step of proposing two alternative formulations for legislation—one allowing and the other prohibiting research on early embryos—and announced that the choice will be determined by a free vote in the House of Commons. But no bills have so far been scheduled for Parliamentary consideration, which suggests that the government is not anxious to see the debate actually take place.

Warnock is clearly irked by the procrastination. She is particularly keen that the current Voluntary Licensing Authority, set up as a result of her committee's proposals to oversee both research into and the applications of IVF, be turned into a statutory body. "The single most important recommendation we made has not been implemented, though, with every day that passes, the need becomes more urgent," she says.

Denmark has taken the strongest action so far in Europe, passing a law in 1986 outlawing all research on human embryos. However, members of the Danish ethics committee say that law is intended as a stopgap measure primarily to encourage broad reflection by scientists and the wider community on how to move forward before more permanent regulations are introduced.

Countries with a strong Catholic tradition are still exploring tentatively how to codify their positions in a form that will respect traditional values while not excessively restricting either the rights of researchers or the hopes of infertile couples.

The position of the Catholic church is obviously of central importance in these debates. The Vatican made its position clear in a March 1987 directive on "nascent human life and the dignity of procreation," which rejects all forms of "assisted human procreation" and nontherapeutic research on embryos.

This point of view is already reflected in some legal attitudes. Spain's Constitutional Council, for example, recently ruled that life begins at conception; similarly Irish representatives to the Council of Europe have made it clear that they are unlikely to support any international convention that allows research involving the destruction of human embryos.

In several other countries however, the views of the Catholic church are likely to be less influential. In France, for example, where Catholicism remains the dominant religion, the National Ethics Committee is currently helping to draft legislation along the lines of the proposals of the Warnock Commission. Having previously suggested a time limit of 7 days for research on fertilized embryos, for example, the committee is now expected to support a proposal that this be extended to 14 days.

Germany, however, stands out as a marked exception. There, the views of the Catholic church (which remains particularly strong in southern Germany), rather than being tempered, as in France, by pragmatic considerations, appear to have been reinforced by haunting memories of the Nazi experiments.

These experiments have been directly responsible for a number of international legal efforts to guarantee respect for human dignity, including the Nuremberg Code of 1946, which requires that experiments on humans only be carried out with informed consent, and the United Nations' Universal Declaration of Human Rights of 1948. The same ideas are enshrined in the postwar German constitution.

When such documents were drafted, the concept of "human dignity" referred primarily to the protection of those who had already been born. However, a number of recent legislative proposals in Germany, at both the state and federal level, would extend comparable protection to human embryos. The main focus of current attention is a law being drafted by the federal Ministry of Justice in Bonn. This would make it a criminal offense to conduct any research on an embryo unless the research is directed toward the embryo's own well-being.

Widespread protests have come from the scientific community that such a law would impose excessive constraints on scientific freedom—which is also protected in the constitution—and drive a wedge between German scientists and their European colleagues.

In an attempt to forestall legislation, the two leading research funding organizations, the Deutsche Forschungsgemeinschaft (DFG) and the Max-Planck Gesellschaft, have both said that they would be prepared to accept a voluntary moratorium on all research using embryos until the ethical questions have been satisfactorily resolved.

West German research officials would dearly like to see a consensus established in Europe that embryo research, if strictly controlled, is morally acceptable. For such a consensus could then be used to argue that Germany's own legislation should be based on the same principle.

A desire to see broadly comparable ethical standards throughout Europe is shared by many officials in Brussels. "We cannot have a situation in which the same research might lead to a Nobel Prize in some member states of the European Economic Community, and to prison in others" says Karl-Heinz Narjes, EEC Commissioner responsible for industry and scientific research.

Others, however, offer little comfort to those seeking a European-wide convergence of positions. Jeremy Metters, formerly medical secretary of the Warnock Commission and currently chairman of an ad hoc committee of experts set up in 1986 to advise the Council of Europe on possible international regulations, says that, even on his committee, "there remain fundamental differences of opinion on the status of the embryo," and that, after 17 meetings, this gulf "remains unbridgeable."

If, as currently appears likely, compromise proves impossible on the bigger question of whether research should be allowed at all, and it becomes a criminal offense to carry out activities that can be practiced in neighboring countries, Germany's biomedical research community and its infertile couples will be paying a heavy, if unexpected, price for past atrocities. ■ **DAVID DICKSON**

A 20% Boost for Soviet Science

The Soviet Union has announced that it plans to increase by 20% the amount of money spent by the government in support of fundamental research next year, to a total of 21.5 billion rubles.

Much of this increase will be concentrated on the activities of the U.S.S.R. Academy of Sciences, and the academies of sciences in the individual union republics, whose total budget will be increased by the even higher amount of 32.3%.

These increases come after a number of statements by Soviet leader Mikhail Gorbachev emphasizing the potential contributions of basic science to the national economy—and pleas from the scientific community that this can only be achieved with additional funding.

The announcement that extra funds will now be forthcoming was made at the end of last month in a speech delivered to a joint session of the Supreme Soviet by B. I. Gostev, the Minister of Finance, outlining the government's spending plans for 1989.

Gostev said that the new research money would, in particular, be used to support promising research in fields such as high-temperature superconductivity, the development of new construction materials, biotechnology and information technology.

He added that provision had been made for a special fund for financing new research proposals that will be placed at the direct disposal of the State Committee for Science and Technology, and will be awarded on the basis of competition between individual laboratories and research teams.

■ **DAVID DICKSON**