A Comparative Analysis of the Embryological Research Debate in Great Britain and Germany

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Abstract

Since the late twentieth century research in human embryology, genetics, and reproduction has advanced significantly, producing new reproductive technologies to assist infertile couples in their wish to have healthy children and making the embryo available for research. This article analyzes why the British and the German governments passed diametrically opposed laws on embryological research despite fairly similar governmental white papers. The divergent policy outcome is explained through a combination of institutional and communicative "veto points" affecting the opportunity structure of opponents of research to block legislation permitting limited research on the human embryo.

A society which had no inhibiting limits, especially in the areas with which we have been concerned, questions of birth and death, of the setting up of families, and the valuing of human life, would be a society without moral scruples. And this nobody wants.
Mary Warnock

Since the late twentieth century, human reproduction has become increasingly transformed and redefined. In the 1960s the devel-

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opment of the birth control pill and other contraceptive innovations enabled the separation of reproduction from intercourse. In 1978 investigations into in vitro fertilization (IVF) of human embryos led to the birth of Louise Brown, the first baby conceived outside a woman's body. Since then, sexual intercourse can no longer be perceived as a necessary prerequisite for reproduction, and the "organic unity of the fetus and the mother can no longer be assumed" (Martin 1987, 20). A new kind of public debate about conception began, in which unprecedented procreative possibilities raised moral uncertainty and political controversy, and the embryo increasingly became a public entity.

Feminist research has long been concerned with reproduction and the effects of reproductive technologies on gender relations. For Adrienne Rich (1976), men are jealous and fearful of women's reproductive ability because women have the continuation of the human race in their hands, with the fetus absolutely dependent on the woman who carries it. Out of this situation of dependency, men "created a system which turned against woman her own organic nature, the source of her awe and her original power" (Rich 1976, 127). Controlling women's reproduction through motherhood or other social constructs does not allow men to participate in or influence the process of reproduction itself. A larger involvement is only possible through a technical development that demystifies birth and allows men to influence and, at the end, control procreation (Corea 1985; Oakley 1987; Rowland 1992; Stanworth 1987). Through modern reproductive technology, men "are now capable of conception itself. They can take the egg in their hands and inject the sperm into the egg through micro-injection techniques. In this sense they become symbolically both mother and father to the in-vitro–created child" (Rowland 1992, 11–12). For Corea (1985) and Rowland (1992), these developments have turned women into objects of manipulation and experimentation or "patriarchy's living laboratories," and children have become the product of the nexus between commerce, science, and medicine.[1]

Investigations into human reproduction have changed the relationship between the woman and the embryo and the nature of the embryo itself. This has made possible embryological research on surplus embryos produced during infertility treatment, on embryos specifically created for research purposes, and research on embryonic parts, such as stem cells. Because the embryo has become visible outside the woman's womb, is physically separated from the woman, and can be used in multiple ways, the embryo has increasingly been considered a public entity (see Duden 1991; Petchesky 1987). The kind of protection this entity deserves and its status have been central for

the debate on embryological research and also for the use of embryos within infertility treatment.

Proponents of research emphasize the importance of research for improving assisted reproductive technologies (ARTs) and refer to embryonic stem cell research as having high potential for finding cures for diseases and providing relief of human suffering. Opponents of research emphasize the developmental potential of the early embryo that allows it to stand for the whole of humanity. Research involving even the earliest stages of human life is seen as an immoral interference with human life and a breach of humanity. In this debate feminist scholars, such as Sarah Franklin (1995), emphasize that an embryo can only be created in vitro by interfering with a woman's body and an embryo can only develop its full potential through the nurturing of a woman's body. Feminist scholarly work is "bringing the woman back in" by reconceptualizing the embryo in relation to the woman and by examining the effects of an embryo as a public entity on gender, kinship, disability, race, and personhood (Franklin and Ragoné 1998; Ginsburg and Rapp 1995; Strathern 1992).

The pros and cons of research and feminist concerns within this debate have received broad public attention. Through investigations into human reproduction, embryology, and genetics, the feasibility set involving human life has increased drastically.[2] In this situation of uncertainty, welfare states were asked to evaluate the new set of choices and to draw boundaries in the 1980s. Welfare states have concerned themselves with the sexual and reproductive lives of their citizens (O'Connor et al. 1999, 157), but embryological research and ARTs present a new set of challenges. This article examines how the German and British welfare states approached the new challenges raised by embryological research and its application and explains why diametrically opposed laws on embryological research were passed in the two countries.

The Puzzle

In Great Britain and Germany, the public debate on how to regulate human fertilization and embryology began largely as a consequence of the birth of the first baby conceived outside a woman's womb in 1978. Confronted with this new line of research and application, the British and German governments were certain that legislative provisions were necessary to set distinct limits and boundaries for embryological research and its applications. There was, however, less agreement on the content of the provision and the function of the medical profession within a regulatory framework. Confronted with the development of a complex law and without much guidance

from previous legislation, the Conservative Thatcher government and the Christian-Democratic Kohl government established committees of inquiry in 1982 and 1984, respectively.

Both committees' reports recommended embryological research, although to a different extent. The reports received harsh criticism in Parliament and from the general public. Despite these resentments, both governments produced white papers based on the reports in 1986–87. The position concerning embryological research was the same as in the respective committees' reports. The British white paper permitted licensed research on embryos until the fourteenth day after fertilization, and the German white paper only permitted licensed research on "spare" embryos until the fourteenth day after fertilization.[3] Both governments favored a compromise position that ascribed some significance to the embryo from the moment of fertilization and allowed soundly based research within a limited time frame. The main difference between the British and German position was that the British white paper allowed research on all embryos prior to the fourteenth day, whereas the German white paper only permitted research on spare embryos and opposed the creation of embryos specifically for research purposes. The white papers were congruent with the recommendations of the majority of scientists and medical professionals in the countries. These groups had strongly emphasized the potential benefits of controlled research for humankind. Nevertheless, both papers were criticized for not providing comprehensive protection of unborn human life, and the ability of the medical profession to successfully control research was questioned.

In 1987 the British and the German cases were fairly similar; in 1990, however, the final policy outcomes were diametrically opposed. The British Human Fertilisation and Embryology Act of 1990 (HFEA) was based on the recommendations of the committee of inquiry, denied the early embryo personhood status, and allowed embryological research until the fourteenth day after fertilization. The statute law represents an institutional framework that allows the debate on the limits of embryological research to continue within the arena of a statutory licensing authority. In contrast, the Embryonenschutzgesetz (Embryo Protection Act 1990, ESchG) does not separate the early stages of human life from later stages and grants the embryo in vitro personhood status. Consequently, all kinds of embryological research are prohibited, preimplantation genetic diagnosis (PGD) is not available, and embryo selection during infertility treatment is avoided by limiting the number of fertilized eggs that can be implanted in a woman's womb. The comprehensive Criminal Law protects the process of fertilization and all cells with totipotency,[4] as well as all later

stages of the embryo in vitro. No public arena for a continuation of the debate was established in 1990. Although embryological research is prohibited in Germany, ARTs—an application of embryological research—are permitted. The medical profession regulates ARTs through internal codes and guidelines. In both countries the medical profession functions as moral gatekeepers, selecting patients according to medical and social criteria for infertility treatment.

Analytical Method

To examine why the HFEA and the ESchG have diametrically opposed positions on embryological research, two disciplinary accounts—a new historical-institutionalist and an interpretative one—are employed. New historical institutionalism is an approach that breaks with the "correlational thinking" of traditional institutionalism and does not assume that a given set of political institutions can be linked with a particular policy result.[5] Thus, "institutions constrain and refract politics but they are never the sole 'cause' of outcomes" (Thelen and Steinmo 1992, 3). This makes it important to examine actors' strategies within a specific institutional configuration. Based on this understanding of the interaction between institutional structures and actor strategies, Ellen Immergut (1992) developed a two-step causal analytical approach to examine the policy-making process on national health insurance in Sweden, France, and Switzerland. In the first step, the institutional framework in which action takes place is analyzed. The aim is to identify the rules and regulations set up by the constitution and the informal practices guiding policy making. In a second step, the actions and strategies of actors within the rules laid out by the political system are examined within the decision-making process.

In Immergut's approach, the concept of veto points is central. Veto points are areas of institutional vulnerability where a mobilization of opposition can thwart a policy reform. In Immergut's words, "Constitutional rules and electoral results set distinct limits on the ability of executive governments to introduce reforms. These barriers, in turn, served as useful tools for groups that wished to block legislation or are willing to threaten to stop the process unless their demands were met" (Immergut 1992, 83). Though veto points are fairly stable in the political configuration, they are nevertheless not permanent fixtures, and it is important to locate veto points by examining the institutional configuration and the action and strategies around them. Through the two-step analytic approach, veto points can be located and the policy outcome explained.

The advantage of using Immergut's approach for studying the leg-

islative process on embryological research is twofold. First, Immergut emphasizes the importance of analyzing the logic of the legislative process. Herewith, it is possible to compare legislative processes or reforms in significantly different political systems and resist the tendency to explain different outcomes simply in reference to different institutional systems. This is particularly valuable when examining the policy-making process on embryological research in two political systems as different as Great Britain and Germany. Second, Immergut's analysis focuses on veto points rather than veto groups and challenges more traditional interest-group theories that explain different policy outcomes by looking at the characteristics of interests groups and their power potential. She shows that professional dominance cannot explain the policy outcome because doctors' associations had similar organizational and power potential within all the political systems she studied but very different degrees of success in blocking legislative reforms (Immergut 1992). The case study on embryological research in Great Britain and Germany supports this finding. The medical professions of both countries have similar organizational and power potentials, but the German medical profession has the additional advantage of operating in a decentralized health care system and a political system with many veto points, whereas the British medical profession is constrained by a nationalized health care system and a political system with few veto points (Lijphart 1999; Tsebelis 1995). If one had to predict a policy outcome based on professional dominance, the German medical profession should have been more capable of blocking legislation than the British medical profession. This, however, was not the case.

The focus on institutional veto points nevertheless cannot explain the policy outcome fully. Immergut focuses on the material interests and "visible actions" of actors within the policy-making process and identifies institutional veto points. She is able to focus on material interests only because she selected a case "where both the policy ideas and the views of politicians and interest groups happened to be similar" (Immergut 1992, 68). In the case of embryological research, the medical profession and the scientific community had similar ideas on embryological research leading to similar recommendations by the committees of inquiry in Great Britain and Germany. Ideas, however, cannot be constant because the framing of the debate was very different in the two cases, leading to a different reception of the ideas and arguments put forth by the medical and scientific community. Examining the framing process is essential for understanding why diametrically opposed laws on embryological research were passed in Great Britain and Germany.

Central to the framing of the debate on embryological research

and ARTs has been the social construction of the human embryo. Feminist anthropological research has shown that the "facts of life" that biology produces about the early embryo can be interpreted differently, leading to culturally specific ways of knowing. In other words, in the process of "reproducing reproduction,"[6] the dichotomy between nature and culture is challenged because the coming-into-being of the embryo is both organic and technological (Haraway 1991, 1997). Sarah Franklin describes the embryo as being "betwixt and between humanity and otherness, potentiality but not yet recognized as one of us" (Franklin 1995, 337). Through this in-between status, the embryo has become a focal point of the controversy around reproductive technologies and their applications. By interpreting biological facts on the development of the human embryo, an argument can be made for the "discontinuity" or "continuity of life."[7] Although the former can be used to legitimate the use of the early embryo for research, the latter can be used to veto legislation allowing procedures in which embryos are destroyed or denied the opportunity of coming into being.

In an amorphous, ill-defined, and problematic situation, such as the embryo in vitro presents, framing or the establishment of a mental map can be essential for making sense of this situation and for the development a plan of action (Surel 2000, 496). Framing is part of actors' strategies and can be seen as a "conscious strategic effort by groups of people to fashion shared understandings of the world and of themselves that legitimate and motivate collective action" (McAdams et al. 1996, 6). As the legislative process on embryological research shows, legislators and interest groups put forth different interpretations of biological facts or pursued counterframing strategies. These strategies and how they were received are important to explain why certain kinds of ideas or conceptual models prevail and gain precedence over others (Kohler-Koch 2000, 513). In the case of embryological research, the way biological facts were interpreted or which conceptual model gained precedence over the other (continuity or discontinuity) had a significant impact on the ability of the government to pass a law permitting embryological research. In this sense the framing of the debate had the ability to create a communicative veto point.

Thus, although the ideas of interest groups, such as doctors, can be similar regarding embryological research, the overall framing of the debate can vary across cases and influence how arguments from medical professionals and scientists are perceived. In the case of embryological research, it becomes clear that what kind of frame is adopted does not solely depend on the strength and power resources of interest groups but to a large extent on the historical legacies of

previous state involvement in the sexual and reproductive life of citizens. Here, past experiences with eugenics policies were important to how arguments of medical professionals were perceived in Parliament and by the general public. For the analysis of the legislative process on embryological research, one must examine how "historically-concrete actors (producers of documents) at a concrete historical place" (Soeffner 1997, xiv) interpret the knowledge research produces to evaluate whether research is permissible and where boundaries should be established.

Because the framing of the debate or how biological facts are interpreted mattered in the embryological research debate, it is important to add a third step to Immergut's two-step causal analytical approach. The first two steps focus on the visible decisions and actions, whereas the third step analyzes communicative action and how actors arrive at different conclusions on how to interpret biological facts. Though the institutionalist approach allows us to identify institutional veto points, the interpretative approach locates communicative veto. Through a combination of the institutionalist and the interpretative approach, an in-depth understanding of the logic of the policy-making process can be reached (Seibel 1997).

Analysis of the Case Studies

Explanation of the Different Policy Outcomes in Great Britain and Germany

Great Britain. The British political system is the Westminster model, based on a majority voting system, a fusion of powers, and a strong executive government. Informal customs regulate the relationship between government and Parliament. In relation to embryological research, one informal custom is particularly relevant. If a "matter of conscience" is debated—law and morals overlap—the issue is discussed in an open debate followed by a free vote (Lijphart 1984). The custom allows the government to remain neutral and negotiate between different positions and encourage a consensual solution. Although this custom seems to limit the power of the executive government, it can also have the opposite effect, as the embryological research debate shows.

The Conservative government declared embryological research to be a nonparty matter, affirmed its "benevolent" neutrality in Parliament, and called for a consensual solution.[8] Kenneth Clarke, secretary of State, made clear that although a regulation was needed, this could not be comprehensive. "We live in a pluralist society. Therefore, no individual ever finds that all the laws and professional rules

entirely coincide with his own opinions. What is needed here is a set of laws and rules which the right-minded majority of society will accept, given that we approach the problem with tolerance of the range of views and life styles in a country such as our own."[9]

In 1985 Enoch Powell (Conservative, South Down) took the initiative and prepared the Unborn Children Protection Bill, a private members' bill, aiming at the prohibition of research. The anti-abortion organization LIFE decided to support his initiative and delivered two million signatures in its support.[10] At that time the pro-research lobby had not been established, and the arguments against research dominated the public debate. A vast majority of Conservative Members of Parliament (MPs) and a slim majority of Labour MPs were opposed to embryological research when the bill was debated (Mulkay 1997, 48–56).

If the government had immediately introduced the second reading of the bill, embryological research would very likely have been prohibited. However, the government delayed the second reading for a year by claiming that the House of Commons was deeply divided on a matter of conscience and more time was needed to find a compromise that would not isolate a minority in parliament. This delay gave the proponents of research time to organize. In 1985 the Medical Research Council and the Royal Society of Obstetricians and Gynecologists established a voluntary licensing authority (VLA) to document the ability of the medical profession to regulate embryological research and its applications. In 1986 the pro-research lobbying organization PROGRESS was founded. This group functioned as an umbrella, drawing members from a wide range of agencies, such as the British Birth Control Campaign, the Pregnancy Advisory Service, the Christian Campaign, the Labour Abortion Rights campaign and the National Deaf-Blind-Rubella Association (Mulkay 1997, 58). This broad membership base gave PROGRESS an inclusive character. Though some groups joined PROGRESS to ensure that the embryo would not gain personhood status in the legislative process, which would infringe on women's right to choose in reproductive decisions, other groups grounded their support in the potential benefits of research.

Before the second reading of the Unborn Children Protection Bill in 1986, various members of government made known their personal opinions on embryological research public, despite the formal neutrality of the government on the issue as a whole. Progressive MPs, such as Peter Thurnham, urged Parliament to "await the Government legislation that has been promised as soon as possible and which I hope will be along the lines of the Warnock committee's recommendations."[11] Despite the formal neutrality of the government, Prime

Minister Margaret Thatcher made clear that "she was in favour of legislation based directly on the Warnock recommendations permitting licensed research" (Mulkay 1997, 52) and thus, encouraged MPs to reject the private members' bill.

In the second reading the Unborn Children Protection Act No. 1 was defeated. Its demand for a prohibition of research was seen as a radical position isolating a significant minority in Parliament (Mulkay 1997, 52). Because embryological research was perceived as a matter of conscience, it seemed advisable to await the governmental white paper. Despite the rejection of the bill, it was doubtful if a majority in favor of embryological research could be found in parliament. A second private members' bill was introduced shortly after the defeat of the first by Ken Hargeaves.[12] Through public pressure, the government was forced to give the Unborn Children Protection Bill No. 2 a second reading in Parliament, but the bill was rejected for the same reasons as its predecessor. At this point the anti-research lobby had no further options than to wait for the government to publish its white paper.

Because resistance against embryological research was still great, the government hesitated to publish a white paper. Instead, it decided to further delay the process by having the Department of Health and Social Security publish a consultation paper, "Legislation on Human Infertility Services and Embryo Research," to elicit reaction from the general public and various organizations. In 1987 the government finally published its white paper permitting embryological research. The anti-research lobby was outraged and started a new campaign with the slogan "Upholding Human Dignity: Ethical Alternatives to Embryo Research" (Mulkay 1997, 36). At that time the pro-research lobby PROGRESS was, however, fully active and pursued a counter-strategy. PROGRESS invited MPs to visit infertility clinics, talk to infertile couples, and observe embryological research in laboratories. The effect of this strategy can be observed in parliamentary debates where, for instance, Lady Saltoun of Abernethy made the following remark a year into the campaign, after she had visited several laboratories and clinics:

> Over three years ago I spoke in the debate on the Warnock Report. I found it much easier then to decide what I believed to be right and wrong than I do now. Since then I have taken steps to inform myself on the exact nature of the so-called embryo research which is being done. . . . If the research now being carried out involved the murder of a child it could not be allowed under the law; but having seen what I have seen and learned what I have learned I do not believe that it does. In fact

> I am inclined to the view that up until the appearance of the primitive streak the pre-embryo cannot be regarded as a human being. I also believe that abortion is wrong.[13]

Through the lobbying campaign, Lady Saltoun, like many others, could be convinced that the pre-embryo is a separate entity from the embryo and that they could support the embryological research debate while maintaining their prolife position in the abortion debate. In addition to the public campaign, the medical profession established a VLA to demonstrate its willingness and ability to regulate embryological research and its application (Eser et al. 1990, 385–87).

In 1989 the government perceived research to be more acceptable within Parliament and the general public and decided to finally introduce the HFEB in Parliament. In this first major parliamentary debate subsequent to the Warnock report embryological research was given special status by the government. Embryological research was regulated in Clause 11 of the HFEB and opened for a "conscience vote" (Franklin 1993, 98). Thus, when the HFEB began its parliamentary passage, MPs were given the opportunity to pass the HFEB and still prohibit embryological research (Franklin 1993, 98). In this situation the Thatcher government used its power to change the rules of the game and introduced the bill in the House of Lords. This was considered a calmer environment for the debate, and the Unborn Children (Protection) Act No. 2 had been defeated more strongly there than in the House of Commons.

The change in procedures seemed more likely to convey the idea that the pre-embryo in vitro was a separate issue from the embryo/fetus in vivo, and one could oppose abortion and support embryological research. To convey the idea that the protection of human life was still a priority for the Conservative Party, an amendment to the Abortion Act was passed shortening the time for access to legal abortion from twenty-eight to twenty-four weeks (Mulkay 1997, 40). Further, the birth of the first IVF baby born after it had been tested for sex-linked genetic disorder was positively received in Parliament (Mulkay 1997, 41). The medical profession publicized this new screening technique, preimplantation genetic diagnosis (PGD), as directly evolving out of embryological research and allowing couples undergoing infertility treatment or couples with a hereditary disease to screen embryos in vitro and avoid an abortion. On 2 April 1990 the House of Lords passed the HFEB at 218 to 62 votes (HL, 2 April 1990, cols. 1003) and by doing so put pressure on Conservatives in the House of Commons to pass the bill as well.

When the debate was opened in the House of Commons, Kenneth

Clarke, secretary of State, spoke as a "regular" MP and strongly supported embryological research:

> I am influenced by the tiny size of the embryo that we are talking about and by the fact that on rare occasions it could develop into more than one person if it developed at all. I am also advised that a high proportion of embryos perish naturally at this stage in any event. I cannot see that this is a very important stage of human development to which we should give the absolute protection, as a citizen, although some clearly feel that it should have that protection.[14]

After an extensive debate in the House of Commons lasting until 11 P.M., Parliament finally decided that Clause 11 should not be voted on separately. The bill was accepted as a whole by 362 to 189 votes.[15] Fifty-one percent of the Conservatives and 84 percent of the Labour Members supported the bill. Thus, by 1990 the "right-minded thinking" had finally evolved in parliament and a bill allowing research on embryos until the fourteenth day after fertilization was passed.

In sum, institutional veto points and actor strategies evolving around them significantly influenced the final policy outcome. The British government used its structural power and informal customs to delay legislation and give proponents of research time to set up a regulatory framework, organize a pro-research lobby and to distribute information on the potential benefits of the technology. Once the "right-minded thinking" on research become visible, the government altered the rules of the game within the policy-making process and let the House of Lords vote on the issue prior to the House of Commons to increase the chances of embryological research being permitted. Through the structure of the political system the opponents of research had no veto power. First, the opponents of research could introduce private members' bills, but they did not have control over the timing of the decision-making process or when the second reading of the bill would take place. Second, when the HFEB was finally voted on, the opponents of research could try to prevent the passage of the law, but they had no further means of challenging the outcome by calling on a Constitutional Court or by threatening to block the implementation of the bill.

Germany. The German institutional system is characterized by a high degree of horizontal and vertical fragmentation and a strong influence of the Constitutional Court and the Rechtsstaat tradition in general. Peter Katzenstein (1987) has labeled the German Federal

Republic a semi-sovereign state because of a social partnership at home and a security partnership abroad. Domestic policy making is constrained by three institutional nodes limiting the federal government's freedom of action: coalition government, intergovernmental relations, and parapublic institutions (Katzenstein 1987, 350, 371). These institutional nodes influence the strategies of parties, subordinate levels of government, and interest groups (Katzenstein 1987, 385). Katzenstein identifies a fusion of political and judicial style of policymaking. Legal norms have a strong effect on "the formulation and implementation of policy and possibly on public attitudes more generally" (Katzenstein 1987, 382).

Given the nature of its political system, the number of relevant political actors and arenas for formal and informal negotiations was larger in Germany than in Britain. In the 1980s the system of the Federal Republic of Germany was characterized by a vertical fragmentation. Health care issues fell into the responsibility of the states. Because of this the government was able to offer only a federal criminal law, which had to pass both houses of Parliament. Because the Department of Justice was in charge of drafting the criminal law but the Department of Health had the expertise on the issue, it was difficult to coordinate between ministries (horizontal fragmentation) and through the involvement of the Bundesrat, the states were involved in the legislative process as well (vertical fragmentation).

It was the Department of Justice that published the white paper, based on the recommendations of the committee of inquiry, permitting limited research on spare embryos until the fourteenth day after fertilization. This position was difficult to sustain because the actual bill had to pass both houses of Parliament. Although the conservative liberal government (Christlich Demokratische Union/Christlich Soziale Union [CDU/CSU] and Freie Demokratische Partei [FDP]) had the majority in both houses, its majority in the Bundesrat was fairly slim.[16] The opponents of research could benefit from this situation.

Through the structure of the political system, the anti-research lobby was able to seek support at the state and federal level. The anti-research lobby was not a homogenous group coordinated in one organization but consisted of a large variety of organizations ranging from religious to feminist and disability rights. Feminist opposition to reproductive technology and genetic engineering formed in the 1980s in Germany. In 1985 female members of the Green Party in the Bundestag together with a feminist group based in Cologne organized the first congress on *Frauen gegen Gentechnik und Reproduktionsmedizin* (Women against Genetic Engineering and Reproductive Technology) in Bonn (Die Grünen 1986). Two thousand women attended the congress. The same year the international organization FINRRAGE

(Feminist International Network in Resistance to Reproductive Technologies and Genetic Engineering) was founded in Sweden. Founding members were, for instance, Gena Corea, Maria Mies, Jalna Hanmer, Renate Duelli-Klein, Farida Akhter, and Ana Regina Comes Dos Reis. In this early stage FINRRAGE's main task was to form resistance to stop further research into the human genome and widespread usage of ARTs. FINRRAGE was involved in the organization of the second congress of Women against Genetic Engineering and Reproductive Technologies which took place in Frankfurt in 1988 (Bradish 1989).

Feminists went into opposition to reproductive technologies and research for three broad reasons. First, reproductive technologies, such as IVF and PND, were depicted as fostering patriarchal control over reproduction (Bradish 1989; Overall 1993). It was argued that ARTs introduce technological aspects to the process of reproduction and these would reduce women to matter (Corea 1985). Because ARTs emphasized the importance of motherhood for women, it was seen as making it more difficult for fertile women to choose alternative ways of living (Correa 1985; Bradish 1993, 146). Second, feminists emphasized the connection between reproductive technologies and genetic engineering and brought historical legacies of eugenic policies during the Nazi regime into the debate. Third, feminists contrasted population policy in respect to developing countries—aiming at population "control"—with natalist population policies supporting infertile women in their wish to have children in developed countries. Based on these concerns, feminists formed strong opposition to ARTs and embryological research. The Green Party introduced many of the argument made here in the Bundestag's debate.[17]

The Catholic Church was concerned about ARTs leading to unnatural conception and argued that embryological research violates the dignity of the embryo. The Protestant Church shared these concerns (Eser et al. 1990, 75; Evangelische Kirche Deutschlands 1985). Because of the heterogeneity of the anti-research lobby, various political actors with veto power in the political system could be mobilized. The pro-research lobby, by contrast, consisted of a relatively small group of researchers, the German Research Society, and parts of the medical profession.

The opponents of research could use the resources of the federal system to put pressure on the federal government through the states. On the one hand, the different states were involved in the legislative process through their presence in the Bundesrat, where they had to agree to a criminal law, and on the other hand they could threaten the government with passing state health care laws on the issue if the federal government did not respond to their demands. Although a

criminal law would overrule various state health care laws, it would have been considerably difficult to get such a law approved by the Bundesrat once they had passed their own laws. To avoid a situation with different legal standards on a crucial issue (known as *Rechtszersplitterung*), the federal government had to respond to the demands of the states.

The CSU, governing the state of Bavaria and the sister party of the CDU, took on a leading role in demanding a change of governmental position on ARTs and embryological research. The Benda report (the equivalent of the Warnock Report in Britain) was published on 25 November 1985; shortly after, on 12 December, the Bavarian government established a committee, Gen- und Fortpflanzungsmedizin (Genetic Engineering and Reproductive Medicine). In only six months the committee developed a draft bill, *Rohentwurf eines Gesetzes zur Regelung von Fragen der Fortpflanzungsmedizin* (FMG) (Draft Bill on Reproductive Medicine), which specifically addressed the problem of spare embryos.[18] The bill demanded a prohibition of the production of spare embryos during infertility treatments. It was argued that creating spare embryos would deprive them of their developmental potential. Using spare embryos for research was considered treating human life as a means and not as an end itself and thus a violation of human rights and dignity.[19]

Not all conservatively governed states agreed with the Bavarian position. The production of spare embryos can be avoided only if physicians or biologists select fertilized eggs instead of pre-embryos for implantation. The selection must take place within the first twenty-four hours after fertilization—before the nuclei merge. Because multiple pregnancies are problematic and all fertilized eggs can potentially develop into fetuses, only a limited number can be implanted. In other words, to avoid the production of spare embryos and through the implantation of a limited number of zygotes, multiple pregnancies can be avoided and no unborn life needs to be destroyed in the course of infertility treatment. This, however, limits women's chances of becoming pregnant, because fertilized eggs, not pre-embryos, are selected and at this stage it is difficult to select those with the greatest developmental potential.[20] The state of Rheinland-Pfalz decided to pursue a counterstrategy and established an Interministerielle Kommission zur Aufarbeitung von Fragen der Bioethik (Inter-Ministerial Committee on Bioethics). The committee's report recommended the permissibility of research in narrowly defined circumstances and only on spare embryos produced during infertility treatment. At the same time, the medical profession was discouraged from producing spare embryos (Eser et al. 1990, 62).

This position is congruent with the position of the Abortion Act

of 1975 in terms of the level of protection an embryo receives. Although the embryo is protected, the notion of protection is not comprehensive, and research (or abortion) is possible under well-defined and justifiable circumstances. The state of Baden-Württemberg, governed by the Christian Democrats, also published several papers on the topic. Their position fell between those of Rheinland-Pfalz and Bavaria (Eser et al. 1990, 69). In sum, the states governed by Christian Democrats were not uniformly opposed to embryological research, but a majority favored a restrictive policy. The Social Democratic Party (SPD) was, unlike the British Labour Party, strongly opposed to embryological research (Däubler-Gmelin 1986; Mulkay 1997). Thus, the pro-research lobby could not gain support from the Social Democrats or SPD-governed states either. To clarify the position of the various states and the federal government, a Bund-Länder-Arbeitsgruppe was established to provide an arena for negotiation between the different states and the federal government.

In the following year three different drafts were published. The (federal) Department of Justice published its white paper and presented it at the Fifty-Sixth Deutsche Juristentag. This draft allowed research on spare embryos and is compatible with the position of Rheinland-Pfalz. Two additional drafts evolved out of the work of the Bund-Länder-Arbeitsgruppe (the report came out in September 1988; see Eser et al. 1990, 68). On 4 November 1988, the SPD-governed state of Niedersachsen demanded a change of the constitution to transfer regulatory power to the (federal) Department of Health to pass a federal health care law in addition to a criminal law to regulate ARTs. This draft, however, did not find enough support in the Bundesrat (Eser et al. 1990, 65). If a federal health care law on ARTs had been passed, the regulatory and supervisory functions of the medical profession would have been transferred to the state. On 11 November 1988, Bavaria introduced the draft FMG-Bill (Reproductive Medicine Bill) in the Bundesrat, which also proposed transferring supervisory functions from the medical profession to the states and herewith challenged the federal government (ESchG) and put further pressure on the medical profession.[21]

On 25 November 1988, the Bundesrat debated the FMG and the ESchG. This meeting became the turning point of the German debate. The ESchG was criticized for permitting limited research not only by the opposition parties but also from within the Christian Democratic party. The SPD and the Green Party were strictly opposed to embryological research.[22] They were less concerned with the status of human embryo than with the risks of research when, for instance, germ line therapy would become possible or when an increasing number of research and tests determining the genetic composition of

embryos and fetuses might lead to eugenics policies toward the disabled. When the minister of Justice, Hans Engelhard, whose department was responsible for drafting the ESchG, spoke in the Bundesrat, he did not support the position on embryological research put forth by ESchG.[23] In other words, the draft of the ESchG supported very limited research on paper, but the minister in charge of the legislation was not personally in favor of embryological research and consequently did not defend this section of the ESchG.

In this situation the pro-research lobby had very limited options. It was too late for the Land Rheinland-Pfalz to introduce a bill allowing limited embryological research because the FMG was based on a compromise among the Christian Democratic–governed states. In addition, the FMG not only demanded a restriction of ARTs and a prohibition of research but also suggested a transferral of regulatory responsibilities from the medical profession to the state.[24] Transferring responsibilities to the state would have affected the health care system as a whole. In contrast to Great Britain, with its national health insurance system, in 1985 the German medical association had rejected the establishment of a centralized VLA and established a decentralized system of control relying on local boards of ethics (Wissenschaftlicher Beirat der Bundesärztekammer 1985, 2303–6). The FMG threatened this system by proposing the establishment of governmental bodies at the state level to take over regulatory responsibilities from the medical profession. The medical profession not only had to engage in the dispute over embryological research and ARTs but also faced a significant change in the organizational structure of the health care system. In this situation, the medical profession and the scientific community promoting embryological research adopted a defensive strategy on ARTs and embryological research and focused on keeping its regulatory authority in the area of ARTs. To show its ability to regulate the area in an ethically responsible way, the Federal Doctors Assembly decided that unmarried couples could only gain access to ARTs when a board of ethics gave special permission. "Thus, in practice, assisted reproduction is typically offered to married couples only" (Byleveld and Pattinson 1999, 4; Bundesärztekammer 1988, 2203). In 1988 the Max-Planck-Institute and the German Research Society (DFG) demanded a moratorium on embryological research (Eser et al. 1990, 76). Overall, the medical profession met the demands made by the FMG regarding ARTs and embryological research to avoid a withdrawal of regulatory responsibilities that would have altered the structure of the health care system.

On 19 July 1989 the FMG and the ESchG were discussed in a governmental meeting (at this point the conservative government held the majority in both houses of the Bundestag). The result of the

meeting can be anticipated by looking at the draft of the ESchG the government published later that year.[25] The coalition agreed only to introduce the ESchG into the Bundestag. Although the name ESchG was kept, the content of the bill represented a compromise between the FMG and the ESchG in which embryological research was prohibited but no governmental agencies overseeing ARTs were established.

Once the coalition government of CDU/CSU and FDP and the states governed by CDU and CSU agreed on the revised version of the ESchG, the legislative process went quickly and smoothly. The final draft of the ESchG was accepted with the votes of governing coalition in 1990, and those of the SPD and the Green Party were rejected. There was no conscience vote on clauses of the ESchG in the Bundestag, and thus voting occurred along party lines.[26] The Bundesrat did not call on a committee to renegotiate the law and passed it immediately.[27] Looking solely at the final debate of the bill, one gets the impression that the ESchG was based on a broad political consensus.

In sum, institutional veto points provided through the horizontally and vertically fragmented political system and the specific electoral situation in both houses of Parliament gave opponents of research the ability to veto the ESchG as proposed by the Department of Justice. The turning point in the legislative process was caused by the state of Bavaria, which had gained veto power through the electoral situation in the Bundesrat, a constitutional regulation that required that the criminal law to be passed by the Bundestag and the Bundesrat and the ability of a state to threaten to stop the policy-making process on the national level by introducing a state health law.

The proponents of research could not establish an institutional veto point and prevent the passage of one of the most restrictive laws on embryological research in Europe. The Department of Justice—not having the expertise on difficult medical and research issues—relied on the recommendations of the committee of inquiry when establishing the white paper. When the white paper received harsh criticism within the CDU and CSU and by interest groups close to the party, the minister of Justice did not defend embryological research. The federal Department of Health would have potentially been a source of support for proponents of research, but it was not in charge of legislating the issue and was preoccupied with curbing costs in the health care system at that time (Döhler 1991). By 1988 the pro-research lobby had de facto no support within the political arena because the SPD and the Green Party also opposed embryological research. The resistance against a restrictive law broke down completely when the state of Bavaria introduced the FMG, proposing a

transferral of regulatory responsibilities from the medical profession to the state. Coming under enormous pressure, the medical and scientific community decided to meet the demands of the FMG regarding ARTs. Because the medical profession wanted to demonstrate its ability to regulate the matter in an ethically responsible way and avoid a loss of regulatory competence in the area, gaining the right to carry out limited embryological research was not pursued any further. In the final compromise between the FMG and ESchG, embryological research was prohibited and the use of ARTs significantly limited, but the medical profession remained in charge of regulating ARTs through its internal codes and guidelines.[28]

Different Approaches to Address a Matter of Conscience

After examining the decision-making process and identifying the veto points and strategies of actors evolving around these points, it still remains unclear how 51 percent of the British Conservative MPs supported embryological research in 1990 and only 11 percent supported research in 1985. This shift in Conservatives' position cannot be explained through the strategies of actors evolving around veto points because it remains unclear why PROGRESS could mobilize support from a broad variety of organization and why their efforts to change MPs' opinion on a matter of conscience were successful. In the German case it remains unclear why the legally sound solution suggested by the committee of inquiry was discarded in the legislative process and why proponents of research could not build a broad interest group coalition in favor of research as they had in Great Britain. These issues can be analyzed by examining the social construction of the human embryo and the communicative strategies of actors within the parliamentary debates.

In this context, PGD, a genetic screening technique that allows the screening of embryos for genetic disorders in vitro, is important. The present article does not address the ethical and moral controversies surrounding PGD nor the social implications of PGD for understandings of what we consider to be "healthy" and "sick," "worthy of being born" and "wrongful birth," or the impact of this technique on perceptions of the risks that are involved in conception, procreation, and birth (Franklin and Ragoné 1998; Kollek 2000). Rather, from the perspective of political science, PGD is important because it has the potential to connect debates over three issues: abortion, embryological research, and genetic diagnosis or eugenics. These debates have been linked in different ways in the legislative process in Great Britain and Germany. By examining these linkages and how the human embryo has been constructed, a comprehensive understanding

of the strategies of actors and the broad parliamentary and public support for the differing policy outcomes can be achieved.

Great Britain. The open question within the British legislative process is why MPs—in particular Conservative ones—changed their opinion on embryological research in large numbers, leading to the passage of one of the most liberal laws on embryological research in the world. At the beginning of the embryological research debate, a large majority of Conservative MPs opposed embryological research because they opposed abortion. Both embryological research and abortion were considered to violate human dignity and bodily integrity of unborn life.

In this situation the pro-research lobby (in particular the medical and research community as well as PROGRESS) used a double strategy to disconnect the embryological research from the abortion debate. The first strategy focused on the terminology. Progressive members of the Conservative Party, such as Kenneth Clarke and Peter Thurnham, as well as the pro-research lobby, began to distinguish between the pre-embryo, embryo, and fetus. It was argued that the pre-embryo lacked individuality because the primitive streak had not been developed and thus could be denied personhood status. This line of argument emphasized the discontinuity of life and was, for instance, supported by prominent members of the Church of England, such as the archbishop of York.[29]

Once the term *pre-embryo* was used in the public debate, it became a cornerstone of the pro-research argument.[30] This term allowed the separation of embryological research from the abortion debate and, at the same time, fit with the government emphasis on Victorian values. The connection between strengthening the nuclear family and embryological research was made by arguing that research on pre-embryos would increase knowledge regarding miscarriages and support the development of screening techniques to prevent the birth of a disabled child, thus saving couples from the tragedy of raising a disabled child. In this context PGD played an important role. A product of embryological research, PGD was described as helping infertile couples have a healthy child with as much genetic heritage preserved as possible. Professor Robert Maurice Winston (now Lord Winston), head of the Hammersmith Hospital and one of the founders of PROGRESS, announced the birth of the first child born after PGD was carried out shortly before the law was discussed in Parliament (Handyside *et al.* 1990; Mulkay 1997, 41). Within the parliamentary debate, PGD was immediately used to contrast moral concerns regarding embryological research with the notion of progress and hope, especially concerning the treatment of

diseases and enabling couples to have healthy children of both sexes. This particular framing of embryological research made it appear to be compatible with strong family values.

How this link was constructed becomes clear in the parliamentary debates. When the HFEB was debated in the House of Lords, Lord Ennals, for instance, referred to Lynne Dod, a mother of a severely disabled child and activist in MENCAP (Britain's leading disability charity working with people with learning disabilities and their families), who is a proponent of PGD. Lord Ennals recognized the hardship of having a disabled child and stated that he saw PGD as an opportunity for potential parents to avoid being in this situation:

> Unless we ourselves have had handicapped children—and I have not—we cannot really know what it means. Yes of course there is love; there is more love because the child is handicapped. But there is great hardship which none of us would want to take on ourselves. None of us would say "Handicap is so wonderful, I want to have a handicapped child." That is absurd; no one would say that.[31]

Because PGD is carried out on a pre-embryo, this technique represents an alternative to abortion for a woman who would not want to continue a pregnancy with a disabled fetus. Thus, indirectly, PGD can help avoid abortions and is in line with strong family values.

Although the pro-research lobby was very successful with their line of argument, the question remains why counter-arguments emphasizing the continuity of life and the potentiality of a pre-embryo to become a person were rejected during the public debate, or why demands of individual couples for a healthy child were not contrasted with abstract moral values of society. In other words, why could MPs such as Lord Ennals justify embryological research by referring to PGD as a valuable application of research helping avoid the birth of disabled children? Although a comprehensive answer to this question cannot be provided here, four points seem important.

First, Britain did not have an extensive eugenics program at the beginning of the twentieth century and discarded its eugenics policy in 1933—just before Nazi Germany embarked on its mass sterilization program (Weingart et al. 1996, 351). The overall experience with eugenics was less traumatic in Britain than in Germany (McLean 1999). This made it possible to construct PGD as beneficial for couples and children rather than as a threat to humanitarian values.

Second, the reference to disability and the avoidance of the birth of a disabled child had been a successful line of argument within the abortion debate in Great Britain. In the 1960s severely disabled children had been born after their mothers had taken thalidomide during

their pregnancy. Because of this experience, married middle-class women became more supportive of abortion, perceiving it as a line of defense against the birth of a disabled child, and abortion was taken out of the context of young, single, or poor women (Mulkay 1997, 7–8). Based on these arguments a clause was introduced into the Abortion Act of 1967 that allowed abortion to avoid the birth of a severely handicapped child. In the abortion debate—as in the embryological research debate—abstract moral concerns were contrasted with the personal experiences of people suffering from diseases or disabilities and hopes for the development of techniques to either prevent severely disabled children to come into existence or relieve the suffering of those with disabilities.

Third, the HFEA led to significant changes in the perception of the embryo. In contrast to the Abortion Act of 1967, the embryo was ascribed some significance and received (limited) protection by the HFEA. In addition, the abortion law was altered shortly before the HFEB was discussed in Parliament. The Abortion Act of 1967 allowed abortion until the twenty-eighth week, but in 1990 the Abortion Act was modified, limiting abortion to the period "(a) up to 24 weeks, where the continuation of the pregnancy will involve risk, greater than if the pregnancy were terminated, of injury to woman or her family; and (b) up to birth, to save the life of the woman, to avoid permanent injury to her physical or mental health, or to avoid the birth of a severely handicapped child" (Montgomery 1991, 531). Through the change of the Abortion Law, the Conservative government could demonstrate its prolife position and gain more leverage to support embryological research on pre-embryos. In addition, the lines of argument supporting certain kinds of abortion and research were both tied to the issue of genetic disorders, in the first case to avoid the birth of a disabled child and in the second to increase knowledge of genetic disorder.

Fourth, the disability rights movements stood clearly in opposition to statements made by Lord Ennals assuming that parents would not choose a disabled child if given the choice. This statement fueled fears against further discrimination against disabled persons rather than making living with disability more socially acceptable, but the disability rights movement was not in complete opposition to reproductive research and technologies. Organizations such as the Deaf-Blind-Rubella Association were part of PROGRESS and other organizations, such as MENCAP, perceived research as providing an opportunity to increase knowledge about the causes of congenital diseases. When PGD was debated and regulated, it was important for the movement to avoid that formal standards on PGD were developed. The movement was successful in preserving the rights of

parents to select among the viable embryos for implantation according to their own standards of what is in the best interest of the child and what is good enough quality of life.[32]

Overall, the specific framing of the debate in terms of discontinuity of life allowed the separation of the pre-embryo from the embryo. This not only allowed the distinction of the research debate from that on abortion, but also made it possible to frame embryological research in terms of progress rather than opening Pandora's box. This, together with a less traumatic eugenics experience than Germany's, barred the anti-research lobby from creating a communicative veto point.

Germany. In the German debate, the question remained why the legally sound solution recommended by the committee of inquiry was discarded and a radical position concerning the status of the human embryo was adopted. Because the legal and the political debates are intertwined, we must examine the social construction of the human embryo within the legal realm before we can understand what exactly occurred within the legislative process. This will also allow us to understand the currently existing tension between the Abortion Act and the ESchG.

According to Katzenstein (1987), German policy making is characterized by a fusion of legal and political styles of policy making. This is also apparent in the embryological research debate. In a landmark abortion decision made by the German Constitutional Court in 1975, the unborn was given rights as a person starting with the fourteenth day after fertilization.[33] In the embryological research debate, the question arose as to whether the embryo should receive protection prior to the fourteenth day and, if so, to what extent. Within the legal context, the question of when life begins could not be determined because it is a moral question and the court would have overstepped its competence by basing its decision on a moral judgment. The court could, however, determine when protection begins. Once protection by the constitution is granted, it is up to the legislature to determine the extent of protection this entity requires. In other words, had the court decided when life begins, it would have determined when unlimited protection begins, and an entity would have to be treated as a citizen. To avoid making a decision on behalf of the Bundestag, the court determined when constitutional protection begins. In making this determination, the court considered two natural boundaries as dividing lines: protection could begin when the individuality of life is definitely given (fourteenth day after fertilization when the primitive streak has developed) or at the moment prior to which life definitely does not exist (twenty-four hours after fertil-

ization before the fusion of the sperm and the egg is completed). Both lines of arguments are based on biological facts, emphasizing that the legally determination in this instance is based on a clear natural boundary rather then a moral judgment.

Whereas the British debate relied on the first line of argument—discontinuity of life—the German debate referred to the second line of argument—continuity of life. The latter seemed more applicable because of the German legal tradition and its use of the term *protection*. Roman Herzog, a member of the Constitutional Court at the time and later president of the Federal Republic, supported the second line of argument because it allowed a maximum duration of human development to be covered by the constitution. Once protection begins, the Bundestag still has to define what protection means in the specific context of an embryo in vitro (Herzog 1987, 27–28). The discussion of the embryo in vitro was treated separately from the embryo in vivo. The Constitutional Court ruling concerning the embryo in vivo—giving the embryo/fetus limited protection to allow women to gain access to abortion—cannot be used to determine the meaning of protection for the embryo in vitro because the embryo is seen as a separate entity from the women.[34] Through the legal distinction between the embryo in vivo and in vitro, the legislative debate could focus exclusively on the status of the embryo in vitro, embryological research and its application and did not have to address the embryo in vivo and the abortion debate.

The political debate on the social construction of the human embryo centered on how much protection the embryo in vitro requires. Although the Benda Report and the white paper allowed embryological research on spare embryos until the fourteenth day and gave limited protection to the embryo, the FMG interpreted *protection* in terms of "prohibition" of any kind of actions that do not contribute to the development of an embryo into a person.[35] In the legislative process a compromise had to be found between the ESchG and the FMG. Through this bargaining the definition of protection used by the FMG gained precedence over that of the ESchG. In other words, the process of framing resulted in a perception of protection in terms of prohibition leading to a comprehensive protection of the embryo outside a woman's body.

The question arises as to why such a strong interpretation of *protection* was chosen concerning the embryo in vitro when the German Abortion Act of 1975 did not follow such a strong notion of protection. In addition, there is a question about why abstract legal and moral arguments dominated the debate, practical concerns within the infertility treatment were overlooked, and the abortion and embryological research debate were treated as separate issues. These issues

cannot be fully addressed in this article, so only two issues will be mentioned.

Throughout the embryological research debate, but also in the abortion debate in the 1990s, it was important that no condition was placed on human life. The traumatic experience of a positive population policy leading to mass sterilization programs in Nazi Germany whereby 300,000 men and women were sterilized because of their physical and mental conditions (Weingart et al. 1996, 464–69) contributed to a strong notion that life is an end in itself. Throughout the debate, and especially in an expert hearing that took place in 1990, various experts emphasized that disability should be perceived as a regular part of the human life course and one should make disability more acceptable instead of promoting techniques to avoid the birth of a disabled child. In this context PGD was of great importance. Within an expert hearing shortly before the law was passed, concerns were raised that permitting prenatal genetic diagnosis while prohibiting PGD would cause an ongoing debate.[36] These concerns were not considered in the legislative debate.[37]

Whereas PGD led to a change in opinion formation on embryological research in Great Britain, it had the contrary effect in Germany. All parties uniformly opposed PGD; permitting it was perceived as opening Pandora's box.[38] Allowing even a limited amount of embryological research was perceived as entering onto a slippery slope that might lead to a population policy like that of Nazi Germany. The SPD, mainly represented by Dr. Däubler-Gmelin and the Green Party, with Ms. Schmidt (Hamburg) as one of their most prominent spokespersons, perceived the ESchG in its final form as still not strict enough.[39] In contrast to Great Britain, where the effects of the legislation were judged on the basis of the effects on an individual person, the common good or the interests of society as a whole were used as the basis for the rejection of embryological research in Germany.

In sum, the specific framing of the debate in terms of continuity of life supported the demand for a comprehensive protection of the embryo and a prohibition of research in the German case. Through references to historical legacies of a positive population policy, embryological research could be framed in terms of opening Pandora's box rather than making progress. This allowed the anti-research lobby to establish a communicative veto point whereby arguments of the medical and scientific community were discarded in the parliamentary debate.

Connecting the Institutional and the Interpretative Account and the Options for Social Change through Legislation

In comparing the British and the German cases, it is quite surprising that the British government, having a fairly strong position in the

political system (Lijphart 1984), perceived itself as an agency that enforces the law and remained neutral on how to regulate embryological research. An informal custom had required the government to remain neutral on a matter of conscience. At first glance, the informal custom seems to limit the power of the government. In the embryological research debate, however, the government could use the informal custom to delay legislation and control the timing of the legislative process. Through the delay of legislation the proponents of research could organize and establish the encompassing organization PROGRESS. The medical profession set up a regulatory framework showing that embryological research and its application could be regulated and uncertainties of research limited. In addition, by changing the regular legislative process and introducing the HFEB in the House of Lords prior to the House of Commons the government indirectly influenced the policy outcome. Opponents of research could not occupy any veto points in this policy-making process because they had no means to stop the legislative process once the HFEB was introduced in Parliament and had no means to veto the bill or its implementation.

What cannot be explained by looking at the visible strategies of the governments and interest groups is why Conservative MPs were receptive to the ideas and arguments presented by PROGRESS. The interpretative analysis of the debates in Parliament shows that biological facts on the early embryo were interpreted in such a way that a distinction between the pre-embryo and the embryo could be drawn. By emphasizing the discontinuity of life the abortion debate became separated from the embryological research debate. This allowed Conservative MPs to maintain their prolife position regarding abortion and still support embryological research. The specific framing of the debate also allowed a perception of embryological research as being in line with Victorian values. The specific interpretation of biological facts and framing of the debate was possible because of a less traumatic experience with previous state involvement in the reproductive lives of citizens at the turn of the twentieth century. In other words, the anti-research lobby was unable to establish a communicative veto point and prevent the pro-research lobby to frame embryological research in terms of progress.

In the German case the power of the federal government was limited by a horizontally and vertically fragmented political system, a strong position of the Constitutional Court and a written constitution. As a result of a fusion of legal and political style of policy making, the German debate did not center on the question of the status of the embryo but on the amount of protection an embryo in vitro requires. When the controversy is framed in this respect the issue can

be decided within the regular bargaining process and it is not necessary to reach a decision on the basis of an open debate followed by a free vote like in Great Britain. The ESchG, being a criminal law, had to pass both houses of the Bundestat. Through an electoral situation in the Bundesrat, where the different states are represented, the federal government needed all votes from Christian Democratic–governed states. Through the specific constitutional and electoral situation, Bavaria gained veto power in the policy making process. Bavaria established its own bill (FMG) to challenge the ESchG in terms of embryological research, ARTs, and regulatory responsibilities of the matter by the medical profession. Especially the threat to transfer regulatory responsibilities from the medical profession to the state was strongly opposed by the medical association because it would have led to a shift in the nature of the health care system as a whole. To avoid this, the medical profession altered its internal codes and guidelines regarding ARTs, implemented a moratorium on research, and met the demands of the FMG. Through the adoption of a defensive strategy the medical profession and the scientific research community were unable to use its full lobbying capabilities to avoid the passage of one of the strictest laws on human embryology and fertilization in Europe.

When examining the legislative process, it is surprising to find that the proponents of research could not mobilize any support within political parties or in public. Practical concerns within the infertility treatment and (consumer) demands of couples wanting to use ARTs, especially PGD, were hardly recognized. Feminist groups or groups for the disabled could not be mobilized and integrated in a pro-research lobby like in Great Britain. To understand why the pro-research lobby was very small—not even encompassing the medical profession as a whole—the framing of the debate and the establishment of communicative veto points need to be taken into consideration. In Germany the Constitutional Court had supported an interpretation of biological facts in terms of continuity of life to allow a maximum duration of protection of the human embryo through the constitution. Based on this interpretation and the reference to historical legacy of eugenics policies, the anti-research lobby was able to establish a communicative veto point. This becomes especially clear in the discussion of PGD in the Bundestag, which was seen as opening Pandora's box. Once a communicative veto point was created, it was difficult for proponents of research to introduce economic or scientific arguments in favor of embryological research into the debate.

Throughout this article it has been argued that visible actions of actors within the constraints of the constitution and the electoral results and communicative actions of actors within a particular soci-

ocultural experience must be examined jointly to reach an in-depth understanding of the decision making process. Looking at the visible actions of actors cannot explain why an encompassing pro-research lobby could be formed in Britain that significantly altered the public opinion on research while a broad anti-research lobby emerged in Germany. To understand the preference formation of actors and receptiveness to certain ideas, the legislative history of state involvement in reproductive lives of citizens must be taken into consideration. Opponents of research used the German experience with eugenics policies to form a communicative veto point. However, explaining the policy outcome only in reference to eugenics policies or previous state involvement in a related area is not sufficient because, for instance, the Abortion Act of 1975 still permitted abortion under certain conditions attached to the fetus. This clause was only removed in 1995 as a response of the embryological research debate. Also, a law permitting the import of embryonic stem cells for research, which were protected under the ESchG, was permitted in 2002. To explain the particular outcome of the embryological research debate in the 1980s, the strategies of political actors evolving around institutional veto points must be taken into account. Because political actors used both communicative and institutional strategies to forge the preferred policy outcome, it is only by analyzing both elements that we can achieve an in-depth understanding of the logic of the policy-making process.

Conclusion and Outlook

Despite similar committee of inquiry recommendations and governmental white papers, Great Britain and Germany passed diametrically opposed laws regarding the amount of protection the embryo in vitro requires and the use of human embryos for research purposes. The opposing policy outcomes on embryological research can be explained through a combination of a new institutionalist approach—examining how actors play within the constraints set by the constitution and electoral results—and an interpretative approach examining the framing of the debate—how actors interpreted biological facts in culturally and historically specific ways. The specific policy outcomes can only be explained in reference to strategies of actors evolving around institutional veto points and communicative veto points. In Great Britain the anti-research lobby and politicians were not able to occupy an institutional veto point to block legislation or threaten its implementation, nor were they able to establish a communicative veto point that would make embryological research ethically unjustifiable. In Germany, however, Bavaria was able to occupy

an institutional veto point through the electoral situation in the Bundesrat and, through its strategic use of this position, was able to put pressure on the federal government and the medical profession. In addition, the public debate on embryological research was framed in such a way that this research appeared to be incompatible with humanitarian values, and a communicative veto point was established. Through communicative veto point arguments emphasizing the scientific potential of the research, potentially positive effects for individuals or economic interests could not be voiced. Because institutional and communicative veto points are necessary to explain the policy outcome, the interpretative and institutional accounts are not competing but complementary approaches in the explanation of the policy outcome.

The HFEA and the ESchG hold opposing positions on embryological research, and the gap between the laws has hardly narrowed over the past thirteen years. By establishing a semigovernmental authority licensing and supervising research on the human embryo and ARTs, the HFEA's position on embryological research has been reinforced. The authority's fairly flexible system facilitates a political arena for ongoing debates on human embryology and fertilization and has the expertise to prepare changes to the HFEA of 1990 or make changes to its code of practice (Salmon 1996). Through this regulatory flexibility, the first amendment of the HFEA became necessary only in 2000. In November 1998, American scientist James Thompson et al. (1998) brought embryological stem cells to grow in vitro, opening a vast new field for biomedical research. To be part in this scientific revolution, the HFEA had to be amended. The minister of Health, Yvette Cooper, and the government as a whole demanded a change in the HFEA to allow stem cell research and therapeutic cloning. On 19 December 2000, Parliament voted decisively in favor of extending embryological research.[40] The amendment reinforced the overall perception of research on the human embryo by the HFEA. Research on embryonic stem cells was further promoted in 2002 through the passage of plans for the establishment of the first stem cell bank. The National Institute for Biological Standards and Control has been awarded a £2.6 million contract to set up a stem cell bank by the Medical Research Council. Although the amendment of the HFEA and the establishment of the stem cell bank was opposed by antiabortion groups the majority of MPs could not be convinced to diverge from the permission of research on embryos until the fourteenth day after fertilization (BBC News 2002b,c). Thus, over the past twelve years the HFEA has not been challenged, its position on embryological research has been reinforced, and the "right-minded

thinking" that once seemed difficult to forge has become thoroughly institutionalized.

In Germany the ESchG has not been amended. In 2002, however, the Bundestag passed an authorization of research on imported stem cells whose production is prohibited under the ESchG (BBC News 2002a; *Die Zeit* 2002; *Financial Times Deutschland* 2002). Passage of this authorization shows how actors can neutralize communicative and institutional veto points in Germany. As part of a constitutional reform, legislative authority on embryological research was transferred to the federal Ministry of Health. Here, a debate on the permission of PGD (Ludwig and Dietrich 1998) and the generation of embryonic stem cells took place in the 1990s; neither debate, however, led to an amendment of the ESchG. Because no reform could be achieved, scientists and industry demanded that the government permit research on imported stem cells because this would not require a change of the ESchG itself and an authorization by the Bundestag would be sufficient. When German scientist Oliver Brüstle made significant progress by using embryonic stem cells from mice in 1999, the pressure for an authorization increased dramatically. The German Research Society declared that it was supportive of Brüstle's research and demanded a clarification of the legal situation to be able to fund research on human stem cells.

Until that time the criticism on the ESchG was fairly broad, including various issues on ARTs, PGD and stem cells. The public debate increasingly narrowed down to the issue of stem cell research.[41] In May 2001 Chancellor Schröder established a national ethics council (Nationale Ethikrat) to debate specifically embryonic stem cell research, and the Bundestag extensively debated the issue. In November the National Ethics Council published its recommendations in favor of restricted use of embryonic stem cells in research. On 30 January 2002 the second debate on stem cell research occurred in the Bundestag. Unlike in the policy-making process on the ESchG, the import of embryonic stem cells was declared a matter of conscience, allowing Bundestag members to vote on it in a free vote. Thus, it was not only the case that the Social Democrats, previously strongly opposed to embryological research, had altered their position on research but also that the nature of the matter was perceived differently, making possible a cross-party coalition. Bundestag members Margot von Renesse (SPD), Dr. Maria Böhmer (CDU), and Andrea Fischer (Green Party) introduced a joint bill based on the recommendation of the National Ethics Committee permitting restricted use of imported stem cells for research purposes (BT-Drs. 14/8102). Chancellor Schröder, Minister for Research Egelgard Bulmahn, and

Andrea Merkel (CDU) urged the Bundestag to authorize stem cell research on imported cells, and 340 of 618 members accepted this proposal.[42] On 31 January 2002 the German Research Society gave Brüstle a substantial grant to pursue research on imported stem cells.

The formation of a cross-party coalition in favor of limited research on imported stem cells shows that a shift in opinion formation on embryological research has occurred in Germany. The feminist debate has partially shifted as well. In the 1980s feminist organizations mobilized resistance to reproductive technologies and genetic engineering and organized large-scale conferences on women against these technologies, but this opposition was not sustained in the 1990s. An intrafeminist debate emerged in the light of an increasing number of women wanting to use ARTs such as IVF and prenatal diagnosis. The feminist position on ARTs proposed by FINRRAGE—ARTs exert patriarchal control over women—was criticized. Here, motherhood was only seen as powerful when achieved through natural means. The focus on natural reproduction is increasingly seen as limiting women's reproductive choices. Choices produced by technology should not be discarded from the beginning because they do not necessarily reduce women to objects. The emphasis has shifted from condemning ARTs to finding ways of empowering women when using ARTs (Graumann 2001, 3).

Although German feminists are not in opposition to all ARTs anymore, there is still a significant resistance toward PGD and embryological research (Graumann 2002). Elke Mildenberger, for instance, argues that the embryo in vivo and the embryo in vitro are two separate entities that should receive different levels of protection. This makes it possible to argue for abortion rights and still oppose embryological research and PGD (see Mildenberger 2001). The Green Party voiced feminist concerns in parliamentary debates in the 1980s, but now the Green party has also joined the cross-party initiative to allow limited research on imported embryonic stem cells. Overall a decline in resistance to all kinds of ARTs and embryological research can be seen.

The permission for limited stem cell research shows that institutional and communicative veto points were moved. First, the law on the import of embryonic stem cells had to pass both houses of the Bundestag. As before, conservative states built up resistance against such a regulation (in 2000 Thüringen established an Enquete-Kommission and in 2001 Bavaria established a bioethics committee). However, these efforts were not successful. The Bundesrat passed the law with a large majority of votes. The passage of the law, at a time when the Bundesrat blocked many other reforms proposed by the government, could be attributed to the cross-party coalition in its support.

Second, a communicative veto point could also not be established either. Critiques of stem cell research revived memories of atrocities and human experiments committed during the Nazi regime. A communicative veto point could not be established because of a distinction made between the creation of stem cells for research purposes and already existing ones that could be imported from abroad. By proposing the use of the latter kind MPs could vote on stem cell research without declaring if they value the right of life of an embryo or the right of health of man more. In addition, a law permitting only research on imported stem cells (those created prior to 1 January 2002) is within the legal frame the ESchG and could be interpreted as a clarification of the legal situation rather than a break with the spirit of the law. Through this nuanced argument it was possible to persuade a majority of MPs to vote in favor of limited stem cell research. The ESchG is, however, not undisputed. On 23 January 2003 a majority in the National Ethics Council voted for allowing very limited PGD in Germany. The council also recommended to regulate all questions concerning reproductive medicine in a Reproductive Medicine Act and, thus, to revise the Embryo Protection Act (Nationale Ethikrat 2003).

In sum, the discussion of the establishment of the ESchG and the HFEA has shown that the passage of diametrically opposed laws on embryological research and continuing struggle over the embryological research can be explained by locating institutional and communicative veto points. The German case study in particular shows that although both institutional and communicative veto points are fairly sticky, they are not permanent fixtures and actors have the ability to move them. In addition, the analysis has shown that the institutional and the interpretive approaches do not lead to competing explanations but to complementary ones, and both approaches are needed to fully explain the policy outcome.

The analysis of the legislative process has also documented how the embryo in vitro has been constructed as a public entity in Great Britain and Germany. Further investigations into human embryology have reinforced the perception of the embryo in vitro as a separate entity from the woman and as a subject of public negotiation. Through embryological research, such as stem cell research that aims at increasing our knowledge on diseases rather than helping infertile couples have children, the relationship between embryological research and procreation has been weakened. In other areas of research, leading to, for instance, the development and application of PGD, this is not the case. Overall, this article has shown that the British and German welfare states responded differently to the challenges posed by investigations into human reproduction and embryology. Since the debate

on the human embryo in vitro has not ended with the passage of legislation in 1990, it remains important for feminists to be actively involved in the ongoing public negotiations.

NOTES

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1. Feminist scholars do not deny that individual women might benefit from reproductive technologies, but they emphasize that the cumulative effect might be to jeopardize women's freedom. "When 'choices' become available to women, they tend to become compulsions to 'choose' the alternative endorsed by society" (Hubbard 1982, 210, quoted in Merrick and Blank 1995, 102). In addition, "as 'reproductive choices' begins to take on a whole new meaning, and as fathers, fetuses and embryos acquire increased reproductive rights, so the foundational authority, for feminism, of 'a women's right to choose' can be seen to be 'in crisis' (Himmelweit 1988, quoted in Franklin 1995, 325; see also McLean 1989). How women's right to choose could be strengthened has been widely debated in feminist literature. Two theoretical accounts can be found, an interventionist account and an anti-interventionist account. The interventionists are concerned with putting women in charge and see potential benefits in the technologies. This, however, requires that the embryo and fetus is seen in relation to the woman, the power of using reproductive technologies is separated from the technologies themselves, and women are put in control of the development, distribution, and use of the technologies. Anti-interventionists argue "all modern technology is designed explicitly to deepen and extend patriarchal control and masculine pattern of thought" (Elshtain 1995, 34). This makes them deeply skeptical that this technology can be turned to good purposes. (For an overview of the debate see Elshtain 1995; Richardt 1996).

2. The term *feasibility set* refers to the possible set of options for action.

3. During the infertility treatment, more eggs are harvested and fertilized than can usually be implanted. Fertilized eggs or embryos that cannot be implanted in a uterus of a woman throughout the treatment are referred to as spare embryos.

4. These are cells with the capacity to develop into any part of the embryo or its support system, such as stem cells (MacKellar 1997, 17).

5. I borrow the term *historical institutionalism* from Sven Steinmo et al. (1992). An overview of the three new forms of institutionalism the field of political science can be found in Hall and Taylor (1996), Immergut (1998), and Koelbe (1995).

6. The phrase is taken from Franklin and Ragoné (1998).

7. The earliest stages of human development are crucial for understand-

ing the debate on human fertilization and embryological research. In infertility treatments, eggs are harvested before ovulation. Three hours after the eggs are retrieved they are fertilized. Seventeen hours later the nuclei become visible. Twenty-four hours after fertilization the nuclei merge and the fertilized eggs become zygotes or pre-embryos. At this stage fertilized eggs have three potential developmental paths: they can split and develop into twins, triplets, and so on; they cannot develop at all; or they can form a single embryo. The term *pre-embryo* refers to the developmental stage at which the primitive streak has formed—approximately at the fourteenth day after fertilization. With the appearance of the primitive streak the organ genesis begins and the entity has gained individuality. The British and German white papers refer to the fourteenth day after fertilization as a natural boundary that sets a limit to research. Six weeks after the primitive streak appears, the organ genesis is approximately completed and the term *fetus* is used. The term *spare embryo* refers to embryos that were created during infertility treatment but could not be implanted in a woman's womb.

8. The governmental position on how to approach the matter was, for instance, voiced by Mr. Norman Flowers, Secretary of State for Social Services (House of Commons, 23 November 1984, Human Fertilisation and Embryology, Hansard, Sixth Series, vol. 68, col. 532; see Warnock 1984).

9. Kenneth Clarke, Minister for Health, House of Commons, 23 November 1984, Human Fertilisation and Embryology, Hansard, Sixth Series, vol. 68, col. 588; see Warnock (1984).

10. House of Commons, 15 February 1985, Unborn Children (Protection) Bill, Order for Second Reading read, Hansard, Sixth Series, vol. 73, cols. 637–706; Mulkay (1997), 29.

11. Peter Thurnham, Bolton (North-East), House of Commons, 21 October 1986, Unborn Children (Protection) (No. 2) Bill, Hansard, Sixth Series, vol. 102, col. 974.

12. Ken Hargeaves (Hyndburn), House of Commons, 21 October 1986, Unborn Children (Protection) (No. 2) Bill, Hansard, Sixth Series, vol. 102, cols. 971–77.

13. Lady Saltoun of Abernethy, House of Lords, 15 January 1988, Human Fertilisation and Embryology, Hansard, Fifth Series, vol. 491, col. 1483.

14. Kenneth Clarke, House of Commons, 23 April 1990, Human Fertilisation and Embryology, Hansard, Sixth Series, vol. 171, col. 34.

15. House of Commons, 23 April 1990, Human Fertilisation and Embryology, Hansard, Sixth Series, vol. 171, col. 129.

16. In May 1988 the CDU lost the state election in Saarland. This further reduced the CDU/CSU (twenty-three seats) majority over the SPD (eighteen seats). In June 1990 the CDU lost the state election in Niedersachen and with it the majority in the Bundesrat. (The SPD had twenty-eight seats and the CDU/CSU eighteen seats.) In addition, embryological research and ARTs were debated controversially within the CDU (see Seesing 1988).

17. BT Drs. 11/8179.

18. Bayerische interministerielle Arbeitsgruppe 1987, 111–12.

19. See Art. 5 FMG, Bayerische interministerielle Arbeitsgruppe 1987, 112.

20. Richardt 1997, 89–90; Deutscher Bundestagsausschuß BT-6 Ausschuß [Committee of the Bundestag, BT-6th Committee], 73; Sitzung, öffentliche Anhörung von Sachverständigen und Verbänden mit schriftlicher Stellungnahme [Meeting, Public Hearing of Experts and Associations with Written Statements], 09.03.1990, 18.

21. Deutscher Bundesrat, Drs. 535/88, *Gesetzesantrag: Entwurf eines Gesetzes zur Regelung der künstlichen Befruchtung beim Menschen (Fortpflanzungsmedizingesetz)*, Vorlage beim Bundesrat, Reproductive Medicine Bill, Presented to the Bundesrat. Deutscher Bundestag, 25 November 1988, Sitzung BR, Pleanarberatung (Plenary Debate).

22. Under the leadership of Herta Däubler-Gmelin the Social Democrats organized a general hearing on the reproductive medicine and genetic engineering in 1985. Based on this expert hearing a position paper was developed in 1986 that demanded a prohibition of embryological research and germline therapy (Däubler-Gmelin 1986, 55). The Green Party had formulated their position against embryological research in connection with the feminist resistance to reproductive and genetic engineering (BT-Drs. 11/8179).

23. Deutscher Bundesrat, 595. Sitzung: *Plenarberatung*, Verbundene Aussprache; Ausschußzuweisung (Plenary Debate, Discussion and Referral to Committees), 25 November 1988, Hans E. Engelhard, Minister of Justice, 442A.

24. The most important differences between the ESchG and the FMG were the following issues: First, the FMG recommended a comprehensive prohibition of embryological research (§3 FMG); second, a transferral of regulatory competence from the medical profession to the Public Health Authorities on the state level (§8 FMG); and third, the prohibition of the use donor sperm and access to ARTs for married couples only (§2 FMG). In this situation the Christian-Democratic federal government had to engage in negotiations with the CSU—being the leader of the anti-research lobby in the Bundesrat. The white paper permitted research on spare embryos until the fourteenth day as long as boards of ethics had approved it. The medical profession should regulate the details of the law through its codes and guidelines, and unmarried couples should have access to ARTs.

25. Deutsche Bundesregierung, Drs. 417/89: Gesetzentwurf. Entwurf eines Gesetzes zum Schutz von Embryonen (Embryonenschutzgesetz—ESchG), Embryo Protection Bill, Presented to the Bundesrat; Vorlage beim BR, 11.08.1989.

26. Deutscher Bundestag, 230. Sitzung, II. und III. B.,GeBeschl; Ann. Des GesEntw auf BT-Dr 11/5460 idF der BeschlEmpf auf BT-Drs. 11/8057–11/8175, 24 October 1990 (requests to alter parts of the ESchG-Bill).

27. Deutscher Bundesrat, Drs. 745/90, BR: Beschluß (final), 09.11.1990.

28. For a legal discussion and guidance on the law itself, see Keller (1992); Deutsch (1991, 1992).

29. The Archbishop of York, House of Lords, 8 February 1990, Human Fertilisation and Embryology Bill, Hansard, Fifth Series, vol. 515, col. 956.

30. The term “pre-embryo” has been controversial and was only used

and discussed when the HFEB was debated. It is not commonly used anymore.

31. Lord Ennals, House of Lords, 8 February 1990, Human Fertilisation and Embryology Bill, Hansard, Fifth Series, vol. 515, col. 964.

32. In the Great Britain, special PGD centers have been established that are licensed to carry out PGD. The first step for couples wanting to use PGD is to be admitted to the clinics and get through the internal screening process. When viable embryos are produced, the couple is informed about the genetic conditions of the embryos and the couple—not the doctors or the clinic—can decide which embryos to implant. The only limitation placed on their decision by law is that they cannot select embryos for reasons of sex (Byleveld and Pattinson 1999). This allows potential parents to individually construct what is healthy, normal, or in the best interest of the child for them. In some cases this can mean that parents choose to implant an embryo with disability (Draper and Chadwick 1999, 116). Although the potential parents are in charge of the final selection of embryos for implantation, the clinics still function as moral gatekeepers through their initial screening process. Because positive reproductive rights are only minimally developed (in comparison with negative reproductive rights) couples can only demand access to PGD on the basis of nondiscrimination if they are not admitted to the clinic (see McLean 1999).

33. BVerfGE 39, 1975.

34. Ibid.

35. BR-Drs. 435/88, §10 FMG

36. Deutscher Bundestagsausschluß, BT-.6. Ausschuß, 73. Sitzung: Öffentliche Anhörung von Sachverständigen und Verbänden mit schriftlichen Stellungnahmen [Committee of the Bundestag, BT-6th Committee, 73. Meeting, Public Hearing of Experts and Associations with written Statements], 09.03.1990.

37. In Germany, as in Great Britain, abortion is not permitted because of a woman's bodily right or property in one's body (as in the United States). Abortion is only permitted under specific circumstances attached to a medical need or the physical and mental health of the woman. The British Abortion Act of 1976 and the German Abortion Act of 1975 did permit abortion in some cases based on fetal abnormality. In Great Britain MPs used this regulation in their arguments to justify PGD and embryological research. In Germany, however, MPs did not address this clause. Once the ESchG was passed prohibiting PGD, a grotesque situation was created where prenatal genetic testing (PND) was permitted and PGD was prohibited. To reduce the difference between the level of protection the embryo/fetus receive in vitro and in vivo the permission to gain access to legal abortion because of fetal health was removed in 1995. Since then, a woman over age thirty-five is strongly encouraged by her physician to use PND, but she is not able to gain access to legal abortion based on the outcome of those tests.

38. Deutscher Bundestag, 230. Sitzung, II. und III. B., GeBeschl; Ann. Des GesEntw auf BT-Dr 11/5460 idF der BeschlEmpf auf BT-Drs. 11/8057 u. 11/8175, 24.10.1990 (requests to alter parts of the ESchG-Bill).

39. See Dr. Herta Däubler-Gmelin, Bundestag, 230. Sitzung, 24 October

1990, 18208, B, C, and 18211, B, C; Ms. Schmidt (Hamburg), Bundestag, 230. Sitzung, 24 October 1990, 18213 C, D, 12914 C.

40. The vote was 366 to 174; BBC News (2000a,b,c).

41. In 1996 the Department of Health initiated a public hearing on PGD, an ethics committee adjunct to the department was founded in 1999. In 2000 a Symposium "Fortpflanzungsmedizin in Deutschland" was held that can be seen as the first attempt to broadly discuss reproductive medicine and research since the ESchG was passed. A wide variety of experts discussed issues such as the status of the human embryo in vitro, PGD, and stem cell research. In 2000 an Enquete-Kommission "Recht und Ethik der modernen Medizin" (Parliamentary Commission on Law and Ethics in Modern Medicine) was founded on demand of the SPD, CDU/CSU, Bündnis 90/Die Grünen, FDP in March 2000 (BT-Drs. 14/3011). These debates were still focusing on various aspects of the ESchG.

42. Three bills were introduced in the Bundestag. The bill "Schutz der Menschenwürde angesichts der biomedizinischen Möglichkeiten – Kein Import embryonaler Stammzellen" [Protection of Human Dignity despite Biomedical Possibilities – No Import of Embryonic Stem Cells] received 231 signatures from MPs when introduced in the Bundestag (BT-Drs. 14/8101). The bill "Keine verbrauchende Embryonenforschung: Import humaner embryonaler Stammzellen grundsätzlich verbieten und nur unter engen Voraussetzungen zulassen" [No Use of Embryos Created for Research Purposes: General Prohibition of Research with Very Limited Exceptions] received 187 signatures from MPs when introduced in partliament (BT-Drs. 14/8102). The third bill "Verantwortungsbewusste Forschung an embryonalen Stammzellen für eine ethisch hochwertige Medizin" [Responsible Research on Embryonic Stem Cells for Medicine with high Ethical Values] received 26 signatures from MPs (BT-Drs. 14/8103). Chancellor Schröder (SPD), among others, strongly encouraged the MPs to vote for the second bill that resembles a compromise position (Schröder 2002). The Bundestag passed this bill.

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