In Brief

The United Nations and Human Cloning: A Debate on Hold

In August 2001 France and Germany proposed that the United Nations develop an "international convention against the reproductive cloning of human beings." The primary impetus behind the initiative was apparently a concern that those threatening to clone a human being would engage in venue shopping, looking for a nation that had not yet legally banned reproductive cloning. An international convention against such cloning, if approved by the United Nations, would announce an international moral consensus against reproductive cloning, and would ban it in nations that ratified the convention.

At the November 2001 session of the U.N.'s Legal Committee, the Vatican observer was the sole voice arguing that the convention should be expanded to ban research cloning (sometimes called "therapeutic cloning"). In February 2002, the United States announced that it would also seek to link the questions of reproductive cloning and research cloning. France and Germany replied that the issue on which an international consensus undoubtedly exists should be treated first, with a discussion of research cloning to follow.

After preliminary sparring in 2002 and early 2003, the issue of human cloning came to a head last fall, during the 58th Session of the U.N. General Assembly. In late September, the Ad Hoc Committee on an International Convention against the Reproductive Cloning of Human Beings took up the U.S. position, contained in a joint U.S.-Costa Rican proposal, and the French-German position, embodied in a proposal submitted by Belgium. The committee was unable to agree on recommending either draft. Similarly, in late October, the full Legal Committee failed to achieve any agreement. At a climactic November 6 meeting, however, a coalition of nations led by Iran and

supported by most members of the Organization of the Islamic Conference (OIC) proposed a two-year deferral of further debate, which prevailed by a vote of 80 to 79, with 15 abstentions. Nations voting for the deferral included Belgium, Brazil, China, the Czech Republic, Denmark, France, Germany, Greece, Hungary, India, Iran, Japan, the Netherlands, the Republic of Korea, the Russian Federation, Singapore, South Africa, Sweden, Switzerland, and the United Kingdom-all of the countries with the most liberal policies on stem cell research, as well as multiple nations that preferred to focus the convention solely on reproductive cloning. Industrialized nations voting against the deferral included Australia, Austria, Chile, Ireland, Israel, Italy, Norway, Poland, Portugal, Slovakia, Spain, the United States, and Venezuela. Several developing countries, including Fiji, Kenya, Lesotho, and Uganda, also voted against deferral. Canada abstained.

Undeterred by what was widely perceived as a stunning defeat, the Costa Rican delegation sought to have the Legal Committee's decision reconsidered when the cloning question came before the General Assembly. Costa Rica's December 5th resolution also asserted, in language borrowed from the earlier U.S.-Costa Rican resolution, that human cloning "for any purpose whatsoever, is unethical, morally repugnant and contrary to due respect for the human person," and it called for prohibition of all research aimed at human cloning, "pending the adoption of an international convention" against it.

Before the December 9 General Assembly discussion of the cloning issue a behind-the-scenes compromise was reached. Costa Rica agreed not to bring its new resolution to the floor of the Assembly, while the OIC-Belgian coalition agreed to a one-year deferral instead of the two originally specified in the vote of the Legal Committee. Thus "an international convention on reproductive human cloning" will be on the General Assembly's agenda for the fall of 2004. In an explanation of his willingness to accept this compromise, the U.K. representative forcefully declared that his nation "would never be party to any convention aimed to introduce a global ban on therapeutic cloning."

We cannot know how a vote on the original proposals would have gone. A member of the Iranian U.N. delegation with whom I spoke said that the United States delegation had lobbied vigorously for the Costa Rican resolution through Friday, December 5. He thought the Costa Rican resolution would have lost to the two-year deferral in a showdown vote of the plenary body.

The Vatican, the United States, and Costa Rica have been the most visible and consistent advocates for a convention outlawing all kinds of cloning. Their position presupposes that early human embryos are persons and, as such, bear human rights, including the right not be harmed. They have also argued that (1) research cloning would require a large group of oocyte providers and would therefore exploit women, (2) that the oocyte providers would likely be recruited from among the poorest and most marginalized peoples of the world, (3) that an international commercial market in oocytes and perhaps in cloned stem cells would develop, (4) that research cloning would divert resources from uncontroversial studies of adult stem cells, and (5) that the research would waste resources needed to confront "pressing global issues in develping countries.²

Against this position several groups are arrayed. France and Germany have rather conservative domestic policies on human embryo research and simply want the nations of the world to take a clear stand against reproductive cloning. Other nations, including the United Kingdom, Belgium, China, and in the near future Singapore and perhaps Sweden, already permit or support research cloning and therefore do not wish to see the practice condemned. The scientific community, insofar as it is represented by the national academies of science, sees enormous medical promise in research cloning and seeks to defend scientific freedom against what it perceives as political interference. The Organization of the Islamic Conference has emerged as a new and perhaps decisive political force in the U.N. cloning debate. A fatwa issued in January 2003 and circulated by the OIC may have helped to clarify the cloning issue for some OIC members. In this fatwa, Ahmad Al-Tayyeb of Al-Azhar University in Cairo asserted that the best analogy for using somatic cell nuclei and oocytes to create human embryonic stem cells is the respected practice of donating cells, tissues, or organs for transplantation. On this view, early embryos and five-day-old blastocysts created through nuclear transfer are not human subjects deserving protection, but are instead undifferentiated bearers of potentially beneficial cells from donors to recipients.

A final objection to the U.S.-Costa-Rican-Vatican position concerns the role of the United Nations. If a U.N.-sponsored convention is neither supported nor ratified by most countries with advanced biotechnology programs, adoption of the convention would be virtually meaningless and could even undermine the United Nations' authority. More than a dozen nations have made it clear they will not ratify any convention that bans research cloning.

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Are We Ready for Virtual Physicians?

Recently, several stories have appeared about a "Dr. Robot" at the Johns Hopkins School of Medicine. Typical of these was an item on MSNBC NEWS titled "Robot Doctors Interact with Patients: Study Gauges Attitudes towards Virtual Physicians." The story described a feasibility study designed by urologist Louis Kavoussi to determine whether, when a patient's physician cannot be present, the patient would prefer to talk with another physician or with an interactive robot standing in for the familiar physician. The article reported that Dr. Kavoussi "is optimistic the robot is 'going to be accepted by patients as a mechanism to interact with their physicians."

Of course, we can wonder about the scientific merit of the study, and the disclosure that Dr. Kavoussi is a member of the scientific advisory board of the company making the robot raises questions about conflict of interests. More fundamental, however, are questions about the very idea: what might motivate research into the use of robots in this setting? Several ways in which robots might help clinicians come to mind. First, the robot might help us reach our patients. A physician who works among several urban hospitals or who is traveling might use the robot to connect with patients throughout the city or from a distance. Second, perhaps the robot could extend the provision of health care in general. Robots could let physicians serve outlying regions much as telemedicine does now. Among subspecialties such as urology that expect a national shortage of trained physicians, robots might increase the capacity to provide care. Third, expanded use of the robot might just be another entrepreneurial opportunity for physicians.

But perhaps we should start by turning the issue around and asking why patients might choose a robot rather than the unknown but human physician. The study suggests the importance to patients of familiarity and continuity in health care. Patients often want to interact with someone they know. Perhaps the shared personal knowledge and developed trust make the "known" physician appealing even if the physician appears in robotic form. But the patients are not simply preferring a robot—as bank customers probably are when they turn to the ATM; rather, they are preferring a familiar physician in robotic form to a strange physician.

Of course there are limits to what the robot can do. What if the hospitalized patient tells the robot, "My belly hurts and I've noticed some blood in my stool." What then? The robot is equipped with infrared sensors, a movable video screen, a zoom video camera, a microphone and a speaker. Unless it has other capabilities I am unaware of, it apparently cannot examine the patient—do a rectal exam to check for post-op bleeding, for example. And if it could, I wonder what being touched by its steely "hands" might feel like.

Occasionally, too, when we see a hospitalized patient, an emergency is occurring right in front of us. Perhaps the patient is in cardiac arrest. If we are present only in robotic form, what happens then? Can the robot scream for help? In these cases—cases in which genuine care is required—the continuity of care that the robot promises seems to be interrupted anyway. Nor would I want to experience the helplessness of the remote physician in such a case.

All of this leaves me wondering whether we need Dr. Robot. Anything we can do to improve communication between patients and physicians is important, but I do not yet see that robots are the best answer to that problem.

—Julie Connelly University of Virginia