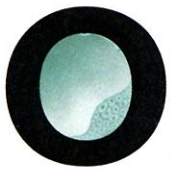
Human Embryo Research: Lessons from History



On 9 August 2001, President George W. Bush announced a new policy for federal funding of human embryonic stem (ES) cell research. To their credit, both former President Bill Clinton and current President Bush developed explicit policies for the funding of research involving human embryos. Nevertheless, these good-faith efforts followed at least 15 years during which Democratic and Republican administrations avoided the ethical and political minefields associated with such research, chiefly by ignoring the issue. In contrast, the United Kingdom has been engaged in a more decisive process, which can instructively be compared to that of the United States.

In 1979, after the first successful outcome of human in vitro fertilization (IVF), a U.S. federal Ethics Advisory Board concluded that federal funding for human embryo research designed to evaluate clinical IVF would be ethically acceptable. The board's 900-page report was never acted on, however, and from 1979 to 1994 federal policy on human embryo research languished. During the first Clinton administration, an interdisciplinary advisory panel appointed by National Institutes of Health (NIH) Director Harold Varmus produced an extensive new report on human embryo research. The 1994 report strongly endorsed research on unused embryos from IVF clinics, with the consent of the genetic parents. A narrow majority of panel members also approved the creation of embryos for research purposes in carefully specified circumstances; President Clinton immediately and publicly disagreed with this position. Before any of the NIH panel's recommendations could be implemented, however, Congress blocked federal funding of all human embryo research by attaching prohibitions to the annual appropriations bills that fund NIH.

The culturing of human ES cells in 1998, with funding by a private company, confronted U.S. policymakers with new quandaries. In 1999, the National Bioethics Advisory Commission, in a report to President Clinton, recommended modifying the congressional funding ban to permit federal support for the derivation as well as the use of ES cells from unneeded embryos. Shortly thereafter, NIH proposed that federal funding be permitted for the use of ES cells already derived with nonfederal support but not for the derivation process, which entails the destruction of embryos. In NIH's view, research using such cells had not been prohibited by the congressional ban, because ES cells are not embryos. President Bush's new policy accepts the NIH proposal, with an additional limit on the time of derivation. Meanwhile, research funded and conducted in the private sector continues, without advance public disclosure and subject only to a handful of state statutes.

By contrast, during this same period of time, the United Kingdom rapidly came to terms with human embryo research. A public advisory committee chaired by philosopher Mary Warnock recommended in 1984 that the British government permit and fund research on human embryos. Within the committee, there was strong support for the use of unused embryos from IVF in research, whereas a slim majority favored the generation of embryos for research purposes in extraordinary circumstances. The Warnock Committee also recommended the establishment of a government licensing authority for human embryo research and clinical IVF. Six years later, virtually all of the Warnock Committee's recommendations were translated into the Human Fertilisation and Embryology Act of 1990.

From 1991 to the present, official licensing authorities have reviewed all human embryo research proposals in the United Kingdom, without regard to funding source. They have also kept detailed records on the number of embryos used in research and published annual reports on approved projects. In January 2001, regulations adopted by the British Parliament expanded the list of permissible goals for human embryo research and, more controversially, will permit the creation of human embryos for research by means of nuclear transfer.

The moral of this story is not that either nation's policy is superior to that of the other. One lesson is that ignoring a public policy problem does not make it disappear. Another is that timely action may help policymakers resolve later, unanticipated policy questions. In the years ahead, the United States, the United Kingdom, and perhaps 25 other industrialized nations will be engaged in a global policy experiment. Governments and their advisors will need to be humble and flexible, but also decisive and courageous. Additional surprises surely lie ahead.

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