise over a socially beneficial realm of knowledge and because it has been able to build up trust within society about its use of that knowledge. It has been able to do this for two main reasons: one, because of its ability to portray itself as positively affecting society by
controlling the flow of information between the institution of science and the public; and two, because of the (supposedly critical) oversight of the institution of bioethics.

First, “in modern society… despite various characterizations of science as ‘public knowledge,’ it is made and evaluated in some of our most private places” (Shapin 1994: 409-10). This means that the public and policymakers depend on the media to keep them updated with the latest science news; most non-scientists cannot practically know about science directly, and so the public must turn to the media in order to gain this knowledge. As Gitlin notes, with the advent of the mass media, people can know about aspects of the world outside of their immediate experience through the media’s portrayal of those events (Gitlin 1980: 1).

While this claim may not always apply as much as Gitlin originally thought—William Gamson has argued in *Talking Politics* (1992) that the public often has access to experientially driven manners of interpreting the media’s portrayal of science in the news17—the public simply does not have access to the scientific laboratories or the technological knowledge needed to directly know about the newest scientific research. Supporting and adding to Gitlin’s argument, Nelkin argues that the necessity of the public turning to the media in order to know about science has significant implications. As Nelkin explains,

> Science writers, in effect, are brokers, framing social reality for their readers and shaping the public consciousness about science-related events… They are often our

17 In this work, Gamson adds much nuance to Gitlin’s logic by arguing that “[these scholars] beliefs about the influence of the mass media [on the public have been] greatly exaggerated” (Gamson 1992: xii). He shows that other factors aside from the media must also determine how ‘everyday people’ know about the world. Although Gamson surely allows that the “process of constructing meaning [through media framing is] clearly a critical ingredient” (Gamson 1992: 117) in the greater process of how people eventually come to know about a given issue, Gamson argues that other “cultural resource[s]” of knowledge (Gamson 1992: 117) ought to be considered part of that greater process of constructing meaning for individuals, as well.
Thus, the public’s and policymaker’s knowledge about science has been much influenced by the media’s portrayal of the news.

But moreover, the root and nature of this influence has occurred in a particular manner, because the institution of science has a dualistic control of over the flow of information from itself to the public. One way occurs through the role played by elite science journals as the gatekeepers of knowledge in the scientific community. As Vincent Kiernan notes, in *Embargoed Science* (2006), elite science journals’ “Ingelfinger Rule” prevents scientists from communicating with any other form of media if they wish to publish their work in an elite journal. As Kiernan explains, following Ingelfinger’s rule, most elite journals also refuse to publish papers unless they “had been ‘neither published nor submitted elsewhere’” (Kiernan 2006: 18). Because of this rule, elite journals essentially have monopolistic control over the ‘most important’ current scientific news. If the science journalists of the mass media want to be privy to what they and their audiences perceive as being the most important current scientific breakthroughs, they must receive news of these breakthroughs directly from journals and even then may only publish that news under certain conditions, with an elite journal editor’s permission.

Another way the institution of science controls the flow of scientific information is through scientists’ relationships with journalists. Because of the interests of scientists and their supporters, only certain, positively biased, information about science generally reaches the media. Journalists can only report what they know, and the vast majority of what they know about newly developing science,
scientists tell them. As Epstein explains, “certainly there is no avoiding reliance on experts who are crucial transmitters and translators of technical knowledge to the lay public” (Epstein 1996: 5-6). That scientists, because of their expertise over science, must be one of journalists main sources in reporting on science, journalists have necessarily been biased in reporting about science.

Moreover, Journalists portray science as socially beneficial because they have an interest in securing the trust of scientists; as scientists are authoritative sources on interesting information that has the potential ability to positively impact the lives the public, journalists are far more prone to actively search out scientists’ successes over its blunders. Because of the potentially beneficial implications of scientific ‘breakthroughs,’ and because of their desire to gain the trust of scientists as a newsworthy source, journalists as well tend to favor successful science over failed science in choosing what to put in the news. As Callahan has noted, “…when it comes to… its skepticism [of science], the media are often quiet. Supposed cures that did not pan out, money lost in failed research efforts, [etc.], do not sufficiently gain the attention of [science] writers or editors.” (Callahan 2003: 51)

This is not to say that the media never make note that others in society question the judgment of science. It is, however, to say that, because of their perceived untouchable expertise and the fact of the specialized location of the production of their knowledge, the media takes scientists’ expertise at face value. Because scientists hold ownership over their very specific line of expertise and type of knowledge, even experts from other fields (even from other areas of science) cannot realistically challenge scientists’ assertions about the viability of their
science.¹⁸ Not that the media never present cases against science, but, because of these factors, strong cases against science have very rarely been found on the front page of newspapers.

Second, in addition to the media, the institution of bioethics has also been a great factor in science’s ability to build a trusting relationship with society. Whereas the construction of medical expertise “required the popular abandonment of an earlier… belief that the healing arts were accessible to ‘common sense’” (Epstein 1996: 7), the construction of (bio)ethical authority necessitated the idea that the biomedical industry holds much power within society and needs at least some degree of outside regulation. In her book in Bioethics in America (2000), Tina Stevens shows that the modern, American institution of bioethics arose in the shadow of postwar fears in American culture about the uncontrolled development of biomedical technologies in society. In discussing the origin of the American institution of bioethics, Stevens specifically focuses on the early history of “the world’s first bioethics organization, the Hastings Center” (Stevens 2000: 48). She claims that the Hastings Center “deserves special consideration” (Stevens 2000: 48) not only because is it “the only ‘independent’ bioethics organization,” but also because “many of the current leaders in the bioethics movement are now or have been ‘fellows’ or associates with the institute” (Stevens 2000: 48).

Stevens argues that the Hastings Center found its initial success as a professional organization of biomedical ethics because it “[adopted] a ‘non-

¹⁸ This includes ethicists, religious experts and others holding concern about the implications of science and the production of scientific knowledge. While these other experts have often been able to question the ethical basis for science, they have rarely been able to claim that science could not feasibly help humanity in the way scientists have often claimed.
ideological’ posture and [shied] away from even the perception of being an activist organization” (Stevens 2000: 47). Rather than taking an advocate role and “directly challenging medical or scientific authority,” the Center preferred to take a “role as mediator, translating between contending lines of thought” (Stevens 2000: 47).

Because the Hastings Center was able to do this—playing itself up “as a trustworthy resource for all factions and ethical schools of thought” (Stevens 2000: 59), it was also able to successfully make a role for itself in American society through the construction of the ‘objective’ and ‘professional’ discipline of biomedical ethics.

Additionally, Stevens more generally points out that the success of the Hastings Center in the early 1970s (and the growth of the discipline of bioethics following that success) worked very nicely for the institutions of medicine and science. Stevens argues that much of the reason the institution of bioethics has developed into its current form is that, in the postwar era, Americans were nervous that the development of science and technocracy would result in a “grand cultural imperative” that “devours the surrounding culture” (Stevens 2000: 24). Some forum for the discussion of these worries and what to do about them was bound to crop up in the public discourse. As Stevens notes,

> Against a cultural and intellectual tradition of ambivalence embodied in the worries of the postwar atomic science movement, and of the contemporary hostility of intellectuals toward science and technology, bioethics emerged in bold relief. (Stevens 2000: 28)

However, where some critics writing in the 1960s, such as Herbert Marcuse, Jacques Ellul, Theodore Roszak and others, wrote critically of “the technological society” in “a call to arms,” “critics ambivalent about the social and cultural effects of technology merely called for caution” (Stevens 2000: 22). Whereas the more critical
writers questioned the technology itself, bioethicists took the development of
technologies for granted and focused their expertise around how to best integrate
technology into society. As Stevens argues, the more cautionary and integration-
prone line of commentators became the predecessors for the discipline of bioethics.

Moreover, rather than writing critically of the power dynamics created by the
development of science and technology in American society, bioethicists helped
foster “a shift in the discourse from the political to the ethical” (Stevens 2000: 74). By
“muting the dynamic of power relations” in the practice of medicine and science,
“bioethics helped reduce public opportunities for the expression of outrage and
limited possibilities for demanding more dramatic change” (Stevens 2000: 74).
Acknowledging the necessity of some sort of outside oversight and given the choice
between supporting the more critical or less critical of their critics, scientists of course
chose to support the less critical. As Stevens argues, ultimately, through a system of
“financial rewards and punishments, funding institutions insured the development of
a public discourse of ethics which deemphasized the political” (Stevens 2000: 74).
By showing their willingness to work with science for gradual, not radical
change, the Hastings Center and other successful bioethical organizations in turn
garnered the support of foundations and the NIH (Stevens 2000: 70), which enabled
them to gain fairly constant funding over the years. By refraining “from making
revelations directly to the public” (Stevens 57-8) and working on specific legal battles
which had a “potential force for social change” (Stevens 2000: 57) but instead
choosing “to council professionals” (Stevens 2000: 58), the Hastings Center formed a
reputation as being an unbiased and “non-ideological group” (Stevens 2000: 59). That
the Center acted in these ways enabled it to gain the trust and support of science, and also allowed it maintain a non-political but still ethically critical image (thereby gaining the trust of the public and policymakers). Because the Center and the other bioethical institutions following in its footsteps were able to gain that initial trust from both the public as well as the institution of science, they allowed the institution of bioethics to claim a great deal of credibility in the public discourse. This trust and credibility held by the institution of bioethics has carried over from the early 1970s to the current time, and has importantly given the public the impression that science is under control.

Thus, through these two mechanisms of the media and bioethics, the institution of science has been able to build up a trusting relationship with society and society’s policymakers. Because of scientists’ ability to control what journalists know as well as journalists’ want to report on newsworthy events, the mass media’s reporting on science has allowed for the increase in the prestige of science over time in American society. As well, because bioethics has been able to foster an ethically critical reputation while also accepting the technology developed by science, the public has come to place much trust in science.

Moreover, much because of these mechanisms, the institution of science in American society has largely been able to align its goals with the goals of society. As Latour in explains in *The Pasteurization of France*, “when scientists… are successful in creating a vast, inside world, it [necessarily] means that others have more or less the same goals” (Latour 1988: 157-58). Callahan similarly contends,

…the research imperative has a symbolic function of higher order, cutting through pluralistic discord, drawing together disparate supporters, eliciting transcendent ambitions, and remaining remarkably resistant to serious criticism or second-
guessing…. [the research imperative] can be called a cultural force because, without the facilitating power and permeation of background American values, it would have far less momentum. No other country is so enamored with medical research as [America], gives it so much public and media attention, or accords it such an extraordinarily high place in promoting an optimistic view of the human future. (Callahan 2003: 55)

Hence, along Latour’s theory, as Callahan argues, the institution of biomedical science has indeed been successful at expanding its credibility and authority within society. It has convinced the rest of society that science’s and society’s goals ultimately align in the same direction, such that American society, through the NIH, funds biomedical science at the level of billions of dollars a year. This optimistic take on the pursuit of science as the ultimate progress for society has greatly affected the American public’s perception of hESC research.

**Conclusion**

Thus, that the pro-life movement feels strongly about the sanctity of nascent human life, for reasons related to their perception of the significance of the traditional conception of the family, has meant that nascent human life has held high status in American society over the past few decades. Likewise, because the institution of science has been able to frame itself as progressive and trustworthy in American society, it has gained much respect as a moral endeavor. Because hESC research brought these two high status moral values into contradiction with each other, upon Thomson et. al.’s introduction of hESC research into the public arena as a moral endeavor which ought to be supported by the government, controversy commenced.

Whereas before Thomson et. al.’s publication, supporters of embryo-destructive scientific research did not have the ability to make a claim that would sufficiently challenge the partial ownership of pro-life, anti-research advocates over
the federal HEr policy. After November of 1998, however, because scientists now had access to the requisite technology needed to move to the next step of understanding and manipulating human stem cells, pro-funding claimants began making far stronger claims regarding the therapeutic potential of their research than they had before. Significantly, these claims enabled pro-funding claimants access to an unprecedented level of moral authority—not only did science hold therapeutic promise, but many in society desperately *needed* science to produce those therapies as a life and death matter.

Because the media, the public and many policymakers believed this claim of therapeutic promise, pro-funding claimants now had sufficient political power with which to challenge the long stale status quo over federal funding for human embryo-destructive scientific research. Now, pro-funding claimants began to more openly attack those believing in the absolute sanctity of nascent life. The more detailed story of this political battle will continue in chapters three and four.
Chapter THREE  
Human ESC research in America: 
From controversy to ‘compromise’

As chapters one and two have shown, for at least two and a half decades leading up to beginning of the hESC research discourse, both pro-life values and pro-scientific research values had existed in American society. Not only that, but these values both held great status in the eyes of their beholders. Taking this into consideration, chapters three and four will demonstrate the specific processes through which the primary actors in this discourse—the pro-life movement and claimants advocating for the provision of federal funding for hESC research (henceforth referred to as pro-funding claimants)—have attempted to maintain and/or improve their status in American society.

Broadly speaking, these claimants have attempted to build up that status by making knowledge claims in the public discourse and leveraging their power in the political arena—all with an end goal of spreading their own moral knowledge as the dominant conception of truth regarding hESC research accepted in American society. However, here the two groups begin to differ, as pro-funding and pro-life claimants have used very different strategies in making their claims. Primarily, pro-funding claimants have been far more strategically innovative than have pro-life claimants. While, throughout the public controversy, pro-funding claimants have worked to base their claims not only off of their scientific expertise, as well as off the experiential knowledge of the broad public, the pro-life movement has stuck to its guns’ in its
claims-making by repeatedly advocating for an absolute conception of moral life as sacred.

Whereas the pro-life movement retained its moral stance and appeared rigidly ideological to the public because of it, pro-funding claimants used emotional appeals, drawing on the pain and hope of the diseased and their kin, to increasingly portray hESC research to the public as a *pro-family* endeavor. As such, in chapters three and four, I show that pro-funding claimants could only succeed in garnering political support for hESC research once they had portrayed hESC research as more family orientated than not.

**Situating the issue of hESC research in the discourse**

In drawing out the history of the HEr discourse, I have shown that a few significant events over the past four decades have been particularly momentous in the construction of scientists’ credibility as well as in the buildup of their political power. Political pressure applied by pro-science advocates to grant federal funding for human embryo-destructive research was made possible by the news, in 1969, that Steptoe and Edwards had fertilized an embryo outside a woman’s womb; such political pressure was then made more credible by the successful birth of Louise Brown, the world’s first test tube baby, in 1978. The changeover to the liberal, pro-science Clinton Administration provided even another political boost.

But this aside, because the pro-life movement had coalesced in reaction to *Roe* through outrage over the legalization of abortion which, in their view, explicitly devalued human nascent life, the political efforts of early advocates of HEr ultimately came to naught. This strong reaction enabled the pro-life movement to develop a
great amount of moral authority in both the political and public arenas. Because of the raw political power of the pro-life coalition in American politics, effectively beginning in 1973 and lasting through today, advocates of scientific research simply do not have the necessary political leverage to sufficiently vouch for their interests at the national level.

Because of the pro-life movement’s ability to prevent the government from granting scientists’ funding, American society not only became split over the issue of federal funding for human embryo-destructive scientific research, but also became too paralyzed to take any action over HEr policy at all. The deadlock over HEr funding in American politics carried on during the 1980s and then even through the pro-HEr Clinton Administration, as well. During that time, American policymakers remained resilient in their inaction and refused to pass policy that would grant human embryo researchers significant federal funding, so long as that funding would symbolize society’s devaluation of the kind of ‘pro-life morality' that had become so esteemed in the American public and political arenas.

However, because Thomson et. al.’s development enabled the possibility of research on pluripotent and reproducible human stem cells, Thomson and other scientists were able to challenge the ban on government funding for human embryo-destructive research more effectively than they had been able to since the announcement of the birth of Louise Brown in 1978. Based on their ability to manipulate ‘adult’ human stem cells19 and also the stem cells of other mammals

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19 The NIH defines adult stem cell as “An undifferentiated cell found in a differentiated tissue that can renew itself and differentiate (with certain limitations) to give rise to all the specialized cell types of the tissue from which it originated” (NIH 2007b). Embryos are not destroyed in the process of deriving adult stem cells.
(primarily, those of mice), scientists now claimed that these “human embryo cells… could open the door to new drug therapies and repairing diseased organs in the body” (USA 11/6/98).

As the New York Times explained, in previous research done on mice, “heart muscle cells have been grown from mouse embryonic stem cells and successfully integrated with the heart tissue of a living mouse” (NYT 11/6/98). Additionally, the Washington Post noted that “already, researchers have used the stem cells to grow human heart muscle cells that beat in unison in a laboratory dish, as well as blood cells, blood vessel cells, bone, cartilage, neurons and skeletal muscle” (WP 11/6/98). Although scientists recognized that replicating such technical procedures with human stem cells in a clinically reliable fashion would be fraught with “many technical problems… [and that] the art of directing embryonic stem cells down specific pathways is in its infancy” (NYT 11/6/98), researchers still held much optimism with regard to their abilities to figure out the intricacies of human stem cells in a manner that would greatly benefit many in society.

And because scientists’ expertise over scientific knowledge held credibility in the public discourse for reasons discussed in chapter two, the public and policy makers accepted these claims of promise. Using their previously built up authority, Scientists were able to connect Thomson’s development with “a lot of potential therapeutic applications” (USA 11/6/98) and, in doing so, used this claim to leverage previously unavailable moral authority in their efforts advocating for federal financial support. As USA Today quoted James Thomson,

If we can grow up large populations of different types of cells, we can, for example, transplant islet cells that make insulin for juvenile diabetes, dopamine cells for Parkinson’s disease and white blood cells for leukemia. (USA 11/6/98)
As a result of (what scientists claimed was) this newfound potential to cure disease, scientists essentially argued that hESC research should be seen by society as an inherently moral endeavor. While destroying human embryos through IVF research that only claimed promise of curing infertility was one thing (as American society did not have a population problem, and infertile couples could always adopt), scientists marketed their human embryo-destructive research for the sake curing disease as an entirely different undertaking altogether.

Journalists, policymakers and the public all recognized this, and because of that, hESC scientists held far more moral authority than IVF researchers ever had. Whereas IVF research marginalized the moral status of nascent life in order to allow infertile couples to bear children, hESC research looked to cure the already living; both the public and policymakers found this new endeavor of hESC research, given the nature of its promise, to be far more morally imperative in terms of its necessity for society than they had considered human embryo-destructive to be prior to Thomson’s development. Because of this, following Thomson’s development, scientists and other claimants in favor of the provision of federal funding for hESC research now had far greater ability to challenge the stronghold of the pro-life movement over federal policy on human embryo-destructive research.

The media discourse over hESC research breaks forth

In November of 1998, then, when James A. Thomson’s team of privately funded researchers discovered a way to derive renewable and pluripotent human stem cells, both the American public and political arenas had been primed for controversy to erupt over human embryo-destructive research given the right kind of provocation.
Thomson’s team gave pro-funding claimants exactly the moral leverage necessary to provoke both the public and policymakers into questioning the absoluteness of its moral understanding of nascent human life.

Much of the reason scientists were able to gain such great moral authority from Thomson’s announcement is that Thomson used the institution of science’s status and authority over scientific information in letting the public know about his research. Additionally, Thomson and his work were also held with great esteem in both the institution of science and academia—he was not just any academic scientist. His research had been endorsed by the elite journal Science, and other respected stem cell scientists.20 His position at the University of Madison-Wisconsin, a top academic institution for scientific research, surely only added to Thomson’s credibility.

More theoretically, as Epstein has noted, “credibility is the mechanism for forging durable relationships within which knowledge can reliably be exchanged” (Epstein 25). Because of Thomson’s high-status in society, due to his respected position in two prominent American institutions, the press had no problem accepting Thomson’s significant claims as credible. In fact, his immediate institutional credibility had two major effects: one, the media treated Thomson’s development as a scientific ‘breakthrough,’ and two, the media gave Thomson and other scientists unchallengeable authority over the scientific aspects of their claims in the media discourse.

20 As the Chicago Sun Times wrote on Nov. 6, 1998: The potential of these unique, versatile cells for human biologic studies and medicine is enormous," said the leader of the other research effort, John Gearhart, a geneticist and professor at Johns Hopkins University School of Medicine… Although competing with Thomson's team, Gearhart called its work "a major technical achievement with great importance for human biology. (CST 11/6/98)
First, without Thomson et. al.’s scientific ‘breakthrough’ to report, the news story surrounding people’s views of hESC research would not exist. Because journalists identified Thomson et. al.’s announcement as the one identifiable event which sparked the discourse into being, many journalists writing on hESC research opened their articles with excerpts such as these:

Human embryo cells have been isolated and grown in the test tube for the first time, a development that could open the door to new drug therapies and repairing diseased organs in the body, researchers report today.// The breakthrough, described in Science, also might lead to growing new organs in the more distant future. Within five to 10 years, the discovery could lead to cell transplants to treat disease. (USA 11/6/98)

The new work was reported yesterday by two teams of scientists working independently... Both teams, along with a group at the University of California at San Francisco, had been racing for years to isolate the cells, viewed as a likely biotechnology gold mine. (WP 11/6/98)

Researchers announced earlier this month that they had used material derived from human embryos to grow immortal, generic human cells in the lab, paving the way for radical new treatments for conditions ranging from diabetes to Parkinson's disease. (CST 11/15/98)

In introducing the subject of human embryonic stem cell research into the public discourse, journalists significantly portrayed Thomson’s development as a great scientific ‘breakthrough.’ Journalists explained that scientists had been working towards this development for a long time—that they “had been racing for years to isolate the cells” (WP 11/6/98). Similarly, journalists also noted that this development would now allow scientists to pursue many new lines of research that held great therapeutic potential—that the development “could open the door to new drug therapies and repairing diseased organs in the body” (USA 11/6/98).

By announcing Thomson et. al.’s development as a “breakthrough” or “amazing advance,” the media, from the very beginning, framed human embryonic stem cell research in a positive light, as elusive knowledge that scientists have long
strived to accomplish but have only now succeeded in grasping. By deciding that Thomson et. al.’s development was worth writing about—that it was newsworthy—journalists inherently accepted the credibility of Thomson’s claims about the importance of his research for the rest of American society.

Then, because journalists had framed Thomson’s technological development as important and lent credibility to his and other scientists’ claim regarding the therapeutic potential of hESC research, the media soon switched from using more tentative language, such as in these excerpts:

Eventually, researchers hope to use the cells to grow tissue for human transplants and introduce genes into the body to remedy inherited disease. (NYT 11/6/98)

Although a great deal of basic research needs to be done before these cells can lead to human therapies… in the long run they will revolutionize many aspects of transplantation medicine. (CST 11/6/98)

To making statements more like the ones in this second group of quotes:

Researchers announced earlier this month that they had used material derived from human embryos to grow immortal, generic human cells in the lab, paving the way for radical new treatments for conditions ranging from diabetes to Parkinson's disease” (CST 11/15/98),

Scientists last week promised… that [human embryonic stem cells] would soon be able to mimic parts of nature's program in the laboratory, making heart, blood and nerve cells to replace or fortify diseased tissues. (NYT 12/8/98)

As Bruno Latour argues in Science in Action, such processes of the visible production of fact often occur in the discourses surrounding science. Latour, in demonstrating the process behind the “fabrication of scientific fact” using the example of Crick and Watson’s hypothesis about the shape of DNA (Latour 1987: 21), shows that scientific ‘facts’ often initially emerge in scientific discourse as hypotheses or controversies, and then through a gradual process they become known as fact. Similarly, by directly quoting scientists’ claims in their articles and then, later
on, paraphrasing the scientists’ claims about the therapeutic potential of hESC research themselves, journalists provided scientists with a venue through which they could engage in the production not of scientific knowledge, but of how to understand morality of scientific research. Through repetition in the media, the therapeutic promise of science essentially became known as a fact.

Second, in addition to relying on their institutional associations for credibility in the discourse, another media strategy scientists used in making claims about the therapeutic promise of their research is to play up the highly technical aspect of their work. The *New York Times* published one particularly long and confusing example of the technical details of hESC science, as follows:

> After an egg is fertilized, it divides several times and forms a blastocyst, a hollow sphere with a blob of 15 to 20 cells, known as the inner cell mass, piled up against one wall. It is from these cells that the embryo develops… As an embryo grows and develops, its cells become irreversibly committed to their fates as specialized components of the body's organs. A pocket of cells, known as embryonic germ cells, is protected from the commitment process so as to create the next generation of eggs and sperm…. If researchers are able to use the cells to grow new tissues, the work could alleviate the shortage of livers and other organs for transplant. Cultures of the cells in the laboratory could be nudged down different developmental pathways to become heart or bone marrow or pancreatic cells. (NYT 11/6/98)

By using scientific terms such as “blastocyst,” “the commitment process” and “cultures” in this passage, the Times forcibly implies that only scientists have the technical training with which to understand both stem cell science as well as the science’s potential. Such highly technical excerpts, full of scientific vocabulary, continued to be commonplace in the media discourse. In addition to this, the media also often featured images supporting journalists’ use of this technical language. Many articles on hESC research contained highly technical diagrams, such as *figure D*, as well as pictures of science doing technical activities, such as *figure C*. 
Growing Body Parts to Order

Working with human embryos very early in the developmental process, researchers have isolated and cultivated cells they believe could be used to grow many kinds of human tissue.

**CULTIVATION**
The cells come from blastocysts, balls of cells that form shortly after a human egg is fertilized, and from the germ cells of a more advanced embryo.

**PREPARATION**
Biologists are developing techniques to nurse the cells in culture and direct them into particular tissue types, depending on what is needed for transplant.

**IMPLEMENTATION**
The cells would not have to grow into whole organs but could be injected into the patient, where they would then respond to local signals and integrate into the patient's tissue.

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Figure C (above): This larger than life scientist, working diligently in his laboratory while others watch, clearly knows what he is doing (NYT 11/12/98, Photograph by Rick Friedman/New York Times). Few others throughout society do.

Figure D (left): The media has often shown technical diagrams of the process of deriving embryonic stem cells from embryos. The New York Times featured this diagram on their front page, on November 6, 1998—the date of Thomson's publication (NYT 11/6/98, Jim McManus/New York Times).
These verbal and visual demonstrations of the technical (and thus incomprehensible, for the public) nature of scientists’ expertise allows the institution of science to show non-scientists that scientific knowledge can only be known by scientists. Privileging the technical aspects of their research ensures scientists that their credential as knowers of science will not be easily challenged. As Epstein points out, “cultures of experts significantly encroach upon and transform those of the laypeople who engage with them” (Epstein 1996: 4). Furthermore, he explains that, to great extent, “certainly there is no avoiding reliance on experts who are crucial transmitters and translators of technical knowledge to the lay public” (Epstein 1996: 5-6).

That this perception of expertise is based on scientists’ claims, in a rather circular manner (where expertise leads to credible claims, leads to accepted expertise) does not particularly affect the public’s willingness to believe science. So long as the production of scientific knowledge continues to be widely perceived as beneficial for society, this power dynamic will exist. Indeed, if the lay public can not even differentiate a blastocyst from an embryonic germ cell, how will they ever be able to directly know about the real potential that scientific research on such entities held? They cannot, and instead, non-scientists must simply and unquestioningly take scientists’ claims as fact.

Because journalists kept repeating that scientists had claimed that hESC research held much therapeutic potential, and because non-scientists could not effectively directly rebuke that claim (as they did not have the technical authority in with which to ground a counter-claim), hESC research quickly became widely known throughout the American public discourse over hESC research to be therapeutically
promising. Scientists’ early claims of the promise of hESC research held so much credibility in the media discourse that, less than a month after the beginning of the discourse, they had become practically factual.

Once their postulation of hESC research as promising had become accepted throughout the public discourse, scientists then used this fact to call upon others interested in cures for particular diseases for help. They used these patient advocates—who usually had personal experience to disease—to construct moral authority for advocates of hESC research. Human ESC scientists had already framed their research as promising; with the help of individuals in need of that hESC scientists coming through with that promise, scientists could frame their research as promising and morally imperative.

As the Washington Post reported in May of 1999:

"Patients and their families faced with life-threatening and chronically disabling diseases want science to move as quickly as possible," said Daniel Perry, executive director of the Alliance for Aging Research and chief of a new coalition of patient groups advocating research on human embryonic stem cells... (WP 5/23/99)

Because this strategy often resulted in interesting human interest stories full of hope built on scientists’ promise, the media gave such patient advocates plenty of direct standing. Scientists and their patient-advocate allies worked together in using this strategy. Because scientists had already successfully claimed the promise of their research as fact, patient advocates now stepped in and, taking that fact as truth, demonstrated society’s need that scientists be able to conduct the best hESC research possible. Where scientists could not, patient advocate groups made successful claims regarding the moral imperative that the government support hESC research. Their
presence in the media gave the pro-funding movement far greater moral authority than it had before.

Furthermore, early 1999 marked just the beginning of patient advocates vouching for hESC research in the media. At this point, their strategy remained relatively simple. Over time, however, patient advocates would garner more prominent standing in the public discourse through the use of campaigns, through emotionally charged appeals drawing on individuals’ experience with disease and injury, and through visually jarring examples of the effect of disease on life.

But for now, pro-funding claimants used less complex strategies that still enabled them to question the political status quo in place over HEr policy since Roe v. Wade. The production of this promise as knowledge enabled this group of claimants to begin challenging the previously accepted role of the federal government in either funding or regulating human embryo-destructive scientific research. Their challenges worked particularly well when they could show that society needed their research in a moral sense, drawing on the hope of the very people needing the promised cures of hESC research the most.

Prior to the widespread acceptance of this fact, advocates of pro-life federal policy had held strong ownership over federal policy regarding human embryo-destructive science. Since the DHEW’s failure to act on the Ethics Advisory Board’s May of 1979 recommendation that research involving embryos and IVF techniques was ‘ethically defensible’” (PCB 2004), little political action had effectively challenged the pro-life movement’s hold on the federal policy over human embryo-destructive research.
The politicization of hESC research

Cognizant of the ban put in place by the Dickey Amendment and its implications on their ability to secure federal support for their (now far more promising than before) research, many scientists and supporters of science came out strongly in favor of federal funding for hESC research in the political discourse soon after Thomson published his research. As the Washington Post noted, “advocates are calling for a reexamination of that ban, saying the development of lifesaving applications will be hindered if federal dollars remain off-limits” (WP 11/6/98).

Indeed, within weeks of Thomson’s announcement advocates for hESC research had provoked President Clinton to instruct his own executive appointed National Bioethics Advisory Commission (NBAC) to “review of embryonic stem-cell research in general, including the all-human embryonic stem cells whose isolation was reported earlier this month” (NYT 11/15/98). By December 2, advocates for hESC research had secured a hearing with

… the Senate Appropriations Subcommittee on Labor, Health and Human Services, and Education, a panel that approves Federal financing for biomedical research… to explore the implications of the recent innovation in light of the current ban on using Federal money for research on embryos. (NYT 12/3/98)

Ultimately, the hearing had little direct affect on federal hESC research policy, but regardless, pro-funding advocates found some success in that they had shoved human embryo-destructive research into the political discourse in a prominent manner for the first time in nearly four years. However, heightened moral credibility aside, because of hESC research’s association with abortion, advocates for pro-life federal policy still held significant ownership over the matter of its federal policy.

The pro-life movement’s political power
Ever since 1973, when American abortion first appeared in the national political arena because of *Roe v. Wade*, pro-life interests had largely held control over national policy around human embryo-destructive research. Over the years, as scientists announce ‘breakthrough’ developments, and as presidential administrations changed, advocates of federal funding for human embryo-destructive research (in its various incarnations—where research on IVF came before hESC research) periodically brought legal and political challenge to the political ownership of human embryo-destructive research held by the pro-life movement.

But, try as they might, between 1973 and 1998 those advocates had not been able to crack the NIH’s inaction, presidential moratoriums or outright congressional bans on the federal funding for HEr. Even as scientists managed to make increasingly credible claims about the promise of their research, the pro-life movement still held on to their ownership over HEr. Thus, because hESC research necessitates that human embryos be destroyed, pro-life claimants saw that in order to maintain ownership over the federal government’s pro-life related policies, they would have to become active in the political debates surrounding hESC research as well.

As the Chicago Sun-Times reported on November 15,

> The news [of Thomson’s recent development]... alarmed anti-abortion activists and others who have moral objections to research involving human embryos...// [As well], Anti-abortion activists are joined by many mainstream religions, which make no distinction between abortion and embryo research. (CST 11/15/98)

Additionally, the *Washington Post* commented on November 6 that

> ...advocates [of hESC research] are calling for a reexamination of [the funding] ban, saying the development of lifesaving applications will be hindered if federal dollars remain off-limits.// Such a reexamination would pit antiabortion forces and other strong proponents of the funding ban against a powerful biomedical research lobby that has in recent years become popular with Congress and the public. (WP 11/6/98)
Thus, as the *Post* astutely recognized, the pro-life movement, which had held ownership over this policy for the past twenty-five years, would not give their political power up easily. Moreover, they did not have to. While scientists made claims about the promise of their research based upon their institutional support and expertise of specialized, technical knowledge, the respected members of the pro-life movement also held widely respected specialized institutional knowledge and institutional relations; pro-life theologians, religious spokespeople, ethicists and politicians also had their own disciplines and specialized methods with which to produce widely credible knowledge.

These examples—representative of the spectrum of pro-life experts gaining standing in the media discourse—demonstrate the diversity of actors gaining standing in representation of the pro-life movement.

[Dr. Kevin T. Fitzgerald, a geneticist and Jesuit priest at Loyola University Medical School]… said that if the human embryonic stem cells were able to make each of the body's cell types, "then you are disrupting the viability of life and we are back to the question of how to justify destroying life for the purposes of scientific advancement." (NYT 11/6/98)

Richard M. Doerflinger of the National Conference of Catholic Bishops said that "scientific progress must not come at the expense of human dignity"…// Mr. Doerflinger, representing the position of the Roman Catholic bishops, objected to any method that involved the creation or destruction of an embryo for research purposes. (NYT 12/3/98)

…antiabortion activist John Cavanaugh-O'Keefe of the Laytonsville, Md.-based Eugenics Watch, vowed to fight the move. (WP 5/23/99)

Rep. Jay Dickey (R-Ark.), a co-author of the rider that has banned embryo research since 1995, said through a spokesman that he strongly opposes the commission's views."Any NIH action to initiate funding of such research would violate both the letter and spirit of the federal law banning federal support for research in which human embryos are harmed or destroyed," Dickey wrote in a recent letter to [the] Health and Human Services Secretary. (WP 5/23/99)
Here, each anti-funding claimant drew on their own kind of expertise in making the same fundamental claim. Though they came from a variety of backgrounds, they all “object[ed] to human embryo research on the grounds that all life is sacred” (NYT 11/10/98).

All of these anti-funding claimants gathered their authority in American society primarily from the historic status of their institutions. While Thomson, at least in part, had to build up the level of the credibility of his research in order to bring the issue of federal funding for hESC research back into the public and political discourses, these anti-funding advocates, in reacting to the recent claims of hESC scientists, drew on credibility that had been initially constructed even decades before in American history.

Moreover, although very few of these experts knew directly of any sort of stem cell research, all had some sort of experience with a matter related to the morality of hESC research. Three of the four (excepting Fitzgerald) had been involved in the abortion debates at some level, Dickey had been a central figure in the Congressional debate over human embryo-destructive research, and although Fitzgerald was not specifically a stem cell scientist, he certainly held much knowledge about how stem cell science works.

Thus, pro-life claimants had their own credible experience and expertise in dealing with the moral issues of human embryo-destructive research, which gave their claims not only at least a degree of ‘correctness’ but also status and importance in the public discourse. Pro-life claimants’ experience came from their role in past discourses involving the moral status of nascent human life—primarily those of IVF
and abortion. Their expertise came from their positions in institutions with widely acknowledged moral authority and political power. Using this credibility, pro-life claimants looked to gain standing in the media discourse on hESC research in order to maintain the status of the moral conception of nascent life as sacred in American society. So long as those controlling the federal government (excepting the Judicial Branch) respected the pro-life movement’s moral belief in the absolute sanctity of nascent human life, hESC research would not threaten the pro-life movement.

However, if the government began supporting hESC research, the government would also implicitly support a relative conception of the moral status of nascent human life. This might mean that the federal government would be more inclined to support pro-choice policies in the future—thus signaling the diminishment of the pro-life movement’s already partial ownership over abortion politics. Moreover, any government action marking a devaluation of the moral status of nascent life would spark the pro-life movement’s outrage in an effort not just to secure their ownership over abortion politics but also to ensure American society’s respect over their worldview and way of life.

As the Washington Post explains,

Doerflinger and his allies in the church and in Congress see embryonic stem cell research as the freshest trench in the reproduction wars, which the church always seems to lose, but never entirely. It has always opposed contraception and extramarital sex and abortion and in vitro fertilization, despite the prevalence of those things. However you feel about the church’s positions, they are consistent -- without abortion, there could be no fetal tissue research. Without IVF, there would be no leftover frozen embryos, hence no stem cell research. "What I think the embryo research debate has done is vindicate a lot of the problems we raised with IVF generally 20 years ago -- that it was going to make human beings by lab procedures divorced from the loving physical union of husband and wife," Doerflinger says. (WP 10/15/00)
As this excerpt shows, pro-life claimants knew that in order to maintain their ownership over “contraception and extramarital sex and abortion and in vitro fertilization”—all matters intrinsically connected with their traditional conception of the family—then they would need to maintain their absolute stance regarding the moral status of the embryo. Most fundamentally, the pro-life movement wanted to maintain their high status within society at large, and it knew that maintaining the government’s respect of their ‘pro-life morality’ would be imperative in that effort.

The incongruent expertise of the dichotomized discourse

While claimants arguing for the federal funding of hESC research derived their expertise, credibility and, ultimately, their authority in the media and political arenas largely from their association with and position within the institution of science, pro-life advocates made claims based on their own institutional positioning. Because neither ‘side’ of claimants had any common ground with the other, they had no way of effectively communicating—or compromising—with each other, nor could they directly refute each other in any significant way. Their bases of knowledge were simply too incongruous and contradictory to allow for any sort of mutual understanding of the ‘other’s side,’ as well, needless to say, as for a political compromise between the two advocacy groups.

As Richard Doerflinger asserted, speaking on behalf of the National Conference of Catholic Bishops, "any of these so-called compromises are going to greatly displease people with moral principles and also displease the scientists who want to hold to their scientific principles" (WP 6/13/01). Similarly, the *NY Times* reported that:
Any compromise, of course, will alienate some voters…. As the debate continues, thousands of Americans with incurable illnesses are hanging in the balance. "Patients and the organizations that represent their interests are in a state of high anxiety… We are waiting on tenterhooks." (NYT 7/1/01)

Thus, with neither side wanting to budge from their position likely both because of their stated reasons as well as because of the want not to lose face in the discussions going on inside the political arena, some sort of compromise seemed impossible.

Moreover, in an effort to make this explosive discourse over hESC research as newsworthy as possible, the media only played this incongruence up. Through articles such as the following, the media skimped on more in-depth analysis, instead choosing to play up fundamental disagreement between the two sides for effect. As USA Today reported:

Federally funded scientists should be allowed to use donated human embryos as a source of cells for biomedical research, a presidential advisory commission concluded Tuesday…// [The recommendations] immediately drew fire from some members of Congress, who say they will fight the [NBAC]…// "This is going to create one of the deepest divisions on Capitol Hill," [Rep. Jay Dickey, R-Ark] says. (USA 7/14/99)

Rarely did the media speak with those holding moderate positions or analyze the fundamental motivations of either side of the debate. Rather, on one hand, the media drew on the promise of hESC research (as fact), implying that any sensible ill person holds great interest in the federal funding of hESC research: “recent breakthroughs have turned early-stage human embryos into a source of material for potential cell-replacement therapies for diseases such as Parkinson's and Alzheimer's” (USA 7/14/99). On the other hand, the media attempted to paint those claimants against funding as mere absolutists who believed that “embryos at any stage are human beings” and who would not stand for “‘dissecting’ [human embryos] for stem cells [because it] is immoral” (USA 7/14/99).
Indeed, much of the time, journalists only gave pro-life interests second hand standing through quotes such as “antiabortion activists and some lawmakers have warned that they will oppose any changes to the ban” (WP 7/15/99). While this may have been true, it did not come close to striking at the root of the pro-life movements’ interests in maintaining the legitimacy of their lifestyle and worldview, it simply state their position as (rather dogmatic) fact.

Alternatively, neither did the media, at this point in the discourse, explain that scientists looked to profit in gaining government support of their research. Rather, the media simply focused on explaining that without federal funding, hESC researchers would not be able to conduct the best science possible. This first appeared about two months following the printing of Thomson’s article. As the Washington Post published in January of 1999:

Without research breakthroughs, we will be left with the equivalent of very expensive hand-holding for sick older people. ...// Millions, if not billions, of dollars will be required to realize the full therapeutic potential. Meanwhile, the first of the 77 million baby boomers will be eligible for Medicare in a dozen years. The federal government should be actively supporting and advancing research using stem cells and other technologies that hold promise for healthier aging. (WP 1/7/99)

The Washington Post also cited Daniel Perry, executive director of the Alliance for Aging Research pro-funding claimant as arguing that “it's a good thing for federal funding to be there because it means the research will be done more quickly and it will be more accountable to the public.” (WP 5/23/99).

Through excerpts as those, the media essentially defined good science as well funded science. The media did not show that pro-funding claimants wanted funding for their own benefit, but rather that they wanted it for ‘the patients.’ These claimants, through the media, framed science as a moral and altruistic endeavor, rather than a
profitable undertaking (which it also was). Instead of furthering an understanding of why hESC research had become so controversial and, in doing so, exploring exactly what scientists had to gain from garnering government funding for their research, the media’s biased reporting only emphasized that hESC research just was a controversial matter, because the pro-life movement wanted to prevent scientists from developing cures for disease through hESC research. As the public controversy continued, the fact that hESC research simply was controversial became a major frame for understanding the place of hESC research in society.

**The late Clinton years and Bush’s controversial compromise**

But this controversy in the media aside, given pro-funding claimants’ success in claiming that hESC research held great therapeutic potential and their efforts in claiming society’s need for hESC research derived therapies, it should come as no surprise that the Clinton Administration embraced the idea of providing federal funding for hESC research. This is especially so because Clinton had few political ties to the pro-life movement. As Scott explains, the Clinton Administration pushed through their support of hESC research after finding a loophole in the Dickey Amendment:

> During the waning years of the Clinton Administration, [Secretary] Shalala’s [Department of Health and Human Services] determined that thought the [Dickey Amendment] ban stated that no embryos could be destroyed with government dollars, NIH funding could be used for research on hESC lines established with private dollars. (Scott 2006: 154)

After “final guidelines were issued and approved by the President on August 25, 2000… the NIH began soliciting applications for research grants” (Scott 2006: 155). But because George W. Bush went on to ultimately emerge victorious in the 2000 Presidential election, Clinton’s NIH did not have a chance to grant out any money.
But although President Bush said he would do so in his campaign, upon taking residence in the Whitehouse, he “did not immediately reverse [Clinton’s] policy” (Scott 2006: 155). Instead, in February, Bush “called for yet another [Department of Health and Human Services] review” (Scott 2006: 155). In calling this review, the new President signaled to society that, whatever stance he had taken before, he was now open to renewed consideration of the issue of federal funding for hESC research. Because of this, as Scott notes, “the debates began anew, with scientific organizations, companies, patient advocacy groups, and religious organizations slugging it out on widely divergent and constantly shifting moral, scientific, economic and medical grounds” (Scott 2006: 155).

This time around, all groups with something to gain in the debate became more organized. Much strategic innovation occurred on both sides of the discourse, in response to the Presidential party change. Of particular note: a number groups began appearing in the media discourse with increasing frequency: patient advocacy groups gained greater media standing, conservative politicians began coming out in support for hESC research, and Catholic Church elites began drawing on their political connections more heavily than they had in the past. All of these efforts ultimately had an important impact on the status of hESC research, both in the public and (more importantly) the political arenas.

Moreover, pro-funding claimants—now a group largely consisting of policymakers, scientists and patient advocacy groups—attempted, with even more

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21 However, just months later, in April, Bush did see to it that the NIH’s ability to give grants to hESC scientists was blocked. As Wade of the New York Times reported, “In a possible political setback for stem cell research, the National Institutes of Health has been told [[by its parent agency, the Department of Health and Human Services]] to postpone the first meeting of a committee to review grant applications for research on human embryonic stem cells.” (NYT 4/24/01)
rigor than before, to frame hESC research as not only clinically progressive but also as inherently moral. Although they had attempted to construct their own pro-life conception of morality previously, they had not done so successfully enough to convince President Bush. Conservatives still associated abortion and hESC research in the same line of moral activities; for pro-funding claimants to be successful in garnering funding from the Bush Administration, this would have to change.

With the empowerment of Bush’s Administration, the pro-life movement stuck to their trustworthy moral guns, but now also attempted to draw on their political power. Pro-life claimants knew that Bush would have to acquiesce to their moral demands if framed in a political light, regardless of what seemed to be the dominant conception of moral knowledge within the public at large.

Moreover, although the scientists who initially had much standing in the debate did not disappear from the media altogether, beginning in early 2001, they certainly had relatively less standing than before. They had already proven to society that their research held promise. With Bush as President, the challenge for pro-funding claimants would be convincing the nation’s policymakers that supporting hESC research would be politically intelligent as well as morally sound.

The strategy of the pro-funding movement

Pro-funding advocates’ new strategy for gaining this influence took many different forms: they attempted to co-opt the values of anti-funding advocates and make those values their own, they appealed to the popular knowledge surrounding disease through imagery and symbolism, drawing on feelings of hope for what hESC research might bring given its already established promise, and they attempted to
marginalize anti-funding claimants’ arguments by drawing out certain incongruities between their absolutist ‘pro-life’ stance and everyday people’s perceptions of reality.

Morally speaking, these strategic innovations worked incredibly well. Increasingly, pro-funding claimants seemed to be the pro-human/family side of this discourse. Whereas pro-life claimants seemed as resolute as ever—even in the face of monthly scientific advances in hESC research—to maintain their absolute moral stand, journalists framed pro-funding claimants as just trying to develop cures. However, in the end, the moral arguments were not all that mattered. President Bush ultimately made a political decision rather than a moral one. This is not to say that pro-funding claimants put out these efforts and gained nothing in return. It is to say, however, that pro-funding claimants did all they could do considering Bush’s strong political ties to pro-life movement.

Specifically regarding pro-funding claimants’ newly innovated strategies following Bush’s entrance into office, first and foremost, certain Republican, ‘pro-life’ politicians began vouching in favor of federal funding for hESC research in the media discourse. As the New York Times reported shortly after Bush’s inauguration:

…there is support for the research in some unlikely quarters in Congress. Senator Strom Thurmond, Republican of South Carolina, an abortion opponent, has spoken out strongly in favor of stem cell studies. Mr. Thurmond has a daughter with diabetes. Senator Gordon H. Smith, Republican of Oregon, who has a relative with Parkinson's disease, also favors stem cell research. // "Part of my pro-life ethic is to make life better for the living," Mr. Smith has said. (NYT 1/20/01)

Similarly, as the NY Times reported five months later:

Several Republican senators are urging President Bush to authorize the use of federal money for medical research that involves cells derived from human embryos. // Two of the senators, Orrin G. Hatch of Utah and Susan Collins of Maine, said such experiments could be conducted safely and ethically under guidelines adopted by the National Institutes of Health. // Senator Hatch, a foe of abortion, told Mr. Bush that research with embryonic stem cells was "consistent with bedrock pro-life, pro-family
values." The experiments, he said, raised questions "fundamentally different" from those surrounding abortion. (NYT 6/19/01)

Pear even reported a week earlier that even many of Bush’s advisors—inside of his administration—had been vocalizing their pro-funding sentiments. As Pear noted, “[HHS] Secretary [Tommy] Thompson, a Catholic who opposes abortion” had been publicly “emphasiz[ing] the potential value of research on embryonic stem cells.” (NYT 6/13/01).

This increase in pro-life Republicans speaking out in favor of federal funding for hESC research—for reasons, as Orrin Hatch has stated, “consistent with bedrock pro-life, pro-family values” (NYT 6/19/01)—allowed the pro-funding movement to twist the pro-life movement’s conception of morality and claim it as their own. At the most fundamental level, Hatch and others argued here that “a critical part of being pro-life is to support measures that help the living” (Scott 2006: 157). This sentiment allowed the pro-funding movement to show that the Catholic Church’s pro-life values (as pro-life values were first and foremost associated with the Catholic Church) were not the only kind of pro-life values to be had.

Moreover, that these pro-life, conservative politicians began supporting hESC scientists more vocally beginning in 2001 gave hESC scientists far greater moral credibility in the discourse than they were able to claim before, because it highlighted the congruency of hESC research with pro-family government policy. This moral innovation—done through the co-optation of the pro-life movement’s morality in arguing that nascent life is not the only kind of life deserving of moral consideration—allowed pro-funding claimants to explicitly pit the claims of patients,
their families and other patient advocates against the moral status of nascent human life in the public discourse.

But although this framework for understanding the moral conundrum of hESC research had not been privileged as much as it would be in the future, it seemed to work at portraying hESC research as intrinsically moral in the media. As an editorial about hESC research written by the *Washington Post* concluded, “steering science away from a potentially life-restoring line of inquiry is the opposite of pro-life” (WP 5/6/01). And this is exactly what the pro-life movement wished to avoid. Because of the relationship between hESC research and motherhood—where, as Luker and Ginsburg have shown, the devaluation of embryonic, nascent human life also devalued the traditional conception of motherhood—the pro-life movement needed to maintain the absoluteness of the sanctity of nascent life in order to maintain the significance of the traditional conception of motherhood and the family in American society. Because the pro-life movement defended their lifestyle and worldview through its alignment with ‘pro-life’ morality, the movement’s worldview only began to come under serious attack when pro-funding claimants were able to claim their own, more resonant, more family-orientated, version of ‘pro-life’ action.

Although the pro-life movement claimed to be inherently pro-family, in rejecting government support of what scientists had successfully claimed to be legitimately therapeutically promising research, pro-life claimants now seemed to be privileging an overly rigid and culturally removed conception of the family. ‘Family,’ as the pro-life movement would have it, did not seem to reflect the kind of family central to most Americans lives. The pro-life movement’s conception of the family
seemed to be blatantly ignoring one of the most central issues that families in America would have or were already having to deal with: the issue of disease and quality of life in old age. As David Shenk, the author of *The Forgetting: Alzheimer's, Portrait of an Epidemic* wrote in a *New York Times* op-ed,

> There’s no good way to die, by some are far worse… than others. The plodding progression of Alzheimer’s devastates not only the patient but also a wide circle of family and friends forced to witness and participate in the long decline. The disease costs a fortune in medical and nursing fees and lost wages… // If that sounds like a lot of money, keep in mind that the baby boomers have not started turning 65 yet. By the middle of the century, 15 million Americans could have Alzheimer’s… // This is a disease that, if left on course, will greatly affect our economy, our politics and our communities. (NYT 11/3/06)

By ignoring all of this, the pro-life movement appeared in public to be calloused and removed from the realities of ‘real life.’ This perception did not help them appear morally driven, but rather worked oppositely.

Second, in what was likely a rather uncoordinated effort, following the beginning of the Bush’s tenure in the White House, the pro-funding movement started to appeal much more to the public’s empathy than they had before. Pro-funding claimants worked towards appealing to popular knowledge and emotion through depicting disease or injury in people’s lives, and drawing on the hope for a cure that hESC research brought those people and their kin. As the *Washington Post* wrote in July of 2001:

> Unlike so many Washington debates, the future of embryonic stem cells is an emotional, often personal, one. // "This is an issue that touches people's lives very directly and very personally," Sen. Susan Collins (R-Maine) said she told Rove in a White House meeting. "It would be a mistake for the president to put himself in a position where his decision might be interpreted as insensitive to the suffering of families who have endured these devastating diseases." …// "I, too, have struggled with this issue," said [Sen. Zell Miller], a conservative Georgia Democrat], who described in a letter to Bush the pain in watching "family members struggle with diabetes and other conditions that could greatly benefit from stem cell research." (WP 7/2/01)
As well, the *NY Times* reported in January that:

As the mother of a kindergartner with a severe form of diabetes, Lyn Crozier Langbein says she is trying "to keep the ghosts at bay." The ghosts, in her world, are fears of the complications her daughter, Jamie, may suffer as an adult: heart disease, nerve damage, kidney failure, blindness. .../"Time is not on our side," said Mrs. Langbein, noting that the [ESC] research could take years, or even decades, to help her daughter. "So that would become another nightmare, the idea that this research plug could get pulled." (NYT 1/20/01)

The media even enabled congressmen to sell their position on hESC research in the media, in context of their personal life experience. As *USA Today* reported:

For Rep. Jim Langevin, the decision might seem to be a no-brainer. Ever since his spinal cord was severed by an accidental gunshot at age 16, the Rhode Island Democrat has used a wheelchair. Now Langevin, 37, has a chance to support research that might find a cure for injuries like the one that left him almost completely paralyzed. (USA 8/801)

That the journalists allowed people’s personal experiences with disease and injury to be featured so prominently in the media meant that the public (and other policymakers) could now understand hESC research in light of this new level of moral significance which they could personally relate to. The following excerpt shows one example of the *Washington Post* explicitly drawing on people’s personal experience with disease and hope for a cure in speaking of hESC research:

In a year when funding for NIH research is going up dramatically, members of Congress who might be inclined to oppose embryonic research risk being seen as opponents of medical progress -- of wanting to close off an avenue of research and thereby condemning people who could be cured. // "There are ethical concerns in not proceeding with this research," Larry Goldstein of the American Society for Cell Biology told Specter’s subcommittee last spring. Nodding to fellow testifier Christopher Reeve, the actor paralyzed in a 1995 horseback riding accident, Goldstein added: "What happens if in five years we find that adult stem cells don't work? What do we tell people like Christopher Reeve? That we're sorry? They may not have another chance." (WP 10/15/00)

In doing this, rather than just defining what people should know about hESC research as they had in the past, pro-funding claimants (through the media) now looked to
draw on everyday people’s empathetic capacity in presenting the issue of federal funding for hESC research.

As Gamson argues in *Talking Politics* (1992), “people negotiate with media messages in complicated ways that vary from issue to issue” (Gamson 1992: 4). Specifically with hESC research, while normal people could not directly relate with the abstract moral issues of the status due to nascent human life or the imperative of scientific progress, disease is something that most people can identify with firsthand. People know that disease attacks the innocent and dramatically affects the quality of people’s (and their family’s) lives. By privileging a framing of hESC research that resonated with this knowledge, the media began to recognize that the frames they had previously been privileging—those of the institution of science and of the pro-life movement—were not the only cultural resources for understanding this issue in society.

As Gamson states, “media discourse… is only one of several [cultural resources] available [to use in understanding and talking about an issue]” (Gamson 1992: 117). Thus, because the media quickly realized that the public found this new, more personal frame for understanding hESC research to be interesting and newsworthy, the media now began to allow pro-funding claimants to change the fundamental moral grounding of the discourse. From this point on, pro-funding claimants increasingly portrayed hESC research, because of its discursively accepted promise to develop cures, as a pro-family endeavor—a moral framework that resonated particularly well with the generally moderate, family orientated American public.
As pro-funding advocates claimed, if policymakers continued to fail in making hESC research a federal priority, then they would be unnecessarily letting down not only diseased people across the world, but policymakers would also be failing the family and friends of those diseased people. The *New York Times* captures this mood well in the following paragraph:

For tens of thousands of Americans with incurable illnesses -- not only diabetes but also degenerative brain disorders like Alzheimer's, Parkinson's and Huntington's diseases -- stem cell research offers the tantalizing promise of a cure. Last summer the Clinton administration issued rules that would permit the National Institutes of Health to pay for certain stem cell studies. Now Mr. Bush is considering whether to block the institutes' money before the first experiment gets under way. (NYT 1/20/01)

Because of this, given the (previously established) promise of hESC research, pro-funding claimants argued that the federal government had a moral necessity—a moral “imperative,” to use Callahan’s language—to support hESC research not only because it was progressive but also because it would eventually provide society with therapies to cure disease. While anti-funding advocates’ claims had always been moral ones, with this argument, pro-funding claimants could now also frame their claim on moral grounds.

In addition to these two major strategies, pro-funding claimants also began attempting to shift the boundaries of the policy debate in smaller ways, by drawing attention to certain aspects of hESC research which not had received as significant media coverage in the past. One aspect of hESC research that pro-funding claimants greatly played up, as a *Washington Post* editorial explains, is that

…the embryos used in stem-cell research are exclusively those left over from fertility procedures in private clinics -- embryos that would be destroyed anyway and that have no chance of developing into human beings. (WP 5/6/01)
This practical matter—that a great number of human embryos produced for IVF were not needed, and so were either frozen for eternity or discarded—resonated strongly in the media and political discourses. Although human embryos had to be destroyed in the process of deriving human embryonic stem cells, if “these tiny cells are typically obtained from early embryos that [would be] discarded at fertility clinics” (WP 7/2/01), then many—even some avowed social conservatives—figured that their destruction for scientific purposes would actually be a moral improvement. As the New York Times explained, “even some ardent opponents of abortion say they favor the studies as long as the embryos used would otherwise be discarded” (NYT 7/11/01)

Another point occasionally mentioned by pro-funding advocates is that leaving hESC research to the private sector could hold significant implications, both financially speaking as well as for how effectively the research would be carried out. As USA Today reported in early July 2001,

Sen. Arlen Specter, R-Pa… said he learned recently that the Wisconsin Alumni Research Foundation (WARF), WiCell Research Institute and Geron Corp. of Menlo Park, Calif., hold a virtual monopoly on stem-cell research. // "We may be involved in a very high-finance issue…" he said. (USA 7/2/01)

Here, in speaking about WiCell and Geron’s monopoly, Specter implicitly argues that hESC research would be better carried out by more research institutions because of the private sector’s inclination to conduct research with profit in mind, rather than maximizing the institution of science’s ability to produce cures. As well, other journalists reported similar sentiments:

22 As the NY Times explains, “Despite the debate over federally financed stem cell research, even some ardent opponents of abortion say they favor the studies as long as the embryos used would otherwise be discarded. Senator Orrin Hatch, the Utah Republican, holds this view, as does Connie Mack, the former Republican senator from Florida. This is the justification that Dr. Thomson, of Wisconsin, provides for his own work.” (NYT 7/11/01)
As the debate over stem cell research continues, there has been an explosion in private research among scientists like [Dr. Doug Melton, chairman of the department of molecular and cell biology at Harvard University]. That troubles some medical ethicists, who say that without federal financing, there is no federal regulation, leaving a field heavy with ethical implications to profit-making entrepreneurs. (NYT 1/20/01)

…the existing ban on federal funding for research that would apply those advances to humans could delay the cures for years as well as drive research overseas. (WP 5/6/01)

…such a plan might greatly enrich Geron, because that company holds intellectual property rights to six of the existing cell lines (NYT 7/4/01)

Although these arguments likely had little effect on the ultimate course of the politics behind the funding debate, they still allowed pro-funding claimants to gain media standing and to slowly chip away at the moral legitimacy held by the pro-life movement on this specific issue.

Along with the previous arguments largely forwarded by the pro-funding movement, the media also played a significant role in favorably defining the boundaries of the discourse for the pro-funding movement. In two ways, certain journalists emphasized incongruities between the absolutist moral argument forwarded by the pro-life movement and the reality of the political and social situation of the hESC research discourse. First, the media, recognizing that different religious groups held different opinions about whether the federal government should fund hESC research, jumped on the opportunity to point out the disconnect between the official beginning of human life in various religious beliefs. Whereas, since the beginning of the discourse, the Catholic Church had stated their belief that “…life begins at conception.” For the Church, “the destruction of embryos is against the church’s view of the sanctity of life, and it is regarded as equal to abortion” (USA
However, as a few journalists pointed out, not all religions held such an absolute stance about life’s beginning.

As the *Washington Post* explained, in contrast to the Vatican’s well known view, “the United Church of Christ, at its general assembly in Kansas City, Mo., last month, passed a resolution calling on Bush to release funds for embryonic stem cell research” (WP 8/4/01). Additionally, as the *Houston Chronicle* reported,

…the governing body of the Presbyterian Church (U.S.A.) has affirmed the use of embryonic tissue for research in the hope that doctors will find treatments for Parkinson's disease, Alzheimer's, diabetes and spinal-cord injuries...// [Furthermore], Jewish law does not give an embryo outside the mother's womb human status, said Rabbi Elliot Dorff, rector and professor of philosophy at the University of Judaism in Los Angeles. In addition, the Jewish tradition instills a strong duty to save people's lives and physicians are considered the agent and helpers of God in healing, he said. (HC 8/4/01)

These two journalists, in highlighting the pluralism of religious views on hESC research, clearly marginalized the moral authority of the Catholic Church. Their articles pointed out that although the Catholic Church may have been the most powerful religious institution across the globe, it certainly did not hold an uncontested religious authority in defining the moral beliefs of the religious, generally speaking.

Similarly, a number of journalists also drew out a disconnect between the stated moral code of religious institutions and the practiced beliefs and values of their constituents. These journalists noted, as follows, that although a church’s leadership may espouse one thing, the actual beliefs held by practitioners of that faith often do not correlate with their church’s stated policy:

On the other hand, however, if Bush maintains his campaign promise and decides to bar federal funding, he would risk losing support among many Catholic voters. A recent poll said that 61 percent of Catholics support embryonic stem cell research.// There are wide gradations of Catholic opinion,” said David Leege, a political scientist at Notre Dame. (WP 7/30/01)
[Richard Cizik, vice president for governmental affairs for the National Association of Evangelicals] believes that most evangelicals the association represents -- more than 125,000 in 51 denominations -- are "deeply troubled by our government actually funding stem cell research that results in the destruction of human embryos." But a recent Washington Post-ABC News poll shows evangelical Protestants split on the issue. (WP 8/4/01)

Although journalists by no means needed to go out of their way to do the research necessary to make these claims, because they were able to frame such dissent—such inter-faith controversy—as pertinent to the hESC research policy debate, these tidbits of information became very newsworthy. Furthermore, by considering these disconnects newsworthy, the media essentially marginalized the institutional backing of these religious institutions which claimed to speak on behalf of so many people across the nation and globe. By showing that church leaderships often times were not able to speak on behalf of their constituents as fully as they initially claimed, the media contributed to the general undermining of the moral credibility of these religious institutions in the discourse.

**The strategy of the pro-life movement**

Even still, the pro-life movement had much political power and moral authority left around the issue of hESC research. The movement did, however, recognize that they needed to somehow reinforce that power if they were to maintain their ownership over federal policy related to the moral status of nascent human life. One way it tried to do this is by developing scientific credibility with which to undermine the science-based claims of the pro-funding movement.

Over time, before the entrance of the Bush Administration as well as throughout its stay in the White House, the pro-life movement had tried multiple times to debunk the idea that only hESC research could do what scientists claimed it
could do. In making this claim, pro-life claimants primarily attempted to play up that certain alternatives to hESC research existed, such as “research on similar cells obtained from adults” (WP 7/12/01) and that these alternatives should be given more funding instead of resorting to embryo-destructive hESC research for developing certain cures. As *USA Today* reported:

> Opponents of the research, led by the U.S. Conference of Catholic Bishops and the National Right to Life Committee, regard the destruction of human embryos at any stage of development as the same as abortion. They oppose the research and promote the alternative of adult stem cells, which have been found in bone marrow and some tissues and organs. (USA 7/12/01)

However, in using this argumentation, pro-life claimants never met much success. Embryonic SC researchers would simply claim that their research held more promise than adult SC research because “[while] both human embryonic stem cells and adult stem cells have potential,… embryonic stem cells appear to have more promise and greater flexibility” (USA 7/12/01). Anti-funding claimants were not able to beat the pro-funding movement’s scientific experts at their own game. Scientists’ counter-claim, based upon hESC researchers’ great credibility within the discourse, largely negated pro-life advocates’ claims that hESC research would not be necessary to develop the cures which society so desired.

In light of the failure of this ‘alternatives’ strategy, with the rise of the more friendly Bush Administration to the presidency anti-funding claimants reverted to a more political-based strategy. Rather than trying to out-science pro-funding advocates, those against federal support of hESC research tried to out-politic them. Whereas with the Clinton administration, pro-life claimants knew that drawing on their conservative political connections would ultimately do them little good, now
they began exploiting all possible political routes. The following citations show this quite clearly:

Opponents of abortion, who say the research is immoral because they believe that life begins at conception, are urging the new president to act quickly. "We have called on the new administration to make absolutely sure that no destructive stem cell research on embryos is done in this country, regardless of the source of funding," said Judie Brown, president of the American Life League in Stafford, Va. "A human embryo is a person at conception, and to destroy willfully one of those people is a deadly act." (NYT 1/20/01)

…the Republican National Coalition for Life, demanded in a recent e-mail alert, "Will Bush allow taxpayer-funded embryonic stem cell research to begin?" And the National Right to Life Committee features the issue prominently in its February newspaper, describing it as Mr. Bush's "next pro-life challenge." (NYT 2/17/01)

At the White House, Mr. Rove, the president's chief political adviser, advocates the position held by many conservatives and Catholics opposing this type of research. …// Richard M. Doerflinger, a policy analyst at the National Conference of Catholic Bishops, said: "I've talked a little with Karl Rove. He is concerned about the views of the Catholic Church on these issues because Catholic voters are seen as such a swing vote in the elections." (NYT 6/13/01)

In his efforts to attract support among Catholics, Bush has cultivated the church's more conservative wing, particularly the U.S. Conference of Catholic Bishops… As a result, if the president decides to permit even limited and restricted use of existing embryos for research, he would risk alienating his base in the church, as well as his base in the leadership of the Protestant Christian right. (WP: 7/30/01)

Even if their attempts to challenge the scientific authority of pro-funding claimants had failed, the pro-life movement still held much political clout. By meeting with Bush and his close advisors, and by mobilizing the political muscle of their grassroots network against hESC research, the nation’s pro-life organizations showed that their absolute conception of pro-life morality still held much stock in American society. Bush and his advisors—especially Karl Rove—undoubtedly recognized that it would be politically stupid to burn bridges with those many groups.

Moreover, because all players in the debate were calling for Bush to make some sort of final decision and put an end to the political limbo he had installed only
a month into his Presidency, Bush certainly felt the need to act in order to not burn all of his political connections. As the *Washington Post* captures in a mid-July article:

> Both sides of the embryonic stem cell debate feel they have already given up plenty of ground to the opposing side. "We only are pushing for a ban on federal funding instead of what nine states have done, which is to ban all harmful embryo research across the board," said Doerflinger. "We think limiting our opposition to taxpayer financing is a compromise."

> Scientists say they are compromising by agreeing to abide by the NIH guidelines, which preclude them from getting cells from embryos themselves and makes them reliant on others for those materials. (WP 7/13/01)

Unsurprisingly, pro-funding claimants held a very different conception of what a ‘fair’ compromise would entail than did anti-funding claimants. Because of this, both sides of the debate tried to position themselves in the media discourse such that, for them and others accepting their knowledge, any sort of compromise would be tragic.

**Compromise?**

As the inevitability of some sort of compromise became clearer, each group of claimants only dug their heels in further—often times rather dramatically. In fact, the *Post* goes on in the same article to capture this argument between two major players from each side about whether hESC scientists not deriving their stem cells themselves would consist of a compromise:

> "There's no way around calling that a compromise," said [Douglas Melton, chairman of molecular and cellular biology at Harvard University]. "That's not a compromise," Doerflinger responded. "If any of this research started leading to treatments, then obviously the researchers would want infinitely more cells after that." (WP 7/13/01)

Moreover, the *NY Times* also captured claimants’ dramatically played reactions to the idea of compromise in reporting the following:

> One plan that is generating discussion is the one to permit research only on existing cell lines. But abortion opponents say they would be outraged by such a move. "We think it is unethical to use cells obtained by killing human embryos," said Douglas Johnson, legislative director for the National Right to Life Committee, "whether the killing is done yesterday or next week." // Scientists and patients' groups, meanwhile, would be outraged by that same plan, but for different reasons. They note that only
about a dozen cell lines have been developed and say many more are needed to ensure that the cells have enough genetic diversity to be useful... // "This is not a compromise," said Dr. Gerald Fischbach, dean of the faculty of medicine at Columbia University and a former official of the National Institutes of Health. (NYT 7/4/01)

Here, the *Times* deftly highlights the incongruency of the most resonant arguments from each side of the dichotomized discourse, and thereby plays its controversial nature. While Johnson of the NRLC draws on the pro-life movement’s moral credibility by making the argument that it ought not matter when life dies—that it should be equally reprehensible for the government to be complicit in death regardless of when it happens, Fischbach and other scientists leverage their scientific expertise in essentially claiming that, agreeing to fund research on “only... a dozen cell lines” would be scientifically useless because that number of lines would not “have enough genetic diversity to be useful.” Ultimately, these claims failed to address each other—pro-life spokesperson Johnson drew on moral knowledge while Fischbach the scientist drew on scientific knowledge.

Because of this, while both sides could be correct at the same time (in that hESC science may hold much potential nascent without negating the absolute sanctity of nascent human life to be absolutely sacred), federal policy on hESC research could not feasibly fulfill the demands of each side. It is not that the knowledge held by pro-funding advocates was contradictory to the knowledge held by anti-funding advocates. Rather, the contradiction lay in the policy demands made as a result of that knowledge. Because of this, the ‘winner’ of the policy decisions stemming from this discourse would necessarily be decided by which claimants and which claimants’ knowledge held the most political status. Any compromise that President Bush would (nearly unilaterally) institute would be instituted for reasons of political status. To
ignore his political base or expressed desires of pro-funding claimants (and the public) would be political suicide.

However, although Bush would come to his decision for political reasons, Bush recognized that a politically based rationale for supporting his would not be accepted in the public discourse. In light of this, Bush turned to the institution of bioethics. While bioethics had historically been used largely to watch over but ultimately support the institution of science, since the late 1970s a conservative set of bioethicists had also gained affiliation with the institution. Bush called upon this conservative line of bioethicists in searching for a credible rationale supporting a compromise between pro and anti-funding claimants.

During the process of speaking with many important and politically influential groups about hESC research policy, the President decided to also consult with two of the highest status individuals within bioethics about the right course of policy action. As the *New York Times* reported retrospectively,

> On… [the] afternoon [of July 9] [Bush] met with two bioethicists, Dr. Kass and Dr. Daniel Callahan of the Hastings Center for Bioethics. It was at this meeting that his thoughts began to gel, although not in the way he expected. // Mr. Bush had asked Dr. Kass to bring along someone who had a different viewpoint from his own. He thought Dr. Callahan would have a different view, but as it turned out he too disliked the idea of destroying embryos and had a position similar to Dr. Kass. This apparently made a big impression on Mr. Bush. Dr. Callahan said the president seemed riveted by the possibility of compromise during that meeting. // [Karen P. Hughes, counselor to the president noted]: "The meeting with the bioethicists was the first at which I recall pretty specific discussions about the ethics of using the existing stem cell lines." (NYT, Seelye: 8/11/01)

Thus, smitten with the moral and scientific authority offered by these two greatly respected bioethicists, Bush began to see that it might actually be possible to make a compromise acceptable to pro and anti-funding claimants, so as not to entirely lose his political capital with either of them. However, Bush’s political aspirations and the
reality of the contradictory nature of the policy demands at work in the American
discourse over hESC research were to be two very different things. Such a
compromise would be nearly impossible to pull off under moral rather than political
premises.
Chapter FOUR
The search for a successful arena:
Pro-funding claimants prod the nation

"You've got to understand something about me," Bush said. "The decision I made was not a political decision. The decision I made was the decision that I think is right for the country -- I think this is the kind of decision where it does require prayer. Prayerful consideration. And I'm very comfortable with the decision I made."

--WP 8/11/01, Allen

"I think the one thing it does is it shatters the mythology that this is not a person who thinks deeply or wrestles intellectually with tough issues," an administration adviser said.

--NYT 8/10/01, Brunni

Bush’s policy decision

In the midst of rumors that he was “close to announcing whether to permit federal funding of research on embryonic stem cells” (USA 8/9/01), President George W. Bush made a rare television appearance to explain his decision about federal policy over hESC research to the nation. Bush addressed the American public for eleven minutes to “discuss… a complex and difficult issue, an issue that is one of the most profound of our time. // The issue of research involving stem cells derived from human embryos” (Bush 2001). Explaining the process of his deliberation, Bush stated the following:

As I thought through this issue, I kept returning to two fundamental questions: First, are these frozen embryos human life, and therefore, something precious to be protected? And second, if they're going to be destroyed anyway, shouldn't they be used for a greater good, for research that has the potential to save and improve other lives? //… At its core, this issue forces us to confront fundamental questions about the beginnings of life and the ends of science. It lies at a difficult moral intersection, juxtaposing the need to protect life in all its phases with the prospect of saving and improving life in all its stages. (Bush 2001)

By appealing to the knowledge claims of those on both sides of the hESC research discourse, Bush looked to dissolve the controversy. Recognizing that the
anti-funding claims lay entrenched in the pro-life movement’s knowledge about the
sanctity of nascent human life, and also recognizing that pro-funding claims stood on
the knowledge that hESC science could greatly benefit society if properly supported,
President Bush attempted to appease both groups’ moral knowledge through his
policy decision for hESC research. As the *NY Times* observed:

In his remarks to the country tonight, President Bush spoke of morality, medicine and
what he deemed to be the proper amalgam of the two, positioning those concerns
squarely in the foreground of his decision on federal support for embryonic stem cell
research. (NYT 8/10/01 Bruni)

Given this preface, drawing on the expertise of “of scientists, scholars,
bioethicists, religious leaders, doctors, researchers, members of Congress, my
Cabinet, and my friends,” President Bush then continued to explain that

Embryonic stem cell research offers both great promise and great peril. So I have
decided we must proceed with great care. // As a result of private research, more than
60 genetically diverse stem cell lines already exist. They were created from embryos
that have already been destroyed, and they have the ability to regenerate themselves
indefinitely, creating ongoing opportunities for research. I have concluded that we
should allow federal funds to be used for research on these existing stem cell lines,
where the life and death decision has already been made. (Bush 2001)

Acknowledging the demands of the pro-life movement that human embryos not be
destroyed as well as to the demands of pro-funding advocates that hESC research
receive federal funding, Bush presented his ultimate compromise of these two
positions. Although both sides in the discourse could be broken up into many smaller,
complicated interests, the demands of all interested and vocal parties in the public
discourse had been at least partially addressed—both through lip service as well as
through the reality of Bush’s decision. As Bush’s speech partially stated and partially
implied, the federal government would fund hESC research done on stem cell lines
created before August 9, 2001, but not for those created after that (rather arbitrary) date—the day of Bush’s speech.

The unexpected (?) reaction

The day following Bush’s televised speech to the nation on the evening of August ninth, the hESC research public discourse erupted with action as never before. On August 10th, both USA Today and the New York Times featured at least three articles on America’s reaction to Bush’s speech and policy decision the evening before, while the Washington Post published two. Although the media discourse over hESC research did not long continue with such great media coverage, the media certainly continued to cover the public discourse over hESC research on a daily basis for the remainder of the month. As much as any topic in August of 2001, hESC research was newsworthy.

Moreover the particularly newsworthy aspects of hESC research involved the reaction in the public discourse to Bush’s policy decision. Surprisingly enough, Bush seemed to have failed to entirely meet either the anti-funding or the pro-funding advocates’ demands with his policy. Because of this, advocates of both sides needed only a few days to articulate and express their thorough disappointment about Bush’s policy in the media discourse. As John Henry of the Houston Chronicle noted, “although Bush sought a middle ground between medical researchers and abortion opponents, his decision drew immediate criticism from both sides” (HC 8/10/01). While some other journalists were more cautious in their analysis of the reaction to
Bush’s announcement, like Henry’s article, the majority of the media coverage highlighted the unhappiness of both sides in Bush’s decision.

Again, as before, journalists largely split the discourse players into two politically polarized groups: they pitted those claimants against federal funding for hESC research with those in favor of that federal funding. Immediately, each side reverted to their old strategies for making successful claims in the discourse, but with a new spin aimed at addressing the specifics of Bush’s decision. Giving standing to those already familiar in the hESC research discourse, journalists highlighted those groups and individuals making the strongest claims. As the *Washington post* reported of scientists’ claims:

Most frustrating to scientists is the prospect of having only a relatively narrow array of embryo cells available for study. Stem cells are extremely finicky. All the cell lines that have been created so far enjoy a rather precarious existence, and could -- in the lingo of the lab -- "crash" at any time, disappearing into a shriveled gelatinous mass beyond hope of resuscitation. (WP 8/10/11 Weiss)

Similarly, the *NY Times* explains that

…scientists were dubious about his assertion that 60 such colonies, or lines, exist, saying reports indicated only about 10, some of which are largely useless. Still others may be off-limits because scientists in other countries may refuse to share them. (NYT 8/10/01 Stolberg)

Through quotes such as these, scientists and their supporters highlighted that a gap existed between the Bush Administration and the ‘needs’ of hESC researchers to conduct their science to the best of their ability. While scientists surely were pleased that they would now have access to funding for some of the research which they thought necessary in order to develop hESC science, they still claimed, on the

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23 As Robin Toner of the *NY Times* explained, “Medical researchers and advocates of stem cell research to attack specific diseases cautiously embraced the president's decision, but they questioned whether the existing cell lines are adequate in number or sufficiently robust to serve the needs of American scientists.” (NYT 8/10/01 Toner)
grounds of their scientific expertise, that the support offered by Bush would not be sufficient enough in the long run to boost scientists’ ability to produce their best science possible.

Here, scientists and their supporters substantiated their claim that Bush’s mandate would be too limiting for two reasons. Not only did they claim, on scientific grounds, that the currently existing stem cell lines were unstable and not likely to hold up in the long run, but they also claimed that many of the lines in Bush’s count of sixty were legally inaccessible. The *Washington post* explains scientists’ scientific claim well in the following excerpt:

> Experience with mouse stem cells, which have been objects of research for more than a decade, also leads him to doubt the claims of immortality for embryonic stem cells. Between uses, all cell cultures are kept frozen and inactive. Mouse cells tend to lose their "totipotency" -- the ability to become any tissue -- the more times a batch is thawed and allowed to divide. // "In my view human embryonic stem cells' properties will degrade with time. Everyone is fearful that the more you grow them in the dish, the more they lose their properties," [said Melton]. (WP 8/12/01 Brown)

The *Houston Chronicle* also shows how scientists’ highlighted what they saw as legal barriers to ‘good’ science in Bush’s decision:

> …[even] if Bush's contention is correct, [scientists are] skeptical many of them will prove accessible and scientifically viable. // "These lines are owned by private companies who won't want to give them to us or who university scientists might not want to work with," said Arthur Caplan, director of the University of Pennsylvania Center for Bioethics. "Some lines will turn out to be unviable, some already will have been manipulated too much by researchers, some will come from too faraway locations and some will be tied down in patents. All of that may make it essentially a ban in compromise's clothing." (HC 8/11/01 Ackerman and Roth)

Thus, the duality of this claim—both scientific and legal in nature, enabled scientists to claim credibly and widely in the national media discourse that Bush’s policy would limit their ability to produce the best science possible. As Harold Varmus, a former Director of the NIH (during the Clinton Administration) explained,
"What everyone is concerned about are these time limits," Dr. Varmus said. "What happens when, six months from now, someone has a line that behaves better with respect to what you are trying to study, and you can't work with those cells?" (NYT 9/3/01)

As Varmus implicitly argued, scientists’ would be moving too quickly for Bush’s policy to do it much good.

And building on scientists’ claims of a disconnect between science and the government, many media articles published following Bush’s decision also granted standing to other pro-funding interest groups outside of science. These patient advocates took scientists’ claims as fact, and then used that knowledge to assert their worry of inadequate federal support for science considering their own interest in developing cures for diseases and other maladies. For example, the NY Times featured one individual with Lou Gehrig's disease centrally in his article on Bush’s decision, as seen in this excerpt:

Betty Ann Krahnke watched President Bush's stem cell speech Thursday night from her wheelchair, where she has lain for much of the last two years, extensively paralyzed by Lou Gehrig's disease. //… she added yesterday via her computerized speaking machine, "I hoped he would go farther, because time is critical." (WP 8/11/01 Ruane)

Thus, by giving scientists standing in claiming that Bush’s decision had placed too strict of limitations on federal funding for hESC research, and then allowing other claimants to respond to those assertions through emotionally expressing their worry, journalists further enabled the pro-funding side of the discourse to credibly take a strong scientific and moral stance against Bush’s policy.

According to pro-funding claimants, on grounds of scientific need, rooted in the urgency of curing many diseases affecting Americans, Bush’s policy would not be enough. Furthermore, in constructing hESC research as an inherently moral endeavor
through the media, pro-funding claimants again primarily drew on everyday people’s experience with disease. By showing the public through the media how disease affected people’s lives, as well as the hope that people dealing with disease had for hESC scientists to develop a cure for their disease, pro-funding claimants not only portrayed hESC research as moral, but did so in a manner that the public would concretely understand.

But alternatively, while pro-funding claimants claimed Bush’s policy would be too limiting, most anti-funding claimants featured in the media bluntly argued that Bush had made a dire moral mistake. As demonstrated by the following excerpts, a number of familiar pro-life claimants drew standing in making this claim in the days following Bush’s national address:

"The trade-off he has announced is morally unacceptable," said Bishop Joseph A. Fiorenza, president of the U.S. Conference of Catholic Bishops. "It allows our nation's research enterprises to cultivate a disrespect for human life." (HC 8/10/01)

"The president has introduced the camel's nose into the tent, and inevitably we'll soon have the whole beast in there," said Kenneth Connor, head of the anti-abortion Family Research Council. "Moral principles are not divisible. It's going to encourage members of Congress to advocate additional research and to kill additional embryos." (WP 8/10/01 Milbank)

… [Majority Whip Tom DeLay] said Bush's decision to limit research to stem cells from already destroyed embryos indirectly supports a technique that "did not respect the sanctity of human life." And Sen. Sam Brownback, R-Kan., said he fears that the decision to fund research on cells derived from human embryos breaks a "moral barrier." (USA 8/10/01 Kiely and Lee)

Through their standing in the media following Bush’s decision, pro-life claimants again highlighted, just as they had unceasingly highlighted throughout the previous years of the discourse, that they knew nascent human life holds the same sacred moral standing as humans. Because Bush not only allowed hESC research (which necessarily destroys nascent human life) at all in American society, but also implicitly
supported the embryonic destruction of the past by funding it, pro-life claimants felt that Bush had allowed the federal government to become complicit in that amoral destruction.

Significantly, by holding such an absolute stance on hESC research, the pro-life movement began to allow the media to portray it as morally rigid and insensitive to the needs of people and their families. In contrast to the pro-funding movement, which was now increasingly portrayed as embodying, as Orin Hatch had earlier argued, a “pro-family” morality, the pro-life movement appeared callous to the desires of everyday people and the possibility that modern technology could enable people to live better lives.

Thus, although President Bush attempted to draw on the moral claims of both movements, this strategy ultimately failed. The institution of bioethics fell short in granting Bush enough moral credibility to achieve political success. Although Bush thought that rationalizing his decision by drawing on practical matters—one, that most stem cell lines had created using embryos discarded from IVF procedures, 24 and two, that he promised not allow funding of research on hESC lines derived henceforth 25—would transcend the dichotomized discourse, Bush’s use of this practical issue instead undermined the absoluteness of the pro-life movement’s claim of the absolute sanctity of nascent life and marginalized scientists’ ability to conduct

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24 As Bush stated in his speech, “A large number of these embryos already exist. They are the product of a process called in vitro fertilization, which helps so many couples conceive children. When doctors match sperm and egg to create life outside the womb, they usually produce more embryos than are planted in the mother. Once a couple successfully has children, or if they are unsuccessful, the additional embryos remain frozen in laboratories. Some will not survive during long storage; others are destroyed. A number have been donated to science and used to create privately funded stem cell lines.” (Bush 2001)

25 As Bush explained, “I have concluded that we should allow federal funds to be used for research on these existing stem cell lines, where the life and death decision has already been made.” (Bush 2001)
their ‘best’ science. This, in turn, only enraged both parties. Because Bush’s decision partly contradicted the knowledge of both groups of claimants, the hESC research controversy in the American public discourse did not end.

Rather, the specific political debate over hESC research appeared to be moving towards different political arenas. As an August 12 editorial in the *Washington Post* argued,

> …the president's announcement represents a midpoint in the debate, not a conclusion. Congress will need to examine whether the restrictions he has placed on federal funding are too onerous, or whether they become so as time passes. (WP 8/12/01 editorial)

Additionally, as the *New York Times* noted,

> … Senator Arlen Specter, a Pennsylvania Republican, argued that the Senate should vote soon on a bill introduced by him and Mr. Harkin to permit federal money to be used to extract stem cells from embryos destined for destruction. (NYT 8/12/01 Clymer)

If pro-funding claimants could not find success in advocating for financial support to the President, then they would look for routes to funding in other political locations instead.

Even so, in that same article the Times also noted that “a spokesman for Representative Tom DeLay of Texas, the majority whip and an opponent of any research, said that Mr. DeLay would not oppose Mr. Bush's plan” (NYT 8/12/01 Clymer). While Bush’s plan undoubtedly had its detractors in Congress, many at this point would also not go against the Administration’s decision by attempting to overrule the new status quo. Additionally, even if Congress did attempt to overrule his decision, Bush quickly made it clear that he would not hesitate to veto such an attempt. As the *Houston Chronicle* explained,
Administration officials said Sunday that President Bush probably would veto any attempt by Congress to push beyond his landmark decision allowing federally funded research on existing embryonic stem cell lines. (HC 8/13/01)

Hence, in weeks after Bush’s decision, given significant Republican support for Bush’s decision combined with Bush veto threat, at this point, the federal political arena seemed quite frozen. And as if to solidify the already frozen state of the discourse, on the fatal day of September 11, 2001, the destruction of New York City’s twin towers also wiped hESC research out of both the American media and political arenas. Following the attacks, the political debates surrounding federal funding for hESC research had been closed off in more ways than one. As a result of Bush’s veto threat, as well as because the nation was focusing on the then more newsworthy matter of terrorism and national security, hESC research quickly lost its political charge. While a very small amount of media coverage on hESC research resumed beginning in November, largely in the New York Times, it took nearly a year for hESC research to again become a political issue—this time, at the state level.

The move to the state arena

Because of this freeze, ESC research moved to a number of state arenas as pro-funding claimants decided to funnel their efforts towards more viable political locations. At first, pro-funding advocates placed the majority of their energy into lobbying some of the more hESC research-friendly legislatures to enact bills granting state financial support to hESC researchers. However, these efforts brought pro-funding claimants a limited amount of success.26

26 Although pro-funding claimants did manage to lobby California’s Legislature to explicitly approve hESC research as legal, the Legislature ultimately balked when asked to grant financial support to hESC research. In September of 2002, the Legislature passed a bill looking to “promote research on embryonic stem cells, aiming to make the state a safe haven for the controversial, cutting-edge
California 2004: Proposition 71

In retrospect of their failure to achieve financial support from the California Legislature—one of the most promising of all the legislatures, because of California’s relatively large population and liberal politics, pro-funding claimants decided to try their luck with California’s initiative process.27

Since neither Congress nor California’s Legislature would grant funding to hESC research, pro-funding claimants thought that perhaps the people of California, through the initiative process, would. As one of the original pro-funding claimants in California stated in December of 2002,28 because the California legislature refused to enact a bill granting state funding for hESC research, to legally coerce the state of California to financially support hESC research would require “‘take[ing] this to the voters’… a public bond initiative would be the vehicle for securing the funding that the scientists at the table thought was vital” (SDUT 12/19/04).

In light of this, a group of pro-funding claimants from diverse backgrounds launched a well-funded campaign to make California a hub for human embryonic stem cell research even as tepid federal support slows such efforts elsewhere. // The group is trying to qualify a $3 billion bond proposition for the November ballot that would make California the first state in the nation - and the largest government backer - to fund the research. (AP 2/7/04)

Called CuresNow, headed by “Robert Klein, a Palo Alto parent of a diabetic child, who had an expertise in bond measures” (SB 5/8/04), the campaign drew support of...
“wealthy patient advocates, eminent scientists and Hollywood executives” (AP 2/7/04). Klein, along with “[Doug] Wick…, his wife, Lucy Fisher, and Jerry and Janet Zucker” invested much of the initial time and money in marketing hESC research to the people of California” (SB 5/8/04). As the Sacramento Bee further explains, the couples “knew one another from working in the movie industry… [and through that relationship came together to create] CuresNow, a lobbying and educational organization for stem cell research” (SB 5/8/04). This core group of rather well known and wealthy individuals\(^\text{29}\) took care of the campaign’s earliest work, especially that of getting Proposition 71 off the ground.\(^\text{30}\) Proposition 71 “was certified for inclusion on the November ballot by Secretary of State Kevin Shelley on June 2nd” (Beeson and Stevens 2005: 26).

**Pro-funding strategy in California**

Significantly, now that this generous proposal for funding hESC research had been placed for vote on California’s next ballot, instead of lobbying Congressmen or the members of state legislatures as hESC research funding campaigns of the past had, the campaign for Proposition 71 merely had to convince the majority of California voters that funding hESC research with state dollars would benefit the state rather than damage it. Recognizing this change, the “Yes on 71” campaign, as the campaign called itself upon the proposition’s official certification, did a number of things differently than had past pro-funding campaigns.

\(^\text{29}\) As Mecoy explains, “Wick is the Academy Award-winning producer of "Gladiator," and Zucker directed "Ghost." Their wives also are producers” (SB 5/8/04).

\(^\text{30}\) As the AP reported, “Klein drafted the proposition's language and provided an initial $1 million last year to launch a petition drive to qualify the measure for the Nov. 2 ballot” (AP 9/19/04). As well, the “two influential Southern California couples” advertised their cause by chairing a related fundraiser—the “‘Gala Tribute to Nancy Reagan’… part of the Juvenile Diabetes Research Foundation's $20 million fund-raising drive for studies of [hESCs] (SB 5/8/04).
Notably, one thing that changed as pro-funding claimants target audience changed from Congress and the President (and for a brief time, California’s legislature) to the voting California populous, pro-funding claimants brought the primary arena of their campaign from behind the closed doors of Congressional and Legislative politics to wide open in the public arena. They began placing blatant ads advocating for state funding of hESC research and raising the large sums of money necessary to do so. Whereas before, pro-funding claimants could vouch effectively to their target population using their scientific credibility and their primary resource, now they needed financial capital and access to well-known faces to spread awareness of that credibility across the state.

Because the Yes on 71 campaign had Klein’s financial support and organizational leadership—Klein had been businessman who found much success in the low-income housing business—as well as connections to Hollywood, the campaign had few problems raising a sufficient amount of capital in the liberal state of California. By September of 2004, efforts to create and back Proposition 71 had raised $12 million, $2 million of which had been Klein’s (AP 9/19/04). “By contrast, the opposition campaign has raised only $150,000” (AP 9/19/04). Now, not only did the CuresNow have the ability to draw the support of the institution of science, but it also had the ability broadcast that support across the state of California. As Tina Stevens mentions with chagrin in her article “Intellectual Capital and Voting Booth Bioethics: A Contemporary Historical Critique” (2005), Advertising told Californians, repeatedly, that over 20 Nobel Laureates backed the initiative. Nobel Laureate Paul Berg, for example, quoted on thousands of glossy color advertising handbills for Prop 71, encouraged citizens to vote for the initiative because it would “energize vitally needed research...for the use of stem cells to cure millions of children and adults....” (Stevens 2005: 9)
Thus, by using its financial capital to advertise its scientific credibility and, founded upon that credibility, its moral authority, CuresNow had the ability with which to manipulate the political power granted to the citizens of California with regard to the policy matter of state funding for hESC research.

Another way pro-funding advocates changed their strategy for the state-level debate over Proposition 71 (in contrast to the national debate) is that they argued that hESC research would benefit the state economically as well as therapeutically. This claim of economic benefit became a frequently mentioned side note in many media articles on Proposition 71. As the *New York Times* reported about a month before the ballot,

…supporters also cite studies purporting to show that the California measure would more than pay for itself by generating taxes, creating jobs, bolstering the state's biotech industry and cutting future health care costs by providing new treatments. (NYT 9/23/04)

Thus, through excerpts such as the one above, like the promise of hESC research, the economic benefit of hESC research also came to be known as fact. For this reason, many fiscal conservatives and California businesses supported this bill.  

A third change in pro-funding claimants’ strategy for this particular debate lay in controlling the terminology used to speak about hESC science in the public discourse. In the past few years, stem cell research—generally speaking—had often correlated the issue of cloning in the national media discourse. Because of the Dolly

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31 As the *AP* reported: “Backers of the initiative, which include business groups, medical organizations and 21 Nobel laureates, said the bond measure is needed to jump start a promising field left moribund by severe federal funding restrictions.” (AP 7/24/04)

32 For example, as the *NY Times* reported: “…a Massachusetts company is trying to use cloning technology to create human embryos that would yield the [stem] cells, which in turn might give rise to tissues that were a perfect match for patients. // The technique… is often called therapeutic cloning. It
controversy and perceptions of cloning along the lines of Aldous Huxley’s *Brave New World* following Dolly’s highly publicized birth, the terminology of cloning gained a great deal of stigma in the late 1990s. It connoted an out of control science which threatened to subvert the family’s control over reproduction. However, as Beeson and Stevens explain, both public and private sector scientists in California’s public discourse managed to refrain from referring to hESC research in terms of cloning:

In the year before Proposition 71 was placed on the ballot, science-entrepreneurs associated with Stanford University, (an institution that stood to be one of Prop 71’s major beneficiaries) had urged broader use of the abstruse term, “somatic cell nuclear transfer” (SCNT). …Such linguistic artistry aimed to signify that there was no intent, on the part of the researchers, to implant clonal embryos in order to reproduce human beings – only to derive stem cells from the embryos and then destroy them. (Beeson and Beeson and Stevens 2005: 61)34

Thus, by simply not using the word ‘clone’—or even embryo, if they could help it35—in speaking of hESC research, pro-funding advocates in the debate over Proposition 71 avoided much stigma compared to the stigma and misunderstanding that earlier claimants dealt with. The institution of science in this case used its ability to control the flow of information from itself to the general public. Knowing that the

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33 As Steven Best and Douglas Kellner explain in their article “Biotechnology, Ethics, and the Politics of Cloning,” many people fear “human cloning and genetic engineering technologies [because] they could be combined to design and mass reproduce desirable traits, bringing about a society organized around rigid social hierarchies and genetic discrimination — as vividly portrayed in the film *Gattaca* (1997). This was, of course, the nightmare of Aldous Huxley, who continued H.G. Wells' speculations on a genetically engineered society and creation of new species” (Best and Kellner 2006: 17).

34 As Beeson and Stevens further note: the researchers, from Stanford’s Institute for Cancer/Stem Cell Biology and Medicine, discouraged continued use of the cloning nomenclature by characterizing such use as inaccurate on the part of the press (Beeson and Stevens 2006: 61).

35 Beeson and Stevens also explain that: “Prop. 71 advertisements consistently referred generically to ‘stem cell research’ and did not clarify the different sources of stem cells or their track record for realizing cures so far: adult, cord blood, and two sources of embryonic stem cells – from donated surplus embryos created for in vitro fertilization (IVF), and from clonal embryos created by scientists in the lab” (Beeson and Stevens 2006: 59-60)
public would fear hESC research more if it seemed like it would bring society “to the threshold of human reproductive cloning” (Beeson and Stevens 2005: 60), scientists termed hESC research so that the public would not so easily associate hESC research from that research which they feared.

Moreover, not only did pro-funding claimants innovate new strategies for convincing their new target audience of the benefit to funding hESC research, but the change in claimants’ target audience also increased the efficacy of pro-funding advocates’ already used strategies. Now that their primary target was the general populous rather than elected policymakers, the strategy of talking up the promise and, given that promise, the imperative of hESC research worked far more effectively than before. The everyday people of California had no political ties to think about in considering the morality of hESC research—only their moral knowledge garnered from life experience and the media discourse; because of that, they were at least open to considering the pro-funding movement’s appeals, whereas many elected policymakers were not.

Pro-funding advocates also managed to take advantage of this audience change in that they finally managed to use the progressive/conservative dichotomy which has been mapped onto the issue of abortion in American politics to their advantage.36 As Beeson and Stevens argue, “proponents claimed that the primary barrier to developing such cures was irrational religious fanaticism, successfully framing the issue as humanistic science versus superstition” (Beeson and Stevens

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36 For example, an August 2004 article excerpt explains that: “The measure promises to be one of the most contentious election issues this year. It pits Nobel laureates, sympathetic patients who could benefit from stem cells and biotechnology interests against religious groups such as the Roman Catholic Church and political conservatives opposed to the research because it involves destroying days-old embryos and cloning.” (AP 8/6/04)
2005: 64). Having already challenged the absolute moral status of nascent life in the national debate prior to Bush’s decision (by framing hESC research as a pro-family rather than an anti-life endeavor), pro-funding claimants now built onto that by drawing out the pro-life movement’s moral rigidity.

To do so, they notably appealed to the public’s empathy through vivid portrayals of the feelings of pain and hope that those who deal with disease often feel. The *New York Times* quoted the following excerpt, summing these emotions up well:

"We are on the edge of one of the great watershed medical discoveries in history," Mr. Klein said. Half of California's families are affected by one or more of the 70 diseases or conditions that could respond to stem cell therapies, he said… (NYT 9/20/04)

Additionally, as the *Washington Post* cited:

"I have a 14-year-old son with diabetes, and my 87-year-old mother is dying of Alzheimer's," said Klein… "I see a tremendous amount of suffering at both ends of the age spectrum." (WP 12/25/04)

Thus, through appeals such as these, while the pro-life movement seemed ideologically rigid and unwilling to accept even the most potentially beneficial new technological developments, pro-funding claimants were able to successfully portrayed hESC research as inherently pro-family.

The pro-life movement’s rebuttal and their portrayal in the media

While pro-funding claimants in California’s discourse over Proposition 71 worked to create a viable political location through a fundraising campaign and a strategy that maximized the campaign’s scientific credibility and ensured that the public would understand hESC research in a non-stigmatized light, anti-funding claimants also brought their own new strategies into the discourse. Like the pro-funding claimants, anti-funding claimants also attempted to bring practical issues into
the discourse over Proposition 71. However, because anti-funding claimants—
dominated by the pro-life movement—largely had the fundamental goal of keeping
the discourse centered around the sanctity of nascent life, their efforts at appealing to
people’s ‘sensible’ sides through moral innovation of their own were not as effective
as they might have otherwise been.

One of the rebuttal strategies anti-funding claimants used in questioning the
morality claimed by pro-funding advocates is to show how the portrayed purity of
pro-funding interests was not as pure as they claimed. One of these impurities that
anti-funding claimants drew highlighted is the pro-funding movement’s connection to
Big Business. As the AP reported,

Ebay founder and billionaire Pierre Omidyar and his wife, Pamela, contributed $1
million to the well-heeled campaign supporting Proposition 71… // The campaign
has raised more than $7 million since last year, much of it coming from Silicon
Valley venture capitalists. (AP 7/14/04)

Another of the impurities anti-funding claimants drew out is the tentative nature of
the therapeutic promise offered by hESC research. As the Sacramento Bee reported,
“abortion foes… contend the bond offers pie-in-the-sky promises” (SB 5/8/04). By
doing this, the pro-life movement looked to appeal to people’s skepticism in and fear
of the institution of science. They looked to break the bonds of trust that are so
important in the construction of credibility. However, because the pro-funding
movement had no scientific credibility, the media and the public ultimately paid such
claims little attention.

Additionally, anti-funding advocates attempted to refute the pro-funding
movement’s economic claims by counter-claiming that hESC research would damage
the state government’s long term economic health. As Gov. Schwarzenegger
explained in August, “It's very clear that we are bonded out. We are at the limit of bonds, and therefore we should be fiscally responsible” (AP 8/10/04). As one anti-funding campaign consultant claimed,

…there were numerous arguments against the proposition, beyond the moral objections. California is already heavily indebted and is having trouble meeting its day-to-day expenses. He also said that the measure… could lead to profiteering by venture capitalists and biotechnology interests. (NYT 9/20/04)

Like the other “practical matter” strategies, this strategy also looked to draw out distrust in science, economically speaking, but with little success in the end.

A second strategy anti-funding claimants used is they leveraged their political strength within the Republic party. As one Bruce Cain, a University of California, Berkeley political scientist, mentioned, "there are political problems… [for Gov. Schwarzenegger] to endorse [Proposition 71] is to incur the wrath of the right" (AP 8/6/04). Through such arguments, anti-funding claimants attempted to undermine the moral authority of pro-funding claims while also affirming the importance of the sanctity of nascent life. However, although these claims and concerns aside from their primary worry about the moral status of nascent human life may have been accepted as legitimate in the discourse, because the public knew the real reason the pro-life movement wanted to avoid developing cures, they ultimately wrote these claims off.

Showing this, the San Diego Union-Tribune cited Zucker, one of those central to the CuresNow campaign who also had connections in Hollywood:

The more we got into this, the more we realized how scientists really have to struggle against politics, and often religion, and small-minded people who always think (the scientists) have gone too far whether it's organ transplants or recombinant DNA. The next new thing always seems ghoulish or scary. // But when these cures become commonplace, we are all lining up to take them. (SDUT 12/19/04)
Thus, pro-funding claimants even used these ‘practical’ arguments against the pro-life movement. Because the media had always portrayed anti-funding claimants as “religious fanatics [that] were standing in the way of progress” (Beeson and Stevens 2005: 65), these claims were never portrayed as the real reason that anti-funding claims resisted approving state financial support for hESC research. Furthermore, because pro-funding claimants were able to create viable political location by playing to the public through emotional appeals and by controlling the flow of information from science to the public to minimize the stigma with which the public perceived hESC research and because pro-funding claimants portrayed hESC research as a pro-family endeavor, they ultimately succeeded in passing Proposition 71. As the *San Francisco Chronicle* reported the morning after the election,

> California voters strongly embraced the promise of stem cells Tuesday night as Proposition 71, which authorizes $3 billion in state bonds for the controversial research, rolled toward an easy victory. // The state ballot measure was running about 59 percent in favor to 41 percent opposed with 40 percent of precincts counted. …// "It's a strong mandate, a message on the importance of advancing medicine in this area," said Robert Klein… (SFC 11/3/04)

But even though Californians resoundingly supported hESC research, throughout the year of 2004, too few policymakers in the national arena held it with enough esteem to give it the political status necessary for it to once again be a primary issue in the national political arena.

**The national arena revisited**

At the end of April 2004, a series of events occurred that led to the re-politicization of hESC research at the federal level. First, as the *Washington Post* reported,

> More than 200 members of the House of Representatives petitioned President Bush… to loosen current rules governing medical research on human embryonic stem cells,
saying the system he imposed nearly three years ago is stifling the promising field and delaying the development of cures. (WP 4/29/04)

Eleven days later, Weiss reported that the White House had responded to the request by promising “Members of Congress… a meeting with a White House representative next week” (WP 5/9/04). Following that meeting, “the Bush administration has acknowledged that additional lines, or colonies, of embryonic stem cells could speed scientific research” (NYT 5/16/04). In that same article, the NY Times notes that Mr. Bush's position had not changed…. even so, Larry Soler, a lobbyist for the Juvenile Diabetes Research Foundation, said the letter was "kind of a turning point," because the administration had never before said its policy might be impeding science. (NYT 5/16/04)

With this statement, the Bush Administration implicitly not only accepted both the claims made by pro-funding advocates that hESC research held therapeutic promise but the Administration also accepted, given that promise, the moral necessity of supporting that funding. Moreover, as the Washington Post explained,

…this was the first acknowledgement by the administration that the science could benefit from added lines, or colonies, of cells -- a change that leaves the president's opposition now resting purely on ethical grounds… (WP 5/16/04)

Because of this, although officially “the president's position [had not] shifted” (WP 5/16/04), the Bush Administration at least showed that they recognized the legitimacy of the pro-funding movement’s most fundamental knowledge.

Then, three weeks after this flurry of activity, former President Ronald Reagan died. His death, of “pneumonia, a common complication [of Alzheimer’s disease]” (HC 6/6/04) on June 5, 2004, provoked a flurry of media activity surrounding Reagan’s life and legacy. Because Reagan had “Alzheimer's disease, the feared ailment that afflicted former President Reagan for a decade before he died” (HC 6/6/04), a notable portion of the media discourse regarding Reagan’s legacy
actually had more to do with Nancy Reagan’s activism for medical research on Alzheimer's disease. As William Safire noted following Reagan’s death,

The outpouring of respect and affection for Ronald Reagan the principled president and principal Alzheimer's victim -- may help resolve the impasse blocking greater federal support of the use of embryonic stem cells in biomedical research. ...// Here is where the ghost of Ronald Reagan comes in. Nancy Reagan has for some time advocated bringing the talents and financial muscle of the National Institutes of Health to bear on diseases like Alzheimer's, Parkinson's and diabetes. (NYT 6/7/04 Safire)

Although Nancy Reagan may have placed most of her energy advocating for government support of hESC research into more private lobbying,37 her efforts were much recognized throughout the media discourse.

Even if Reagan rarely had direct media standing through direct citation of her claims, the media still drew much greatly on Regan’s actions because of their symbolic meaning. Regan’s mere presence on the pro-funding side of the debate symbolized that truly compassionate conservatives would differentiate between the status of life at stake with the issue of abortion and the life at stake with hESC research. Just as the media drew on the compassionate conservative symbolism offered by Hatch, Frist and other politically ‘unusual’ supporters of hESC research as symbolic, the media also drew on Regan’s benevolent but still pro-life stance as well.

**Presidential election 2004**

Given this coverage of hESC research in the months of May and June of 2004, when the Presidential campaigns began ramping up later in the summer, hESC research held a place on many of the candidates’ platforms. As the *NY Times* reported of Kerry’s campaign effort in one New Hampshire town:

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37 As USA Today stated: “Former first lady Nancy Reagan has called on Bush to reverse his position limiting federal support for embryonic stem cell research because of its potential for curing Alzheimer's disease, which took her husband's life last June.” (USA 8/26/04)
Here and at a town hall meeting in Hampton, N.H., Mr. Kerry, the Democratic presidential nominee, stood with parents of juvenile diabetes patients who said they were registered Republicans but would be voting for Mr. Kerry this fall. He pointed out that he had the endorsement of 48 Nobel laureates in science, was introduced by the actor Michael J. Fox -- who has Parkinson's disease and is a major advocate of embryonic stem-cell research -- and invoked America's "willingness to search for the next big breakthrough." (NYT 10/5/04)

Figure E: Thus picture shows that Senator Kerry cares about families coping with disease (NYT 10/7/04, Photograph by Stephen Crowley/New York Times).

As well, at the Democratic National Convention, Democrats attempted to capitalize on their embrace of hESC research. Ronald Reagan Jr., a devout liberal, gave a speech arguing that “the issue should be nonpartisan: ‘Whatever else you do, come November 2nd, I urge you, please, cast a vote for embryonic stem cell research.’” (HC 7/28/04). But even though he stated that hESC research should no longer be partisan, his speech made it clear that support of hESC research ought to be seen as a Democratic issue. As the Houston Chronicle reported:
With remarks aimed directly at Bush's policies, Ron Reagan gave Kerry a thinly veiled endorsement by urging voters to set aside the "theology of the few" to promote the science of embryonic stem-cell research. // "We can choose between the future and the past, between reason and ignorance, between true compassion and mere ideology," Reagan said. (HC 7/28/04)

But while rhetoric painting anti-funding claimants as dogmatic and ideological worked with California’s already liberal and secular population, such rhetoric did not work as well in the national arena. This is especially so because the discourse over hESC research was convoluted by a number of other important issues that the Presidential candidates chose to emphasize over hESC research. Even in their last debate over the “Domestic Front” (WP 10/14/04), Kerry and Bush did not touch the matter of hESC research but rather spent their time “battl[ing] sharply over domestic issues [such as] the economy and health care” (WP 10/14/04). In the end, Kerry lost the election and Bush’s hESC research policy decision remained.

Congress acts and President Bush decides again

The April following the election, with a Republican dominated House, Senate and Presidency,

House G.O.P. leaders, who in the past quashed proposals to moderate President Bush's restrictions on federal financing for stem cell research, have finally given approval for a floor debate and vote on the issue sometime in the next few months. (NYT 4/11/05)

The bill, called the Stem Cell Research Enhancement Act of 2005, “would permit federal money to fund research on stem cells taken from days-old embryos stored in freezers at fertility clinics and donated by couples who no longer need them” (WP 5/19/05). Through this piece of legislation, pro-funding claimants attempted to capitalize on one of the ‘practical issues’ that had been most often mentioned
throughout the discourse—that many embryos created through IVF to implant in infertile women end up being discarded.

In the face of pro-funding advocates claiming they had enough support to pass the bill,38 “President Bush vowed yesterday to veto legislation intended to ease the restrictions he imposed on stem cell research in 2001” (WP 5/21/05). Even so, the House took the issue to vote in defiance of “President Bush's threat to impose his first veto” (WP 5/25/05). The result of the vote was that

…a broad swath of House Republicans voted with an overwhelming number of Democrats… to repeal his restrictions on federal funding for embryonic stem cell research and plunge the government deeper into the controversial science that supporters say could lead to cures for debilitating diseases. (WP 5/25/05)

Notably, the substantial number of Republicans voting to expand the government’s support of hESC research did so acknowledging that they

…were breaking voting records they described as "pro-life" and said they were doing so because of their interest in pursuing potential cures for diabetes, Parkinson's, spinal cord injuries and other ailments. (WP 5/25/05)

At the national level, then, hESC research finally seemed on its way to becoming more of a bi-partisan issue. Although the pro-life movement still insisted on the immorality of hESC research, numerous conservative federal policymakers had now recognized that the pro-life stance would not resonate with the public as it had with abortion and IVF research. Congressional Republicans here were building on the moral innovation conducted earlier by Orin Hatch and other pro-life, pro-funding conservatives.

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38 As Connolly and Weiss of the Washington Post reported: “House backers of legislation that would loosen restrictions imposed by President Bush in 2001 say they have 201 co-sponsors and enough private commitments to put them at or over the 218 votes needed to pass” (WP 5/19/05).
But for this pro-funding success to mean anything, the Senate would have to pass a similar bill, and would likely have to do so with enough support to override a likely Bush veto. However, at least a few Senate Republicans wanted to make this passing greater government support for hESC research a reality. Building on the same pro-family, pro-life arguments they had made widely in the media discourse prior to Bush’s August 2001 decision, many of the same politicians again now appeared in the media advocating for federal financial support of hESC research.

As USA Today reported, Senate Majority Leader Frist announced his “break with the White House [in July of 2005] by supporting expanded federal funding for embryonic stem cell research” (USA 8/1/06). As Frist stated about his decision,

“I am pro-life. I believe human life begins at conception,” said Frist, who is also a transplant surgeon. “I also believe that embryonic stem cell research should be encouraged and supported.” (USA 8/1/06)

But that said, as the Washington Post noted,

A full year after the House passed legislation that would loosen President Bush’s restrictions on human embryonic stem cell research, the Senate is coming under intense pressure to tackle the controversial bill -- in the awkward new context of an election year. (WP 5/24/06)

The Senate had still not addressed the matter of furthering the government’s support of hESC research. Frist explained that he was “working with a number of colleagues on both sides of this issue to see if we can bring this up in a thoughtful and productive manner” (WP 5/24/06).

By July of 2006, Frist and other pro-funding Republicans had largely convinced their colleagues that a version of the Houses 2005 bill should reach the Senate Floor. As the NY Times noted, the “Senate Appears Poised for a Showdown With the President Over Stem Cell Research” (NYT 7/16/06). But even before the
vote, Bush again announced that he would veto any pro-funding acts passed by Congress. As the *Houston Chronicle* reported,

> Karl Rove, Bush's top political adviser, made it clear that Bush would likely wield his veto pen if the Senate approved the stem cell legislation. "The president is emphatic about this," Rove told the media. (HC 7/17/06)

And indeed, when the Senate passed a version of the House’s bill on July 19th, President Bush vetoed their bill.

![Babies born of in vitro fertilization were at the White House…](NYT 7/20/06, Photograph by Alex Wong/Getty Images)

**Fig. F:** “After President Bush rejected a stem cell bill, both sides held news conferences. Babies born of in vitro fertilization were at the White House… (NYT 7/20/06, Photograph by Alex Wong/Getty Images)

However, Even though Bush attempted to visually and verbally frame his veto decision as pro-life, the media and pro-funding claimants largely wrote off his decision as political rather than moral. As one journalist from the *NY Times* reported,

> In one respect, the veto plays to Mr. Bush's personal strengths, reinforcing the perception that he is someone who makes up his mind and sticks to it, ignoring the polls. But Democrats are determined to make the veto a central theme of their fall

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39 Bush explained that: "‘…he thinks murder's wrong,’ White House spokesman Tony Snow said. ‘The president is not going to get on the slippery slope of taking something living and making it dead for the purposes of scientific research.’" (HC 7/19/06). Moreover, Bush held his news conference after the veto announcement in the presence of "babies born of in vitro fertilization" (NYT 7/20/06). Called “snowflake babies” (HC 7/19/06) by much of the press, the President impressed upon his nation that “these boys and girls are not spare parts…they remind us of what is lost when embryos are destroyed in the name of research” (NYT 7/20/06). The power in that image, captured by the press and published on the front page of the New York Times and many other papers, may be seen in figure A.
election campaigns, hooking it in with another hugely divisive medical issue -- the Terri Schiavo right-to-die case -- to argue that Republicans are beholden to the religious right. (NYT 7/20/06)

Quite clearly to all viewing the political dynamics and popularly understood moral knowledge, President Bush vetoed that bill for political reasons, because he wanted to maintain his ties to the pro-life movement.

Thus, while, in his decision to veto Congress’s attempt to broaden the government’s support of hESC research, Bush maintained a conception of morality that respected the absolute sanctity of nascent life, the pro-life movement’s absolute conception of the moral status of nascent life had already lost significant support with regard to the politics of hESC research. As the *NY Times* also wrote,

…the promise of embryonic stem cell research has pushed some Republicans toward positions in which black-and-white beliefs about the sanctity of life have given way to more nuanced and ethically complex stances. (NYT 7/20/06)

Thus, because of pro-funding claimants’ success at redefining the concept of ‘pro-life morality,’ the media noted that “the ground [was] shifting in the debate, and… that opponents of the research were ‘losing the argument with the American people’” (NYT 7/20/06).

**Missouri 2006: Amendment 2**

In the midst of the Congressional debate over the extent which the federal government should fund hESC research, pro-funding claimants also provoked a public debate over whether hESC research should be legalized in the “red” state of Missouri. The debate about a public referendum explicitly legalizing hESC research in Missouri initially began in late 2005. As the *Washington Post* wrote, “a well-

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40 Although the Missouri pro-hESC research claimants were not arguing for state funding of hESC research but rather that hESC research be explicitly allowed in Missouri, I will still continue to call this side of the debate the pro-funding side for the sake of continuity.
funded coalition of research institutions and patient advocacy groups” (WP 12/25/05) began talking up a ballot amendment which would legalize hESC research. Because they had been “frustrated by legislative attempts to ban early stem cell work in a state with a significant stake in biomedical research” (WP 12/25/05), the group would make Missouri “the first state [in the nation] to formally recognize a right for scientists to conduct federally approved embryonic stem cell research, and for patients to receive treatment” (WP 12/25/05). Through a ballot initiative that “would amend the state constitution to [explicitly] allow research using embryonic stem cells” (USA 10/26/06), the Missouri Coalition for Lifesaving Cures looked to explicitly legalize hESC research, similarly to how California and New Jersey had in the past.

**Strategic framing in Missouri: hESC research, promise and hope**

Building on the strategy innovated in California two years earlier, pro-funding claimants again attempted to frame hESC research as a pro-life endeavor. Not only did pro-funding advocates claim that Amendment 2 would prove economically beneficial for the state of Missouri, but they also argued that this amendment would ensure that Missourians would therapeutically benefit from hESC research. The public ultimately accepted these claims because of the trust that they had in the institution of science and also because of the need that pro-funding claimants showed for hESC research to be supported in the state of Missouri and the U.S. at large. Because the public trusted that science would use their research to develop needed therapies, they understood hESC research as fundamentally supporting their
conception of the family. Human ESC research gave individuals in the public hope that their lives and their family’s lives would be happier and healthier.

Moreover, pro-funding claimants were able to so effectively push this conception of hESC research at the public because of their ability to set the factual boundaries of this ballot initiative policy debate. Through their scientific credibility, their moral authority and now economic authority, pro-funding claimants controlled the knowledge claims accepted within the discourse on three politically strategic fronts.

First, like in past debates, one important way that pro-funding claimants set the boundaries of the discourse is by differentiating between the ethics of cloning research and hESC research. This minimized the ‘scariness’ factor of hESC research, and enabled pro-funding claimants to portray society as very much in control of hESC science. The following excerpt shows this well:

A small but vocal minority of state lawmakers repeatedly has tried to hijack the bioethics debate, sometimes making the false and outrageous - argument that Amendment 2 would allow human beings to be cloned. Untrue. They've attempted to ban a technique that someday could be used in embryonic stem cell treatments. (SLPD 10/22/06)

Second, even more importantly, through an incredibly effective demonstration of the need for hESC science (which again drew on the public’s empathy and personal knowledge of disease), pro-funding claimants constructed themselves as morally authoritative. Specifically, pro-funding claimants used emotionally powerful personal interest stories even more effectively and frequently in their media campaigns than they had before. For example, the *Washington Post* told the following story of a young injured military veteran. A story of tragedy and hope, the *Post* wrote that:
As Jeff McCaffrey views the Missouri stem cell debate, the case for research is clear. Paralyzed in a traffic accident, the former Air Force Academy cadet sees embryonic stem cell work as "faithful, godly and absolutely moral." // "Hopefully," said McCaffrey, 21, "people like me can get out of our wheelchairs." (WP 12/25/05)

Moreover, in the same article, the Post also cited Donn Rubin, chairman of the Missouri Coalition for Lifesaving Cures, as stating the following about advocates of hESC research:

"All we're trying to do is to ensure the freedom in our state to pursue cutting-edge medical research and to ensure that when cures and treatments are found, Missourians have the same access as any other American would have." (WP 12/25/05)

Claims like Rubin’s and stories like McCaffrey’s allowed pro-research advocates to make emotional appeals to the public’s experiential knowledge in arguing that it be morally imperative to support hESC research.

Moreover, these themes also emerged later on in the debate, most notably surrounding around Missouri’s congressional Senate race. Clair McCaskill, challenging the incumbent Republican Jim Talent, took her support of hESC research on as a particularly important issue in her campaign. As the Washington Post noted,

McCaskill… has sought to paint Talent as a conservative extremist on the issue of embryonic stem cell research. //… Talent opposes the measure because he said it could lead to human cloning. "My faith directs me to heal the sick," McCaskill countered. (WP 10/9/06)

Through statements like this, McCaskill and other pro-funding claimants again framed hESC research as a pro-life/pro-human endeavor. Furthermore, that McCaskill took on hESC research as a major issue in her campaign meant that the hESC research ballot amendment received more publicity as well. This is especially so, as I show later on, in that McCaskill stated support of the Amendment effectively mobilized national support for this state initiative.
Third, pro-funding claimants also insisted that the passing of Amendment 2 would bring Missouri economic as well as therapeutic benefits. Notably, they did this conducting a study that the media accepted as official. As the *St. Louis Post-Dispatch* reported in mid-September, pro-funding claimants proved to the public through a report that:

…the state could lose billions of dollars if the initiative fails. // The report …tallies federal research dollars flowing to Missouri universities and growth in corporate and philanthropic R&D spending. The study figures in a boost to state productivity from ailing people who, with effective medical treatments, could return to the work force or contribute more. (SLPD 9/15/06)

Although polls, surveys and studies often simply reflect the beliefs of the group funding them, the media did not take such a cynical view of the ‘facts’ published in that economic study. Instead, the media simply unquestionably accepted the its credibility. In this way, pro-funding claimants not only capitalized on their scientific and now moral authority, but they constructed themselves as economically authoritative, as well.

While in the beginning of the debates over hESC research, pro-funding claimants only held scientific authority and credibility, now pro-funding claimants had such legitimacy on three politically respected planes.

**The (non-partisan!) politics of disease**

But even given that pro-funding claimants had made these claims to the public as best they could, their success at the Missouri polls was by no means guaranteed. As the *Washington Post* observed early in Missouri’s discourse, “Missouri is by any estimation a red state -- it went strongly for Bush in November and elected as governor Matt Blunt, an antiabortion Republican” (WP 12/25/05). Based on this precedent, so long as hESC research remained a partisan issue, dichotomized along
the pro-life conception of morality as with abortion politics, the citizens of Missouri would likely choose not to support it.

However, pro-funding claimants were indeed successful at reframing hESC research as a non-partisan, cure-making and life-saving endeavor. They made highly emotional appeals in the public discourse to the public’s empathy, in a way that resonated with the public’s everyday experience. As the AP reported in early October, “Rubin said stem cell research and cures are not a partisan issue. // ‘Disease does not know political parties,’ he said” (AP 10/5/06). While pro-funding claimants here did not drop the scientific authority underlying their claims, the scientific aspect of the pro-funding movement’s claims no longer appeared so glaringly. Now, rather than focusing on the scientific reasons for hESC research to be understood as promising, the pro-funding movement simply assumed that promise as fact and built on it with claims showing the research’s intrinsic moral component.

Furthermore, the most notable example of pro-funding claimants’ use this strategy did not even occur until about two weeks before Election Day. On the evening of October 21, pro-funding claimant and former actor Micheal J. Fox appeared in an ad promoting Clair McCaskill because of “her support for embryonic stem cell research” (AP 10/23/06). The ad had a number of significant attributes. Most notably was the content of the ad. As the AP noted,

His body visibly wracked by tremors, actor Michael J. Fox speaks out for Missouri Democratic Senate candidate Claire McCaskill… // "As you might know I care deeply about stem cell research," says 45-year-old actor, who has struggled with Parkinson's disease for more than a decade. "In Missouri you can elect Claire McCaskill, who shares my hope for cures." (AP 10/23/06)

Shaking visibly throughout the ad, a normal side effect of Parkinson’s disease, Fox not only orally appeals to Missouri’s voters, but does so visibly. In the ad, viewers see
Fox—only 45 years old, one of America’s most well known celebrities—dealing with
the ramifications of a disease held by many Americans. This visually authentic
rhetoric, more so than any verbal argument ever could, convinced the people of
America that if scientists can overcome disease, then society must aid them in that
pursuit.

In addition to visually demonstrating the need for a cure to Parkinson’s, Fox
also demonstrated that need in front of many diverse viewers. As the AP explained,

The new ad debuted prominently Saturday night during Game 1 of the World Series
between the St. Louis Cardinals and the Detroit Tigers and will continue airing
statewide this week, a campaign spokeswoman said. (AP 10/23/06)

Through their placement of this ad during such a prominent sporting event, McCaskill
and Fox made this graphically jarring and emotional appeal to as large and diverse a
group of Missourians as possible. And not only did many Missourians see the ad in its
original performance, but those who did not likely heard of the ad from the media or
from workplace gossip. Shortly after showing on the air, the ad was placed on
YouTube.com, and, as of March 23, 2007, has received 2.3 million views. All of this
publicity alone would likely have pushed Amendment 2’s support over the edge.

However, two days after the ad was first shown, Rush Limbaugh publicly
critiqued the ad. Then, four days after the ad ran,

…opponents… unveil[ed] their own commercial during the World Series…// The
Cardinals’ starting pitcher for Game 4, Jeff Suppan, is among several celebrities who
appear in the minute-long ad.” (AP 10/25/06)

As a number of commentators mentioned, both Limbaugh and the second group of
anti-funding claimants (also including Patricia Heaton from “Everybody Loves
Raymond” and other St. Louis pro-athletes), through their reactionary campaigning,
damaged their own reputations and allowed Fox and McCaskill to garner even more positive media attention, more than anything else. As the New York Times explained,

Rush Limbaugh rushed in to discredit Mr. Fox, though he mostly hurt himself. Mr. Limbaugh, the conservative radio talk show host, told his listeners that the actor either 'didn't take his medication or was acting. (NYT 10/25/06)

Additionally, as the NY Times also detailed at a later date:

[Then] The Internet floodgates opened. Web sites weighed in on "Fox v. Heaton" and generally eviscerated her. On YouTube.com, April Winchell, a California radio personality, posted a 38-second remix of Ms. Heaton's clip. It starts out saying, "I'm Patricia Heaton, and I'm a religious zealot who thinks she knows what's best for everybody" and gets uglier from there: "I could give you the whole story, but I'd rather beat you over the head with my Bible… (NYT 12/31/06)

Such comedic rhetoric played off the ideas that supporting hESC research should be morally obvious, and that those opposing it only did so on ideological grounds which were removed from the facts of reality.

But through all of this,

Said coalition chairman Donn Rubin: "The only dance we're doing is the nonpartisan dance. . . . Amendment 2 stands on its own merits. There is no reason for the stem cell initiative to get intertwined with partisan politics." (STPD 10/5/06)

Thus, because pro-funding claimants used broadly viewed and publicized emotional appeals to strengthen their own kind of pro-life moral authority, pro-funding claimants managed success in Missouri, a decidedly conservative and Republican state. Even more than in California, when anti-funding claimants attempted to refute the pro-funding movement’s claims, they came off as religiously dogmatic and calloused to the needs of innocent but pained human beings. The media (and the online discourse, as well) portrayed anti-funding claimants to the public such that they appeared anything but being in favor of life and the wellbeing of families.
Because of this as well as the trust the public had long placed in the institution of science, proponents of Amendment 2 won out in the end. As of the *St. Louis Post-Dispatch* reported,

With the passage of Amendment 2, Missouri business leaders are ready to stop talking about stem cell research and start shouting a new message: The state is open to biotech and anxious to get deals done. (SLPD 11/9/06)

Having earned the support the citizens of Missouri, hESC scientists and their supporters were eager to start the business of researching.
Looking back at the controversy over human embryonic stem cell research so far, neither side has “won” this war in a clear cut manner. To break the controversy into the political arenas in which it occurred, while pro-funding claimants won two of the most prominent state level debates, they achieved relatively little ground in the national arena past Bush’s very limited agreement to support hESC research in his “compromise.” While pro-funding claimants seem to have convinced the public that hESC research ought be considered morally imperative, they have failed, for the moment, to achieve their goal in the national political arena. Alternatively, because the pro-life movement largely managed to maintain the anti-funding status quo in the federal arena (with the exception of Bush’s compromise, in which Bush agreed to fund research on a limited number of already derived hESC lines) pro-lifers have thus far been successful in achieving their primary goal. Especially considering Bush’s veto of the 2006 stem cell funding act, at the national level, the pro-life movement ensured that both their hold on abortion politics and their conception of the family were not marginalized.

**Strategy revisited**

Reframing hESC research by co-opting the pro-life movement’s concept of ‘pro-life morality’ and using it as their own, pro-funding claimants made hESC research politically viable, especially in the California and Missouri political arenas. Through emotionally charged claims regarding the *need* for hESC research in
American society, pro-funding claimants constructed hESC research as being not just about progress, but also about the hopeful and humanistic characteristics of hESC research. By symbolically wresting hope away from the fetus and giving it instead to the diseased and injured, pro-funding claimant’s conception of morality resonated with the American public across political party lines.

In order to successfully promote that moral truth, pro-funding claimants enacted a number of critical strategic moves. They used their scientific authority to construct the promise of hESC research as fact in the media. Through bi-partisan and pro-family rhetoric, they broke hESC research away from partisan association imposed upon it by the pro-life movement from the beginning of the public controversy. They ensured that hESC research would be not be stigmatized through its association with cloning, and they did so by controlling the language used to talk about hESC research in the public discourse. By playing up the hope held by particular individuals that hESC scientists would one day develop cures, pro-funding claimants used highly emotional appeals in speaking of the necessity of government support for hESC research. And, perhaps most importantly, pro-funding claimants persevered until they found a political arena willing to consider their moral claims outside of the absolute demands of the pro-life movement.

Ultimately, because of the pro-life movement’s dominance over morality in the political discourse, the only way pro-funding claimants could win against the pro-life movement’s moral argument was through portraying hESC research as more moral than not to American voters. Since the nation’s elected policymakers had shown themselves unwilling to act contra the pro-life movement’s moral knowledge,
pro-funding claimants were forced to appeal to the power of the public in order to align the interests of the government with their own. After trying numerous other political alternatives, pro-funding claimants took their battle to state ballot initiative arenas in California and Missouri. But not only did they expand their strategy geographically, they also expanded rhetorically through increasingly emotionally striking means of portraying hESC research as a pro-life life endeavor. This importantly allowed pro-funding claimants to finally sever the pro-life movement’s political ownership of the family. Having successfully pushed their moral truth to the public, pro-funding claimants managed to win ballot initiative battles at state arenas, in both a “blue” state and a “red” state.

But the national arena proved a different story. Although Bush attempted to resolve the controversy through a political compromise, his decision did very little to satiate the desires of either side. His decision drew the ire of pro-life claimants because it did not entirely condemn what the pro-life movement saw as marginalizing the moral status of human life, the traditional conception of the family and the social-status of their worldview. Because pro-life claimants then feared (and continue to fear) the even greater marginalization of their status in American society, they have continued struggling to maintain what political ownership they have in this battle.

Furthermore, Bush’s decision also failed to satisfy pro-funding claimants; Bush refused to support any research further requiring the destruction of human embryos. In maintaining that ethical standard, Bush limited scientists’ ability to conduct their “best” science. Since scientists have not been supported by the federal government—the organization with the greatest financial ability to support science—
as fully as scientists and their supporters would like, they have persevered in attaining that funding. Thus, because both sides still hold social and political power, and remain upset and unwilling to give further ground to the other, the controversial nature of the discourse continues.

Considering this, it might seem that in the national arena, neither group definitively won. However, in another sense, because the pro-life movement has been able to use their political ties to keep the Bush Administration from fully supporting hESC research, pro-life claimants have accomplished much of what they set out to do. Because the absolute sanctity of nascent human life has mostly been upheld in the hESC research of the federal government (with the exception of Bush accepting stem cell lines derived before his policy decision), the pro-life movement has mostly maintained the status of their worldview in American society. Of course, mostly has never been acceptable for the pro-life movement, but in this case, considering Bush’s refusal to allow further federal support for hESC research, the movement has happily (enough) taken what it has been able to get. In this light, in the ultimately most important national policy arena, pro-funding claimants have largely lost this war so far.

**Moral knowledge and American society**

Because Americans of all sorts trust that scientists will come through on their therapeutic promises (given that they receive adequate support from society with which to do so), and because the public also sees the need of many in society for those promised therapies, the American public understands that the government’s financial support of hESC research would be in their best interest. They understand
that hESC research has the potential to make their own and their family’s lives healthier and thus happier. A world without life-sapping diseases such as Alzheimer’s and Parkinson’s seems far more moral to Americans than does a world where 5-day old embryonic human life which had already been created and discarded was not destroyed.

In fact, those discarded embryos had been created in the process of IVF, which Americans have also accepted as a pro-family endeavor (though not one yet warranting federal financial support). That pro-funding claimants managed to portray hESC research in a manner that supported and reinforced the American public’s conception of the family meant that the public ultimately accepted hESC research as a moral endeavor. But although pro-funding claimants’ moral knowledge has become widely accepted as moral truth, for political reasons, they still have not found victory at the national level.

Even though pro-funding claimants have successfully claimed that hESC research supported rather than marginalized the American public’s conception of the family, the pro-life movement remained tied to the idea that the ‘relativization’ of nascent life, moving it away from its status as absolutely sacred, would marginalize not only what ownership they still maintained over abortion politics but also the status of the traditional conception of the family. The status of the traditional conception of the family in American society remains existentially important to pro-life claimants, because they have founded their very lives and identities around its significance.
Although the absoluteness of that moral concept was powerful in the abortion debates, the pro-life movement’s inability to adapt what the public understood as pro-family technology into their moral conception ultimately hurt their standing in the debates over hESC research. Rather than perceiving the pro-life movement as fundamentally concerned with the family like in the abortion controversy, by holding onto their absolute conception of the moral status of nascent life in the hESC research debates, pro-life claimants appeared to the public as inflexible and overly ideological. But because of the necessarily absolute nature of their moral conception (their ownership over abortion politics depended on that very absoluteness), the pro-life movement could not possibly accept hESC research as moral while also maintaining their ownership over abortion politics. The move towards the relative (as opposed to their position, at the absolute) that such a change would necessarily entail might have caused the pro-life movement to lose even more of their ownership over abortion.

However, while pro-life claimants had to consider the political ramifications of altering their moral stance, the American public did not take political strategy into consideration in their consideration of the morality of either abortion or hESC research. Rather than dwelling on the political implications of a change in their moral conception of nascent life as the pro-life movement had to, in considering the morality of abortion and hESC research the American public simply considered the effect of each issue on directly on the traditional institution of the family. While the public has often understood abortion as preventable and thereby placed implicit guilt on mothers who fail to control themselves carefully or “properly,” the public clearly understands that (non-sexually transmitted) diseases take only innocent lives.
Moreover, while, since many Americans perceived the act of abortion as unabashedly “narcissistic” (Ginsburg 1989: 128) and thus also understood abortion as anti-family, the public accepted hESC research as a moral endeavor because it promised to cure the diseased. Klein captured this last point well when he stated that that he sees “a tremendous amount of suffering at both ends of the age spectrum” (WP 12/25/04)—his implicit argument being that hESC research promises to make life better for both ends of the spectrum.

Thus, because the pro-life movement had driven themselves into a corner by insisting on the absoluteness of the moral status due to nascent human life, they were ultimately unable to alter their moral conception such that it aligned with the public’s. Although, through Bush’s loyalty to the pro-life movement and their cause, the movement will likely maintain the controversy over hESC research so long as Bush holds office, the success of pro-funding claimants in Missouri suggests that hESC research will become a significant issue in the upcoming presidential election. While it seems unlikely that the Republican party will nominate a Presidential candidate who does not comply with the pro-life movement’s requests, the Party will undoubtedly feel pressure from pro-funding claimants arguing that America’s conservative party is not as pro-family as it claims to be.

The even bigger question

Why do we believe what we believe? In light of the discursive action that I have drawn out, the prevailing moral knowledge of hESC research in the national discourse ultimately took its lead not from one produced out of thin air by the institution of science, but from a conception of knowledge that already existed widely
in American society. As Luker and Ginsburg’s work shows, America has long thought of the bourgeois family unit as the most moral unit of people in society. Because of this, in the public controversy over hESC, the place of the family in society, fundamentally determined the role in American society hESC research should play. In arguing, through emotionally powerful visual and verbal rhetoric, that hESC research should be seen as a moral endeavor because of its promise to cure disease, pro-funding claimants effectively shifted the public’s perception of “the family’s best interest” to a far broader level than before. With hESC research in the picture, the public understood the future of their families not only through symbolism of the fetus as the future, but also through science as hope for a better future.

Still, pro-funding claimants have only manipulated the public insofar as they have been able to frame hESC research in terms of the experiential moral knowledge already existing in society. Pro-funding claimants merely managed to frame hESC research as fitting in with what the public already knew. They only affected the public’s conception of the family, not that the public held the family with the highest esteem.

And so long as scientists can construct their scientific endeavors as supportive of and beneficial to the traditional conception of the family, given America’s long history supporting biomedical science, biomedical science will indeed likely have a place in American society. The institution of science has indeed aligned its interests with those of the public and most policymakers in convincing fashion; given their great credibility and unquestionable authority over scientific knowledge, society has had and will no doubt continue to have much difficulty resisting scientists’ claims—
especially when scientists claim that they look to ameliorate what the public understands as such undiscriminating and heartbreaking problems like Parkinson’s disease and juvenile diabetes.

In light of this, the public and its policymakers must tread carefully so as to not be taken advantage of by empty promises made by the institution of science. While the institution of bioethics claims to act as an informed control on science, compromising the innovative drive of science with morality, Stevens argued in 2000 that bioethics has primarily been a mere political tool for both sides of this controversy (and others) thus far over the four decades of its history. Considering the politicized nature of the institution of bioethics, it alone will not likely have the power to reign in science except when they can portray it as out of control—as marginalizing rather than benefiting the family’s future. An atmosphere of skepticism must instead guard against the institution of science’s optimistic and impulsive nature.

But as well, this skepticism must walk a fine line. While it would be a shame to bankroll more largely fruitless pursuits such as the Human Genome Project, it would be even more of a shame to disallow the institution of science to continue improving the quality of life for not just Americans, but also for the citizens of the world. Of course, with the therapies developed through human embryonic stem cell research—should they indeed happen in the future—many other distribution-related issues will arise which will need to be dealt with fairly at that time. But for now, the primary question that policymakers (or at least those who accept that embryonic human life holds a relative rather than absolute moral status) should be asking is
whether hESC research will likely cost American society more than it will provide in benefits. That question can only be known with any level of confidence in the future; until then, America’s policymakers must speculate to the best of their ability. And they must be clear that their best efforts are mere speculations, biased by science (and the production of other knowledge—namely, that of the pro-lifers’ and traditionalists’) as politics. If policymakers do not make the source and nature of their speculation transparent, the public will be that much more easily swayed by scientists’ tempting and oft overblown promises. Then, the institution of science will gain a truly invisible kind of hegemonic power.
Appendix A: 
Methodology of the media discourse analysis

I conducted the primary source research backing this thesis through an analysis of the American daily print media discourse over hESC research. I based my analysis of the national media discourse on the content of five geographically diverse newspapers with some of the nation’s highest circulation numbers (see figure G). In collecting the articles for my analysis, I searched the term “embryonic stem cell” on Lexis Nexus for the Chicago Sun Times, the Houston Chronicle, the New York Times, USA Today and the Washington Post, between November of 1998 and the 2006 November election. Prior to conducting this sample, I had already identified that the public controversy over hESC research had not existed before November of 1998, and thus have insured that I left nothing significant out of the media discourse specifically addressing hESC research.

After collecting the nearly one-thousand articles from the search, having cut out irrelevant and overly short articles (those less than 200 words), I collected a sample of articles—one out of every 10 from the pool of relevant articles from all five papers—spanning the length of time of my analysis and read through that sample entirely. This gave me a thorough idea of the major events, institutions and actors in the public controversy as well as how the discourse changed over time.

Having read that sample, I realized that much interesting action had happened (and was happening at the time, in Missouri, as I conducted much of this research in

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41 I used this rather general term in searching because more specific searches tended to exclude some of the earlier articles that I wanted to included in my analysis.
November of 2006) in various state arenas. Although a number of states besides California and Missouri had dealt with the issue of hESC research either legislatively or through ballot initiatives, the public debates spawned by Proposition 71 and Amendment 2 seemed the most interesting.

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<td>5</td>
<td>Washington Post</td>
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<td>6</td>
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<td>Chicago Tribune</td>
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<td>Houston Chronicle</td>
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<td>Dallas Morning News</td>
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<td>649,709</td>
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<td>11</td>
<td>The Arizona Republic—Phoenix, AZ</td>
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<td>Newsday—Melville, NY</td>
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The controversy surrounding Proposition 71 was an obvious candidate to be more closely analyzed, because Proposition 71, as far as the national media discourse showed, represented the first major state action taken towards funding hESC research. And not only that, but it remains, at $3 billion, by far, the most substantial. I chose Missouri for a somewhat more arbitrary reason: primarily, because it was the only “red” state that had dealt with the matter of supporting hESC research so publicly and to such notoriety in the national arena. Once I had determined that I would conduct a more in depth analysis on these two public debates, I again searched each state’s major papers for “embryonic stem cell” on Lexis Nexus. Ultimately, I used articles
published about the state debates by the national media as well as articles by each state’s media in my analysis of each of the debates.

Using the data described above, I have produced a detailed description of the public controversy over human embryonic stem cell research. I have also used a number of secondary sources for support in my interpretation and analysis of this data. The success of my argument depends not only on my description and interpretation of the public controversy, but also on my interpretation of primarily Luker’s and Ginsburg’s interpretation of fundamental motives and interests of the pro-life movement. I base my understanding of pro-life claimants off of theirs.
Works CITED

Part one: Including anything cited not from a newspaper

(http://www.pollingreport.com/science.htm#Stem).


(www.burrellesluce.com/top100/2005_Top_100List.pdf)


(http://www.nih.gov/about/almanac/appropriations/index.htm.)


(http://stemcells.nih.gov/info/glossary.asp)


Washington, D.C.


**Part two: Newspaper articles, in chronological order**


Friend, Tim. 1998. “Human cells grown in lab for first time.” *USA Today*. Nov. 6, 1A.


“Embryo research debated; Battle rages as cells grow in lab” 1998. Chicago Sun-Times, Nov. 15, pg. 43.


Friend, Tim. 1999. “Presidential panel backs research on embryo cells.” USA Today, July 14, 1D.


Allen, Arthur. 2000. “God and Science; The discovery that the most basic human cells can be grown in a petri dish has opened up breathtaking possibilities for


Friend, Tim. 2001. “Debate intensifies over stem cell research. Created embryos, use of public funds at issue.” *USA Today*, July 12, 10D.

Weiss, Rick. 2001. “For President, No Easy Solution to Stem Cell Debate.”


Friend, Tim. 2001. “From tiny stem cells, large life issues.” *USA Today*, July 19, 8D.


Kiely, Kathy and Mimi Hall. 2001. “Stem-cell debate hits home for lawmakers.” *USA Today*, Aug. 8, 1A.


Kiely, Kathy and Jessica Lee. 2001. “Stem-cell fight now moves to Congress.” *USA Today*, Aug. 10, 4A.


Associated Press State & Local Wire, Feb. 7.


Associated Press State & Local Wire, July 14.


Roth Bennett. 2006. “Senate poised to OK more stem cell research funding; Legislation expected to bring Bush's first veto, which isn't likely to be overridden.” *Houston Chronicle*, July 17, A6.


Roth Bennett. 2006. “Bush's first veto denies more funds to embryonic stem-cell researchers; He contends he took the 'balanced approach' on issue that drew support across party lines.” *Houston Chronicle*, July 20, A1.

Stone, Andrea and Judy Keen. 2005. “Stem-cell fight now moves to Congress.” *USA Today*, Aug. 1, 5A.


Mannies, Jo. 2006. “Fox visit shows how stem cells are tangled up with Senate race.” St. Louis Post-Dispatch, Oct. 5, B3.


Salter, Jim. “Stem-cell research foes get sports stars in ad.” Associated Press State & Local Wire (MO), Oct. 25.

Bacon, John and Sarah Elkins. 2006. “Celebrities face off on stem cell issue in Mo..” USA Today, Oct. 26, 8A.


Theater 1.