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001. email	SSN & DOB [partial] (1 page)	6/4/1997	P6/b(6)
002. email	SSN & DOB [partial] (2 pages)	6/5/1997	P6/b(6)

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RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

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Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: greider@cshl.org (greider@cshl.org [UNKNOWN])

CREATION DATE/TIME: 2-JUN-1997 17:25:37.00

SUBJECT: legislation and language

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
This whole exchange about drafting legislationwith great speed makes me very nervous. Although I know little about the details of legislation I note that Alex's proposed bill is titled: "A bill to impose a moratorium on all human cloning"

This is exacly the language that I hoped we would try to Avoid. It is overly broad in using the term "all human cloning" and could potentially impede legitimate biological research.

If this language is again being put forward, even in a draft form, it suggests to me that recommending legislation is a dangerous thing.

As Larry has repeatedly said we have no control over WHAT legislation will be drafted and what the language will be. When I ask myself to analyze the risk/benefit of not having legislation and relying on a volentary moratorium, or potentially having BAD legislation that prohibits legitamate research, I would err on the side of Not have legislation, but calling for volentary restraint.

I know it is sort of late to re-visit this issue, but I had no idea how the fast and non-thoughtfully this legislation drafting process might play itself out. I am beginning to get an idea and I do not like it.

Carol

****
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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: lhmiike@mail.health.state.hi.us (lhmiike@mail.health.state.hi.us [UNKNOWN])

CREATION DATE/TIME: 2-JUN-1997 18:21:23.00

SUBJECT: Re: a preference for self-restraint

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
Alex Capron wrote:
>
> On Mon, 2 Jun 1997, r. alta charo wrote:
>
> > i haven't yet read alex's legislative draft, nor the one that steve
> holtzman referred to, but i would like to express a preference for
> restraining ourselves and NOT offering up legislative language. to write
> a bill is to insert ourselves in the legislative process, that process
> almost always involves political horse trading that goes beyond one's
best > judgement of the merits of the issue at hand.
>
> I agree with Alta that there will be politics in the eventual debate and
> passage of a bill on cloning. But I disagree that this prospect argues
> against our submitting a bill that we think will accomplish what is
> needed. Besides, we have already decided to INVOLVE ourselves in that
> process by recommending legislation. We won't be more or less so in the
> politics by offering our own language: the horse trading takes place
among > the politicians after the bill is offered to them.
>
> > in addition, on this issue
> specifically, it would call for fleshing out the details of the sunset
> provision and review body (if any) at a level of detail that the
> commission has chosen not to discuss, thus making it difficult for the
> draft legislation to have an nbac imprimatur absent further commission
> debate.
>
> Please take a look at the draft. The sunset provision is simple and
> straighforward. On the nature of the "further commission" (which could
be
> NBAC or some general bioethics commission, to which the cloning topic
> would be assigned): at this point, I don't think a lot of specifics are
> needed on the adviosry body; that is precisely the sort of question that
I > WOULD leave to a later legislative working-out...that is, whether
Congress > decides simply to indicate (as my draft does) that some process
should be
> used to produce (or the course of at least one year) an updated
> consideration of the science and ethics of cloning humans before the
> moratorium expires, so Congress and the President will have more to go
on > than our 1997 report, or if Congress wants to set forth all the
details of > such an advisory body (how appointed, how compensated, how
staffed, where > located, etc....a lot of which is boilerplate language

anyway).
>
> > on the other hand, i see no problem with the commission responding to
> proposed drafts by commenting on aspects that would purposely or
> inadvertently contravene our recommendations. perhaps we could limit
> ourselves to that level of involvement?
>
> While we may need to end up responding to proposed drafts, I do think it
> would be better for us to put our ideas coherently on the table, rather
> than trying to improve others' efforts. Furthermore, organizing a
> response from an 18-member group is, as we've found out, not an easy
> process; it's best done face-to-face, which is not likely to be possible
> with whatever timetable the legislation may move on. Then what: we
> comment as individuals, we leave it to staff, to the chair alone, or to
> ....??? I also agree with Rachel Levinson is that there will be a demand
> for such a bill from the press and the Hill and that we'll lose
> credibility if we don't have a proposal.
>
> Anyway, NBAC office will be fed-exing the draft bill (along with some
> other things relating to the meeting), and I've sent it as an
attachment, > and would FAX it to any member who wants to see it that way.
>
> Alex
>
> **********
> * Alexander M. Capron acapron@law.usc.edu *
> * Henry W. Bruce Professor of Law (213) 740-2557 (voice) *
> * University Professor of Law and Medicine (213) 740-5502 (fax) *
> * University of Southern California (213) 740-0149 (fax) *
> * Los Angeles, CA 90089-0071 *
> **********
i totally disagree that we will lose credibility if we don't have a
legislative proposal. larry

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: cwagner@rand.org (cwagner@rand.org [UNKNOWN])

CREATION DATE/TIME: 2-JUN-1997 16:45:47.00

SUBJECT: Proposal on global governance

TO: Brian G. Kahin (CN=Brian G. Kahin/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

CC: cwagner@orwell.rand.org (cwagner@orwell.rand.org [UNKNOWN])
READ:UNKNOWN

TEXT:
Thanks for any comments you have on this:

Name of Organizations:
Institute of Public Policy
George Mason University

Critical Technologies Institute
The RAND Corporation

Principal Investigators:
Francis Fukuyama
Caroline Wagner

Date of Proposal: June 5, 1997

Name of Proposed Project:
Study Group on Global Governance of the Information
and Biotechnology Revolutions

Project Time Frame: One Year, September 1997 through September 1998

Issue

Two forces-information technology and biological science-and the results of their convergence will drive the international system in the next century. The science and technology of information and biology and the industries arising out of their development present significant and unprecedented challenges to governance, law, and international security. Issues of regulation, ownership, usage, trade, security, and research will be posed on a global scale to national governments weakened by the rise of the multi-centric world, and to international organizations not yet (and perhaps never) strong enough to affect governance on a global scale.

Project

This project involves a series of study groups to examine the these issues

as they will relate to changes in the international system caused by information technology and biological sciences. The study groups will consist of a series of meetings involving 30 leading specialists in the areas of technology, government, and international relations in a series of discussions on key issues. The product will be a series of essays on the issues examined. The study groups will be organized be Professor Francis Fukuyama, Institute of Public Policy, George Mason University, and Caroline Wagner, Special Assistant to the Director and Senior Analyst, Critical Technologies Institute at RAND. Presentations commissioned for the study group will provide the basis for a series of essays that will reach a more general audience and will constitute the projectâs ultimate product.

Policy Implications

The Global Governance project will constitute a major step toward placing these issues on the agenda of U.S. domestic and foreign policy. It will also begin the process of identifying possible U.S. responses to critical governance issues that are appropriate, effective, affordable and workable on a global scale. Building on knowledge gained from the Telecommunications and New Sciences Study Groups, this series of study groups will aim to introduce the question to the policy community of whether the international system has the infrastructure and organization to adjudicate critical legal and regulatory questions in the information and biological fields. The study group will expand our understanding of the impact that these issues are likely to have for international relations.

Background

In a series of study groups conducted over the past year, organized by Professor Fukuyama and Ms. Wagner, discussion leaders have been asked to focus on new science issues and the international system. The New Sciences Project followed a series of study groups on telecommunications policy organized by Professor Fukuyama. The most interesting and challenging questions emerging out of these previous study groups has been the question of the governance of products arising out of information technology and biological sciences. Specifically, the concern arises that national and international organizations and current legal systems are not adequate to deal with the significant issues of legal, regulatory, and trade governance that are emerging or are expected to emerge as these technologies influence changes in social systems.

The potential shortfalls of current political and legal infrastructure to deal with global changes in information are becoming evident as the U.S. National Information Infrastructure evolves into Global Information Infrastructure and develops beyond information sharing into a global commercial trading system. Electronic commerce will strain existing trade regimes, protocols for the protection of intellectual property, and concepts of currency. Government trade regulations and international trade agreements may well prove inadequate to govern electronic commerce. A number of governance issues have already come up, such as the fairness of the current system for allocating domain names on the Internet on an international basis. In the future, there may be other information

security-related problems that will require a high degree of international cooperation to resolve, and perhaps an ongoing international governance structure. Some suggest that contractual relationships will replace regulation and trade protocol. What organization is capable of negotiating and implementing new rules? What court of law will adjudicate international contracts agreed to on the GII? Can these simply be folded into the World Trade Organization (WTO), or do they need a separate institution?

Similarly, recent developments in genetics, and especially cloning, raise the question of international organizational and legal governance. Even as the U.S. Government considers a ban on human cloning or other kinds of genetic manipulations, other nations may be considering advanced experimentation in this area. Trade in goods created by cloning or otherwise altered human DNA may soon become a reality that severely challenges existing law and trade compliance. Among the consequences of an international governance regime for either information technology or biotechnology may be the development of offshore sites where individuals may go to avoid regulations established by other countries. Can existing organizational structure and law be adapted to the products of biological science? Will new forms of political organization and law be needed to address these changes?

We suggest that current legal and political infrastructures may prove sorely inadequate to deal with the issues emerging from these two areas of science and technology. We propose to use this series of study groups to examine the current international legal, trade, and regulatory systems as they may apply to specific developments in information and biology, and, to accompany this with an examination of the infrastructure available to apply these systems of governance to emerging challenges. If the existing system appears to be inadequate, we will consider what alternatives might make sense and how existing government could develop and bring new methods of governance into being.

Literature Review

The Global Governance Project will add significantly to both policy analytic and theoretical discussion of the issue of global governance of science and technology. Although there is a rich literature about the impact of science and technology on society, the subject of science, technology, and international system has been largely unexplored. This may be the case because scientific developments and the applications of technology do not in themselves ãcauseà changes in the international political system. The effects that emerge as science and technology develop in society alter the relationships among structural factors, change the relative power of actors, modify the framework of policy issues, alter perceived costs and benefits of policy intervention, and lead to other modifications in the structure and content of international relations. These changes come about through the complex, cumulative responses of individuals and policymakers acting within society. Technology does not determine this change, and social changes do not come about simply because of the existence of new scientific knowledge or technological capabilities.

The issue of whether technology causes change in the international system is closely tied to the question of technological determism¥a question that has been raised in several recent works. Skolnikoff (1993) frames the question by asking ãwhether the advance of technology is logically inevitable and independent of conscious choiceà or within the realm of human social choice. The view posited by some that technology is by nature deterministic suggests that the outcomes of the scientific and technological change will have to be dealt with as though human choice had little to do with producing these outcomes.

We do not agree with those who suggest the technology determines change. Nevertheless, with technological change happening at the rate we are experiencing today, a reasonable question is whether society has the infrastructure to address the challenges posed by the effects of continuing technological change, especially those mandating extensive and international collective action. Rosenau (1990) argues that technology has induced a "multi-centric" world parallel to and overlapping with the state-centric world, a phenomenon that is reducing the power of states to conduct international relations. In his November 1996 presentation to the New Sciences Study Group, Rosenau posited that ã[political] authority is being challenged worldwide because of a transformation of legitimacy from a situation where people are told what to do to one of performance legitimacy where leaders must meet peopleså standards for evidence...à The increasing focus on evidence as opposed to authority suggests additional challenges to the ability of governments to affect collective action in response to highly complex technological change.

In his 1996 book ãThings That Make Us Smart,à Donald Norman argues that technology is ethically neutral, but it takes on value as it enhances the intention of the user. Society is increasingly faced with situations in which technological change brought into being for one purpose has consequences¥or âmultipliersâ¥in broader social areas for which technology might be called an independent variable. The âmultiplierâ effect of some technological change leads to the frequently expressed notion that technological change is exogenous or independent of human action. For example, the choices of individuals to seek genetic therapy or cloning may be rational. Each actor is working within what John Holland (1995) has called âbounded rationality.â The collective results of individual actions multiplying into collective action with impact on the social system does not necessarily contribute to a rational world or a robust community, and in fact sometimes has the opposite effect. The perverse effects of technology are discussed in 1996 book, ãWhy Things Bite Back.à

The unintended consequences to third parties of individual economic decisions has traditionally been analyzed by economists under the heading of externalities. Free markets are traditionally said not to adequately supply positive externalities and need to regulate the production of negative externalities. If new technological developments in information or genetics produce externalities of either sort, a prima facie case exists for some intervention by public authorities. If these externalities are international in nature, then the public authority needs to be international as well.

The multiplier effect of the GII or human DNA cloning, to take two

examples, is very high. The potential impact of these technologies on so many sectors of society and the economy give people the sense that the resulting changes are outside of the capability of individuals or governments to regulate or control them. Information technology and the creation of a global information infrastructure involves the individual actions of millions of individuals acting upon a highly complex and adaptive system. The question of establishing coherent responses in the face of change is a central enigma in many complex systems. Chaotic events, like the introduction of high-multiplier technologies, change the system in unpredictable ways. Looking for the levers to affect the direction of change is one possible response suggested in a seminar given at RAND by Brian Arthur (1994), and in the works of Stuart Kauffman (1995) and others.

Political and legal systems built to deal with a more rational, more linear world may be stressed to the breaking point under the pressures of social change âcausedå by high- multiplier technologies. Consequences range from creating a litigious world where more energies are spent arguing over the rules and ownership of intellectual property than in creating and distributing wealth, to the breakdown of social order into pockets of wealthy societies within a barbaric world as suggested in speculative fiction like the works of Neal Stephenson (1992 and 1995). These possibilities, and new models for governance, will be the focus of the study groups.

Methods

The Global Governance Project will use the format of a presentation and study group discussion to examine the following issues:

1. Intellectual property rights, information, and genetics: Are patents enforceable in a distributed system?

2. Global currency and national economies: Can governments control their own economic destiny?

3. Ownership of heredity information: Who owns your genetic information?

4. Tariffs and taxes on the worldwide web: Who decides? Who collects? Who distributes the benefits?

5. Privacy and security issues on the worldwide web: will a networked system make it easier for criminals to launder money?

6. Security and encryption: what happens when everyone knows everything about you?

7. Allocation of domain names in an Internet of the future: who âcontrols,å who âownså the Internet?

8. Protection of individual rights on an international basis in the wake of a major terrorist act one or two orders of magnitude more deadly that those that have taken place up till now.

Personnel

The co-directors of the proposed project will be Francis Fukuyama and Caroline Wagner.

Dr. Fukuyama is Dr. Fukuyama is Omer L. and Nancy Hirst Professor of Public Policy at the George Mason University Institute of Public Policy, Director of the Masters of Arts in International Transactions program and Director of George Mason's Global Political Economy Program. For the past three years, Professor Fukuyama has headed the highly successful series of study groups at the Johns Hopkins University Foreign Policy Institute (The Telecommunications Project and The New Sciences Project). This proposed study group builds on and broadens insights derived from the Telecommunications Project and the New Sciences Project. Professor Fukuyama has proved himself to be an innovative and original thinker who is also comfortable crossing conventional disciplinary boundaries.

Caroline Wagner is Special Assistant to the Director of the Critical Technologies Institute and Senior Policy Analyst at the RAND Corporation. She brings to the project an in-depth knowledge of the issues and players in the field of science and technology policy, as well as experience as co-director of the New Sciences Project. As Senior Analyst at RAND, Ms. Wagner has organized a highly successful technology seminar series that focuses on developments at the nexus of diverse fields of science and technology. Her analytic responsibilities have included analyzing international cooperation in science and technology. Ms. Wagner is a member of the management team of the Critical Technologies Institute at RAND, where she has responsibility for identifying emerging issues in science and technology policy and responsibility to oversee analysis for the Executive Office of the Presidentâs Office of Science and Technology Policy.

Organizational Background

The Institute for Public Policy (TIPP) offers MA and PhD degrees in public policy at George Mason University. In addition, TIPP conducts extensive research on issues related to science and technology policy, regional development, transportation, comparative cultural analysis, and other issues of relevance to international governance.

The Critical Technologies Institute is a Congressionally-chartered federally funded research and development center within RAND serving the White House Office of Science and Technology Policy and other government agencies with research and policy support in science and technology studies. CTI is managed by the RAND Corporation under a contract with the National Science Foundation.

Bibliography

Brian Arthur, Increasing Returns and Path Dependence in the Economy (University of Michigan Press, Ann Arbor, 1994).

John Holland, Hidden Order: How Adaptation Builds Complexity (Addison-Wesley, Reading, MA, 1995).

Stuart Kauffman, At Home in the Universe: The Search for the Laws of Self-Organization and Complexity (Oxford University Press, New York, 1995).

Donald Norman, Things That Make Us Smart: Defending Human Attributes in the Age of the Machine

James Rosenau, Turbulence in World Politics,

Eugene B. Skolnikoff, The Elusive Transformation: Science, Technology, and the Evolution of International Politics (Princeton University Press, Princeton, NJ, 1993).

Neal Stephenson, Snow Crash (New York: Pelham Books, 1992).

Neal Stephenson, The Diamond Age (New York: Pelham Books, 1995).

Edward Tenner, Why Things Bite Back: Technology and the Revenge of Unintended Consequences, (New York: Knopf, 1996).

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: acapron@law.usc.edu (acapron@law.usc.edu [UNKNOWN])

CREATION DATE/TIME: 2-JUN-1997 19:10:20.00

SUBJECT: Legislation

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
Several people have raised questions about our proposing legislation. As I see it the objections are:

1. IMPROPER ACTION: Larry (echoing Alta) "it would not be proper" for us to do so. I gather that OTA, as a neutral advisor to Congress was constrained not to get into specific legislation. Perhaps this is the source of their view, which otherwise I don't understand. Commissions do propose particular legislative language, and we're not foreclosed from doing so, as far as I know.

2. CHANGE RECOMMENDATION Carol: Problems with the wording make her think we shouldn't even recommend legislation. I've replied to this directly in other e-mail. Summary is: the more trouble you anticipate in the words, the more you ought to want to suggest what those words are and the less you want to leave it to others, who may not appreciate your concerns or have your ability to express those concerns in language you would find appropriate. Of course, if we recommend AGAINST legislating, then we shouldn't offer legislation; failing that, we should.

3. LACK EXPERTISE: Harold: We don't have expertise to do legislative drafting. While the whole process of legislation may be somewhat arcane, let me assure you that the commissioners are at least as well equiped to write the operative language as the other people who have already tried there hands or who will, after Saturday, being trying their hands.

4. CREDIBILITY: Larry has also voiced the view that our credibility won't be hurt if we dont suggest a bill. I would certainly agree that our credibility wont be destroyed by the absence of a bill. And there might be circumstances in which it wouldn't be hurt at all. For example, if we were (like one of the commissions that have worked out "formulas" for handling social security or Medicare financing) to be putting forward a proposal where the concept was the whole ball of wax and the legislative details myriad and arcane, then it might be enough to say to staff members: go through the USCode and find every provision that would be affected by the "deal" we've just worked out and draft a bill to amend all those sections. Here by contrast, the legislative terrain is novel...and the exact words used to describe it is the whole ball of wax.

MY BOTTOM LINE: if debate about the language of the bill reveals that we can't agree on what it should say, then I don't think we have truly agreed on anything.

Our recommendations say there should be legislation; that it should ban reproductive cloning through the nuclear transfer method but not other forms of cloning human cells; and that the legislation should expire in 5 years, prior to which an advisory body should report on the current status of the science and ethics. If over the next couple of days and in person next Saturday, we can't refine the language that would accomplish these objectives, then how do we expect anyone else to...or ourselves to do so "l ater" (by which time the legislative train may have left the station.... those who want to act on this have been holding themselves back waiting for our report)?

Rather than wondering WHETHER we can do this, why not see if we can? I am sure that the draft I sent around can use a lot of tinkering...and I hope it gets it. And I really do think we'll have made a much more valuable contribution if we offer a bill that embodies what we think "does the job" rather than facing questions from the press ("if you were serious about the need for a legislative moratorium, why didn't you draft a bill?" "if you, who have spent 3 month carefully studying the issue can't agree on a bill, what do you think Congress will do?") or watching Congressman X seize our report and introduce a BAD bill and then having to scramble to modify that.

Alex

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: SimonS@od6100m1.od.nih.gov (SimonS@od6100m1.od.nih.gov [UNKNOWN])

CREATION DATE/TIME: 2-JUN-1997 18:15:53.00

SUBJECT: Ethics Chapter --Draft 6/02/97

TO: thm2@po.cwru.edu (thm2@po.cwru.edu [UNKNOWN])
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CC: KnorrH@od6100m1.od.nih.gov (KnorrH@od6100m1.od.nih.gov [UNKNOWN])
READ:UNKNOWN

CC: Khanna5102@aol.com (Khanna5102@aol.com [UNKNOWN])
READ:UNKNOWN

TEXT:
The Ethics Chapter is attached in 3 different formats: MS Word,
Wordperfect, and Rich Text Format. I believe only the printed Wordperfect
version (ETH.WPD) will display the line numbers.

Sean

- ETH.doc - ETH.WPD - ETH.RTF========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
> hc e29:222p2Pp4p4p4555555(545B8\66060606>6>6>6>6@6@6@6<|6P7$88X8<B8p4>606>6>6
>6B8>6p4p4066>6>6>6>6p406p406>6Uo4n4J3n3p4p4>6>6>6>6ETHICAL CONCERNS

The pros
pect of creating children through somatic cell nuclear transfer has elicited wi
despread, instinctive resistance. Much of this reaction can be attributed to f
ears about harms to the children who may result, particularly psychological har
ms associated with a possibly diminished sense of individuality and personal au
tonomy. Others express concern about a degradation in the quality or parenting
and family life if children=s physical development were no longer as unpredict

able, especially if parents were to confuse the predictability of certain of th
eir physical characteristics with the predictability of their personality and c
haracter. And virtually all people agree that the current risks of physical ha
rm to children associated with somatic cell nuclear transplantation cloning jus
tify a prohibition at this time on such experimentation. In addition to conce
rns about specific harms to children, people have frequently expressed fears th
at a widespread practice of such cloning would undermine important social value
s, such as resistance to eugenics, avoiding the temptation to manipulate people
as if they were objects instead of persons, and accepting the limits of moral
boundaries inherent in the human condition. Arrayed against these concerns are
other important social values, such as protecting the widest possible sphere o
f personal choice, and maintaining the freedom of scientific inquiry. As somat
ic cell nuclear transfer cloning could represent a means of human reproduction
for some people, limitations on that choice must be made only when the societal
benefits of prohibition clearly outweigh the value of maintaining the private
nature of such highly personal decisions. Especially in light of some arguably
compelling cases for attempting to clone a human being, the ethics of policyma
king must strike a delicate balance between those concerns focused on the set o
f values we wish to reflect and the freedom of individual choice.

* * *
* * *

In his testimony before the Commission on March 13, 1997, bioe
thicist Leon Kass summarized many of the widely held concerns regarding the pos
sibility of cloning human beings via somatic cell nuclear transfer when he note
d,

AAlmost no one sees any compelling reason for human cloning. Almost every
one anticipates its possible misuses and abuses. Many feel oppressed by the se
nse that there is nothing we can do to prevent it from happening and this makes
the prospect seem all the more revolting. Revulsion is surely not an argument
....But ... in crucial cases repugnance is often the emotional bearer of deep w
isdom beyond reason=s power fully to articulate it@ (Kass, 1997).

But some, ho
wever, argue with relying simply on moral intuition to set public policy. In h
er testimony before NBAC on March 14, 1997, bioethicist Ruth Macklin challenged
the inclination to take as axiomatic the proposition that to be born as a resu
lt of using these techniques is to be harmed or at least to be wronged.
AIntuit
ion has never been a reliable epistemological method, especially since people n
otoriously disagree in their moral intuitions. . . If objectors to cloning can
identify no greater harm than a supposed affront to the dignity of the human sp
ecies, that is a flimsy basis on which to erect barriers to scientific research
and its applications@ (Macklin, 1997).

One of the key challenges for the Co
mmission was to understand many of the moral and religious objections to clonin
g as well as to investigate and articulate the widespread intuitive disapproval
of cloning human beings. These concerns then had to be tested against both th
ose philosophical responses that are more positive regarding such cloning as we
ll as against certain arguably compelling and specific cases for deploying this
technology. In short, NBAC sought to understand and, in some cases, to clarif

y the diversity of reactions to this new technology.

The task is made quite di
fficult by the fact that neither moral philosophers nor religious thinkers can agree on the "best" moral theory; indeed, they often cannot even agree on the p ractical implications of any single theory. For example, some people base thei r arguments on an assessment of the particular harms and benefits that would fl ow to individuals and to society if somatic cell nuclear transfer techniques we re to become commonplace. Others express their views by arguing about overarch ing rightsCthe child=s right to individuality and dignity versus the nucleus do nor=s right to procreate or the scientist=s right to do research. And while mo ral and even human rights need not be understood as absolute, that is as morall y requiring people to respect them no matter how great the costs or bad consequ ences of doing so, they do place moral restrictions on permissible actions that cannot be overridden by an appeal to a mere balance of benefits over harms.

U
nfortunately, while some of the risks and benefits of somatic cell nuclear clon ing human beings are well enough understand to support the conclusion that it s hould not be permitted at this time, the larger debate over the balance to be s truck among competing rights needs more time for discussion and development. T his chapter reviews some of these arguments, and it is hoped that it can serve as the starting point for a more profound and more sustained reflection on the significance of creating children through somatic cell nuclear transfer.

The f
ollowing discussion of issues raised by such cloning begins with an important c aveat. Any research or clinical experiment on creating a child in this manner would involve the creation of an embryo. That is, the fusion of a human somati c cell and an egg whose nucleus has been removed would produce a human embryo, with the apparent potential to be implanted in utero and developed to term. Et hical concerns surrounding the issues of embryo research have recently received extensive analysis and deliberation in our country (National Institutes of Hea lth, 1994). Indeed, as described in Chapter Five, federal funding for human em bryo research is severely restricted, although there are few restrictions on hu man embryo research carried out in the private sector using nonfederal funds. NBAC did not revisit this issue in the context of this report.

Potential for Physical Harms

There is one basis of opposition to somatic cell nuclear trans
fer cloning on which most can agree. For reasons outlined above in Chapter Two , there is virtually universal concern regarding the current safety of attempti ng to use this technique in human beings. Even if there were a compelling case in favor of creating a child in this manner it would have to yield to one fund amental principle of both medical ethics and political philosophyCthe injunctio n, as it is stated in the Hippocratic Oath, to Afirst do no harm.@ At this tim e, the significant risks to the fetus and physical well being of a child create d by somatic cell nuclear transplantation cloning outweigh the arguable benefit s to use of the technique.

It is important to recognize that the technique t
hat produced Dolly the sheep was successful in only 1 of 277 attempts. If atte

mpted in humans, it would pose the risk of futile hormonal manipulation in the egg donor; multiple miscarriages in the birth mother; and possibly severe devel opmental abnormalities in any resulting child. Clearly the burden of proof to justify such an experimental and potentially dangerous technique falls on those who would carry out the experiment. Standard practice in biomedical science a nd clinical care would never allow the use of a medical drug or device on a hum an being on the basis of such preliminary study and without much further animal research. Thus, no conscientious physician or Institutional Review Board shou ld approve attempts to use somatic cell nuclear transfer to create a child at t his time. For these reasons, prohibitions would be warranted on all attempts t o produce children through nuclear transfer from a somatic cell at this time.

Even on this point, however, NBAC has noted some diversity of opinion. Some a rgue, for example, that prospective parents are already allowed to conceive, or to carry a conception to term, when there is a significant riskCor even certai ntyCthat the child will suffer from a serious genetic disease. Even when other s think this makes it morally wrong to conceive or to carry a pregnancy to term , the parents' right to reproductive freedom takes precedence. Since many of t he risks believed to be associated with somatic cell nuclear transfer may be no greater than those associated with genetic disorders, some contend that such c loning should be subject to no more restriction than other forms of reproductio n (Brock, 1997).

And, as in any new and experimental clinical procedure, harms can not be truly determined until trials are conducted in humans. Law profess or John Robertson noted before NBAC on March 13, 1997 that

A[The] first trans fers [into a uterus] of a human [embryo] clone [will occur] before we know whet her it will succeed. . .[Some have argued therefore] that the first transfers a re somehow unethical. . .experimentation on the resulting child, because one do es not know what is going to happen, and one is. . .possibly leading to a child who could be disabled and have developmental difficulties. . .[But the] child who would result would not have existed but for the procedure at issue, and [if] the intent there is actually to benefit that child by bringing it into being. . .[this] should be classified as experimentation for [the child=s] benefit an d thus it would fall within recognized exceptions. . .We have a very different set of rules for experimentation intended to benefit [the experimental subject] @(Robertson, 1997).

Cloning and Individuality

In addition to physical harms, many worry about psychological harms associated with such cloning. One of the forms of psychological harm most frequently mentioned is the possible loss of a sense of uniqueness.

Many argue that somatic cell nuclear transfer cloning c reates serious issues of identity and individuality and forces us to reconsider how we define ourselves. In his testimony before NBAC March 13, 1997, Gilbert Meilaender commented on the importance of genetic uniqueness not only for the individual but in the eyes of their parents,

AOur children begin with a kind o

f genetic independence of us, their parents. They replicate neither their fath
er nor their mother. That is a reminder of the independence that we must event
ually grant to them and for which it is our duty to prepare them. To lose even
in principle this sense of the child as gift will not be good for children@(Me
ilaender, 1997).

The concept of creating a genetic twin, although separated in
time, is one aspect of somatic cell nuclear transfer cloning that most find bo
th troubling and fascinating. The phenomenon of identical twins has intrigued
human cultures across the globe, and throughout history (Schwartz, 1996). Part
of that fascination goes to the complexity of human intuitions regarding the r
elationship of the self to the body. While Descartes= mind-body dualism has st
rongly influenced modern western thought, leading to an intellectual view of th
e Aself@ as a form of consciousness somehow housed within a physical container
called the body, neither instinct nor custom have fully followed suit. Thus, e
ven after death, the body is treated with great respect in most cultures. Even
if religious or rational thought leads people to view the body as an empty she
ll, devoid of personality, its mere existence acts as a powerful reminder of th
e person it once was. As such, it evokes in observers many of the emotions the
y would experience if in the presence of that person. People will talk to such
bodies in many funeral rituals. They will often object to mutilation of the b
odies, even for such socially valuable purposes as autopsy or organ donation, b
ecause the mutilation seems to be an affront to person who lived in that body,
or because observers cannot help but imagine the sensations that person would e
xperience if he or she were still alive (Youngner, Fox, and O=Connell, 1996).

Against this backdrop, it is easy to understand why twins hold such fascination
. Mind-body dualism and common experience demonstrate how distinctly different
twins are, both in personality and in personhood. At the same time, observers
cannot help but imbue identical bodies with some expectation that identical pe
rsons occupy those bodies, since, Cartesian dualism aside, body and personality
remain intertwined in human intuition. With the prospect of somatic cell nucl
ear transfer cloning comes a scientifically inaccurate but nonetheless instinct
ive fear of multitudes of identical bodies, each housing personalities that are
somehow less distinct, less unique, and less autonomous than usual.

Is there
a moral or human right to a unique identity, and if so would it be violated by
this manner of human cloning? For such cloning to violate a right to a unique
identity, the relevant sense of identity would have to be genetic identity, tha
t is a right to a unique unrepeated genome. This would be violated by somatic c
ell nuclear transfer, but is there any such right? Even with the same genes, t
wo individuals, for example homozygous twins, are distinct and not identical, s
o what is intended must be the various properties and characteristics that make
each individual qualitatively unique and different than others. Does having t
he same genome as another person undermine that unique qualitative identity?

A
long these lines of inquiry some question whether somatic cell nuclear transfer
cloning would violate what philosopher Hans Jonas called a right to ignorance,
or what philosopher Joel Feinberg called a right to an open future (Jonas 1974
; Feinberg 1980). Jonas argued that human cloning, in which there is a substan
tial time gap between the beginning of the lives of the earlier and later twin,
is fundamentally different from the simultaneous beginning of the lives of hom

ozygous twins that occur in nature. Although contemporaneous twins begin their lives with the same genetic inheritance, they also begin their lives or biographies at the same time, and so in ignorance of what the other who shares the same genome will by his or her choices make of his or her life. To whatever extent one's genome determines one's future, each begins ignorant of what that determination will be and so remains as free to choose a future, to construct a particular future from among open alternatives, as are individuals who do not have a twin. Ignorance of the effect of one's genome on one's future is necessary for the spontaneous, free, and authentic construction of a life and self.

A later twin created by cloning, Jonas argues, knows, or at least believes he or she knows, too much about him or herself. For there is already in the world another person, one's earlier twin, who from the same genetic starting point has made the life choices that are still in the later twin's future. It will seem that one's life has already been lived and played out by another, that one's fate is already determined, and so the later twin will lose the spontaneity of authentically creating and becoming his or her own self. One will lose the sense of human possibility in freely creating one's own future. It is tyrannical, Jonas claims, for the earlier twin to try to determine another's fate in this way.

And even if it is a mistake to believe the crude genetic determinism, according to which one's genes determine one's fate, what is important for one's experience of freedom and ability to create a life for oneself is whether one thinks one's future is open and undetermined, and so still to be determined by one's own choices. One might try to interpret Jonas' objection so as not to assume either genetic determinism, or a belief in it. A later twin might grant that he or she is not destined to follow in his or her earlier twin's footsteps, but that nevertheless less the earlier twin's life would always haunt them, standing as an undue influence on their lives, and shaping it in ways to which others' lives are not vulnerable.

In a different context, and without applying it to human cloning, Feinberg has argued for a child's right to an open future. This requires that others raising a child not so close off the future possibilities that the child would otherwise have as to eliminate a reasonable range of opportunities for the child to choose autonomously and construct his or her own life. One way this right to an open future would be violated is to deny even a basic education to a child, and another way might be to create it as a later twin so that it will believe its future has already been set for it by the choices made and the life lived by its earlier twin.

There is, however, an irony to some of this argumentation, as pointed out by Robertson.

A[O]pponents talk about the importance of having a unique genome and how cloning might rob a child of a unique identity. At the same time, however, they want to deny the importance of genes alone in creating identity, so there is a kind of tension there in their comments@ (Robertson, 1997).

Thus, a central difficulty in evaluating the implications for somatic cell nuclear transfer cloning of a right either to ignorance or to an open future, is whether the right is violated merely because

the later twin may be likely to believe that its future is already determined, even if that belief is clearly false and supported only by the crudest genetic determinism.

Cloning, Control, and the Family

Among those concerns that are n
ot focused on arguments about harm to the child are a set of worries about use of such cloning as a means of control. These are concerns, for example, about possibly generating large numbers of people whose life choices are constrained by their own constrained self-image or by the constraining expectations of othe rs. From this image of less-than-autonomous children comes the fear, however m isplaced, of technology creating armies of cloned soldiers, each diminished in his physical individuality and thereby diminished in their psychological autono my. Similarly, this expectation of diminished autonomy underlies the eugenic i mpulses that have led many to speculate about the possibility of cloning Adesir able@ or Aevil@ people, ranging from actors to dictators of various stripes to distinguished religious leaders. Complicating matters even further, this misp laced belief in the ability of genes to fully determine behavior and personalit y amplifies the image, so that in the end one imagines being able to make eithe r armies of complacent workers, crazed soldiers, brilliant musicians, or beatif ic saints.

Although such fears are based, as noted in Chapter Two, on gross mi
sunderstandings of human biology and psychology, they are nonetheless real. In addition, these same concerns also manifest themselves in fears that underlie the characterization of somatic cell nuclear transfer cloning as a form of Amak ing@ children rather than Abegetting@ children. With cloning, the total geneti c blueprint of the cloned individual is selected and determined by the human ar tisans. This, according to Kass,

A. . .would be taking a major step into maki
ng man himself simply another one of the man made things. Human nature becomes merely the last part of nature to succumb to the technological project which t urns all of nature into raw material at human disposal. . .As with any product of our making, no matter how excellent, the artificer stands above it, not as a n equal but as a superior, transcending it by his will and creative prowess@ (K ass, 1997).

For many, this kind of relationship is inconsistent with an ideal
of parenting, in which parents embrace not only the similarities between themse lves and their children but also the differences, and in which they accept not only the developments they sought to bring about through care and teaching but also the serendipitous developments they never planned for or anticipated (Roth enberg, 1997).

Of course, parents already exercise great control over their
offspring, through means as varied as contraception to control of the timing an d spacing of births, to genetic screening and use of donor gametes to avoid gen etic disorders, to organized medical and educational interventions to guide phy sical and intellectual development. But each of these interventions exist alon g a spectrum of control over developments. Somatic cell nuclear transfer cloni ng, some fear, offers the possibility of virtually complete control over one im portant aspect of a child=s development, his genome, and it is the completeness

of this control, even if only over this partial aspect of human development, t
hat is alarming to so many people and invokes images of manufacturing children
according to specification. The lack of acceptance this implies for children w
ho fail to develop according to expectations, and the dominance it introduces i
nto the parent-child relationship, is viewed by many as fundamentally at odds w
ith acceptance and indeterminacy that is currently associated with parenting.
Meilaender addressed both the mystery of reproduction and fears about it veerin
g toward a means of production in his testimony before NBAC.

ABut whatever we
say of [other reproductive technologies], surely human cloning would be a new
and decisive turn on this road. Far more emphatically a kind of production. F
ar less a surrender to the mystery of the genetic lottery which is the mystery
of the child who replicates neither Father nor Mother but incarnates their unio
n. Far more an understanding of the child as a product of human will@ (Meilaen
der, 1997).

Questions are raised, as well, about the effect such interventions
will have on a particular child. Will the child himself or herself feel less
independent from the nucleus donor than a child ordinarily would from a parent?
Will the knowledge of how one=s genetic profile developed in another person a
t another time leave the child feeling that his character is as predetermined a
s his adult height or his hair color? Even if the child feels completely indep
endent of the nucleus donor, will others regard the child as a copy or a succes
sor to that donor? If so, will such expectations on the part of others begin t
o affect the child=s self-image?

Finally, some critics are concerned that the
legal or social status of the child arising from nuclear transfer of somatic ce
lls may be uncertain. For some, the disparity between the child's genetic and
social identity threatens the stability of the family. Is the child who result
s from somatic cell nuclear transfer the sibling or the child of its parents?
The child or the grandchild of its grandparents? From this perspective the chi
ld's psychological and social wellbeing may be in doubt or even endangered. Am
biguity over parental roles may undermine the child's sense of identity. It ma
y be harder for a child to achieve independence from a parent who is also his o
r her twin.

At the same time, others are not persuaded by such objections. Ch
ildren born through assisted reproductive technologies may also have complicate
d relationships to genetic, gestational, and rearing parents. Skeptics point o
ut that there is no evidence that confusion over family roles has harmed childr
en born through assisted reproductive technologies, although the question has n
ot been widely studied.

Potential Harms to Important Social Values

Critics
ask us to imagine a world in which cloning human beings via somatic cell nuclea
r transfer were permitted and widely practiced. What kind of people, parents,
and children would we become in such a world? Opponents fear that such cloning
to create children may disrupt the interconnected web of social values, practi
ces, and institutions that support the healthy growth of children. The use of s
uch cloning techniques might encourage the undesirable attitude that children a

re to be valued according to how much they meet parental expectations, rather t
han loved for their own sake. In this way of looking at families and parenting
, certain values are at the heart of those relationships, values such as love,
nurturing, loyalty, and steadfastness. In contrast, a world in which such clon
ing were permitted would give, the critics claim, implicit approval to vanity,
narcissism, and avarice. To these critics, changes that undermine those deeply
prized values should be avoided if possible. At a minimum, such undesirable c
hanges should not be fostered by our public policies.

On the other hand, some
thoughtful observers are not persuaded by these objections. First, many point
out that if strongly held moral values are in decline, there are likely many c
omplex reasons for this, which would not be addressed by a ban on cloning in th
is fashion. Furthermore, skeptics argue that people can, and do, adapt in soci
ally redeeming ways, to new technologies. In their view, a child born through
somatic cell nuclear transfer can simply be loved and accepted like any other c
hild, and not disrupt important family and kinship relations.

One concern focu
ses on the use of scarce resources. The generation of children through somatic
cell nuclear transfer would divert scarce resources, including the skills of r
esearchers and clinicians, from more pressing social and medical needs. These
considerations about allocation of resources are particularly pertinent if publ
ic funds would be involved. In the words of theologian Nancy Duff,

AWhen con
sidering research into human cloning we must look at the responsible use of lim
ited resources. . .[I]t is mandatory to ask whether other research projects wil
l serve a greater number of people than research on human cloning and take the
answer to that seriously@ (Duff, testimony, 1997).

Opponents also assert that
this new type of cloning tempts human beings to transgress moral boundaries and
to grasp for powers that are properly outside human control. Ancient Greek li
terature and many Biblical interpretations emphasize that human beings occupy a
moral position between other forms of life and the divine. In particular, hum
ans should not consider themselves as omnipotent over nature. From this perspe
ctive, respecting limits is to respect the appropriate place of humankind in th
e universe and to ensure that technology is not allowed to push aside critical
social and moral commitments. This view need not be tied to a single religious
doctrine, a particular view of God, or even a belief in God. However, these o
bjections are often expressed in religious terms. For example, critics talk of
how the ability to create children through somatic cell nuclear transfer may t
empt us to seek immortality, to usurp the role of God, or to violate divine com
mands.

On the other hand, some observers do not see thus type of cloning as d
ramatically new or extreme, especially when compared to other assisted reproduc
tive technologies. Robertson notes

AIn an important sense cloning is not the
most radical thing on the horizon. Much more significant, I think, would be th
e ability to actually alter or manipulate the genome of offspring. Cloning tak
es a genome as it is. . .and might replicate it . . . [T]hat is much less omino

us than having an ability to take a given genome and either add or take out a g
ene which could then lead to a child being born with characteristics other than
it would have had with the genome it started with@ (Robertson, 1997).

Commodi
fication, Objectification, and the Good Life

Noted philosopher Martha Nussbaum
has argued that the goal of political organization is to provide people with "
the conditions in which a good human life can be chosen and lived, not simply a
t the allotment of commodities, but at making people able to function in certai
n human ways@ (Nussbaum, 1988). To do this, it is important to identify the es
sential qualities of humanity that must be nurtured in order to permit the good
life to flourish (Nussbaum, 1990). Her list of Abasic human functional catego
ries@ includes:

1. [Mortality:] Being able to live to the end of a complete hu
man life, as far as is possible; not dying prematurely, or before one's life is
so reduced as to be not worth living.

2. [The human body:] Being able to ha
ve good health; to be adequately nourished; to have adequate shelter; having op
portunities for sexual satisfaction; being able to move from place to place.

3. [Pleasure and pain:] Being able to avoid unnecessary and nonbeneficial pain
and to have pleasurable experiences.

4. [Cognitive capability:] Being able
to use the five senses; being able to imagine, to think, and to reason.

5. [
Early infant development:] Being able to have attachments to things and persons
outside ourselves; to love those who love and care for us, to grieve at their
absence, in general, to love, grieve, to feel longing and gratitude.

6. [Pra
ctical reason:] Being able to form a conception of the good and to engage in cr
itical reflection about the planning of one's own life.

7. [Affiliation:] Be
ing able to live for and with others, to recognize and show concern for other h
uman beings, to engage in various forms of familial and social interaction.

8. [Relatedness to other species and to nature:] Being able to live with concer
n for and in relation to animals, plants, and the world of nature.

9. [Humor
and play:] Being able to laugh, to play, to enjoy recreational activities.

10. [Separateness:] Being able to live one's own life and nobody else's; being
able to live one's own life in one's very own surroundings and context.

It is
this last item, Aseparateness,@ that is particularly pertinent to somatic cell

nuclear transfer cloning. One of the concerns raised by opponents focuses on w
hether the ability to completely determine a child=s genetic make-up will have
the effect of lessening the child=s sense of separateness and autonomy, thereby
turning the child into an Aobject@ rather than a Aperson.@ This concern acts
as an often unspoken assumption underlying discussions of whether such cloning
amounts to Amaking@ rather than Abegetting@ children; whether prior knowledge o
f how one=s genetic make-up expressed itself in an older twin will serve to con
strain one=s imagination about what the future can hold or how it can be shaped
to one=s desires; and whether the child who is created in this manner will be
viewed as less than fully separate and equal to the older twin whose nucleus wa
s used. In sum, will being cloned from the somatic cell of an adult make the c
hild less of a Aperson@ whose humanity is to be nurtured toward attainment of t
he good life?

One reason this discussion can be hard to capture and to articul
ate is that certain terms, such as Aperson@ are used differently by different p
eople. What is common to these various views, however, is a shared understandi
ng that being a Aperson@ is different from being the manipulated Aobject@ of ot
her people=s desires and expectations. Writes legal scholar Margeret Radin,
AT
he person is a subject, a moral agent, autonomous and selfgoverning. An object
is a nonperson, not treated as a selfgoverning moral agent . . .[By] >objectif
ication of persons,= we mean, roughly, "what Kant would not want us to do."

Th
at is, to objectify a person is to subject the person to manipulation without r
egard to the person=s own desires, to control the person, and to treat the pers
on as one would things that can be bought and sold in the marketplace.

To thos
e who view the diminishment of serendipity in one=s genetic make-up as a form o
f manipulation by others, there is a risk that somatic cell nuclear transfer cl
oning represents a form of objectification of the child. Of course, this is pr
ecisely what genetic screening and, in the future, genetic therapy, aim to do.
But in those cases, the goal is to benefit the child so that the child may be
free of a specific disease. When such cloning is undertaken not for any purpor
ted benefit of the child himself or herself, but rather to satisfy the vanity o
f the nucleus donor, or even to serve the need of someone else, such as a dying
child in need of a bone marrow donor, then some would argue that it goes yet a
nother step toward diminishing the personhood of the child created in this fash
ion. The final insult, opponents argue, would come if the child created throug
h somatic cell nuclear transfer is regarded as somehow less than fully equal to
the other human beings, due to his or her diminished physical uniqueness and t
he diminished mystery surrounding some aspects of his or her future, physical d
evelopment.

Eugenic Concerns

The desire to improve on nature is a old as huma
nkind. It has been played out in agriculture through the breeding of special s
trains of domesticated animals and plants. With the development of the field o
f human genetics over the past 100 years came the hope that the selection of ad
vantageous inherited characteristicsCcalled eugenics, from the Greek eugenes me
aning wellborn or noble in heredityCcould be as beneficial to humankind as sele

ctive breeding in agriculture.

The transfer of directed breeding practices fro
m plants and animals to human beings is inherently problematic, however. To be
gin, eugenic proposals have generally assumed the existence of some sort of aut
hority both to determine which human traits and characteristics would be favore
d and to cause people (whether through persuasion or force) to mold their repro
ductive behavior to this collective objective. Yet these assumptions are troub
ling and offensive. They presuppose a totalitarian society in which the conclu
sions of the few would control basic aspects of the lives of the many. And the
y rest on notions of selective human superiority that have long been linked wit
h racist ideology.

Equally important, the whole enterprise of "improving" hu
mankind by eugenic breeding programs is contradicted by modern genetics. Littl
e is known about correlation between genes and the sorts of complex, behavioral
characteristics that are associated with successful and rewarding human lives;
moreover, what little is known indicates that most such characteristics result
from complicated interactions among a number of genes and the environment. Wh
ile cows can be bred to produce more milk and sheep to have softer fleece, the
idea of breeding humans to be superior would belong in the realm of science fic
tion even if one could conceive how to establish the metric of superiority, som
ething that turns not only on the values and prejudices of those who construct
the metric but also on the sort of a world they predict these specially bred pe
rsons would face.

Nonetheless, despite the sordid history of eugenics in this
century and the very real limitations in what genetic selection could be expect
ed to yield, the lure of "improvement" remains very real in the minds of some p
eople, includingCif the past is any predictorCsome prominent biologists. In so
me ways, creating people through somatic cell nuclear transplantation offers eu
genicists a much more powerful tool than any before. In selective breeding pro
grams, such as the "germinal choice" method urged by the geneticist H.J. Muller
a generation ago (need reference), the outcome depended on the usual "genetic
lottery" that occurs each time a sperm fertilizes an egg, fusing their individu
al genetic heritages into a new individual. Cloning, by contrast, would allow
the selection of a desired genetic prototype which would be replicated in each
of the "offspring," at least on the level of the genetic material in the cell n
ucleus.

The answer to any who would propose to exploit the science of cloning
in this way is that the moral problems with a program of human eugenics go far
beyond practical objections of infeasibility. Some objections are those that h
ave already been discussed in connection with the possible desire of individual
s to use somatic cell nuclear transfer that the creation of a child under such
circumstances could result in the child being objectified, could seriously unde
rmine the value that ought to attach to each individual as an end in themselves
, and could foster inappropriate efforts to control the course of the child's l
ife according to expectations based on the life of the person who was cloned.

In addition to such objections are those that arise specifically because wha
t is at issue in eugenics is more than just an individual act, it is a collecti
ve program. Individual acts may be undertaken for singular and often unknown

or even unknowable reasons, whereas a eugenics program would propagate dogma ab
out the sorts of people who are desirable and those who are dispensable. That
is a path that humanity has tread before, to its everlasting shame. And it is
a path to whose return the science of cloning should never be allowed to give e
ven the slightest support.

Arguments for Maintaining Personal Autonomy and Fr
eedom of Inquiry

Arrayed against these concerns about the societal effects of
cloning human beings via somatic cell nuclear transfer are arguments for mainta
ining individual choice over whether to use the technology. These arguments ar
e made on five separate grounds: first, that there is a general presumption in
favor of individual liberty; second, that certain actions, such as human reprod
uction, are particularly personal and should remain particularly free of constr
aint; third, we ought not limit the freedom of scientific inquiry; fourth, that
there are some reasons to create a child through somatic cell nuclear transfer
that are so compelling they should transcend objections to the practice even i
f it could otherwise be prohibited; and finally, that many of the objections to
the use of this technique are largely speculative and unproven.

Presumptions
in Favor of Personal Autonomy

The presumption in favor of individual liberty s
tems from a consensus within the United States that one of the most important v
alues we share is a preference for personal autonomy. In part, the preference
is maintained because of the widespread fear that one=s own personal choices mi
ght be constrained if subject to collective decision making. To the extent tha
t making a personal choice is a form of personal satisfaction, then the means t
o maximizing our collective satisfaction is to make as many personal choices av
ailable as possible (Posner, 1992). In addition, personal autonomy is consider
ed valuable in and of itself, since it is viewed by many as the deepest express
ion of one=s individuality and personality, i.e., the deepest expression of one
=s self. Thus, commentators have argued that a commitment to individual libert
y requires that individuals be left free to use somatic cell nuclear transfer c
loning if they so choose and if their doing so does not cause significant harms
to others (Robertson 1997; Macklin 1997).

But such liberty is too broad in sc
ope to be an uncontroversial moral right (Mill 1859; Rhodes 1995). As many oth
ers have pointed out, granting such unadulterated primacy to autonomy can ignor
e the possibility of competing values that are held as dear in some or all circ
umstances. Thus, principles of equality, virtue, and benevolence may compete f
or primacy with the principle of autonomy. In her March 13, 1997 testimony bef
ore NBAC, theologian Lisa Cahill asserted that

A. . .a excessive focus on [aut
onomy] can prevent us from seeing why other values as well are socially importa
nt and protectable and why certain freely chosen practices can still be wrong e
ven if they do not result in immediate or quantifiable harm or direct infringem
ent on the options of other free agents. . .A narrow focus on autonomy to freel
y choose personally preferred goals undermines our ability to talk together abo
ut what would go to make up a good society and what we can do concretely to mov

e towards one.@

Indeed, some analysts, such as legal scholar Mary Ann Glendon (1991) and sociologist Amitai Etzioni (1990) have argued that the rhetoric of rights and personal autonomy has obscured the symmetrical values of responsibility, duty, and restraint. And, indeed, while personal autonomy is upheld rhetorically as an ideal, it is routinely constrained on behalf of the common good, even in the absence of harm to others, both in personal and public life. This still leaves open, however, the question of when, in particular, other values ought to trump the value of personal liberty.

In their book Democracy and Disagreement (1996) political theorists Amy Guttman and Dennis Thompson set forth some guidelines for when moralist arguments ought to be allowed to constrain personal liberty. Among them are: (1) a convincing argument that a particular action is wrong, independent of whatever specific harms it might cause, because it violates, for example, natural law, social convention, or fundamental social values; (2) that the wrong is serious enough to warrant public attention and is otherwise eligible for public regulation; and (3) that regulation or prohibition will not cause more harm than the action that opponents seek to prohibit.

Constraint of Reproductive Choice

While the discussion of social values, above, might suffice to satisfy the first two conditions set down by Guttman and Thompson, the third condition requires more attention. To determine whether prohibition of somatic cell nuclear transfer cloning would cause more harm than it prevents, one must examine the particular kind of choices that would be constrained. Certain actions, it is argued, deserve special protection from collective decision making, and human reproduction is often cited as an example. Reproduction is an intensely personal phenomenon, most often commencing in the intimacy of coitus, and always resulting in the creation of a parental relationship that redefines one=s place in the world. Without reproduction, one remains a child and perhaps a sibling. With reproductionCor with its social equivalent, adoptionCone becomes a parent, taking on responsibilities for another that necessarily require abandoning some of personal freedoms enjoyed before. When and how to take on such responsibilities and to change one=s life course is necessarily one of the most personal decisions imaginable.

It could be argued that somatic cell nuclear transfer cloning is not covered by the right to reproductive freedom, because whereas assisted reproductive technologies covered by that right are remedies for inabilities to reproduce sexually, somatic cell nuclear transfer cloning is an entirely new means of reproduction; indeed, its critics see it as radically new and as more a means of the mere Amanufacturing of humans@ than of reproduction. Its asexual nature, for example, leads some to view it as distinctly different from reproduction, which they view as inherently collaborative and sexual. This led one commentator to note that

AIt would be possible for female lineages to proceed without any male contribution at all and it would be possible for one woman to create her own child using her own ovum and DNA. . .So the child who is truly the child of a single parent would be a genuine revolution in human history and her or his advent should be viewed with immense cauti

on@ (Cahill, 1997).

On the other hand, while somatic cell nuclear transfer clo
ning is a different means of reproduction than sexual reproduction, it is nonet
heless a means that can serve individuals' interest in reproducing. If it is n
ot covered by the moral right to reproductive freedom, some argue, that must be
not because it is a new means of reproducing, but instead because it has other
objectionable moral features, such as eroding human dignity or uniqueness.

Assuming for the sake of discussion that somatic cell nuclear transfer cloning
is a form of reproduction, the question remains whether reproductive freedom ou
ght to protect its use. Reproductive freedom includes not only the familiar ri
ght to choose not to reproduce, for example by means of contraception, but also
the right to reproduce. It is commonly understood to include the use of vario
us artificial reproductive technologies, such as in vitro fertilization, and sp
erm or egg donation. But the case for permitting the use of a particular means
of reproduction is strongest when that means is necessary for particular indiv
iduals to be able to procreate at all.

It is possible that somatic cell nucl
ear transfer cloning could be the only means for individuals to procreate while
retaining a biological tie to the child created, but in other cases different
means of procreating would also be possible. When individuals have alternative
means of procreating, cloning might be chosen because it replicates a particul
ar individual's genome. The reproductive interest in question then is not simpl
y reproduction itself, but a more specific interest in choosing what kind of ch
ildren to have.

However, the more a reproductive choice is not simply the dete
rmination of one's own life but the determination of the nature of another, as
in the case of cloning via somatic cell nuclear transfer, the more the interest
s of that other personCthat is the resulting childCshould carry moral weight in
decisions that determine its nature (Annas 1994). Indeed, this merely points
up the fact that, while intensely personal, reproduction is also an intensely c
ommunal phenomenon. It thrusts a new person into the world, and the whole comm
unity must accept this new member.

Thus, the decision to reproduce is rife w
ith consequence both to the new person brought into being and to those who will
live with that new person. Naturally, this invites communal commentary on the
wisdom of when and how this person is brought into being. And while constitut
ional law may characterize reproductive choice as fundamental to ordered libert
y, moral discourse is not so constrained. Thus, one is free to argue, as a mat
ter of ethics, that reproductive choices ought to be made in light of communal
values, even while accepting that there are administrative and political reason
s for avoiding efforts to embody these moral judgements in the form of laws.

Freedom of Scientific Inquiry

Another argument made against prohibiting effort
s to attempt to create a child through somatic cell nuclear transfer focuses on
the need to encourage research and scientific advances. There is no doubt tha
t the freedom of scientific inquiry has been an enduring American value. Even

the framers of the Constitution discussed the importance of scientific inquiry when they established a system of patents to promote scientific invention. His torically, scientific inquiry has been protected and even encouraged because of the great social import the United States places on the Asanctity of knowledge and the value of intellectual freedom.@

The concept of freedom of scientific inquiry has been acknowledged by judges and legal scholars as well. For exampl e, certain commentators argue that support for such a right to pursue knowledge could be derived from the Fourteenth Amendment right to personal liberty and t he First Amendment right to free speech. And the U.S. Supreme Court in Branzbu rg v. Hayes specifically analogized the information function performed by acade mic researchers to that performed by the press.

Other courts have similarly su ggested that scholars have a Aright . . . to do research and advance the state of man=s knowledge.@ Nonetheless, other court cases specifically reject the i dea that a fundamental right of scientific inquiry exists. These cases are rel evant because they held that there is no fundamental right of medical researche rs to conduct medical research on fetuses.

But even if scientific inquiry were found to be a protected activity, the government could regulate to protect aga inst compelling harms, such as the current physical risks posed by somatic cell nuclear transfer techniques. The freedom to pursue knowledge is distinguishab le from the right to choose the method for achieving that knowledge, since the method itself may permissibly be regulated. Although the government may not pr ohibit research in an attempt to prevent the development of new knowledge, it m ay restrict or prohibit the means used by researchers which intrude on interest s in which the state has a legitimate concern.

Thus, both the federal governme nt and the states already regulate the researcher's methods in order to protect the rights of research subjects and community safety. Research may be restric ted, for example, to protect the subject's right to autonomy and welfare by req uiring informed, free and competent consent. Thus, where the government can pr ove that restrictions on cloning and cloning technology are sufficiently import ant to the general well-being of individuals or society, such restrictions are likely to be upheld as legitimate, constitutional governmental actions, even if scientists were held to have a First Amendment right of scientific inquiry.

The Policy Maker=s Dilemma: Consideration of Exceptional Cases

Even as a matte r of ethics, and not law, it quite is possible to argue against a wholesale con demnation of somatic cell nuclear transfer cloning of human beings. Some circu mstances have been identified in which the choice to create a child in this man ner would be understandable, or even, as some have argued, desirable. Consider the following examples:

A couple wishes to have children, but both adults are carriers of a lethal recessive gene. Rather than risk the 1 in 4 chance of co nceiving a child who will suffer a short and painful existence, the couple cons

iders the alternatives: to forego rearing children; to adopt; to use donor game
tes free of the recessive trait; or to use the cells of one of the adults and a
ttempt to clone a child. Because they very much want to have some genetic link
to the child they rear, and because they dislike the thought of introducing a
third adult into their relationship in the form of a gamete donor, they opt for
cloning.

A family is in a terrible accident. The father is killed, and the o
nly child, an infant, is dying. The mother decides to use some cells from the
dying infant in an attempt to use somatic cell nuclear transfer to create a new
child. It is the only way she can raise a child who is the biological offspri
ng of her late husband.

The parents of a terminally ill child are told that on
ly a bone marrow transplant can save the child=s life. With no other donor ava
ilable, the parents attempt to clone a human being from the cells of the dying
child. If successful, the new child will be a perfect match for bone marrow tr
ansplant, and can be used as a donor without significant risk or discomfort. T
he net result: two healthy children, loved by their parents, who happen to be i
dentical twins of different ages.

In each of these examples, the impulse to at
tempt such cloning can be understood. In the first example, the possible compl
ications caused by having a child who is genetically identical to one of the pa
rents is weighed against the value of keeping the marital relationship free of
the ghost of an anonymous sperm or egg donor. In the second, the psychological
complexities of bearing a Areplacement@ child are weighed against the grief of
losing not only a husband but also the possibility of a child who will grow up
as a physical reminder of that love. While some may argue that neither case i
s compelling, because infertility and grief are part of human existence, the in
tensely personal nature of that infertility or grief argues for an equally pers
onal decision about how to respond. The third case makes what is probably the
strongest possible case for cloning a human being, as it demonstrates how this
technology could be used for lifesaving purposes. Indeed, the tragedy of allow
ing the sick child to die because of a moral or political objection to such clo
ning overall merely points up the difficulty of making policy in this area.

Some would argue that what is more important in these scenarios is how the resu
lting child will be viewed. Macklin argues that

AThe ethics of these situatio
ns must be judged by the way in which the parents nurture and rear the resultin
g child and whether they bestow the same love and affection on a child brought
into existence by a technique of assisted reproduction as they would on a child
born in the usual way@ (Macklin, 1997).

But regardless of how one resolves th
e ethics of a specific situation invoking the choice to create a child through
somatic cell nuclear transfer, it may still be necessary to forbid the practice
overall, in order to protect other societal interests.

Moral Reasoning and Pu
blic Policies

Alt is certainly possible that there may be no substantial benef
its to society that would result if human cloning were to become a reality. Ye
t this would constitute a good argument for prohibition only if considerable ha
rms are a likely consequence. We need a realistic portrait, not a recitation o
f worst case science fiction scenarios before we may conclude that the harms of
allowing cloning to proceed in a research context and even beyond are so great
that even with regulations and oversight consummate evil will result@ (Ruth Ma
cklin, 1997).

AWe should proceed with research into human cloning only if comp
elling arguments can be made for its potential benefits@ (Nancy Duff, 1997).

S
ome citizens may be persuaded that the harms and wrongs described in this chapt
er are ethically compelling and might be decisive reasons never to permit cloni
ng via somatic cell nuclear transfer. Others may be less certain about the sig
nificance of the objections, and unwilling to conclude that somatic cell nuclea
r transfer cloning would be ethically impermissible, if and when the risks coul
d be shown to be minimal. This range of views is reflected in the testimony, l
etters, and commissioned papers reviewed by NBAC, and is also characteristic of
the commissioners themselves.

NBAC was asked to consider whether public polic
y should permit, regulate, or prohibit the creation of children through somatic
cell nuclear transfer. As noted above, the formation of public policy in an a
rea as sensitive as procreation requires careful thought and measured deliberat
ion. In the United States, governmental policies that prohibit or regulate hum
an actions require justification because of a general presumption against gover
nmental interference in individual activities. Obviously, this presumption can
be rebutted under various circumstances for a variety of reasons. Many critic
s of cloning via somatic cell nuclear transfer are concerned, however, that thi
s initial presumption of no interference with individual actions will lead to u
nwise policies.

Clearly, however, some considerations carry more weight in the
public policy arena than they do in the formation of individual judgments. In
setting public policy, for example, pragmatic and procedural considerations of
ten, quite appropriately, carry greater weight than in deciding private choices
. One reason for this is that the burden of enforcing public policies must be
considered. For example, it is extremely intrusive to monitor reproductive dec
isions by individuals and couples. It may be impractical to have a policy that
allows some cases of somatic cell nuclear transfer to create a child, while pr
ohibiting others, even though we make such judgments privately about individual
actions. Furthermore, attempts to distinguish acceptable from unacceptable re
asons will be presumptuous and might lead people to misrepresent their true rea
sons to fit the acceptable criteria, and undermine other important social value
s.

Moreover, the reasoning used to consider and evaluate the desirability of p
roposed public policies regarding the creation of children through somatic cell
nuclear transfer differs somewhat from the reasoning employed in making privat
e decisions. When individuals make judgments they may rely on many sources of
wisdom and knowledge, including their religious faith and moral intuitions. Pe
ople will use their understanding of morality to decide what they should and sh

ould not do, as well as to judge the actions of others.

Those engaged in moral discourse about public policy, however, must move beyond such personal considerations, however deeply felt, and develop coherent arguments that will persuade many others to accept a particular point of view. As a result, it is useful to formulate moral convictions in ways that most people can understand and reflect upon. In a pluralistic society, there is no easy way to determine when and which governmental interventions are warranted. No algorithm clearly indicates whether the arguments for governmental intervention in a particular situation are stronger than the arguments against such interventions. Instead, we must engage in moral discourse, debate, and argument in a process of public deliberation. Although closure must be reached, and decisions made, even if there is no consensus, our society has only just begun to reflect seriously on the possibility of creating children through somatic cell nuclear transfer. It may be premature to come to closure on some issues because so little time has been devoted to the issue.

Thus, the ethics of making policy, as opposed to the ethics of cloning itself, requires us to return to the guidelines set forth by scholars such as Guttman and Thomson: are the moralistic concerns sufficiently strong to justify prohibition or regulation? If so, is the price we pay in the form of constraints on personal liberty or the abridgement of legally protected rights acceptable? Can individual cases be treated as exceptions? Or will making exceptions create more problems, in the form of intrusive inquiries into people=s motives, for example, that making the exceptions causes more harm than good? It is not possible to answer these questions with certainty. But some help can be obtained by looking at existing law governing efforts to create children in this manner, and at the possible policies that might be adopted to govern this technology.

Conclusions

In summary, the Commission reached several conclusions in considering the appropriateness of public policies regarding the creation of children through somatic cell nuclear transfer. First and foremost, creating children in this manner is unethical at this time because of insufficient evidence that such techniques are effective and safe. Even if concerns about safety are resolved, however, significant concerns remain about the negative impact of the use of such a technology on both individuals and society. Public opinion on this issue may remain divided. Some people believe that cloning through somatic cell nuclear transfer will always be unethical because it undermines important social values and will always retain the potential to cause harms to the resulting child. In addition, although the Commission acknowledged that there are cases for which the use of such cloning might be considered desirable, overall these cases were insufficiently compelling to justify proceeding with the use of such techniques. Finally, the Commission was not persuaded by objections to a prohibition against such cloning which were based, in part, on the expectation that its use is unlikely to be widespread and, in part, on the belief that many of the assumed harms are purely speculative.

Finally, many scenarios of creating children through somatic cell nuclear transfer are based on the seri

ous misconception that selecting a child's genetic makeup is equivalent to sele
cting the child's traits or accomplishments. A benefit of more widespread disc
ussion of such cloning would be a clearer recognition that a person's traits an
d achievements depend heavily on education, training, and the social environmen
t, as well as on genes. Should this type of cloning proceed, however, any chil
dren born as a result of this technique, should be treated as having the same r
ights and moral status as any other human being.

Clearly, there is a need for
further public deliberation on the serious moral concerns raised by the prospec
t of cloning human beings. As the Commission proceeded in its review, the memb
ers learned from listening to the public and to each other. Many important iss
ues remain unclear or unresolved, such as whether there is a moral right to fre
ely make procreative decisions, even if those decisions include creating a chil
d through somatic cell nuclear transfer. The Commission believes that it is es
sential to try to understand the diverse reactions to such cloning and the ethi
cal arguments for and against various policies regarding its use. This report
is only the beginning of public process to assess the impact of this new techno
logy.

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In support of its analysis, NBAC commissioned a
paper written by Dan Brock, Brown University, titled ACloning Human Beings: An
Assessment of the Ethical Issues Pro and Con.@ Some of the material in this c
hapter is derived from that paper.
There is one argument that has been used by
several commentators to undermine the apparent significance of potential psycho
logical harms to a child created through somatic cell nuclear transfer (Chadwic
k 1982; Robertson 1994b, 1997; Macklin 1994). The point derives from a general
problem, called the nonidentity problem, posed by the philosopher Derek Parfit
and not originally directed to human cloning.(Parfit 1984). This view argues
that even if all the psychological burdens and pressures of having been born vi
a such cloning could not be avoided, they are not harms to the resulting child;

the only way for the child to avoid the harms is never to exist at all. Thus t
he burdens and stresses, hard though they might be, cannot be so bad as to make
the child=s life, all things considered, not worth living that is, to be worse
than no life at all. Parfit originally posed the nonidentity problem, but do
es not accept the above argument as sound. Instead, he believes that if one cou
ld have a different child without these psychological burdens (for example, by
using a different method of reproduction) there is as strong a moral reason to
do so (Brock 1995).

Moral philosophers think about personhood when they cons
truct and deploy their views of human choice and moral agency. For Kantians, p
ersonhood is about free will and reason. From the point of view of Kantian mora
l personality, all of us are identical as persons. Philosophers of mind think
about personhood when they try to figure out what constitutes personal identity
. For many of these philosophers, personal identity means having a continuous
life story that incorporates a past and a future for oneself. From the point of
view of personal identity, all of us are different, unique, as persons. Psycho
analysts think about personhood when they relate the constants of human life an
d development to broad personality structures. From the psychoanalytic point of
view, each of us manifests the same dynamic personality structures, yet no two
of us do so in exactly the same way; we are all the same and also all differen
t. Welfare rights activists and human rights activists may think about personho
od: what is the minimum of necessary resources for a fully human life? Some med
ical ethicists think about personhood while trying to decide at what point does
life cease to be a human life worth living? Political theorists at times think
about personhood in the context of trying to understand what are the basics of
individuality that the state should recognize or underwrite? Parents think abo
ut personhood: what part do I play in making possible the fullest kind of human
ness for my children?@ [Margaret Radin, AThe Colin Ruagh Thomas O'Fallon Memori
al Lecture on Personhood, 74 Oregon Law Review 423 (Summer 1995).]
AKantian e
thical thought,@ writes Radin, Adistinguishes morally between persons and objec
ts. Rational beings possessing free will (persons) are autonomous; the moral la
w requires that persons be treated as ends, not means. Objects in the natural
world that are not rational beings possessing free will are not persons, and ma
y appropriately be used as means by persons. Kant's view requires that persons
, moral agents, not be treated as objects, manipulated at the will of persons.
Kant presented his basic principles of ethics in Immanuel Kant, Groundwork of T
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Gary L. Francione, AExperimentati
on and the Marketplace Theory of the First Amendment,@ 136 U. Pa. L. Rev. 428-4
29 (1987).
One of the powers of the legislative branch under the patents and co
pyrights clause of the U.S. Constitution is A[t]o promote the Progress of Scien
ce and useful Arts, by securing for limited times to Authors and Inventors the
exclusive Right to their respective Writings and Discoveries.@ U.S. Const. Art
. I, ' 8, cl. 8.
See Coleman, supra note 117 at 1386-87.
Robertson, supra note
375 at 1204.
John Robertson, "The Scientist's Right to Research: A Constitutio
nal Analysis," 51 S. Cal. L. Rev. 120379, 1213 (1977). Robertson argues that t

he right to participate as a research subject is protected by the Fourteenth Am
endment's right to privacy as recognized in Roe v. Wade, 410 U.S. 113 (1973).
This right arises from an individual's privacy interest in autonomous decisionm
aking concerning the use of his or her body in an experiment designed to furthe
r medical knowledge or to be of personal benefit. Id.
Id. at 1212. Coleman ar
gues that A[v]arious Supreme Court decisions, read together, seem to acknowledg
e a freedom to conduct research which is anchored in the freedom of speech.@ C
oleman, supra note 117 (citations omitted). See also Roth v. United States, 35
4 U.S. 476, 484 (1957) (noting that the Continental Congress cited scientific a
dvancement as a reason for protecting freedom of the press); see also Sweezy v.
New Hampshire, 354 U.S. 234, 250 (1957) (noting that A[t]eachers and students
must always remain free to inquire, to study and to evaluate, to gain new matur
ity and understanding; otherwise our civilization will stagnate and die.@).
Bra
nzburg v. Hayes, 408 U.S. 665, 705 (1972). Similarly, the Supreme Court stated
in Meyer v. Nebraska that the right to liberty guaranteed by the Fourteenth Am
endment encompassed freedom to "acquire useful knowledge . . . and generally to
enjoy those privileges long recognized at common law as essential to the order
ly pursuit of happiness by free men."
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{\plain \b\f1 ETHICAL CONCERNS}{\plain \f1 \par
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}{\plain \i The prospect of creating children through somatic cell nuclear tran
sfer has elicited widespread,
instinctive resistance. Much of this reaction can be attributed to fears about
 harms to the
children who may result, particularly psychological harms associated with a pos
sibly diminished
sense of individuality and personal autonomy. Others express concern about a d

egradation in
the quality or parenting and family life if children\'92s physical development were no longer as
unpredictable, especially if parents were to confuse the predictability of cert ain of their physical
characteristics with the predictability of their personality and character. An d virtually all
people agree that the current risks of physical harm to children associated wit h somatic cell
nuclear transplantation cloning justify a prohibition at this time on such expe rimentation. In
addition to concerns about specific harms to children, people have frequently e xpressed fears
that a widespread practice of such cloning would undermine important social val ues, such as
resistance to eugenics, avoiding the temptation to manipulate people as if they were objects
instead of persons, and accepting the limits of moral boundaries inherent in th e human
condition. Arrayed against these concerns are other important social values, } {\plain \i such as protecting
the widest possible sphere of personal choice, and }{\plain \i maintaining the freedom of scientific inquiry.
As somatic cell nuclear transfer cloning could represent a means of human repro duction for
some people, limitations on that choice must be made only when the societal ben efits of
prohibition clearly outweigh the value of maintaining the private nature of suc h highly personal
decisions. Especially in light of some arguably compelling cases for attemptin g to clone a
human being, the ethics of policymaking must strike a delicate balance between those concerns
focused on the set of values we wish to reflect and the freedom of individual c hoice.}{\plain \par
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}{\plain \tab In his testimony before the Commission on March 13, 1997, bioethi cist Leon Kass
summarized many of the widely held concerns regarding the possibility of clonin g human beings
via somatic cell nuclear transfer when he noted, \par
}{\plain \par
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{\plain \'93Almost no one sees any compelling reason for human cloning. Almost everyone
anticipates its possible misuses and abuses. Many feel oppressed by the sense that
there is nothing we can do to prevent it from happening and this makes the prospect seem all the more revolting. Revulsion is surely not an argument....B ut

... in crucial cases repugnance is often the emotional bearer of deep wisdom
beyond reason\'92s power fully to articulate it\'94 (Kass, 1997).\par
}\pard \sl0
{\plain \par
}{\plain \tab But some, however, argue with relying simply on moral intuition t
o set public policy. In
her testimony before NBAC on March 14, 1997, bioethicist Ruth Macklin challenge
d the
inclination to take as axiomatic the proposition that to be born as a result of
using these
techniques is to be harmed or at least to be wronged.\par
}{\plain \par
\pard \li720\ri720\sl0
\'93Intuition has never been a reliable epistemological method, especially sinc
e
people notoriously disagree in their moral intuitions. . . If objectors to clon
ing can
identify no greater harm than a supposed affront to the dignity of the human
species, that is a flimsy basis on which to erect barriers to scientific resear
ch and
its applications\'94 (Macklin, 1997). \par
}\pard \sl0
{\plain \par
}{\plain \tab }{\plain One of the key challenges for the Commission was to unde
rstand many of the moral and
religious objections to cloning as well as to investigate and articulate the wi
despread intuitive
disapproval of cloning human beings. These concerns then had to be tested agai
nst both those
philosophical responses that are more positive regarding such cloning as well a
s against certain
arguably compelling and specific cases for deploying this technology. In short
, NBAC sought to
understand and, in some cases, to clarify the diversity of reactions to this ne
w technology.{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 In support of its analysis
, NBAC commissioned a paper written by Dan Brock, Brown University,
titled \'93Cloning Human Beings: An Assessment of the Ethical Issues Pro and Co
n.\'94 Some of the material
in this chapter is derived from that paper.}}}
}{\plain \par
}{\plain \par
}{\plain \tab }{\plain The task is made quite difficult by the fact that neithe
r moral philosophers nor religious
thinkers can agree on the "best" moral theory; indeed, they often cannot even a
gree on the
practical implications of any single theory. For example, some people base the
ir arguments on an
assessment of the particular harms and benefits that would flow to individuals
and to society if
somatic cell nuclear transfer techniques were to become commonplace. Others ex
press their
views by arguing about overarching rights\'97the child\'92s right to individual
ity and dignity versus

the nucleus donor\'92s right to procreate or the scientist\'92s right to do res
earch. And while moral and
even human rights need not be understood as absolute, that is as morally requir
ing people to
respect them no matter how great the costs or bad consequences of doing so, the
y do place moral
restrictions on permissible actions that cannot be overridden by an appeal to a
 mere balance of
benefits over harms.\par
}{\plain \par
}{\plain \tab Unfortunately, while some of the risks and benefits of somatic ce
ll nuclear cloning human
beings are well enough understand to support the conclusion that it should not
be permitted at
this time, the larger debate over the balance to be struck among competing righ
ts needs more
time for discussion and development. This chapter reviews some of these argume
nts, and it is
hoped that it can serve as the starting point for a more profound and more sust
ained reflection on
the significance of creating children through somatic cell nuclear transfer.\pa
r
}{\plain \par
}{\plain \tab }{\plain The following discussion of issues raised by such clonin
g begins with an important
caveat. Any research or clinical experiment on creating a child in this manner
 would involve the
creation of an embryo. That is, the fusion of a human somatic cell and an egg
whose nucleus has
been removed would produce a human embryo, with the apparent potential to be im
planted}{\plain \i in
utero}{\plain and developed to term. Ethical concerns surrounding the issues
of embryo research have
recently received extensive analysis and deliberation in our country (National
Institutes of
Health, 1994). Indeed, as described in Chapter Five, federal funding for human
 embryo research
is severely restricted, although there are few restrictions on human embryo res
earch carried out in
the private sector using non_federal funds. NBAC did not revisit this issue
in the context of this
report.\par
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{\plain \b\f1 }{\plain \b\f1 Potential for Physical Harms}{\plain \b \par
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}{\plain \tab There is one basis of opposition to somatic cell nuclear transfer
 cloning on which most
can agree. For reasons outlined above in Chapter Two, there is virtually unive
rsal concern
regarding the current safety of attempting to use this technique in human being
s. Even if there
were a compelling case in favor of creating a child in this manner it would hav

e to yield to one
fundamental principle of both medical ethics and political philosophy\'97the in
junction, as it is
stated in the Hippocratic Oath, to \'93first do no harm.\'94 At this time, the
significant risks to the
fetus and physical well being of a child created by somatic cell nuclear transp
lantation cloning
outweigh the arguable benefits to use of the technique. \par
}{\plain \par
}{\plain \tab It is important to recognize that the technique that produced Dol
ly the sheep was
successful in only 1 of 277 attempts. If attempted in humans, it would pose th
e risk of futile
hormonal manipulation in the egg donor; multiple miscarriages in the birth moth
er; and possibly
severe developmental abnormalities in any resulting child. Clearly the burden
of proof to justify
such an experimental and potentially dangerous technique falls on those who wou
ld carry out the
experiment. Standard practice in biomedical science and clinical care would ne
ver allow the use
of a medical drug or device on a human being on the basis of such preliminary s
tudy and without
much further animal research. Thus, no conscientious physician or Institutiona
l Review Board
should approve attempts to use somatic cell nuclear transfer to create a child
at this time. For
these reasons, prohibitions would be warranted on all attempts to produce child
ren through
nuclear transfer from a somatic cell at this time. \par
}{\plain \par
}{\plain \tab Even on this point, however, NBAC has noted some diversity of opi
nion. Some argue,
for example, that prospective parents are already allowed to conceive, or to ca
rry a conception to
term, when there is a significant risk\'97or even certainty\'97that the child w
ill suffer from a serious
genetic disease. Even when others think this makes it morally wrong to conceiv
e or to carry a
pregnancy to term, the parents' right to reproductive freedom takes precedence.
Since many of
the risks believed to be associated with somatic cell nuclear transfer may be n
o greater than those
associated with genetic disorders, some contend that such cloning should be sub
ject to no more
restriction than other forms of reproduction (Brock, 1997).\par
}{\plain \par
}{\plain \tab And, as in any new and experimental clinical procedure, harms can
not be truly
determined until trials are conducted in humans. Law professor John Robertson
noted before
NBAC on March 13, 1997 that \par
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\'93[The] first transfers [into a uterus] of a human [embryo] clone [will occur
] before
we know whether it will succeed. . .[Some have argued therefore] that the first

transfers are somehow unethical. . .experimentation on the resulting child, bec
ause
one does not know what is going to happen, and one is. . .possibly leading to a

child who could be disabled and have developmental difficulties. . .[But the] c
hild
who would result would not have existed but for the procedure at issue, and [if
]
the intent there is actually to benefit that child by bringing it into being. .
.[this]
should be classified as experimentation for [the child\'92s] benefit and thus i
t would
fall within recognized exceptions. . .We have a very different set of rules for

experimentation intended to benefit [the experimental subject]\'94(Robertson, 1
997).\par
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{\plain \b }{\plain \b\f1 Cloning and Individuality}{\plain \par
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{\plain \par
}{\plain \tab In addition to physical harms, many worry about psychological har
ms associated with
such cloning. One of the forms of psychological harm most frequently mentioned
 is the possible
loss of a sense of uniqueness.\par
}{\plain \par
}{\plain \tab Many argue that somatic cell nuclear transfer cloning creates ser
ious issues of identity
and individuality and forces us to reconsider how we define ourselves. In his
testimony before
NBAC March 13, 1997, Gilbert Meilaender commented on the importance of genetic
uniqueness
not only for the individual but in the eyes of their parents,\par
}{\plain \par
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{\plain \'93Our children begin with a kind of genetic independence of us, their
 parents.
They replicate neither their father nor their mother. That is a reminder of th
e
independence that we must eventually grant to them and for which it is our duty
 to
prepare them. To lose even in principle this sense of the child as gift will n
ot be
good for children\'94(Meilaender, 1997).\par
}\pard \sl0
{\plain \par
}{\plain \tab The concept of creating a genetic twin, although separated in tim
e, is one aspect of

somatic cell nuclear transfer cloning that most find both troubling and fascina
ting. The
phenomenon of identical twins has intrigued human cultures across the globe, an
d throughout
history (Schwartz, 1996). Part of that fascination goes to the complexity of h
uman intuitions
regarding the relationship of the self to the body. While Descartes\'92 mind-b
ody dualism has
strongly influenced modern western thought, leading to an intellectual view of
the \'93self\'94 as a
form of consciousness somehow housed within a physical container called the bod
y, neither
instinct nor custom have fully followed suit. Thus, even after death, the body
is treated with
great respect in most cultures. Even if religious or rational thought leads pe
ople to view the body
as an empty shell, devoid of personality, its mere existence acts as a powerful
reminder of the
person it once was. As such, it evokes in observers many of the emotions they
would experience
if in the presence of that person. People will talk to such bodies in many fun
eral rituals. They
will often object to mutilation of the bodies, even for such socially valuable
purposes as autopsy
or organ donation, because the mutilation seems to be an affront to person who
lived in that
body, or because observers cannot help but imagine the sensations that person w
ould experience
if he or she were still alive (Youngner, Fox, and O\'92Connell, 1996).\par
}{\plain \par
}{\plain \tab Against this backdrop, it is easy to understand why twins hold su
ch fascination. Mind-body dualism and common experience demonstrate how distin
ctly different twins are, both in
personality and in personhood. At the same time, observers cannot help but imb
ue identical
bodies with some expectation that identical persons occupy those bodies, since,
Cartesian
dualism aside, body and personality remain intertwined in human intuition. Wit
h the prospect of
somatic cell nuclear transfer cloning comes a scientifically inaccurate but non
etheless instinctive
fear of multitudes of identical bodies, each housing personalities that are som
ehow less distinct,
less unique, and less autonomous than usual.\par
}{\plain \par
}{\plain \tab Is there a moral or human right to a unique identity, and if so w
ould it be violated by this
manner of human cloning? For such cloning to violate a right to a unique ident
ity, the relevant
sense of identity would have to be genetic identity, that is a right to a uniqu
e unrepeated genome.
This would be violated by somatic cell nuclear transfer, but is there any such
right? Even with
the same genes, two individuals, for example homozygous twins, are distinct and

not identical, so
what is intended must be the various properties and characteristics that make e
ach individual
qualitatively unique and different than others. Does having the same genome as
another person
undermine that unique qualitative identity?\par
}{\plain \par
}{\plain \tab Along these lines of inquiry some question whether somatic cell n
uclear transfer cloning
would violate what philosopher Hans Jonas called a right to ignorance, or what
philosopher Joel
Feinberg called a right to an open future (Jonas 1974; Feinberg 1980). Jonas a
rgued that human
cloning, in which there is a substantial time gap between the beginning of the
lives of the earlier
and later twin, is fundamentally different from the simultaneous beginning of t
he lives of
homozygous twins that occur in nature. Although contemporaneous twins begin th
eir lives with
the same genetic inheritance, they also begin their lives or biographies at the
same time, and so in
ignorance of what the other who shares the same genome will by his or her choic
es make of his
or her life. To whatever extent one's genome determines one's future, each beg
ins ignorant of
what that determination will be and so remains as free to choose a future, to c
onstruct a particular
future from among open alternatives, as are individuals who do not have a twin.
Ignorance of the
effect of one's genome on one's future is necessary for the spontaneous, free,
and authentic
construction of a life and self. \par
}{\plain \par
}{\plain \tab A later twin created by cloning, Jonas argues, knows, or at least
believes he or she knows,
too much about him or herself. For there is already in the world another perso
n, one's earlier
twin, who from the same genetic starting point has made the life choices that a
re still in the later
twin's future. It will seem that one's life has already been lived and played
out by another, that
one's fate is already determined, and so the later twin will lose the spontanei
ty of authentically
creating and becoming his or her own self. One will lose the sense of human po
ssibility in freely
creating one's own future. It is tyrannical, Jonas claims, for the earlier twin
to try to determine
another's fate in this way. \par
}{\plain \par
}{\plain \tab And even if it is a mistake to believe the crude genetic determin
ism, according to which
one's genes determine one's fate, what is important for one's experience of fre
edom and ability to
create a life for oneself is whether one thinks one's future is open and undete

rmined, and so still
to be determined by one's own choices. One might try to interpret Jonas' objec
tion so as not to
assume either genetic determinism, or a belief in it. A later twin might grant
that he or she is not
destined to follow in his or her earlier twin's footsteps, but that nevertheles
s less the earlier twin's
life would always haunt them, standing as an undue influence on their lives, an
d shaping it in
ways to which others' lives are not vulnerable.\par
}{\plain \par
}{\plain \tab In a different context, and without applying it to human cloning,
Feinberg has argued for
a child's right to an open future. This requires that others raising a child no
t so close off the future
possibilities that the child would otherwise have as to eliminate a reasonable
range of
opportunities for the child to choose autonomously and construct his or her own
life. One way
this right to an open future would be violated is to deny even a basic educatio
n to a child, and
another way might be to create it as a later twin so that it will believe its f
uture has already been
set for it by the choices made and the life lived by its earlier twin. \par
}{\plain \par
}{\plain \tab There is, however, an irony to some of this argumentation, as poi
nted out by Robertson. \par
}{\plain \par
}\pard \li720\ri720\sl0
{\plain \'93[O]pponents talk about the importance of having a unique genome and
how
cloning might rob a child of a unique identity. At the same time, however, the
y
want to deny the importance of genes alone in creating identity, so there is a
kind
of tension there in their comments\'94 (Robertson, 1997).\par
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}{\plain \tab Thus, a central difficulty in evaluating the implications for som
atic cell nuclear transfer
cloning of a right either to ignorance or to an open future, is whether the rig
ht is violated merely
because the later twin may be likely to believe that its future is already dete
rmined, even if that
belief is clearly false and supported only by the crudest genetic determinism.\
par
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{\plain \b\f1 Cloning, Control, and the Family}{\plain \par
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}{\plain \tab Among those concerns that are not focused on arguments about harm
to the child are a set
of worries about use of such cloning as a means of control. These are concerns

, for example,
about possibly generating large numbers of people whose life choices are constr
ained by their
own constrained self-image or by the constraining expectations of others. From
this image of
less-than-autonomous children comes the fear, however misplaced, of technology
creating armies
of cloned soldiers, each diminished in his physical individuality and thereby d
iminished in their
psychological autonomy. Similarly, this expectation of diminished autonomy und
erlies the
eugenic impulses that have led many to speculate about the possibility of cloni
ng \'93desirable\'94 or
\'93evil\'94 people, ranging from actors to dictators of various stripes to dis
tinguished religious
leaders. Complicating matters even further, this misplaced belief in the abil
ity of genes to fully
determine behavior and personality amplifies the image, so that in the end one
imagines being
able to make either armies of complacent workers, crazed soldiers, brilliant mu
sicians, or beatific
saints.\par
}{\plain \par
}{\plain \tab Although such fears are based, as noted in Chapter Two, on gross
misunderstandings of
human biology and psychology, they are nonetheless real. In addition, these sa
me concerns also
manifest themselves in fears that underlie the characterization of somatic cell
nuclear transfer
cloning as a form of \'93making\'94 children rather than \'93begetting\'94 chil
dren. With cloning, the total
genetic blueprint of the cloned individual is selected and determined by the hu
man artisans.
This, according to Kass,\par
}{\plain \par
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{\plain \'93. . .would be taking a major step into making man himself simply an
other one of
the man made things. Human nature becomes merely the last part of nature to
succumb to the technological project which turns all of nature into raw materia
l at
human disposal. . .As with any product of our making, no matter how excellent,

the artificer stands above it, not as an equal but as a superior, transcending
it by
his will and creative prowess\'94 (Kass, 1997).\par
}\pard \sl0
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}{\plain \tab For many, this kind of relationship is inconsistent with an ideal
of parenting, in which
parents embrace not only the similarities between themselves and their children
but also the
differences, and in which they accept not only the developments they sought to
bring about

through care and teaching but also the serendipitous developments they never pl
anned for or
anticipated (Rothenberg, 1997). \par
}{\plain \par
}{\plain \tab Of course, parents already exercise great control over their offs
pring, through means as
varied as contraception to control of the timing and spacing of births, to gene
tic screening and
use of donor gametes to avoid genetic disorders, to organized medical and educa
tional
interventions to guide physical and intellectual development. But each of thes
e interventions
exist along a spectrum of control over developments. Somatic cell nuclear tran
sfer cloning, some
fear, offers the possibility of virtually complete control over one important a
spect of a child\'92s
development, his genome, and it is the completeness of this control, even if on
ly over this partial
aspect of human development, that is alarming to so many people and invokes ima
ges of
manufacturing children according to specification. The lack of acceptance this
implies for
children who fail to develop according to expectations, and the dominance it in
troduces into the
parent-child relationship, is viewed by many as fundamentally at odds with acce
ptance and
indeterminacy that is currently associated with parenting. Meilaender addresse
d both the mystery
of reproduction and fears about it veering toward a means of production in his
testimony before
NBAC. \par
}{\plain \par
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{\plain \'93But whatever we say of [other reproductive technologies], surely hu
man cloning
would be a new and decisive turn on this road. Far more emphatically a kind of

production. Far less a surrender to the mystery of the genetic lottery which i
s the
mystery of the child who replicates neither Father nor Mother but incarnates th
eir
union. Far more an understanding of the child as a product of human will\'94

(Meilaender, 1997).\par
}\pard \fi-720\sl0
{\plain \tab \par
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{\plain \tab Questions are raised, as well, about the effect such interventions
will have on a particular
child. Will the child himself or herself feel less independent from the nucleu
s donor than a child
ordinarily would from a parent? Will the knowledge of how one\'92s genetic pro
file developed in
another person at another time leave the child feeling that his character is as

predetermined as his
adult height or his hair color? Even if the child feels completely independent
of the nucleus
donor, will others regard the child as a copy or a successor to that donor? If
so, will such
expectations on the part of others begin to affect the child\'92s self-image?{\
super\fs19 \chftn {\footnote \pard
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 There is one argument that
has been used by several commentators to undermine the apparent
significance of potential psychological harms to a child created through somati
c cell nuclear transfer
(Chadwick 1982; Robertson 1994b, 1997; Macklin 1994). The point derives from a
general problem,
called the non_identity problem, posed by the philosopher Derek Parfit and not
originally directed to
human cloning.(Parfit 1984). This view argues that even if all the psychologic
al burdens and pressures of
having been born via such cloning could not be avoided, they are not harms to t
he resulting child; the only
way for the child to avoid the harms is never to exist at all. Thus the burdens
and stresses, hard though they
might be, cannot be so bad as to make the child\'92s life, all things considere
d, not worth living__ that is, to be
worse than no life at all. Parfit originally posed the non_identity problem,
but does not accept the above
argument as sound. Instead, he believes that if one could have a different chil
d without these psychological
burdens (for example, by using a different method of reproduction) there is as
strong a moral reason to do
so (Brock 1995). }{\plain \par
}}\pard \sa240
{}}}
{\plain }{\plain \par
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}{\plain \tab Finally, some critics are concerned that the legal or social stat
us of the child arising from
nuclear transfer of somatic cells may be uncertain. For some, the disparity be
tween the child's
genetic and social identity threatens the stability of the family. Is the chil
d who results from
somatic cell nuclear transfer the sibling or the child of its parents? The chi
ld or the grandchild of
its grandparents? From this perspective the child's psychological and social w
ell_being may be in
doubt or even endangered. Ambiguity over parental roles may undermine the chil
d's sense of
identity. It may be harder for a child to achieve independence from a parent w
ho is also his or
her twin.\par
}{\plain \par
}{\plain \tab At the same time, others are not persuaded by such objections. C
hildren born through
assisted reproductive technologies may also have complicated relationships to g
enetic,

gestational, and rearing parents. Skeptics point out that there is no evidence that confusion over family roles has harmed children born through assisted reproductive technologies, although the question has not been widely studied. \par
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}{\plain \b\f1 Potential Harms to Important Social Values}{\plain \par
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}{\plain \tab Critics ask us to imagine a world in which cloning human beings via somatic cell nuclear transfer were permitted and widely practiced. What kind of people, parents, and children would we become in such a world? Opponents fear that such cloning to create children may disrupt the interconnected web of social values, practices, and institutions that support the healthy growth of children. The use of such cloning techniques might encourage the undesirable attitude that children are to be valued according to how much they meet parental expectations, rather than loved for their own sake. In this way of looking at families and parenting, certain values are at the heart of those relationships, values such as love, nurturing, loyalty, and steadfastness. In contrast, a world in which such cloning were permitted would give, the critics claim, implicit approval to vanity, narcissism, and avarice. To these critics, changes that undermine those deeply prized values should be avoided if possible. At a minimum, such undesirable changes should not be fostered by our public policies. \par
}{\plain \par
}{\plain \tab On the other hand, some thoughtful observers are not persuaded by these objections. First, many point out that if strongly held moral values are in decline, there are likely many complex reasons for this, which would not be addressed by a ban on cloning in this fashion. Furthermore, skeptics argue that people can, and do, adapt in socially redeeming ways, to new technologies. In their view, a child born through somatic cell nuclear transfer can simply be loved and accepted like any other child, and not disrupt important family and kinship relations.\par
}{\plain \par
}{\plain \tab One concern focuses on the use of scarce resources. The generation of children through somatic cell nuclear transfer would divert scarce resources, including the skills of researchers and clinicians, from more pressing social and medical needs. These considerations about allocation of resources are particularly pertinent if public funds would be involved. In

the words of
theologian Nancy Duff,\par
}{\plain \par
}\pard \li720\ri720\sl0
{\plain \'93When considering research into human cloning we must look at the re
sponsible
use of limited resources. . .[I]t is mandatory to ask whether other research pr
ojects
will serve a greater number of people than research on human cloning and take t
he
answer to that seriously\'94 (Duff, testimony, 1997).\par
}\pard \sl0
{\plain \par
}{\plain \tab Opponents also assert that this new type of cloning tempts human
beings to transgress
moral boundaries and to grasp for powers that are properly outside human contro
l. Ancient
Greek literature and many Biblical interpretations emphasize that human beings
occupy a moral
position between other forms of life and the divine. In particular, humans sho
uld not consider
themselves as omnipotent over nature. From this perspective, respecting limits
is to respect the
appropriate place of humankind in the universe and to ensure that technology is
not allowed to
push aside critical social and moral commitments. This view need not be tied t
o a single
religious doctrine, a particular view of God, or even a belief in God. However
, these objections
are often expressed in religious terms. For example, critics talk of how the a
bility to create
children through somatic cell nuclear transfer may tempt us to seek immortality
, to usurp the role
of God, or to violate divine commands. \par
}{\plain \par
}{\plain \tab On the other hand, some observers do not see thus type of cloning
as dramatically new or
extreme, especially when compared to other assisted reproductive technologies.
Robertson notes\par
}{\plain \par
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{\plain \'93In an important sense cloning is not the most radical thing on the
horizon. Much
more significant, I think, would be the ability to actually alter or manipulate
the
genome of offspring. Cloning takes a genome as it is. . .and might replicate i
t . . .
[T]hat is much less ominous than having an ability to take a given genome and

either add or take out a gene which could then lead to a child being born with

characteristics other than it would have had with the genome it started with\'9
4
(Robertson, 1997).\par

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{\plain \b\f1 Commodification, Objectification, and the Good Life}{\plain \f1 \
par
}\pard \sl0
{\plain \par
}{\plain \tab Noted philosopher Martha Nussbaum has argued that the goal of pol
itical organization is
to provide people with "the conditions in which a good human life can be chosen
 and lived, not
simply at the allotment of commodities, but at making people able to function i
n certain human
ways\'94 (Nussbaum, 1988). To do this, it is important to identify the essenti
al qualities of
humanity that must be nurtured in order to permit the good life to flourish (Nu
ssbaum, 1990).
Her list of \'93basic human functional categories\'94 includes:\par
}{\plain \par
}{\plain 1. [Mortality:] Being able to live to the end of a complete human life
, as far as is possible; not
dying prematurely, or before one's life is so reduced as to be not worth living
. \par
}{\plain \par
}{\plain 2. [The human body:] Being able to have good health; to be adequately
nourished; to have
adequate shelter; having opportunities for sexual satisfaction; being able to m
ove from place to
place. \par
}{\plain \par
}{\plain 3. [Pleasure and pain:] Being able to avoid unnecessary and nonbenefic
ial pain and to have
pleasurable experiences. \par
}{\plain \par
}{\plain 4. [Cognitive capability:] Being able to use the five senses; being ab
le to imagine, to think, and to
reason. \par
}{\plain \par
}{\plain 5. [Early infant development:] Being able to have attachments to thing
s and persons outside
ourselves; to love those who love and care for us, to grieve at their absence,
in general, to love,
grieve, to feel longing and gratitude. \par
}{\plain \par
}{\plain 6. [Practical reason:] Being able to form a conception of the good and
 to engage in critical
reflection about the planning of one's own life. \par
7. [Affiliation:] Being able to live for and with others, to recognize and show
 concern for other
human beings, to engage in various forms of familial and social interaction. \
par
}{\plain \par
}{\plain 8. [Relatedness to other species and to nature:] Being able to live wi
th concern for and in relation

to animals, plants, and the world of nature. \par
}{\plain \par
}{\plain 9. [Humor and play:] Being able to laugh, to play, to enjoy recreation
al activities. \par
}{\plain \par
}{\plain 10. [Separateness:] Being able to live one's own life and nobody else'
s; being able to live one's
own life in one's very own surroundings and context.\par
}{\plain \par
}{\plain \tab It is this last item, \'93separateness,\'94 that is particularly
pertinent to somatic cell nuclear
transfer cloning. One of the concerns raised by opponents focuses on whether t
he ability to
completely determine a child\'92s genetic make-up will have the effect of lesse
ning the child\'92s sense
of separateness and autonomy, thereby turning the child into an \'93object\'94
rather than a \'93person.\'94
This concern acts as an often unspoken assumption underlying discussions of whe
ther such
cloning amounts to \'93making\'94 rather than \'93begetting\'94 children; wheth
er prior knowledge of how
one\'92s genetic make-up expressed itself in an older twin will serve to constr
ain one\'92s imagination
about what the future can hold or how it can be shaped to one\'92s desires; and
 whether the child
who is created in this manner will be viewed as less than fully separate and eq
ual to the older
twin whose nucleus was used. In sum, will being cloned from the somatic cell o
f an adult make
the child less of a \'93person\'94 whose humanity is to be nurtured toward atta
inment of the good life?\par
}{\plain \par
}{\plain \tab One reason this discussion can be hard to capture and to articula
te is that certain terms,
such as \'93person\'94 are used differently by different people.{\super\fs19 \c
hftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 Moral philosophers think
about personhood when they construct and deploy their views of
human choice and moral agency. For Kantians, personhood is about free will and
 reason. From the point
of view of Kantian moral personality, all of us are identical as persons. Phil
osophers of mind think about
personhood when they try to figure out what constitutes personal identity. For
 many of these philosophers,
personal identity means having a continuous life story that incorporates a past
 and a future for oneself.
From the point of view of personal identity, all of us are different, unique, a
s persons. Psychoanalysts think
about personhood when they relate the constants of human life and development t
o broad personality
structures. From the psychoanalytic point of view, each of us manifests the sam
e dynamic personality
structures, yet no two of us do so in exactly the same way; we are all the same
 and also all different.

Welfare rights activists and human rights activists may think about personhood: what is the minimum of
necessary resources for a fully human life? Some medical ethicists think about personhood while trying to
decide at what point does life cease to be a human life worth living? Political theorists at times think about
personhood in the context of trying to understand what are the basics of indivi duality that the state should
recognize or underwrite? Parents think about personhood: what part do I play in making possible the fullest
kind of human_ness for my children?\'94 [Margaret Radin, \'93The Colin Ruagh T homas O'Fallon Memorial
Lecture on Personhood, 74 }{\plain \i\fs22 Oregon Law Review}{\plain \fs22 42 3 (Summer 1995).]}}}
}{\plain What is common to these various
views, however, is a shared understanding that being a \'93person\'94 is differ ent from being the
manipulated \'93object\'94 of other people\'92s desires and expectations. Writ es legal scholar Margeret
Radin,\par
}{\plain \par
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{\plain \'93The person is a subject, a moral agent, autonomous and self_govern ing. An
object is a non_person, not treated as a self_governing moral agent . . .[By]

\'91objectification of persons,\'92 we mean, roughly, "what Kant would not want us to
do."{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 \'93Kantian ethical thoug ht,\'94 writes Radin, \'93distinguishes morally between persons and objects. Rational beings possessing free will (persons) are autonomous; the moral law re quires that persons be
treated as ends, not means. Objects in the natural world that are not rational beings possessing free will are
not persons, and may appropriately be used as means by persons. Kant's view re quires that persons, moral
agents, not be treated as objects, manipulated at the will of persons. Kant pre sented his basic principles of
ethics in }{\plain \i\fs22 Immanuel Kant, Groundwork of The Metaphysics of Mora ls}{\plain \fs22 (1785), translated by H. J. Paton in
}{\plain \i\fs22 The Moral Law}{\plain \fs22 (1948).\'94 [Margaret RadinRefle ctions on Objectification,\'94 65 }{\plain \i\fs22 Southern California Law Review}{\plain \fs22 341 (November 1991), at footnote 4]}}}
}{\plain \par
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{\plain \par
}{\plain \tab That is, to objectify a person is to subject the person to manipu lation without regard to the
person\'92s own desires, to control the person, and to treat the person as one would things that can
be bought and sold in the marketplace.\par
}{\plain \par
}{\plain \tab To those who view the diminishment of serendipity in one\'92s gen

etic make-up as a form of
manipulation by others, there is a risk that somatic cell nuclear transfer clon
ing represents a form
of objectification of the child. Of course, this is precisely what genetic scr
eening and, in the
future, genetic therapy, aim to do. But in those cases, the goal is to benefit
the child so that the
child may be free of a specific disease. When such cloning is undertaken not f
or any purported
benefit of the child himself or herself, but rather to satisfy the vanity of th
e nucleus donor, or
even to serve the need of someone else, such as a dying child in need of a bone
marrow donor,
then some would argue that it goes yet another step toward diminishing the pers
onhood of the
child created in this fashion. The final insult, opponents argue, would come i
f the child created
through somatic cell nuclear transfer is regarded as somehow less than fully eq
ual to the other
human beings, due to his or her diminished physical uniqueness and the diminish
ed mystery
surrounding some aspects of his or her future, physical development.}{\plain \b
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}{\plain \b \par
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{\plain \b\f1 Eugenic Concerns}{\plain \par
}\pard \sl0
{\plain \par
}{\plain \tab }{\plain The desire to improve on nature is a old as humankind.
It has been played out in
agriculture through the breeding of special strains of domesticated animals and
plants. With the
development of the field of human genetics over the past 100 years came the hop
e that the
selection of advantageous inherited characteristics\'97called eugenics, from th
e Greek eugenes
meaning wellborn or noble in heredity\'97could be as beneficial to humankind as
selective
breeding in agriculture.\par
}{\plain \par
}{\plain \tab The transfer of directed breeding practices from plants and anima
ls to human beings is
inherently problematic, however. To begin, eugenic proposals have generally as
sumed the
existence of some sort of authority both to determine which human traits and ch
aracteristics
would be favored and to cause people (whether through persuasion or force) to m
old their
reproductive behavior to this collective objective. Yet these assumptions are
troubling and
offensive. They presuppose a totalitarian society in which the conclusions of
the few would
control basic aspects of the lives of the many. And they rest on notions of se
lective human

superiority that have long been linked with racist ideology. \par
}{\plain \par
}{\plain \tab Equally important, the whole enterprise of "improving" humankind by eugenic breeding
programs is contradicted by modern genetics. Little is known about correlation between genes
and the sorts of complex, behavioral characteristics that are associated with s uccessful and
rewarding human lives; moreover, what little is known indicates that most such characteristics
result from complicated interactions among a number of genes and the environmen t. While cows
can be bred to produce more milk and sheep to have softer fleece, the idea of b reeding humans to
be superior would belong in the realm of science fiction even if one could conc eive how to
establish the metric of superiority, something that turns not only on the value s and prejudices of
those who construct the metric but also on the sort of a world they predict the se specially bred
persons would face.\par
}{\plain \par
}{\plain \tab Nonetheless, despite the sordid history of eugenics in this centu ry and the very real
limitations in what genetic selection could be expected to yield, the lure of " improvement"
remains very real in the minds of some people, including\'97if the past is any predictor\'97some
prominent biologists. In some ways, creating people through somatic cell nucle ar transplantation
offers eugenicists a much more powerful tool than any before. In selective bre eding programs,
such as the "germinal choice" method urged by the geneticist H.J. Muller a gene ration ago (need
reference), the outcome depended on the usual "genetic lottery" that occurs eac h time a sperm
fertilizes an egg, fusing their individual genetic heritages into a new individ ual. Cloning, by
contrast, would allow the selection of a desired genetic prototype which would be replicated in
each of the "offspring," at least on the level of the genetic material in the c ell nucleus.\par
}{\plain \par
}{\plain \tab The answer to any who would propose to exploit the science of clo ning in this way is that
the moral problems with a program of human eugenics go far beyond practical obj ections of
infeasibility. Some objections are those that have already been discussed in c onnection with the
possible desire of individuals to use somatic cell nuclear transfer that the cr eation of a child
under such circumstances could result in the child being objectified, could ser iously undermine
the value that ought to attach to each individual as an end in themselves, and

could foster
inappropriate efforts to control the course of the child's life according to ex
pectations based on
the life of the person who was cloned. \par
}{\plain \par
\tab In addition to such objections are those that arise specifically because w
hat is at issue in
eugenics is more than just an individual act, it is a collective program. Ind
ividual acts may be
undertaken for singular and often unknown or even unknowable reasons, whereas a
eugenics
program would propagate dogma about the sorts of people who are desirable and t
hose who are
dispensable. That is a path that humanity has tread before, to its everlasting
shame. And it is a
path to whose return the science of cloning should never be allowed to give eve
n the slightest
support.\par
}{\plain \par
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{\plain }{\plain \b\f1 Arguments for Maintaining Personal Autonomy and Freedom
of Inquiry}{\plain \f1 \par
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{\plain \par
}{\plain \tab Arrayed against these concerns about the societal effects of clon
ing human beings via
somatic cell nuclear transfer are arguments for maintaining individual choice o
ver whether to use
the technology. These arguments are made on five separate grounds: first, that
there is a general
presumption in favor of individual liberty; second, that certain actions, such
as human
reproduction, are particularly personal and should remain particularly free of
constraint;}{\plain }{\plain third, we
ought not limit the freedom of scientific inquiry; fourth, that there are some
reasons to create a
child through somatic cell nuclear transfer that are so compelling they should
transcend
objections to the practice even if it could otherwise be prohibited; and finall
y, that many of the
objections to the use of this technique are largely speculative and unproven.\p
ar
}{\plain \b \par
}{\plain \b Presumptions in Favor of Personal Autonomy}{\plain \par
}{\plain \par
}{\plain \tab The presumption in favor of individual liberty stems from a conse
nsus within the United
States that one of the most important values we share is a preference for perso
nal autonomy. In
part, the preference is maintained because of the widespread fear that one\'92s
own personal choices
might be constrained if subject to collective decision making. To the extent t
hat making a
personal choice is a form of personal satisfaction, then the means to maximizin

g our collective
satisfaction is to make as many personal choices available as possible (Posner, 1992). In
addition, personal autonomy is considered valuable in and of itself, since it is viewed by many as
the deepest expression of one\'92s individuality and personality, i.e., the deepest expression of one\'92s
self. Thus, commentators have argued that a commitment to individual liberty requires that
individuals be left free to use somatic cell nuclear transfer cloning if they so choose and if their
doing so does not cause significant harms to others (Robertson 1997; Macklin 1997).\par
}{\plain \par
}{\plain \tab But such liberty is too broad in scope to be an uncontroversial moral right (Mill 1859;
Rhodes 1995). As many others have pointed out, granting such unadulterated primacy to
autonomy can ignore the possibility of competing values that are held as dear in some or all
circumstances. Thus, principles of equality, virtue, and benevolence may compete for primacy
with the principle of autonomy. In her March 13, 1997 testimony before NBAC, theologian Lisa
Cahill asserted that\par
}{\plain \par
}\pard \li720\ri720\sl0
{\plain \'93. . .a excessive focus on [autonomy] can prevent us from seeing why other values
as well are socially important and protectable and why certain freely chosen
practices can still be wrong even if they do not result in immediate or quantifiable
harm or direct infringement on the options of other free agents. . .A narrow focus
on autonomy to freely choose personally preferred goals undermines our ability to
talk together about what would go to make up a good society and what we can do

concretely to move towards one.\'94\par
}\pard \sl0
{\plain \par
}{\plain \tab Indeed, some analysts, such as legal scholar Mary Ann Glendon (1991) and sociologist
Amitai Etzioni (1990) have argued that the rhetoric of rights and personal autonomy has
obscured the symmetrical values of responsibility, duty, and restraint. And, indeed, while
personal autonomy is upheld rhetorically as an ideal, it is routinely constrained on behalf of the
common good, even in the absence of harm to others, both in personal and public life. This still
leaves open, however, the question of when, in particular, other values ought to trump the value
of personal liberty.\par

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}{\plain \tab In their book }{\plain \i Democracy and Disagreement (1996)}{\pla
in political theorists Amy Guttman and
Dennis Thompson set forth some guidelines for when moralist arguments ought to
be allowed to
constrain personal liberty. Among them are: (1) a convincing argument that a p
articular action is
wrong, independent of whatever specific harms it might cause, because it violat
es, for example,
natural law, social convention, or fundamental social values; (2) that the wron
g is serious enough
to warrant public attention and is otherwise eligible for public regulation; an
d (3) that regulation
or prohibition will not cause more harm than the action that opponents seek to
prohibit.\par
}{\plain \par
}{\plain \b Constraint of Reproductive {*\bkmkstart BM_1_}{*\bkmkend BM_1_}Ch
oice}{\plain \par
}{\plain \par
}{\plain \tab While the discussion of social values, above, might suffice to sa
tisfy the first two
conditions set down by Guttman and Thompson, the third condition requires more
attention. To
determine whether prohibition of somatic cell nuclear transfer cloning would ca
use more harm
than it prevents, one must examine the particular kind of choices that would be
 constrained.
Certain actions, it is argued, deserve special protection from collective decis
ion making, and
human reproduction is often cited as an example. Reproduction is an intensely
personal
phenomenon, most often commencing in the intimacy of coitus, and always resulti
ng in the
creation of a parental relationship that redefines one\'92s place in the world.
  Without reproduction,
one remains a child and perhaps a sibling. With reproduction\'97or with its so
cial equivalent,
adoption\'97one becomes a parent, taking on responsibilities for another that n
ecessarily require
abandoning some of personal freedoms enjoyed before. When and how to take on s
uch
responsibilities and to change one\'92s life course is necessarily one of the m
ost personal decisions
imaginable.\par
}{\plain \par
}{\plain \tab It could be argued that somatic cell nuclear transfer cloning is
not covered by the right to
reproductive freedom, because whereas assisted reproductive technologies covere
d by that right
are remedies for inabilities to reproduce sexually, somatic cell nuclear transf
er cloning is an
entirely new means of reproduction; indeed, its critics see it as radically new
 and as more a
means of the mere \'93manufacturing of humans\'94 than of reproduction. Its as

exual nature, for
example, leads some to view it as distinctly different from reproduction, which
they view as
inherently collaborative and sexual. This led one commentator to note that\par

}{\plain \par
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{\plain \'93It would be possible for female lineages to proceed without any mal
e
contribution at all and it would be possible for one woman to create her own ch
ild
using her own ovum and DNA. . .So the child who is truly the child of a single

parent would be a genuine revolution in human history and her or his advent
should be viewed with immense caution\'94 (Cahill, 1997).\par
}\pard \sl0
{\plain \par
}{\plain \tab On the other hand, while somatic cell nuclear transfer cloning is
a different means of
reproduction than sexual reproduction, it is nonetheless a means that can serve
individuals'
interest in reproducing. If it is not covered by the moral right to reproducti
ve freedom, some
argue, that must be not because it is a new means of reproducing, but instead b
ecause it has other
objectionable moral features, such as eroding human dignity or uniqueness. \pa
r
}{\plain \par
}{\plain \tab Assuming for the sake of discussion that somatic cell nuclear tra
nsfer cloning is a form of
reproduction, the question remains whether reproductive freedom ought to protec
t its use.
Reproductive freedom includes not only the familiar right to choose not to repr
oduce, for
example by means of contraception, but also the right to reproduce. It is comm
only understood
to include the use of various artificial reproductive technologies, such as }{\
plain \i in vitro}{\plain fertilization, and
sperm or egg donation. But the case for permitting the use of a particular mea
ns of reproduction
is strongest when that means is necessary for particular individuals to be able
to procreate at all. \par
}{\plain \par
}{\plain \tab It is possible that somatic cell nuclear transfer cloning could b
e the only means for
individuals to procreate while retaining a biological tie to the child created,
but in other cases
different means of procreating would also be possible. When individuals have a
lternative means
of procreating, cloning might be chosen because it replicates a particular indi
vidual's genome.
The reproductive interest in question then is not simply reproduction itself, b
ut a more specific
interest in choosing what kind of children to have.\par

}{\plain \par
}{\plain \tab However, the more a reproductive choice is not simply the determi
nation of one's own
life but the determination of the nature of another, as in the case of cloning
via somatic cell
nuclear transfer, the more the interests of that other person\'97that is the re
sulting child\'97should
carry moral weight in decisions that determine its nature (Annas 1994). Indeed
, this merely
points up the fact that, while intensely personal, reproduction is also an inte
nsely communal
phenomenon. It thrusts a new person into the world, and the whole community mu
st accept this
new member. \par
}{\plain \par
}{\plain \tab Thus, the decision to reproduce is rife with consequence both to
the new person brought
into being and to those who will live with that new person. Naturally, this in
vites communal
commentary on the wisdom of when and how this person is brought into being. An
d while
constitutional law may characterize reproductive choice as fundamental to order
ed liberty, moral
discourse is not so constrained. Thus, one is free to argue, as a matter of et
hics, that reproductive
choices ought to be made in light of communal values, even while accepting that
 there are
administrative and political reasons for avoiding efforts to embody these moral
 judgements in the
form of laws.}{\plain \b \par
}{\plain \b \par
}{\plain \b \par
}{\plain \b \par
}{\plain \b Freedom of Scientific Inquiry}{\plain \par
}{\plain \par
}{\plain \tab Another argument made against prohibiting efforts to attempt to c
reate a child through
somatic cell nuclear transfer focuses on the need to encourage research and sci
entific advances.
There is no doubt that the freedom of scientific inquiry has been an enduring A
merican value.
Even the framers of the Constitution discussed the importance of scientific inq
uiry{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 Gary L. Francione, \'93Exp
erimentation and the Marketplace Theory of the First Amendment,\'94 136
}{\plain \ul\fs22 U. Pa. L. Rev.}{\plain \fs22 428-429 (1987).}}}
}{\plain when they
established a system of patents to promote scientific invention.{\super\fs19 \c
hftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 One of the powers of the l
egislative branch under the patents and copyrights clause of the U.S.
Constitution is \'93[t]o promote the Progress of Science and useful Arts, by se
curing for limited times to
Authors and Inventors the exclusive Right to their respective Writings and Disc

overies.\'94 U.S. Const. Art.
I, \'a7 8, cl. 8.}}}
}{\plain Historically, scientific inquiry
has been protected and even encouraged because of the great social import the U
nited States
places on the \'93sanctity of knowledge and the value of intellectual freedom.\
'94{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 See}{\plain \fs22 Cole
man, }{\plain \ul\fs22 supra}{\plain \fs22 note 117 at 1386-87.}}}
}{\plain \par
}{\plain \par
}{\plain \tab The concept of freedom of scientific inquiry has been acknowledge
d by judges and legal
scholars as well. For example, certain commentators argue that support for suc
h a right to pursue
knowledge{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 Robertson, }{\plain \ul\fs
22 supra}{\plain \fs22 note 375 at 1204.}}}
}{\plain could be derived from the Fourteenth Amendment right to personal libe
rty{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 John Robertson, "The Scien
tist's Right to Research: A Constitutional Analysis," 51 }{\plain \ul\fs22 S.
Cal. L.
Rev.}{\plain \fs22 1203_79, 1213 (1977). Robertson argues that the right to
participate as a research subject is protected
by the Fourteenth Amendment's right to privacy as recognized in }{\plain \ul\fs
22 Roe v. Wade}{\plain \fs22 , 410 U.S. 113 (1973). This
right arises from an individual's privacy interest in autonomous decision_maki
ng concerning the use of his
or her body in an experiment designed to further medical knowledge or to be of
personal benefit. }{\plain \ul\fs22 Id.}}}
}{\plain }{\plain and the
First Amendment right to free speech.{\super\fs19 \chftn {\footnote \pard \sa24
0
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 Id.}{\plain \fs22 at 1
212. Coleman argues that \'93[v]arious Supreme Court decisions, read together,
seem to
acknowledge a freedom to conduct research which is anchored in the freedom of s
peech.\'94 Coleman, }{\plain \ul\fs22 supra}{\plain \fs22
note 117 (citations omitted). }{\plain \ul\fs22 See also}{\plain \fs22 }{\pla
in \ul\fs22 Roth v. United States}{\plain \fs22 , 354 U.S. 476, 484 (1957) (not
ing that the
Continental Congress cited scientific advancement as a reason for protecting fr
eedom of the press); }{\plain \ul\fs22 see
also}{\plain \fs22 }{\plain \ul\fs22 Sweezy v. New Hampshire}{\plain \fs22 , 3
54 U.S. 234, 250 (1957) (noting that \'93[t]eachers and students must
always remain free to inquire, to study and to evaluate, to gain new maturity a
nd understanding; otherwise
our civilization will stagnate and die.\'94).}}}
}{\plain And the U.S. Supreme Court in }{\plain \ul Branzburg v. Hayes}{\plai
n
specifically analogized the information function performed by academic research
ers to that
performed by the press.{\super\fs19 \chftn {\footnote \pard \sa240

{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 Branzburg v. Hayes}{\pl
ain \fs22 , 408 U.S. 665, 705 (1972). Similarly, the Supreme Court stated in }
{\plain \ul\fs22 Meyer v.
Nebraska}{\plain \fs22 that the right to liberty guaranteed by the Fourteenth
Amendment encompassed freedom to
"acquire useful knowledge . . . and generally to enjoy those privileges long re
cognized at common law as
essential to the orderly pursuit of happiness by free men."}}}
}{\plain \par
}{\plain \par
}{\plain \tab Other courts have similarly suggested that scholars have a \'93ri
ght . . . to do research and
advance the state of man\'92s knowledge.\'94{\super\fs19 \chftn {\footnote \par
d \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 Henley v. Wise}{\plain
\fs22 , 303 F.Supp. 62 (N.D. Ind. 1969).}}}
}{\plain Nonetheless, other court cases specifically reject the
idea that a fundamental right of scientific inquiry exists.{\super\fs19 \chftn
{\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 Margaret S. I, 488 F.Supp.
181, 220-221 (E.D. La. 1980). }{\plain \ul\fs22 See also}{\plain \fs22 }{\pl
ain \ul\fs22 Margaret S. v. Treen}{\plain \fs22 , 597
F.Supp. 636 (E.D. La. 1984), }{\plain \ul\fs22 aff\'92d}{\plain \fs22 }{\plain
\ul\fs22 sub. nom}{\plain \fs22 }{\plain \ul\fs22 Margaret S. v. Edwards}{\pl
ain \fs22 , 794 F.2d 994 (5th Cir. 1986); }{\plain \ul\fs22 Wynn
v. Scott}{\plain \fs22 , 449 F.Supp. 1302, 1322 (N.D. Ill. 1978), }{\plain \ul\
fs22 aff\'92d sub nom.}{\plain \fs22 , }{\plain \ul\fs22 Wynn v. Carey}{\plain
\fs22 , 599 F.2d 193 (7th Cir.
1979).}}}
}{\plain These cases are relevant because they
held that there is no fundamental right of medical researchers to conduct medic
al research on
fetuses.\par
}{\plain \par
}{\plain \tab But even if scientific inquiry were found to be a protected activ
ity, the government could
regulate to protect against compelling harms, such as the current physical risk
s posed by somatic
cell nuclear transfer techniques. The freedom to pursue knowledge is distingui
shable from the
right to choose the method for achieving that knowledge, since the method itsel
f may permissibly
be regulated.{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \fs22 Robertson, }{\plain \ul\fs
22 supra}{\plain \fs22 note 375 at 1212.}}}
}{\plain Although the government may not prohibit research in an attempt to p
revent the
development of new knowledge, it may restrict or prohibit the means used by res
earchers which
intrude on interests in which the state has a legitimate concern.{\super\fs19 \
chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 Id.}{\plain \fs22 at 1
253.}}}
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}{\plain \tab Thus, both the federal government and the states already regulate the researcher's methods
in order to protect the rights of research subjects and community safety.{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 Id.}{\plain \fs22 at 1254.}}}
}{\plain Research may be
restricted, for example, to protect the subject's right to autonomy and welfare by requiring
informed, free and competent consent.{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 Id.}{\plain \fs22 at 1256.}}}
}{\plain Thus, where the government can prove that restrictions
on cloning and cloning technology are sufficiently important to the general well-being of
individuals or society, such restrictions are likely to be upheld as legitimate, constitutional
governmental actions, even if scientists were held to have a First Amendment right of scientific
inquiry.{\super\fs19 \chftn {\footnote \pard \sa240
{\plain \super\fs19 \chftn }{}{\plain }{\plain \ul\fs22 See}{\plain \fs22 }{\plain \ul\fs22 id.}}}
}{\plain }{\plain \b \par
}{\plain \b \par
}\pard \qc\sl0
{\plain \b }{\plain \b\f1 The Policy Maker\'92s Dilemma: Consideration of Exceptional Cases}{\plain \par
}\pard \sl0
{\plain \par
}{\plain \tab Even as a matter of ethics, and not law, it quite is possible to argue against a wholesale
condemnation of somatic cell nuclear transfer cloning of human beings. Some circumstances
have been identified in which the choice to create a child in this manner would be
understandable, or even, as some have argued, desirable. Consider the following examples:\par
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\pard \li720\sl0
\'20\'20A couple wishes to have children, but both adults are carriers of a lethal recessive gene.
Rather than risk the 1 in 4 chance of conceiving a child who will suffer a short and
painful existence, the couple considers the alternatives: to forego rearing children; to
adopt; to use donor gametes free of the recessive trait; or to use the cells of one of the
adults and attempt to clone a child. Because they very much want to have some

genetic
link to the child they rear, and because they dislike the thought of introducin
g a third
adult into their relationship in the form of a gamete donor, they opt for cloni
ng.\par
\pard \sl0
\par
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\'20A family is in a terrible accident. The father is killed, and the only chi
ld, an infant, is
dying. The mother decides to use some cells from the dying infant in an attemp
t to use
somatic cell nuclear transfer to create a new child. It is the only way she ca
n raise a child
who is the biological offspring of her late husband.\par
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\'20The parents of a terminally ill child are told that only a bone marrow tran
splant can save
the child\'92s life. With no other donor available, the parents attempt to clo
ne a human
being from the cells of the dying child. If successful, the new child will be
a perfect
match for bone marrow transplant, and can be used as a donor without significan
t risk or
discomfort. The net result: two healthy children, loved by their parents, who
happen to be
identical twins of different ages.\par
\pard \sl0
\par
\tab In each of these examples, the impulse to attempt such cloning can be unde
rstood. In the
first example, the possible complications caused by having a child who is genet
ically identical to
one of the parents is weighed against the value of keeping the marital relation
ship free of the
ghost of an anonymous sperm or egg donor. In the second, the psychological com
plexities of
bearing a \'93replacement\'94 child are weighed against the grief of losing not
only a husband but also
the possibility of a child who will grow up as a physical reminder of that love
. While some may
argue that neither case is compelling, because infertility and grief are part o
f human existence,
the intensely personal nature of that infertility or grief argues for an equall
y personal decision
about how to respond. The third case makes what is probably the strongest poss
ible case for
cloning a human being, as it demonstrates how this technology could be used for
lifesaving
purposes. Indeed, the tragedy of allowing the sick child to die because of a m
oral or political
objection to such cloning overall merely points up the difficulty of making pol

icy in this area. \par
\par
{\plain \tab }{\plain Some would argue that what is more important in these sce
narios is how the resulting
child will be viewed. Macklin argues that\par
}{\plain \par
}\pard \li720\ri720\sl0
{\plain \'93The ethics of these situations must be judged by the way in which t
he parents
nurture and rear the resulting child and whether they bestow the same love and

affection on a child brought into existence by a technique of assisted reproduc
tion
as they would on a child born in the usual way\'94 (Macklin, 1997).\par
}\pard \sl0
{\plain \par
}{\plain \tab But regardless of how one resolves the ethics of a specific situa
tion invoking the choice to
create a child through somatic cell nuclear transfer, it may still be necessary
 to forbid the practice
overall, in order to protect other societal interests.\par
}{\plain \par
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{\plain \b\f1 Moral Reasoning and Public Policies}{\plain \f1 \par
}{\plain \par
}\pard \li720\ri720\sl0
{\plain \'93It is certainly possible that there may be no substantial benefits
to society that
would result if human cloning were to become a reality. Yet this would constit
ute
a good argument for prohibition only if considerable harms are a likely
consequence. We need a realistic portrait, not a recitation of worst case scie
nce
fiction scenarios before we may conclude that the harms of allowing cloning to

proceed in a research context and even beyond are so great that even with
regulations and oversight consummate evil will result\'94 (Ruth Macklin, 1997).
\par
}\pard \sl0
{\plain \par
}\pard \li720\ri720\sl0
{\plain \'93We should proceed with research into human cloning only if compelli
ng
arguments can be made for its potential benefits\'94 (Nancy Duff, 1997).\par
}\pard \sl0
{\plain \par
}{\plain \tab Some citizens may be persuaded that the harms and wrongs describe
d in this chapter are
ethically compelling and might be decisive reasons never to permit cloning via
somatic cell
nuclear transfer. Others may be less certain about the significance of the obj
ections, and
unwilling to conclude that somatic cell nuclear transfer cloning would be ethic
ally impermissible,

if and when the risks could be shown to be minimal. This range of views is ref
lected in the
testimony, letters, and commissioned papers reviewed by NBAC, and is also chara
cteristic of the
commissioners themselves.\par
}{\plain \par
}{\plain \tab NBAC was asked to consider whether public policy should permit, r
egulate, or prohibit
the creation of children through somatic cell nuclear transfer. As noted above
, the formation of
public policy in an area as sensitive as procreation requires careful thought a
nd measured
deliberation. In the United States, governmental policies that prohibit or reg
ulate human actions
require justification because of a general presumption against governmental int
erference in
individual activities. Obviously, this presumption can be rebutted under vario
us circumstances
for a variety of reasons. Many critics of cloning via somatic cell nuclear tra
nsfer are concerned,
however, that this initial presumption of no interference with individual actio
ns will lead to
unwise policies.\par
}{\plain \par
}{\plain \tab Clearly, however, some considerations carry more weight in the pu
blic policy arena than
they do in the formation of individual judgments. In setting public policy, fo
r example,
pragmatic and procedural considerations often, quite appropriately, carry great
er weight than in
deciding private choices. One reason for this is that the burden of enforcing
public policies must
be considered. For example, it is extremely intrusive to monitor reproductive
decisions by
individuals and couples. It may be impractical to have a policy that allows so
me cases of somatic
cell nuclear transfer to create a child, while prohibiting others, even though
we make such
judgments privately about individual actions. Furthermore, attempts to disting
uish acceptable
from unacceptable reasons will be presumptuous and might lead people to misrepr
esent their true
reasons to fit the acceptable criteria, and undermine other important social va
lues.\par
}{\plain \par
}{\plain \tab Moreover, the reasoning used to consider and evaluate the desirab
ility of proposed public
policies regarding the creation of children through somatic cell nuclear transf
er differs somewhat
from the reasoning employed in making private decisions. When individuals make
judgments
they may rely on many sources of wisdom and knowledge, including their religiou
s faith and
moral intuitions. People will use their understanding of morality to decide wh

at they should and
should not do, as well as to judge the actions of others.\par
}{\plain \par
}{\plain \tab Those engaged in moral discourse about public policy, however, mu
st move beyond such
personal considerations, however deeply felt, and develop coherent arguments th
at will persuade
many others to accept a particular point of view. As a result, it is useful to
formulate moral
convictions in ways that most people can understand and reflect upon. In a plu
ralistic society,
there is no easy way to determine when and which governmental interventions are
warranted. No
algorithm clearly indicates whether the arguments for governmental intervention
in a particular
situation are stronger than the arguments against such interventions. Instead,
we must engage in
moral discourse, debate, and argument in a process of public deliberation. Alt
hough closure
must be reached, and decisions made, even if there is no consensus, our society
has only just
begun to reflect seriously on the possibility of creating children through soma
tic cell nuclear
transfer. It may be premature to come to closure on some issues because so lit
tle time has been
devoted to the issue.\par
}{\plain \par
}{\plain \tab Thus, the ethics of making policy, as opposed to the ethics of cl
oning itself, requires us to
return to the guidelines set forth by scholars such as Guttman and Thomson: are
the moralistic
concerns sufficiently strong to justify prohibition or regulation? If so, is t
he price we pay in the
form of constraints on personal liberty or the abridgement of legally protected
rights acceptable?
Can individual cases be treated as exceptions? Or will making exceptions creat
e more problems,
in the form of intrusive inquiries into people\'92s motives, for example, that
making the exceptions
causes more harm than good?\par
}{\plain \par
}{\plain \tab It is not possible to answer these questions with certainty. But
some help can be obtained
by looking at existing law governing efforts to create children in this manner,
and at the possible
policies that might be adopted to govern this technology.\par
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{\plain \b\f1 Conclusions}{\plain \par
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}{\plain \tab In summary, the Commission reached several conclusions in conside
ring the
appropriateness of public policies regarding the creation of children through s

omatic cell nuclear
transfer. First and foremost, creating children in this manner is unethical at this time because of
insufficient evidence that such techniques are effective and safe. Even if concerns about safety
are resolved, however, significant concerns remain about the negative impact of the use of such a
technology on both individuals and society. Public opinion on this issue may remain divided.
Some people believe that cloning through somatic cell nuclear transfer will always be unethical
because it undermines important social values and will always retain the potential to cause harms
to the resulting child. In addition, although the Commission acknowledged that there are cases
for which the use of such cloning might be considered desirable, overall these cases were
insufficiently compelling to justify proceeding with the use of such techniques. Finally, the
Commission was not persuaded by objections to a prohibition against such cloning which were
based, in part, on the expectation that its use is unlikely to be widespread and, in part, on the
belief that many of the assumed harms are purely speculative.\par
}{\plain \par
}{\plain \tab Finally, many scenarios of creating children through somatic cell nuclear transfer are
based on the serious misconception that selecting a child's genetic makeup is equivalent to
selecting the child's traits or accomplishments. A benefit of more widespread discussion of such
cloning would be a clearer recognition that a person's traits and achievements depend heavily on
education, training, and the social environment, as well as on genes. Should this type of cloning
proceed, however, any children born as a result of this technique, should be treated as having the
same rights and moral status as any other human being.\par
}{\plain \par
}{\plain \tab Clearly, there is a need for further public deliberation on the serious moral concerns
raised by the prospect of cloning human beings. As the Commission proceeded in its review, the
members learned from listening to the public and to each other. Many important issues remain
unclear or unresolved, such as whether there is a moral right to freely make procreative decisions,
even if those decisions include creating a child through somatic cell nuclear transfer. The
Commission believes that it is essential to try to understand the diverse reactions to such cloning
and the ethical arguments for and against various policies regarding its use. This report is only
the beginning of public process to assess the impact of this new technology.\pa

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ETHICAL CONCERNS

The prospect of creating children through somatic cell nuclear transfer has elicited widespread, instinctive resistance. Much of this reaction can be attributed to fears about harms to the children who may result, particularly psychological harms associated with a possibly diminished sense of individuality and personal autonomy. Others express concern about a degradation in the quality or parenting and family life if children's physical development were no longer as unpredictable, especially if parents were to confuse the predictability of certain of their physical characteristics with the predictability of their personality and character. And virtually all people agree that the current risks of physical harm to children associated with somatic cell nuclear transplantation cloning justify a prohibition at this time on such experimentation. In addition to concerns about specific harms to children, people have frequently expressed fears that a widespread practice of such cloning would undermine important social values, such as resistance to eugenics, avoiding the temptation to manipulate people as if they were objects instead of persons, and accepting the limits of moral boundaries inherent in the human condition. Arrayed against these concerns are other important social values, such as protecting the widest possible sphere of personal choice, and maintaining the freedom of scientific inquiry. As somatic cell nuclear transfer cloning could represent a means of human reproduction for some people, limitations on that choice must be made only when the societal benefits of prohibition clearly outweigh the value of maintaining the private nature of such highly personal decisions. Especially in light of some arguably compelling cases for attempting to clone a human being, the ethics of policymaking must strike a delicate balance between those concerns focused on the set of values we wish to reflect and the freedom of individual choice.

* * * * * *

In his testimony before the Commission on March 13, 1997, bioethicist Leon Kass summarized many of the widely held concerns regarding the possibility of cloning human beings via somatic cell nuclear transfer when he noted,

> "Almost no one sees any compelling reason for human cloning. Almost everyone anticipates its possible misuses and abuses. Many feel oppressed by the sense that there is nothing we can do to prevent it from happening and this makes the prospect seem all the more revolting. Revulsion is surely not an argument....But ... in crucial cases repugnance is often the emotional bearer of deep wisdom beyond reason's power fully to articulate it" (Kass, 1997).

But some, however, argue with relying simply on moral intuition to set public policy. In her testimony before NBAC on March 14, 1997, bioethicist Ruth Macklin challenged the inclination to take as axiomatic the proposition that to be born as a result of using these techniques is to be harmed or at least to be wronged.

> "Intuition has never been a reliable epistemological method, especially since people notoriously disagree in their moral intuitions. . . If objectors to cloning can identify no greater harm than a supposed affront to the dignity of the human species, that is a flimsy basis on which to erect barriers to scientific research and its applications" (Macklin, 1997).

One of the key challenges for the Commission was to understand many of the moral and religious objections to cloning as well as to investigate and articulate the widespread intuitive disapproval of cloning human beings. These concerns then had to be tested against both those philosophical responses that are more positive regarding such cloning as well as against certain arguably compelling and specific cases for deploying this technology. In short, NBAC sought to understand and, in some cases, to clarify the diversity of reactions to this new technology.[1]

The task is made quite difficult by the fact that neither moral philosophers nor religious thinkers can agree on the "best" moral theory; indeed, they often cannot even agree on the practical implications of any single theory. For example, some people base their arguments on an assessment of the particular harms and benefits that would flow to individuals and to society if somatic cell nuclear transfer techniques were to become commonplace. Others express their views by arguing about overarching rights—the child's right to individuality and dignity versus the nucleus donor's right to procreate or the scientist's right to do research. And while moral and even human rights need not be understood as absolute, that is as morally requiring people to respect them no matter how great the costs or bad consequences of doing so, they do place moral restrictions on permissible actions that cannot be overridden by an appeal to a mere balance of benefits over harms.

Unfortunately, while some of the risks and benefits of somatic cell nuclear cloning human beings are well enough understand to support the conclusion that it should not be permitted at this time, the larger debate over the balance to be struck among competing rights needs more time for discussion and development. This chapter reviews some of these arguments, and it is hoped that it can serve as the starting point for a more profound and more sustained reflection on the significance of creating children through somatic cell nuclear transfer.

The following discussion of issues raised by such cloning begins with an important caveat. Any research or clinical experiment on creating a child in this manner would involve the creation of an embryo. That is, the fusion of a human somatic cell and an egg whose nucleus has been removed would produce a human embryo, with the apparent potential to be implanted *in utero* and developed to term. Ethical concerns surrounding the issues of embryo research

[1]In support of its analysis, NBAC commissioned a paper written by Dan Brock, Brown University, titled "Cloning Human Beings: An Assessment of the Ethical Issues Pro and Con." Some of the material in this chapter is derived from that paper.

have recently received extensive analysis and deliberation in our country (National Institutes of Health, 1994). Indeed, as described in Chapter Five, federal funding for human embryo research is severely restricted, although there are few restrictions on human embryo research carried out in the private sector using non-federal funds. NBAC did not revisit this issue in the context of this report.

Potential for Physical Harms

There is one basis of opposition to somatic cell nuclear transfer cloning on which most can agree. For reasons outlined above in Chapter Two, there is virtually universal concern regarding the current safety of attempting to use this technique in human beings. Even if there were a compelling case in favor of creating a child in this manner it would have to yield to one fundamental principle of both medical ethics and political philosophy—the injunction, as it is stated in the Hippocratic Oath, to "first do no harm." At this time, the significant risks to the fetus and physical well being of a child created by somatic cell nuclear transplantation cloning outweigh the arguable benefits to use of the technique.

It is important to recognize that the technique that produced Dolly the sheep was successful in only 1 of 277 attempts. If attempted in humans, it would pose the risk of futile hormonal manipulation in the egg donor; multiple miscarriages in the birth mother; and possibly severe developmental abnormalities in any resulting child. Clearly the burden of proof to justify such an experimental and potentially dangerous technique falls on those who would carry out the experiment. Standard practice in biomedical science and clinical care would never allow the use of a medical drug or device on a human being on the basis of such preliminary study and without much further animal research. Thus, no conscientious physician or Institutional Review Board should approve attempts to use somatic cell nuclear transfer to create a child at this time. For these reasons, prohibitions would be warranted on all attempts to produce children through nuclear transfer from a somatic cell at this time.

Even on this point, however, NBAC has noted some diversity of opinion. Some argue, for example, that prospective parents are already allowed to conceive, or to carry a conception to term, when there is a significant risk—or even certainty—that the child will suffer from a serious genetic disease. Even when others think this makes it morally wrong to conceive or to carry a pregnancy to term, the parents' right to reproductive freedom takes precedence. Since many of the risks believed to be associated with somatic cell nuclear transfer may be no greater than those associated with genetic disorders, some contend that such cloning should be subject to no more restriction than other forms of reproduction (Brock, 1997).

And, as in any new and experimental clinical procedure, harms can not be truly determined until trials are conducted in humans. Law professor John Robertson noted before NBAC on March 13, 1997 that

"[The] first transfers [into a uterus] of a human [embryo] clone [will occur] before we know whether it will succeed. . .[Some have argued therefore] that the first transfers are somehow unethical. . .experimentation on the resulting child, because one does not know what is going to happen, and one is. . .possibly leading to a child who could be disabled and have developmental difficulties. . .[But the] child who would result would not have existed but for the procedure at issue, and [if] the intent there is actually to benefit that child by bringing it into being. . .[this] should be classified as experimentation for [the child's] benefit and thus it would fall within recognized exceptions. . .We have a very different set of rules for experimentation intended to benefit [the experimental subject]"(Robertson, 1997).

Cloning and Individuality

In addition to physical harms, many worry about psychological harms associated with such cloning. One of the forms of psychological harm most frequently mentioned is the possible loss of a sense of uniqueness.

Many argue that somatic cell nuclear transfer cloning creates serious issues of identity and individuality and forces us to reconsider how we define ourselves. In his testimony before NBAC March 13, 1997, Gilbert Meilaender commented on the importance of genetic uniqueness not only for the individual but in the eyes of their parents,

"Our children begin with a kind of genetic independence of us, their parents. They replicate neither their father nor their mother. That is a reminder of the independence that we must eventually grant to them and for which it is our duty to prepare them. To lose even in principle this sense of the child as gift will not be good for children"(Meilaender, 1997).

The concept of creating a genetic twin, although separated in time, is one aspect of somatic cell nuclear transfer cloning that most find both troubling and fascinating. The phenomenon of identical twins has intrigued human cultures across the globe, and throughout history (Schwartz, 1996). Part of that fascination goes to the complexity of human intuitions regarding the relationship of the self to the body. While Descartes' mind-body dualism has strongly influenced modern western thought, leading to an intellectual view of the "self" as a form of consciousness somehow housed within a physical container called the body, neither instinct nor custom have fully followed suit. Thus, even after death, the body is treated with great respect in most cultures. Even if religious or rational thought leads people to view the body as an empty shell, devoid of personality, its mere existence acts as a powerful reminder of the person it once was. As such, it evokes in observers many of the emotions they would experience if in the presence of that person. People will talk to such bodies in many funeral rituals. They will often object to mutilation of the bodies, even for such socially valuable purposes as autopsy or organ donation, because the mutilation seems to be an affront to person

who lived in that body, or because observers cannot help but imagine the sensations that person would experience if he or she were still alive (Youngner, Fox, and O'Connell, 1996).

Against this backdrop, it is easy to understand why twins hold such fascination. Mind-body dualism and common experience demonstrate how distinctly different twins are, both in personality and in personhood. At the same time, observers cannot help but imbue identical bodies with some expectation that identical persons occupy those bodies, since, Cartesian dualism aside, body and personality remain intertwined in human intuition. With the prospect of somatic cell nuclear transfer cloning comes a scientifically inaccurate but nonetheless instinctive fear of multitudes of identical bodies, each housing personalities that are somehow less distinct, less unique, and less autonomous than usual.

Is there a moral or human right to a unique identity, and if so would it be violated by this manner of human cloning? For such cloning to violate a right to a unique identity, the relevant sense of identity would have to be genetic identity, that is a right to a unique unrepeated genome. This would be violated by somatic cell nuclear transfer, but is there any such right? Even with the same genes, two individuals, for example homozygous twins, are distinct and not identical, so what is intended must be the various properties and characteristics that make each individual qualitatively unique and different than others. Does having the same genome as another person undermine that unique qualitative identity?

Along these lines of inquiry some question whether somatic cell nuclear transfer cloning would violate what philosopher Hans Jonas called a right to ignorance, or what philosopher Joel Feinberg called a right to an open future (Jonas 1974; Feinberg 1980). Jonas argued that human cloning, in which there is a substantial time gap between the beginning of the lives of the earlier and later twin, is fundamentally different from the simultaneous beginning of the lives of homozygous twins that occur in nature. Although contemporaneous twins begin their lives with the same genetic inheritance, they also begin their lives or biographies at the same time, and so in ignorance of what the other who shares the same genome will by his or her choices make of his or her life. To whatever extent one's genome determines one's future, each begins ignorant of what that determination will be and so remains as free to choose a future, to construct a particular future from among open alternatives, as are individuals who do not have a twin. Ignorance of the effect of one's genome on one's future is necessary for the spontaneous, free, and authentic construction of a life and self.

A later twin created by cloning, Jonas argues, knows, or at least believes he or she knows, too much about him or herself. For there is already in the world another person, one's earlier twin, who from the same genetic starting point has made the life choices that are still in the later twin's future. It will seem that one's life has already been lived and played out by another, that one's fate is already determined, and so the later twin will lose the spontaneity of authentically creating and becoming his or her own self. One will lose the sense of human possibility in freely creating one's own future. It is tyrannical, Jonas claims, for the earlier twin to try to

determine another's fate in this way.

And even if it is a mistake to believe the crude genetic determinism, according to which one's genes determine one's fate, what is important for one's experience of freedom and ability to create a life for oneself is whether one thinks one's future is open and undetermined, and so still to be determined by one's own choices. One might try to interpret Jonas' objection so as not to assume either genetic determinism, or a belief in it. A later twin might grant that he or she is not destined to follow in his or her earlier twin's footsteps, but that nevertheless less the earlier twin's life would always haunt them, standing as an undue influence on their lives, and shaping it in ways to which others' lives are not vulnerable.

In a different context, and without applying it to human cloning, Feinberg has argued for a child's right to an open future. This requires that others raising a child not so close off the future possibilities that the child would otherwise have as to eliminate a reasonable range of opportunities for the child to choose autonomously and construct his or her own life. One way this right to an open future would be violated is to deny even a basic education to a child, and another way might be to create it as a later twin so that it will believe its future has already been set for it by the choices made and the life lived by its earlier twin.

There is, however, an irony to some of this argumentation, as pointed out by Robertson.

> "[O]pponents talk about the importance of having a unique genome and how cloning might rob a child of a unique identity. At the same time, however, they want to deny the importance of genes alone in creating identity, so there is a kind of tension there in their comments" (Robertson, 1997).

Thus, a central difficulty in evaluating the implications for somatic cell nuclear transfer cloning of a right either to ignorance or to an open future, is whether the right is violated merely because the later twin may be likely to believe that its future is already determined, even if that belief is clearly false and supported only by the crudest genetic determinism.

Cloning, Control, and the Family

Among those concerns that are not focused on arguments about harm to the child are a set of worries about use of such cloning as a means of control. These are concerns, for example, about possibly generating large numbers of people whose life choices are constrained by their own constrained self-image or by the constraining expectations of others. From this image of less-than-autonomous children comes the fear, however misplaced, of technology creating armies of cloned soldiers, each diminished in his physical individuality and thereby diminished in their psychological autonomy. Similarly, this expectation of diminished autonomy underlies the eugenic impulses that have led many to speculate about the possibility of cloning "desirable" or "evil" people, ranging from actors to dictators of various stripes to distinguished religious

leaders. Complicating matters even further, this misplaced belief in the ability of genes to fully determine behavior and personality amplifies the image, so that in the end one imagines being able to make either armies of complacent workers, crazed soldiers, brilliant musicians, or beatific saints.

Although such fears are based, as noted in Chapter Two, on gross misunderstandings of human biology and psychology, they are nonetheless real. In addition, these same concerns also manifest themselves in fears that underlie the characterization of somatic cell nuclear transfer cloning as a form of "making" children rather than "begetting" children. With cloning, the total genetic blueprint of the cloned individual is selected and determined by the human artisans. This, according to Kass,

> ". . .would be taking a major step into making man himself simply another one of the man made things. Human nature becomes merely the last part of nature to succumb to the technological project which turns all of nature into raw material at human disposal. . .As with any product of our making, no matter how excellent, the artificer stands above it, not as an equal but as a superior, transcending it by his will and creative prowess" (Kass, 1997).

For many, this kind of relationship is inconsistent with an ideal of parenting, in which parents embrace not only the similarities between themselves and their children but also the differences, and in which they accept not only the developments they sought to bring about through care and teaching but also the serendipitous developments they never planned for or anticipated (Rothenberg, 1997).

Of course, parents already exercise great control over their offspring, through means as varied as contraception to control of the timing and spacing of births, to genetic screening and use of donor gametes to avoid genetic disorders, to organized medical and educational interventions to guide physical and intellectual development. But each of these interventions exist along a spectrum of control over developments. Somatic cell nuclear transfer cloning, some fear, offers the possibility of virtually complete control over one important aspect of a child's development, his genome, and it is the completeness of this control, even if only over this partial aspect of human development, that is alarming to so many people and invokes images of manufacturing children according to specification. The lack of acceptance this implies for children who fail to develop according to expectations, and the dominance it introduces into the parent-child relationship, is viewed by many as fundamentally at odds with acceptance and indeterminacy that is currently associated with parenting. Meilaender addressed both the mystery of reproduction and fears about it veering toward a means of production in his testimony before NBAC.

> "But whatever we say of [other reproductive technologies], surely human cloning would be a new and decisive turn on this road. Far more emphatically a kind of

production. Far less a surrender to the mystery of the genetic lottery which is the mystery of the child who replicates neither Father nor Mother but incarnates their union. Far more an understanding of the child as a product of human will" (Meilaender, 1997).

Questions are raised, as well, about the effect such interventions will have on a particular child. Will the child himself or herself feel less independent from the nucleus donor than a child ordinarily would from a parent? Will the knowledge of how one's genetic profile developed in another person at another time leave the child feeling that his character is as predetermined as his adult height or his hair color? Even if the child feels completely independent of the nucleus donor, will others regard the child as a copy or a successor to that donor? If so, will such expectations on the part of others begin to affect the child's self-image?[2]

Finally, some critics are concerned that the legal or social status of the child arising from nuclear transfer of somatic cells may be uncertain. For some, the disparity between the child's genetic and social identity threatens the stability of the family. Is the child who results from somatic cell nuclear transfer the sibling or the child of its parents? The child or the grandchild of its grandparents? From this perspective the child's psychological and social well-being may be in doubt or even endangered. Ambiguity over parental roles may undermine the child's sense of identity. It may be harder for a child to achieve independence from a parent who is also his or her twin.

At the same time, others are not persuaded by such objections. Children born through assisted reproductive technologies may also have complicated relationships to genetic, gestational, and rearing parents. Skeptics point out that there is no evidence that confusion over family roles has harmed children born through assisted reproductive technologies, although the question has not been widely studied.

[2]There is one argument that has been used by several commentators to undermine the apparent significance of potential psychological harms to a child created through somatic cell nuclear transfer (Chadwick 1982; Robertson 1994b, 1997; Macklin 1994). The point derives from a general problem, called the non-identity problem, posed by the philosopher Derek Parfit and not originally directed to human cloning.(Parfit 1984). This view argues that even if all the psychological burdens and pressures of having been born via such cloning could not be avoided, they are not harms to the resulting child; the only way for the child to avoid the harms is never to exist at all. Thus the burdens and stresses, hard though they might be, cannot be so bad as to make the child's life, all things considered, not worth living-- that is, to be worse than no life at all. Parfit originally posed the non-identity problem, but does not accept the above argument as sound. Instead, he believes that if one could have a different child without these psychological burdens (for example, by using a different method of reproduction) there is as strong a moral reason to do so (Brock 1995).

Potential Harms to Important Social Values

Critics ask us to imagine a world in which cloning human beings via somatic cell nuclear transfer were permitted and widely practiced. What kind of people, parents, and children would we become in such a world? Opponents fear that such cloning to create children may disrupt the interconnected web of social values, practices, and institutions that support the healthy growth of children. The use of such cloning techniques might encourage the undesirable attitude that children are to be valued according to how much they meet parental expectations, rather than loved for their own sake. In this way of looking at families and parenting, certain values are at the heart of those relationships, values such as love, nurturing, loyalty, and steadfastness. In contrast, a world in which such cloning were permitted would give, the critics claim, implicit approval to vanity, narcissism, and avarice. To these critics, changes that undermine those deeply prized values should be avoided if possible. At a minimum, such undesirable changes should not be fostered by our public policies.

On the other hand, some thoughtful observers are not persuaded by these objections. First, many point out that if strongly held moral values are in decline, there are likely many complex reasons for this, which would not be addressed by a ban on cloning in this fashion. Furthermore, skeptics argue that people can, and do, adapt in socially redeeming ways, to new technologies. In their view, a child born through somatic cell nuclear transfer can simply be loved and accepted like any other child, and not disrupt important family and kinship relations.

One concern focuses on the use of scarce resources. The generation of children through somatic cell nuclear transfer would divert scarce resources, including the skills of researchers and clinicians, from more pressing social and medical needs. These considerations about allocation of resources are particularly pertinent if public funds would be involved. In the words of theologian Nancy Duff,

> "When considering research into human cloning we must look at the responsible use of limited resources. . .[I]t is mandatory to ask whether other research projects will serve a greater number of people than research on human cloning and take the answer to that seriously" (Duff, testimony, 1997).

Opponents also assert that this new type of cloning tempts human beings to transgress moral boundaries and to grasp for powers that are properly outside human control. Ancient Greek literature and many Biblical interpretations emphasize that human beings occupy a moral position between other forms of life and the divine. In particular, humans should not consider themselves as omnipotent over nature. From this perspective, respecting limits is to respect the appropriate place of humankind in the universe and to ensure that technology is not allowed to push aside critical social and moral commitments. This view need not be tied to a single religious doctrine, a particular view of God, or even a belief in God. However, these objections are often expressed in religious terms. For example, critics talk of how the ability to create

children through somatic cell nuclear transfer may tempt us to seek immortality, to usurp the role of God, or to violate divine commands.

On the other hand, some observers do not see thus type of cloning as dramatically new or extreme, especially when compared to other assisted reproductive technologies. Robertson notes

> "In an important sense cloning is not the most radical thing on the horizon. Much more significant, I think, would be the ability to actually alter or manipulate the genome of offspring. Cloning takes a genome as it is. . .and might replicate it . . . [T]hat is much less ominous than having an ability to take a given genome and either add or take out a gene which could then lead to a child being born with characteristics other than it would have had with the genome it started with" (Robertson, 1997).

Commodification, Objectification, and the Good Life

Noted philosopher Martha Nussbaum has argued that the goal of political organization is to provide people with "the conditions in which a good human life can be chosen and lived, not simply at the allotment of commodities, but at making people able to function in certain human ways" (Nussbaum, 1988). To do this, it is important to identify the essential qualities of humanity that must be nurtured in order to permit the good life to flourish (Nussbaum, 1990). Her list of "basic human functional categories" includes:

1. [Mortality:] Being able to live to the end of a complete human life, as far as is possible; not dying prematurely, or before one's life is so reduced as to be not worth living.

2. [The human body:] Being able to have good health; to be adequately nourished; to have adequate shelter; having opportunities for sexual satisfaction; being able to move from place to place.

3. [Pleasure and pain:] Being able to avoid unnecessary and nonbeneficial pain and to have pleasurable experiences.

4. [Cognitive capability:] Being able to use the five senses; being able to imagine, to think, and to reason.

5. [Early infant development:] Being able to have attachments to things and persons outside ourselves; to love those who love and care for us, to grieve at their absence, in general, to love, grieve, to feel longing and gratitude.

6. [Practical reason:] Being able to form a conception of the good and to engage in critical

reflection about the planning of one's own life.
7. [Affiliation:] Being able to live for and with others, to recognize and show concern for other human beings, to engage in various forms of familial and social interaction.

8. [Relatedness to other species and to nature:] Being able to live with concern for and in relation to animals, plants, and the world of nature.

9. [Humor and play:] Being able to laugh, to play, to enjoy recreational activities.

10. [Separateness:] Being able to live one's own life and nobody else's; being able to live one's own life in one's very own surroundings and context.

It is this last item, "separateness," that is particularly pertinent to somatic cell nuclear transfer cloning. One of the concerns raised by opponents focuses on whether the ability to completely determine a child's genetic make-up will have the effect of lessening the child's sense of separateness and autonomy, thereby turning the child into an "object" rather than a "person." This concern acts as an often unspoken assumption underlying discussions of whether such cloning amounts to "making" rather than "begetting" children; whether prior knowledge of how one's genetic make-up expressed itself in an older twin will serve to constrain one's imagination about what the future can hold or how it can be shaped to one's desires; and whether the child who is created in this manner will be viewed as less than fully separate and equal to the older twin whose nucleus was used. In sum, will being cloned from the somatic cell of an adult make the child less of a "person" whose humanity is to be nurtured toward attainment of the good life?

One reason this discussion can be hard to capture and to articulate is that certain terms, such as "person" are used differently by different people.[3] What is common to these various

[3] Moral philosophers think about personhood when they construct and deploy their views of human choice and moral agency. For Kantians, personhood is about free will and reason. From the point of view of Kantian moral personality, all of us are identical as persons. Philosophers of mind think about personhood when they try to figure out what constitutes personal identity. For many of these philosophers, personal identity means having a continuous life story that incorporates a past and a future for oneself. From the point of view of personal identity, all of us are different, unique, as persons. Psychoanalysts think about personhood when they relate the constants of human life and development to broad personality structures. From the psychoanalytic point of view, each of us manifests the same dynamic personality structures, yet no two of us do so in exactly the same way; we are all the same and also all different. Welfare rights activists and human rights activists may think about personhood: what is the minimum of necessary resources for a fully human life? Some medical ethicists think about personhood while trying to decide at what point does life cease to be a human life worth living? Political theorists at times think about personhood in the context of trying to understand what are the basics of individuality that the state should recognize or underwrite? Parents think about personhood: what part do I play in making possible the fullest kind of human-ness for my children?" [Margaret Radin, "The Colin Ruagh Thomas O'Fallon Memorial Lecture on Personhood, 74 *Oregon Law Review* 423 (Summer 1995).]

views, however, is a shared understanding that being a "person" is different from being the manipulated "object" of other people's desires and expectations. Writes legal scholar Margeret Radin,

> "The person is a subject, a moral agent, autonomous and self-governing. An object is a non-person, not treated as a self-governing moral agent . . .[By] 'objectification of persons,' we mean, roughly, "what Kant would not want us to do."[4]

That is, to objectify a person is to subject the person to manipulation without regard to the person's own desires, to control the person, and to treat the person as one would things that can be bought and sold in the marketplace.

To those who view the diminishment of serendipity in one's genetic make-up as a form of manipulation by others, there is a risk that somatic cell nuclear transfer cloning represents a form of objectification of the child. Of course, this is precisely what genetic screening and, in the future, genetic therapy, aim to do. But in those cases, the goal is to benefit the child so that the child may be free of a specific disease. When such cloning is undertaken not for any purported benefit of the child himself or herself, but rather to satisfy the vanity of the nucleus donor, or even to serve the need of someone else, such as a dying child in need of a bone marrow donor, then some would argue that it goes yet another step toward diminishing the personhood of the child created in this fashion. The final insult, opponents argue, would come if the child created through somatic cell nuclear transfer is regarded as somehow less than fully equal to the other human beings, due to his or her diminished physical uniqueness and the diminished mystery surrounding some aspects of his or her future, physical development.

Eugenic Concerns

The desire to improve on nature is a old as humankind. It has been played out in agriculture through the breeding of special strains of domesticated animals and plants. With the development of the field of human genetics over the past 100 years came the hope that the selection of advantageous inherited characteristics—called eugenics, from the Greek eugenes

[4] "Kantian ethical thought," writes Radin, "distinguishes morally between persons and objects. Rational beings possessing free will (persons) are autonomous; the moral law requires that persons be treated as ends, not means. Objects in the natural world that are not rational beings possessing free will are not persons, and may appropriately be used as means by persons. Kant's view requires that persons, moral agents, not be treated as objects, manipulated at the will of persons. Kant presented his basic principles of ethics in *Immanuel Kant, Groundwork of The Metaphysics of Morals* (1785), translated by H. J. Paton in *The Moral Law* (1948)." [Margaret RadinReflections on Objectification," 65 *Southern California Law Review* 341 (November 1991), at footnote 4]

meaning wellborn or noble in heredity—could be as beneficial to humankind as selective breeding in agriculture.

The transfer of directed breeding practices from plants and animals to human beings is inherently problematic, however. To begin, eugenic proposals have generally assumed the existence of some sort of authority both to determine which human traits and characteristics would be favored and to cause people (whether through persuasion or force) to mold their reproductive behavior to this collective objective. Yet these assumptions are troubling and offensive. They presuppose a totalitarian society in which the conclusions of the few would control basic aspects of the lives of the many. And they rest on notions of selective human superiority that have long been linked with racist ideology.

Equally important, the whole enterprise of "improving" humankind by eugenic breeding programs is contradicted by modern genetics. Little is known about correlation between genes and the sorts of complex, behavioral characteristics that are associated with successful and rewarding human lives; moreover, what little is known indicates that most such characteristics result from complicated interactions among a number of genes and the environment. While cows can be bred to produce more milk and sheep to have softer fleece, the idea of breeding humans to be superior would belong in the realm of science fiction even if one could conceive how to establish the metric of superiority, something that turns not only on the values and prejudices of those who construct the metric but also on the sort of a world they predict these specially bred persons would face.

Nonetheless, despite the sordid history of eugenics in this century and the very real limitations in what genetic selection could be expected to yield, the lure of "improvement" remains very real in the minds of some people, including—if the past is any predictor—some prominent biologists. In some ways, creating people through somatic cell nuclear transplantation offers eugenicists a much more powerful tool than any before. In selective breeding programs, such as the "germinal choice" method urged by the geneticist H.J. Muller a generation ago (need reference), the outcome depended on the usual "genetic lottery" that occurs each time a sperm fertilizes an egg, fusing their individual genetic heritages into a new individual. Cloning, by contrast, would allow the selection of a desired genetic prototype which would be replicated in each of the "offspring," at least on the level of the genetic material in the cell nucleus.

The answer to any who would propose to exploit the science of cloning in this way is that the moral problems with a program of human eugenics go far beyond practical objections of infeasibility. Some objections are those that have already been discussed in connection with the possible desire of individuals to use somatic cell nuclear transfer that the creation of a child under such circumstances could result in the child being objectified, could seriously undermine the value that ought to attach to each individual as an end in themselves, and could foster inappropriate efforts to control the course of the child's life according to expectations based on

the life of the person who was cloned.

In addition to such objections are those that arise specifically because what is at issue in eugenics is more than just an individual act, it is a collective program. Individual acts may be undertaken for singular and often unknown or even unknowable reasons, whereas a eugenics program would propagate dogma about the sorts of people who are desirable and those who are dispensable. That is a path that humanity has tread before, to its everlasting shame. And it is a path to whose return the science of cloning should never be allowed to give even the slightest support.

Arguments for Maintaining Personal Autonomy and Freedom of Inquiry

Arrayed against these concerns about the societal effects of cloning human beings via somatic cell nuclear transfer are arguments for maintaining individual choice over whether to use the technology. These arguments are made on five separate grounds: first, that there is a general presumption in favor of individual liberty; second, that certain actions, such as human reproduction, are particularly personal and should remain particularly free of constraint; third, we ought not limit the freedom of scientific inquiry; fourth, that there are some reasons to create a child through somatic cell nuclear transfer that are so compelling they should transcend objections to the practice even if it could otherwise be prohibited; and finally, that many of the objections to the use of this technique are largely speculative and unproven.

Presumptions in Favor of Personal Autonomy

The presumption in favor of individual liberty stems from a consensus within the United States that one of the most important values we share is a preference for personal autonomy. In part, the preference is maintained because of the widespread fear that one's own personal choices might be constrained if subject to collective decision making. To the extent that making a personal choice is a form of personal satisfaction, then the means to maximizing our collective satisfaction is to make as many personal choices available as possible (Posner, 1992). In addition, personal autonomy is considered valuable in and of itself, since it is viewed by many as the deepest expression of one's individuality and personality, i.e., the deepest expression of one's self. Thus, commentators have argued that a commitment to individual liberty requires that individuals be left free to use somatic cell nuclear transfer cloning if they so choose and if their doing so does not cause significant harms to others (Robertson 1997; Macklin 1997).

But such liberty is too broad in scope to be an uncontroversial moral right (Mill 1859; Rhodes 1995). As many others have pointed out, granting such unadulterated primacy to autonomy can ignore the possibility of competing values that are held as dear in some or all circumstances. Thus, principles of equality, virtue, and benevolence may compete for primacy with the principle of autonomy. In her March 13, 1997 testimony before NBAC, theologian Lisa Cahill asserted that

". . .a excessive focus on [autonomy] can prevent us from seeing why other values as well are socially important and protectable and why certain freely chosen practices can still be wrong even if they do not result in immediate or quantifiable harm or direct infringement on the options of other free agents. . .A narrow focus on autonomy to freely choose personally preferred goals undermines our ability to talk together about what would go to make up a good society and what we can do concretely to move towards one."

Indeed, some analysts, such as legal scholar Mary Ann Glendon (1991) and sociologist Amitai Etzioni (1990) have argued that the rhetoric of rights and personal autonomy has obscured the symmetrical values of responsibility, duty, and restraint. And, indeed, while personal autonomy is upheld rhetorically as an ideal, it is routinely constrained on behalf of the common good, even in the absence of harm to others, both in personal and public life. This still leaves open, however, the question of when, in particular, other values ought to trump the value of personal liberty.

In their book *Democracy and Disagreement (1996)* political theorists Amy Guttman and Dennis Thompson set forth some guidelines for when moralist arguments ought to be allowed to constrain personal liberty. Among them are: (1) a convincing argument that a particular action is wrong, independent of whatever specific harms it might cause, because it violates, for example, natural law, social convention, or fundamental social values; (2) that the wrong is serious enough to warrant public attention and is otherwise eligible for public regulation; and (3) that regulation or prohibition will not cause more harm than the action that opponents seek to prohibit.

Constraint of Reproductive Choice

While the discussion of social values, above, might suffice to satisfy the first two conditions set down by Guttman and Thompson, the third condition requires more attention. To determine whether prohibition of somatic cell nuclear transfer cloning would cause more harm than it prevents, one must examine the particular kind of choices that would be constrained. Certain actions, it is argued, deserve special protection from collective decision making, and human reproduction is often cited as an example. Reproduction is an intensely personal phenomenon, most often commencing in the intimacy of coitus, and always resulting in the creation of a parental relationship that redefines one's place in the world. Without reproduction, one remains a child and perhaps a sibling. With reproduction—or with its social equivalent, adoption—one becomes a parent, taking on responsibilities for another that necessarily require abandoning some of personal freedoms enjoyed before. When and how to take on such responsibilities and to change one's life course is necessarily one of the most personal decisions imaginable.

It could be argued that somatic cell nuclear transfer cloning is not covered by the right to reproductive freedom, because whereas assisted reproductive technologies covered by that right are remedies for inabilities to reproduce sexually, somatic cell nuclear transfer cloning is an entirely new means of reproduction; indeed, its critics see it as radically new and as more a means of the mere "manufacturing of humans" than of reproduction. Its asexual nature, for example, leads some to view it as distinctly different from reproduction, which they view as inherently collaborative and sexual. This led one commentator to note that

> "It would be possible for female lineages to proceed without any male contribution at all and it would be possible for one woman to create her own child using her own ovum and DNA. . .So the child who is truly the child of a single parent would be a genuine revolution in human history and her or his advent should be viewed with immense caution" (Cahill, 1997).

On the other hand, while somatic cell nuclear transfer cloning is a different means of reproduction than sexual reproduction, it is nonetheless a means that can serve individuals' interest in reproducing. If it is not covered by the moral right to reproductive freedom, some argue, that must be not because it is a new means of reproducing, but instead because it has other objectionable moral features, such as eroding human dignity or uniqueness.

Assuming for the sake of discussion that somatic cell nuclear transfer cloning is a form of reproduction, the question remains whether reproductive freedom ought to protect its use. Reproductive freedom includes not only the familiar right to choose not to reproduce, for example by means of contraception, but also the right to reproduce. It is commonly understood to include the use of various artificial reproductive technologies, such as *in vitro* fertilization, and sperm or egg donation. But the case for permitting the use of a particular means of reproduction is strongest when that means is necessary for particular individuals to be able to procreate at all.

It is possible that somatic cell nuclear transfer cloning could be the only means for individuals to procreate while retaining a biological tie to the child created, but in other cases different means of procreating would also be possible. When individuals have alternative means of procreating, cloning might be chosen because it replicates a particular individual's genome. The reproductive interest in question then is not simply reproduction itself, but a more specific interest in choosing what kind of children to have.

However, the more a reproductive choice is not simply the determination of one's own life but the determination of the nature of another, as in the case of cloning via somatic cell nuclear transfer, the more the interests of that other person—that is the resulting child—should carry moral weight in decisions that determine its nature (Annas 1994). Indeed, this merely points up the fact that, while intensely personal, reproduction is also an intensely communal phenomenon. It thrusts a new person into the world, and the whole community must accept this new member.

Thus, the decision to reproduce is rife with consequence both to the new person brought into being and to those who will live with that new person. Naturally, this invites communal commentary on the wisdom of when and how this person is brought into being. And while constitutional law may characterize reproductive choice as fundamental to ordered liberty, moral discourse is not so constrained. Thus, one is free to argue, as a matter of ethics, that reproductive choices ought to be made in light of communal values, even while accepting that there are administrative and political reasons for avoiding efforts to embody these moral judgements in the form of laws.

Freedom of Scientific Inquiry

Another argument made against prohibiting efforts to attempt to create a child through somatic cell nuclear transfer focuses on the need to encourage research and scientific advances. There is no doubt that the freedom of scientific inquiry has been an enduring American value. Even the framers of the Constitution discussed the importance of scientific inquiry[5] when they established a system of patents to promote scientific invention.[6] Historically, scientific inquiry has been protected and even encouraged because of the great social import the United States places on the "sanctity of knowledge and the value of intellectual freedom."[7]

[5]Gary L. Francione, "Experimentation and the Marketplace Theory of the First Amendment," 136 U. Pa. L. Rev. 428-429 (1987).

[6]One of the powers of the legislative branch under the patents and copyrights clause of the U.S. Constitution is "[t]o promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. Const. Art. I, § 8, cl. 8.

[7]See Coleman, supra note 117 at 1386-87.

The concept of freedom of scientific inquiry has been acknowledged by judges and legal scholars as well. For example, certain commentators argue that support for such a right to pursue knowledge[8] could be derived from the Fourteenth Amendment right to personal liberty[9] and the First Amendment right to free speech.[10] And the U.S. Supreme Court in Branzburg v. Hayes specifically analogized the information function performed by academic researchers to that performed by the press.[11]

Other courts have similarly suggested that scholars have a "right . . . to do research and advance the state of man's knowledge."[12] Nonetheless, other court cases specifically reject the idea that a fundamental right of scientific inquiry exists.[13] These cases are relevant because they held that there is no fundamental right of medical researchers to conduct medical research on fetuses.

But even if scientific inquiry were found to be a protected activity, the government could

[8]Robertson, supra note 375 at 1204.

[9]John Robertson, "The Scientist's Right to Research: A Constitutional Analysis," 51 S. Cal. L. Rev. 1203-79, 1213 (1977). Robertson argues that the right to participate as a research subject is protected by the Fourteenth Amendment's right to privacy as recognized in Roe v. Wade, 410 U.S. 113 (1973). This right arises from an individual's privacy interest in autonomous decision-making concerning the use of his or her body in an experiment designed to further medical knowledge or to be of personal benefit. Id.

[10]Id. at 1212. Coleman argues that "[v]arious Supreme Court decisions, read together, seem to acknowledge a freedom to conduct research which is anchored in the freedom of speech." Coleman, supra note 117 (citations omitted). See also Roth v. United States, 354 U.S. 476, 484 (1957) (noting that the Continental Congress cited scientific advancement as a reason for protecting freedom of the press); see also Sweezy v. New Hampshire, 354 U.S. 234, 250 (1957) (noting that "[t]eachers and students must always remain free to inquire, to study and to evaluate, to gain new maturity and understanding; otherwise our civilization will stagnate and die.").

[11]Branzburg v. Hayes, 408 U.S. 665, 705 (1972). Similarly, the Supreme Court stated in Meyer v. Nebraska that the right to liberty guaranteed by the Fourteenth Amendment encompassed freedom to "acquire useful knowledge . . . and generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men."

[12]Henley v. Wise, 303 F.Supp. 62 (N.D. Ind. 1969).

[13]Margaret S. I, 488 F.Supp. 181, 220-221 (E.D. La. 1980). See also Margaret S. v. Treen, 597 F.Supp. 636 (E.D. La. 1984), aff'd sub. nom Margaret S. v. Edwards, 794 F.2d 994 (5th Cir. 1986); Wynn v. Scott, 449 F.Supp. 1302, 1322 (N.D. Ill. 1978), aff'd sub nom., Wynn v. Carey, 599 F.2d 193 (7th Cir. 1979).

regulate to protect against compelling harms, such as the current physical risks posed by somatic cell nuclear transfer techniques. The freedom to pursue knowledge is distinguishable from the right to choose the method for achieving that knowledge, since the method itself may permissibly be regulated.[14] Although the government may not prohibit research in an attempt to prevent the development of new knowledge, it may restrict or prohibit the means used by researchers which intrude on interests in which the state has a legitimate concern.[15]

[14]Robertson, supra note 375 at 1212.

[15]Id. at 1253.

Thus, both the federal government and the states already regulate the researcher's methods in order to protect the rights of research subjects and community safety.[16] Research may be restricted, for example, to protect the subject's right to autonomy and welfare by requiring informed, free and competent consent.[17] Thus, where the government can prove that restrictions on cloning and cloning technology are sufficiently important to the general well-being of individuals or society, such restrictions are likely to be upheld as legitimate, constitutional governmental actions, even if scientists were held to have a First Amendment right of scientific inquiry.[18]

The Policy Maker's Dilemma: Consideration of Exceptional Cases

Even as a matter of ethics, and not law, it quite is possible to argue against a wholesale condemnation of somatic cell nuclear transfer cloning of human beings. Some circumstances have been identified in which the choice to create a child in this manner would be understandable, or even, as some have argued, desirable. Consider the following examples:

- A couple wishes to have children, but both adults are carriers of a lethal recessive gene. Rather than risk the 1 in 4 chance of conceiving a child who will suffer a short and painful existence, the couple considers the alternatives: to forego rearing children; to adopt; to use donor gametes free of the recessive trait; or to use the cells of one of the adults and attempt to clone a child. Because they very much want to have some genetic link to the child they rear, and because they dislike the thought of introducing a third adult into their relationship in the form of a gamete donor, they opt for cloning.

- A family is in a terrible accident. The father is killed, and the only child, an infant, is dying. The mother decides to use some cells from the dying infant in an attempt to use somatic cell nuclear transfer to create a new child. It is the only way she can raise a child who is the biological offspring of her late husband.

- The parents of a terminally ill child are told that only a bone marrow transplant can save the child's life. With no other donor available, the parents attempt to clone a human being from the cells of the dying child. If successful, the new child will be a perfect match for bone marrow transplant, and can be used as a donor without significant risk or discomfort. The net result: two healthy children, loved by their parents, who happen to be identical twins of different ages.

[16] Id. at 1254.

[17] Id. at 1256.

[18] See id.

In each of these examples, the impulse to attempt such cloning can be understood. In the first example, the possible complications caused by having a child who is genetically identical to one of the parents is weighed against the value of keeping the marital relationship free of the ghost of an anonymous sperm or egg donor. In the second, the psychological complexities of bearing a "replacement" child are weighed against the grief of losing not only a husband but also the possibility of a child who will grow up as a physical reminder of that love. While some may argue that neither case is compelling, because infertility and grief are part of human existence, the intensely personal nature of that infertility or grief argues for an equally personal decision about how to respond. The third case makes what is probably the strongest possible case for cloning a human being, as it demonstrates how this technology could be used for lifesaving purposes. Indeed, the tragedy of allowing the sick child to die because of a moral or political objection to such cloning overall merely points up the difficulty of making policy in this area.

Some would argue that what is more important in these scenarios is how the resulting child will be viewed. Macklin argues that

> "The ethics of these situations must be judged by the way in which the parents nurture and rear the resulting child and whether they bestow the same love and affection on a child brought into existence by a technique of assisted reproduction as they would on a child born in the usual way" (Macklin, 1997).

But regardless of how one resolves the ethics of a specific situation invoking the choice to create a child through somatic cell nuclear transfer, it may still be necessary to forbid the practice overall, in order to protect other societal interests.

Moral Reasoning and Public Policies

> "It is certainly possible that there may be no substantial benefits to society that would result if human cloning were to become a reality. Yet this would constitute a good argument for prohibition only if considerable harms are a likely consequence. We need a realistic portrait, not a recitation of worst case science fiction scenarios before we may conclude that the harms of allowing cloning to proceed in a research context and even beyond are so great that even with regulations and oversight consummate evil will result" (Ruth Macklin, 1997).

> "We should proceed with research into human cloning only if compelling arguments can be made for its potential benefits" (Nancy Duff, 1997).

Some citizens may be persuaded that the harms and wrongs described in this chapter are ethically compelling and might be decisive reasons never to permit cloning via somatic cell nuclear transfer. Others may be less certain about the significance of the objections, and

unwilling to conclude that somatic cell nuclear transfer cloning would be ethically impermissible, if and when the risks could be shown to be minimal. This range of views is reflected in the testimony, letters, and commissioned papers reviewed by NBAC, and is also characteristic of the commissioners themselves.

NBAC was asked to consider whether public policy should permit, regulate, or prohibit the creation of children through somatic cell nuclear transfer. As noted above, the formation of public policy in an area as sensitive as procreation requires careful thought and measured deliberation. In the United States, governmental policies that prohibit or regulate human actions require justification because of a general presumption against governmental interference in individual activities. Obviously, this presumption can be rebutted under various circumstances for a variety of reasons. Many critics of cloning via somatic cell nuclear transfer are concerned, however, that this initial presumption of no interference with individual actions will lead to unwise policies.

Clearly, however, some considerations carry more weight in the public policy arena than they do in the formation of individual judgments. In setting public policy, for example, pragmatic and procedural considerations often, quite appropriately, carry greater weight than in deciding private choices. One reason for this is that the burden of enforcing public policies must be considered. For example, it is extremely intrusive to monitor reproductive decisions by individuals and couples. It may be impractical to have a policy that allows some cases of somatic cell nuclear transfer to create a child, while prohibiting others, even though we make such judgments privately about individual actions. Furthermore, attempts to distinguish acceptable from unacceptable reasons will be presumptuous and might lead people to misrepresent their true reasons to fit the acceptable criteria, and undermine other important social values.

Moreover, the reasoning used to consider and evaluate the desirability of proposed public policies regarding the creation of children through somatic cell nuclear transfer differs somewhat from the reasoning employed in making private decisions. When individuals make judgments they may rely on many sources of wisdom and knowledge, including their religious faith and moral intuitions. People will use their understanding of morality to decide what they should and should not do, as well as to judge the actions of others.

Those engaged in moral discourse about public policy, however, must move beyond such personal considerations, however deeply felt, and develop coherent arguments that will persuade many others to accept a particular point of view. As a result, it is useful to formulate moral convictions in ways that most people can understand and reflect upon. In a pluralistic society, there is no easy way to determine when and which governmental interventions are warranted. No algorithm clearly indicates whether the arguments for governmental intervention in a particular situation are stronger than the arguments against such interventions. Instead, we must engage in moral discourse, debate, and argument in a process of public deliberation. Although

closure must be reached, and decisions made, even if there is no consensus, our society has only just begun to reflect seriously on the possibility of creating children through somatic cell nuclear transfer. It may be premature to come to closure on some issues because so little time has been devoted to the issue.

Thus, the ethics of making policy, as opposed to the ethics of cloning itself, requires us to return to the guidelines set forth by scholars such as Guttman and Thomson: are the moralistic concerns sufficiently strong to justify prohibition or regulation? If so, is the price we pay in the form of constraints on personal liberty or the abridgement of legally protected rights acceptable? Can individual cases be treated as exceptions? Or will making exceptions create more problems, in the form of intrusive inquiries into people's motives, for example, that making the exceptions causes more harm than good?

It is not possible to answer these questions with certainty. But some help can be obtained by looking at existing law governing efforts to create children in this manner, and at the possible policies that might be adopted to govern this technology.

Conclusions

In summary, the Commission reached several conclusions in considering the appropriateness of public policies regarding the creation of children through somatic cell nuclear transfer. First and foremost, creating children in this manner is unethical at this time because of insufficient evidence that such techniques are effective and safe. Even if concerns about safety are resolved, however, significant concerns remain about the negative impact of the use of such a technology on both individuals and society. Public opinion on this issue may remain divided. Some people believe that cloning through somatic cell nuclear transfer will always be unethical because it undermines important social values and will always retain the potential to cause harms to the resulting child. In addition, although the Commission acknowledged that there are cases for which the use of such cloning might be considered desirable, overall these cases were insufficiently compelling to justify proceeding with the use of such techniques. Finally, the Commission was not persuaded by objections to a prohibition against such cloning which were based, in part, on the expectation that its use is unlikely to be widespread and, in part, on the belief that many of the assumed harms are purely speculative.

Finally, many scenarios of creating children through somatic cell nuclear transfer are based on the serious misconception that selecting a child's genetic makeup is equivalent to selecting the child's traits or accomplishments. A benefit of more widespread discussion of such cloning would be a clearer recognition that a person's traits and achievements depend heavily on education, training, and the social environment, as well as on genes. Should this type of cloning proceed, however, any children born as a result of this technique, should be treated as having the same rights and moral status as any other human being.

Clearly, there is a need for further public deliberation on the serious moral concerns raised by the prospect of cloning human beings. As the Commission proceeded in its review, the members learned from listening to the public and to each other. Many important issues remain unclear or unresolved, such as whether there is a moral right to freely make procreative decisions, even if those decisions include creating a child through somatic cell nuclear transfer. The Commission believes that it is essential to try to understand the diverse reactions to such cloning and the ethical arguments for and against various policies regarding its use. This report is only the beginning of public process to assess the impact of this new technology.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Susanne Bachtel (CN=Susanne Bachtel/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 3-JUN-1997 09:43:06.00

SUBJECT: Meeting with Don Gips tentatively scheduled for Friday, June 6, at 3 p.m.

TO: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Beverly K. Hartline (CN=Beverly K. Hartline/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Clifford J. Gabriel (CN=Clifford J. Gabriel/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Lisa M. Duffey (CN=Lisa M. Duffey/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Donna I. Coleman (CN=Donna I. Coleman/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Cynthia M. Chase (CN=Cynthia M. Chase/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
The two topics are the NBAC report (cloning) and the labs (thankyou Bev H.
for the t.p.'s).
Please note: Don Gips wife just had a baby yesterday - so this date/time
is somewhat tentative.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: lhmiike@mail.health.state.hi.us (lhmiike@mail.health.state.hi.us [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 22:55:13.00

SUBJECT: Re: Legislation and Clarity

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
My comments are as follows:

Steve Holtzman wrote:
>
> Alta writes as a reason not to draft legislative langugage:
>
> "One reason we CAN agree on the recommendations as they now (or soon
will)
> stand is PRECISELY because we chose not to fight down to the wire on
> certain issues."
>
> I am ok with this on some things, e.g., who should appoint the review
body, > or who the review body should be.
>
> But, I'm NOT ok on this with respect to certain other matters, and here I
> side with Alex that we had better know, with clarity and no ambiguity,
> where we stand: what we are and are not recommending.
>
> As far as I can see, that comes down to a few issues; but they will be
> precisely the ones on which the various interest groups in the debate
will > play legislative havoc.
>
> I know our proposed prohibition encompasses nuclear transplantation of a
> diploid cell, taken from an existing or previously existing human being,
to > an oocyte wherein the resulting embryo is implanted and brought to
term.
> However, does or does not our recommended prohibition encompass:
>
> 1- Nuclear transplantation cloning from a diploid cell, derived from an
> existing or previously existing human being, to an oocyte wherein the
> resulting embryo is not implanted and brought to term? YES or NO
>
> 2- Blastocyst splitting cloning wherein the resulting embryo(s) is
> (are)implanted and brought to term:
> a- Only one implanted/only one resulting individual? YES or NO.
> b- More than one resulting individual born at the same time YES or NO
> c- More than one resulting individual with at least one later
individual
> implanted after an early genetically identical version has already
> been born and existed? YES or NO
>

> 3- Nuclear transplantation from a diploid cell(s),derived from an embryo, > to oocyte(s) wherein the resulting embryo(s) are implanted and brought to
> term:
> a- Only one implanted/only one resulting individual? YES or NO
> b- More than one resulting individual born at the same time? YES or NO
> c- More than one resulting individual with at least one later individual
> implanted after an early genetically identical version has already
> been born and existed? YES or NO
>
> I believe that, as we have discussed matters, the answer to all of these
> questions is, "NO"; our recommended prohibition does not encompass any of
> these. I think we also recognize (at least I recognize) that the
> overwhelming majority of arguments (though not necessarily all) in favor of > our proposed prohibition equally argues for prohibiting 2C and 3C.

I agree that the answers to the three questions are "no," but i do not agree that our proposed prohibition equally argues for prohibiting 2C and 3C. We are recommending prohibition at this time because of safety reasons (and for #2, not including in our recommendations, embryo splitting techniques). As for 2C and 3C, the arguments against are for ethical/religious reasons, over which there is no unanimity, and precisely the reason why we recommend reconsideration of a ban through the sunset clause, so these ethical issues can be reexamined if and when the safety issues are substantially answered.

--I can
> live with this (not necessarily feeling good about my intellectual
> consistency), but I have difficulty with the notion that the Commission
> renders its recommendation unanimously...and then we walk out as
> individuals (representing the Commission as Larry has suggested???) and
> opine, with different opinions, on the subject of whether proposed pieces > of legislation, which treat the questions above differently, comport with > our recommendation. Is that what you mean/want Alta?

I don't see the inconsistency. We can reach conclusions and recommendations at a certain level, yet still differ in the finer details. your 2C and 3C examples are in point; you (steve) see it as being prohibited, i see it as a question not directly underlining our prohibition recommendation at this time. and aren't these differences in the details precisely what happens when groups act as a body and as individuals? would we ever get to closure if we keep wanting to get agreement on a level of detail that one or two members want? there is always the option of writing a (dissenting) commentary.
>
> Hence, I think that we should draft something: Not necessarily Legislation, > but Model provisions...and I think the key provision, really the only one > we need to draft in precise detail, pertains to what activity it is with > respect to which we are recommending a prohibition.
>
> On matter such as whether the President, the Congress, or Secty HHS
> appoints the review body, a "model" provision could leave the appointing
> authority blank or provide an e.g.,("e.g., appointed by the president,

or > Congress, or Secty HHS, etc.").
>
> I personally would prefer clarity/precision on the nature of the sunset:
> are we saying it should be time limited (with the review iniated 12-18
> months prior to sunset); or our we saying it is open-ended, in which
> instance the review should be essentially continuous...but, even here, if
> we can't get agreement in the next couple of days, we could, I suppose,
> live with a model provision that comes in both flavors as reasonable
> alternatives.
>
> Bottom line: we should shoot for NO AMBIGUITIES. In other words, we
should > be definitive in all instances, recognizing that in some cases,
such as the
> appointing authority we are DEFINITIVELY INDIFFERENT as to who has the
> authority. --And I know no better way to get that clarity than to put
> together model provisions of the sort just described and of the sort
which > I think are embodied in the type of simple, straightforward draft
alex has > put together (Frank Ramsay, "If you can't say it, then you
can't whistle it > either.")

I obviously disagree. it is futile to seek a "no ambiguity"
situation. and i can't say the william tell overture, but i can whistle
it (with difficulty!).>
> -steve

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: greider@cshl.org (greider@cshl.org [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 16:31:58.00

SUBJECT: Re: somatic versus differentiated somatic cells

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
>>>>
carol:
this is precisely why I asked my series of questions last night and why
model language, at least of the prohibition, seems desirable to me.
-steve

Steve,

I was not able to follow the whole exchange yesterday.
Now looking back and what you said, here are some responces:

>, does or does not our recommended prohibition encompass:
>
>1- Nuclear transplantation cloning from a diploid cell, derived from an
>existing or previously existing human being, to an oocyte wherein the
>resulting embryo is not implanted and brought to term? YES or NO

I understood that by using the term "generation of a child through nuclear
transplantaion cloning" we were NOT dealing with the issue of embryo
research. I think we have already agreed several times that the embryo
panal met and drafted very careful regulations, and we will just point to
that report. Our recommendations are about "baby-making" only, as I
understood it.

>2- Blastocyst splitting cloning wherein the resulting embryo(s) is
>(are)implanted and brought to term:
> a- Only one implanted/only one resulting individual? YES or NO.
> b- More than one resulting individual born at the same time YES or NO
> c- More than one resulting individual with at least one later
individual
> implanted after an early genetically identical version has already
> been born and existed? YES or NO

Again I understood our recommendations do not address this, and that we
agreed we were not going ot re-visit issues that have come up in the past
regardig embryo research.

>3- Nuclear transplantation from a diploid cell(s),derived from an embryo,

>to oocyte(s) wherein the resulting embryo(s) are implanted and brought to
>term:
> a- Only one implanted/only one resulting individual? YES or NO
> b- More than one resulting individual born at the same time? YES or NO
> c- More than one resulting individual with at least one later
individual
> implanted after an early genetically identical version has already
> been born and existed? YES or NO

All of these ARE comvered by our recommendaitons as I understand them. But again this is what I was addressing in my responce to Alta.

I was interpreting "somatic" as ALL cells that are not germ cells. There apparenelty is some dispute here. I do not have any agenda in this area, just a point of view from which I was approaching this in the past.

Carol

****
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****

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: racharo@facstaff.wisc.edu (racharo@facstaff.wisc.edu [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 19:12:10.00

SUBJECT: clarifications

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
carol's restatement of the physical risks associated with using a nucleus
from a cell taken from an embryo satisfies me, and i have no problem with
including cells taken from an embryo within the bounds of the prohibition
we are advocating with regard to nuclear transfer cloning.

r. alta charo, j.d.
associate professor, law & medical ethics
university of wisconsin law school & medical school

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: acapron@law.usc.edu (acapron@law.usc.edu [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 18:18:30.00

SUBJECT: Clarification of what is meant by our recommended moratorium

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
We say a moratorium should be imposed on attempting to create a child through "somatic cell nuclear transfer." I agree with Carol's recent response to Steve that this recommendation says nothing about the hypos in his #1 or #2 categories because we agreed we would not address the creation of embryos that were not to be implanted or the creation of a clone through splitting of embryos (or blastomeres or whatever they're called!)

That still leaves the questions raised by Steve's category #3. Like Carol, I approach this without any hidden agenda. As she notes, I asked for several times (and didn't get) clarification on this point--especially when we were making the choice at the last meeting to use the term "somatic" cell as opposed to differentiated or adult cell. I cited one situation where someone might want to use an embryo as a source of the nucleus for clinical reasons (i.e., where the nucleus from one or more embryonic cells are transferred to one or more enucleated eggs from a "donor" when a woman and her husband can achieve fertilization through in vitro methods but the eggs do not develop into fetuses that go all the way to birth, because--her physicians believe--of some problem with her eggs). But that is only an illustration, not something that I'm attached to in any way, just a way of asking: would this fall under the moratorium? Would it make any difference if the procedure were controlled so that there could be no SERIAL twins: that is, if multiple genetically identical embryos are created, if any are born, no more from that clone would be implanted at a later time?

I hope the full range of commission members will weigh in on this issue; although it begins from scientific "facts," the real issues are ethical: when you affirmed our recommendations, did you understand that nuclear transfer from an embryo-cell was prohibited? What about the later production of a child who is a clone of one NOW already born because both came from nuclear transfer from different cells of the same embryo and one was implanted and born and the other was frozen for later use?

Alta and Carol have given reasons for coming to opposing conclusions on this question. I'm sure that I haven't got them all, but we do need to get some clarification on this point, which goes not just to the heart of what we are recommending but to the REASONING that lies behind the recommendations. The contrasting views are something like this:

ON THE ONE HAND (Alta's position):

Embryos should not be read to fall within "somatic cells" because:

1. efforts to do somatic cell nuclear transfer cloning using totipotent (or nearly totipotent) cells from early embryos have been going on for years;

2. What really concerned the public about Dolly was creating "copies" of existing people, because this prospect meant one could duplicate a genome whose expression has been observed in that adult animal

3. Since, at least in early embryos, the cells remain pluripotent, the novel (meaning: unproven and risky) aspects of the Dolly-technique (oocyte reprogramming of differentiate nuclei) are not involved, so the safety concerns are less

4. Also, since embryos are made up of much younger cells, the safety concerns (related to mutations, etc.) are further diminished

5. Eugenic problems abound, based on the risk that people will look around for body types they admire, for example, and choose one to clone; this concern is not present when the cell that is used comes from an embryo, as no one yet knows how the embryo will turn out.

ON THE OTHER HAND (Carol's position):

Embryos should be treated as falling within "somatic cells" because:
1. The term somatic cell is usually taken to indicate a diploid cell, whereas a gamete or germ-line cell is haploid;

2. What was really novel was the potential creation of a mammal asexually (that is, not from fusion of two haploid cells but from a diploid cell) and that would also occur from using an embryonic cell nucleus;

3. Although transfer of the nucleus from embryonic cells may be less risky than the Dolly technique, there may be substantial risks even when embryonic cells are used because (a) who knows how differentiated the embryonic cell is, and (b) the nuclear transfer technique itself may be the cause of most of the harm, rather than "the putting to sleep"/ reprogramming process; thus even using nuclei from embryos is still so risky that it would be unethical to do it

4. All the problems of creating someone based on an existing model and hence of "eugenics" can arise when children are created by using frozen embryos that are genetic duplicates to now-born individuals (all clones created from an earlier embryo-cell-to-enucleated-eggs procedure)

???? What are some additional reasons for saying that the reasons that support the moratorium on "somatic cell nuclear transfer" for baby making do or do not apply to embryonic cells? Another way to think about this question is to ask:

If your support for the moratorium really rests on the "safety" issue,

are the safety concerns about embryonic nuclei comparable?

If your support for the moratorium really rests on the sense that basic values are being compromised (but this issue isn't well enough fleshed out to be a basis for a prohibition now...so rely on "safety" for the moment), do your concerns arise from asexual rereplication replacing sexual procreation, from asexual reproduction of an existing (born) person, or from harm to individual or society from prospect of SERIAL twinning--and are any of these concerns lessened if one is talking about taking nuclei from embryonic cells rather than from somatic cells of an individual post-birth?

I am pressing these issues because I think there is a very real risk that as of now we could walk out of the room on Saturday and give totally opposing views of the meaning and scope of the moratorium that we just "unanimously" adopted. But if we work a little more on this, we should be able to figure out what we mean and why.

Best,
Alex

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: SimonS@od6100m1.od.nih.gov (SimonS@od6100m1.od.nih.gov [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 17:45:46.00

SUBJECT: Glossary - As Text

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TO: Khanna5102@aol.com (Khanna5102@aol.com [UNKNOWN])
READ:UNKNOWN

TEXT:
DRAFT--JUNE 3, 1997

GLOSSARYMost of the definitions were derived from the NIH Report of The Human Embryo Research panel, Vol. 1, September 1994 . *Indicates definitions not found in the Embryo Panel Report -- these were definitions that were readily culled from the text of this report.
Most of the definitions were derived from the NIH Report of The Human Embryo Research panel, Vol. 1, September 1994 . *Indicates definitions not found in the Embryo Panel Report -- these were definitions that were readily culled from the text of this report.

Blastocyst: the developing preimplantation embryo, beginning about 4 days after fertilization. The blastocyst consists of a sphere of cells made up of an outer layer of cells (the trophectoderm), a fluid-filled cavity (the blastocoel), and a cluster of cells on the interior (the inner cell mass). The inner cell mass will develop into the organism and the outer layer of cells will develop into support structures for the organism.

Blastomere: each of the cells produced when the fertilized egg cleaves into 2, then 4,8, and 16 cells.

Blastomere separation: a technique by which a jellylike substance called the zona pellucida is removed from around a two-to eight-cell embryo, or morula, and the embryo is incubated in special solution so that the blastomeres separate and fall apart. The blastomeres are then cultured separately.

*Cellular cloning: the process by which cells are derived from the soma, or body, and are grown in tissue culture in a laboratory. The genetic makeup of the resulting cloned cells, or cell line, is identical to that of the original cell.

Chromosomes: nucleic acid-protein structures in the nucleus of a cell. Chromosomes are composed chiefly of DNA, the carrier of hereditary information. Chromosomes contain genes, working subunits of DNA that carry the genetic code for specific proteins, interspersed with large

amounts of DNA of unknown function. A normal human body somatic cell contains 46 chromosomes; a normal human gamete, 23 chromosomes.

Clone: A precise copy of a molecule, cell, or individual plant or animal. (Put all 3 cloning definitions here, to clarify that a cloned animal would have genes identical to another but would not necessarily be a 'precise copy' of all of the donors characteristics)

Cytoplasm: the contents of a cell other than the nucleus. Cytoplasm consists of a fluid containing numerous structures that carry out essential cell functions.

Differentiation: the process whereby an unspecialized early embryonic cell acquires the features of a specialized cell such as a heart, liver, or muscle cell.

Diploid: a cell or tissue having two chromosome sets, as opposed to the haploid situation of eggs and sperm which have only one chromosome set.

DNA: Deoxyribonucleic acid, found primarily in the nucleus of cells. DNA carries the instructions for making all the structures and materials the body needs to function.

Egg: the mature female gamete; also called ovum, or oocyte.

Embryo: the developing organism from the time of fertilization until significant differentiation has occurred, when the organism becomes known as a fetus.

Embryo transfer: the introduction of a preimplantation embryo into the uterus for growth and developnment.

Embryonic stem (ES) cells: primitive undifferentiated cells from the embryo that have the potential to give rise to a wide variety of specialized cell types.

Enucleated egg: an egg cell from which the nucleus has been removed.

Fertilization: the process whereby male and female gametes unite; it begins when a sperm contacts the outside of the egg and ends with the formation of the zygote.

Gamete: a mature sperm or egg.

Gene: a working subunit of DNA. Each of the body's 100,000 genes carries the instructions that allow the cell to make one specific product such as a protein.

Gene targeting: Generating a precise replacement of one gene for a different or altered gene. How can the replacement be both "precise" and "altered"? Replacing one gene with different or altered gene.

Genome: the complete genetic makeup of a cell or gene.

Genetic imprinting: a biochemical phenomenon that determines, for certain specific genes, which one of the pair of identical genes, the mother's or the father's, will be active in that individual.

Germ cell: a sperm or egg, or a cell that can become a sperm or egg. All other body cells are known as somatic cells.

Inner cell mass (ICM): the cluster of cells inside the blastocyst, which gives rise to the embryo and ultimately the fetus.
In vitro fertilization (IVF): an assisted reproduction technique in which fertilization is accomplished outside the body.

Mitochondria:

*Molecular cloning: the process whereby identical fragments of DNA are produced by insertion of a DNA fragment into a host vector (omit-no longer in text and not defined in glossary) followed by amplification to produce many thousands of copies in a host cell, usually a bacterium.

Mutation: a change in DNA that alters a gene and thus the gene's product, leading in some cases to deformity or disease. Mutations can occur spontaneously during cell division or can be triggered by environmental stresses such as sunlight, radiation, and chemicals.

Nuclear transplantation cloning: a type of cloning in which the nucleus from a diploid cell is fused with an egg from which the nucleus has been removed. The DNA of the transplanted nucleus thus directs the development of a resulting embryo.

Nucleus: the cell structure that houses the chromosomes.

Oocyte: the mature female germ cell; the egg.

*Somatic cells: those cells not destined to become sperm and egg cells.

Sperm: mature male reproductive cells.

*Totipotent: having unlimited developmental capacity. The totipotent cells of the very early embryo have the capacity to differentiate into extraembryonic membranes and tissues, the embryo, and all postembryonic tissues and organs.

Zygote: the single-celled, fertilized egg.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: greider@cshl.org (greider@cshl.org [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 15:00:31.00

SUBJECT: Re: somatic cells

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
>>>>
carol -- i'd like to ask you to think this through one more time for us.
there are a couple of reasons why one might think this is a real issue:

1. efforts to do somatic cell nuclear transfer cloning using totipotent (or nearly totipotent) cells from early embryos had been going on for years; it was the use of a cell from an adult animal, i.e. a differentiated, cell, that started all the fuss.
<<<<

I would suggest that there are two issues here

1-the general population were "startled" because the cell was from an ADULT sheep.

2-scientisits were surprised becasue the cells might have been "differentiated".

I don't think most of the reaction from the americam public hinged on the "differentiated" issue.

>>>>

2. part of the fuss stems from the prospect of now being able to duplicate a genome whose expression has been observed in that adult animal. from this come the fears of people looking around for body types they admire, for example, and choosing one to clone. this concern is not present when the cell that is used comes from an embryo, as no one yet knows how the embryo will turn out. in other words, using a cell from an embryo is still a crap shoot as far as what the outcome will be for the clone's appearance.
<<<<

Right, I am with you there.

But- also think about the "saftly issue" that we say is so important. Who is to say WHAT kind of cells from an embryo and what stage of development the embryo is at. None of these experiments have been done (to my knoledge) in humans. we do not know what kind of errors might occur during nuclear transplantation using "embryonic" donor cells.

>>>>

3. many of the harms we have identified as unacceptable in humans stem from the use of a cell that is differentiated.
<<<<

I also understand that there is risk associated with the manipulation itself.
Honestly I was not as concerned about the "degree of differentiation"

>>>>
>for example, fear that time and exposure will lead to point mutations or transpositions that will then manifest themselves throughout the body of the organism cloned from that cell are much less relevant when one is talking about a younger cell that has undergone only a few days worth of divisions.
<<<<

certainly in terms of accumulated mutations the more divisions the more the danger. but in terns of "re-programing" and errors in this unknown process, that would depend on the cell type and specific stage in the development process.

>>>>
> as another example, questions about the genetic "clock" and the life span of the cloned individual get progressively more serious the older the organism whose cell was used.

<<<<

Forget about the "genetic clock". those experiments have to do with the lifespan of certain cells in culture. It is unclear what if, any relationship, there is to lifespan of the organism. We can discuss this more over a beer sometime, but I'd not have this high on my list of worries.

>>>>

thus, the concerns that underlie our recommendations don't necessarily apply in full force to the use of this technology where the nucleus comes from a cell taken from an early embryo.

<<<<

I agree that the concerns are different if the cells are taken from an early embryo.

I just do not remember having ever considered the idea that people were equating "somatic" with "Adult". From a biological standpoint I did not mean adult when I said somatic.

I am not necessarily endorsing banning this kind of transfer from an embryo, but rather telling you what I had understood from our previous use of the term somatic

>>>>
in light of this, could you think about this again and send us your thoughts?

****

Carol Greider, Ph.D.
Cold Spring Harbor Laboratory
P.O. Box 100
Cold Spring Harbor, NY 11724

Phone: (516) 367-8808
Fax: (516) 367-8815
E-mail: greider@cshl.org
****

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: acapron@Law.usc.edu@INET@LNGTWY (acapron@Law.usc.edu@INET@LNGTWY [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 13:12:15.00

SUBJECT: Re: Draft Cloning Legislation (fwd)

TO: Rachel E. Levinson@EOP (Rachel E. Levinson@EOP [OSTP])
READ:UNKNOWN

TEXT:
On Tue, 3 Jun 1997 Rachel_E._Levinson@oa.eop.gov wrote:

> Message Creation Date was at 3-JUN-1997 10:18:00
>
> Alex --
>
> I would love to see your draft. My Fax no. is: (202)456-6027.
If/when NBAC
> comes in with a recommendation for legislation, people here want to be
> prepared. Your assistance would be appreciated, but that should not be
> construed as an official request to NBAC. My comment to you that it
would be
> well to have draft legislation in hand when the report is released was
based,
> as you stated to NBAC, on the expectation that Congress could come up
with its
> own version(s) without the degree of specificity that NBAC would
desire. I
> think this will move very quickly and it won't be helpful to object to
someone
> else's words without having alternative language to propose. I did not
expect
> to receive an NBAC consensus draft, given the need for completing the
report
> and discussion that would be required to do it properly.

Well, you could have fooled me: I took you to say (and you convinced me) that NBAC better have draft language in order to avoid facing folks in Congress taking our report as an invitation for (intentionally or unintentionally) bad legislation.

Clearly I've created a stir among the commissioners, with Steve agreeing that coming to terms on operative language would be important to show that we have reached real agreement, and Alta, Larry and others either saying we can't do it or shouldnt do it. Let me know what you think of the draft when you get it...and if you have trouble downloading the "attachment," I can fax it to you. (NBAC is also supposedly distributing it: do you automatically get all the mailings that go to Commissioners?)

What I had hoped was that commissioners would weigh in with substantive

suggestions about the prohibition and definitions, to refine them. I look
forward to hearing from you.

Alex========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D20]MAIL41957435S.116 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

========== ATTACHMENT 2 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
RFC-822-headers:
Received: from conversion.pmdf.eop.gov by PMDF.EOP.GOV (PMDF V5.0-4 #6879)
id <01IJMXTSBENK0008J3@PMDF.EOP.GOV> for "Rachel E. Levinson"@oa.eop.gov; Tue,

03 Jun 1997 13:06:27 -0500 (EST)
Received: from gatekeeper.eop.gov by PMDF.EOP.GOV (PMDF V5.0-4 #6879)
id <01IJMXTQSHF40008GT@PMDF.EOP.GOV> for Rachel_E._Levinson@oa.eop.gov; Tue,
03 Jun 1997 13:06:25 -0500 (EST)
Received: from usc.edu by gatekeeper.eop.gov; (5.65v3.2/1.1.8.2/17Oct95-0424PM)

id AA27431; Tue, 03 Jun 1997 13:06:23 -0400
Received: from Law.USC.EDU (root@law.usc.edu [128.125.42.6])
by usc.edu (8.8.4/8.7.2/usc) with SMTP id KAA01491 for
<Rachel_E._Levinson@oa.eop.gov>; Tue, 03 Jun 1997 10:05:51 -0700 (PDT)
Received: from faculty.Law.USC.EDU by Law.USC.EDU (4.1/SMI-4.1)
id AA17654; Tue, 03 Jun 1997 10:16:21 -0700 (PDT)
Received: by faculty.Law.USC.EDU (4.1/SMI-4.1) id AA19382; Tue,
03 Jun 1997 10:11:30 -0700 (PDT)
========== END ATTACHMENT 2 ==========

105TH CONGRESS

1st Session

S.--

To impose a moratorium on human cloning for reproductive purposes.

IN THE SENATE OF THE UNITED STATES

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Scientists have developed means of cloning mammals through somatic cell nuclear transfer which may be applicable to human beings. It is the intent of Congress to place a moratorium on all

attempts to create a human being through somatic cell nuclear transfer in order to allow the medical and scientific aspects to be more fully evaluated through studies in animals, and to allow the ethical and social implications raised by this technology to be more widely debated. In order to achieve uniformity among the several states and in light of the role of interstate commerce in the application of this technology, Congress finds it necessary and appropriate to implement this moratorium through federal legislation.

SEC. 3. DEFINITIONS.

As used in this Act-

(a) ENUCLEATED HUMAN OOCYTE.-The term "enucleated human oocyte" means a human egg cell from which the nucleus has been removed.

(b) GENETIC MATERIAL.-The term "genetic material" means material that makes up the system of genes and chromosomes by which nucleic acid molecules store information to control cellular function and pass such information on to succeeding generations.

(c) HUMAN BEING.-The term "human being" means a member of the species *Homo sapiens* who has been born.

(d) HUMAN SOMATIC CELL NUCLEAR TRANSFER.-The term 'human somatic cell nuclear transfer' means the transfer to an enucleated human oocyte of the genetic material from the nucleus of a somatic cell of a human being, whether living or dead.

(e) SOMATIC CELL.-The term "somatic cell" means one of the cells composing the body, other

than germ cells (eggs or sperm).

SEC. 4. PROHIBITION.

(a) It shall be unlawful for any person knowingly to produce or to attempt to produce a human being by means of human somatic cell nuclear transfer.

(b) Any person who violates subsection (a) shall be fined not more than $50,000 or imprisoned not more than five years, or both.

(c) This Act does not prohibit the cloning of human cells, human tissue, or human organs that is not intended to and does not result in the replication of an entire human beings.

(d) The Secretary of Health and Human Services shall prescribe necessary and reasonable rules and regulation to enforce this section and to prevent violations of its provisions.

SEC. 5. ESTABLISHMENT OF AN ADVISORY PANEL.

Congress authorizes the President, no later than January 1, 2001, either to establish an advisory panel or utilize an existing advisory body to assess developments in mammalian cloning and to advise Congress on the issues surrounding human cloning. Such panel should be composed of at least 7 members including persons from medicine, biotechnology, genetics, law, bioethics, and religion, as well as from the general public. Not later than December 31, 2001, the panel should report to the President and Congress on the state of the art of mammalian cloning, the potential applicability and safety of cloning technology to human beings, and the implications of human cloning for society.

SEC. 6. EXPIRATION.

The provisions contained in Sections 4 (a) and (b) shall remain in effect only until January 1, 2003, and as of that date are repealed, unless a later enacted statute deletes or extends this date.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Gregg P. Cramer (CN=Gregg P. Cramer/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 3-JUN-1997 13:27:12.00

SUBJECT: NSIA Weekly Progress Report

TO: Clifford J. Gabriel (CN=Clifford J. Gabriel/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Holly L. Gwin (CN=Holly L. Gwin/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Jonathan Foster (CN=Jonathan Foster/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: JoAnn Ward (CN=JoAnn Ward/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Kerri A. Jones (CN=Kerri A. Jones/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Thomas A. Fuhrman (CN=Thomas A. Fuhrman/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Laura L. Efros (CN=Laura L. Efros/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Gregg P. Cramer (CN=Gregg P. Cramer/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Jerry M. Melillo (CN=Jerry M. Melillo/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Henry C. Kelly (CN=Henry C. Kelly/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Bruce W. MacDonald (CN=Bruce W. MacDonald/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Gerald J. Hane (CN=Gerald J. Hane/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Gerald L. Epstein (CN=Gerald L. Epstein/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Cathleen A. Campbell (CN=Cathleen A. Campbell/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Deanna M. Behring (CN=Deanna M. Behring/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Attached is the NSIA Weekly Progress for the week of May 26, 1997.

Thank You - Gregg

May 30, 1997

MEMORANDUM FOR JOHN H. GIBBONS

FROM: KERRI-ANN JONES

SUBJECT: NSIA Weekly Progress Report

Week of May 26, 1997

National Security:

Warhead Dismantlement. Gerald Kiernan participated in an Interagency workshop on May 30 which DOE held to present and review the report it issued last week on Transparency and Verification Options for Monitoring Warhead Dismantlement. This effort is intended to focus the issue for consideration in START III discussions because of the emphasis on warhead dismantlement in addition to reductions in the recent Helsinki Summit statement.

Holdren-Velikhov Plutonium Disposition Report. The final version of the report from the U.S.-Russian Independent Scientific Commission on Disposition of Excess Weapons Plutonium, co-chaired by John Holdren, was sent to us this week. We are preparing for you to send it up to the Vice President and the President. We are working on a rollout strategy and plan to enable you to send the report up to the President and Vice President before the PCAST meeting on June 9. The report repeats much of the draft report from late last year but emphasizes the need for a bilateral agreement covering disposition between Russia and the U.S., U.S. cooperation with Russia, France and Germany on a pilot scale MOX plant, and the importance of setting up some kind of management structure to finance and carry out the task.

***(For Memo To POTUS) Holdren-Velikhov Plutonium Disposition Final Report . The final version of the report from the U.S.-Russian Independent Scientific Commission on Disposition of Excess Weapons Plutonium, co-chaired by John Holdren of your Council of Advisers on Science and Technology, was sent to us this week. We are preparing a memo and a rollout strategy and will be sending the report to you shortly. It emphasizes the need for both countries to proceed as quickly as possible to dispose of excess weapons-grade plutonium by burning it in modern nuclear reactors and by &immobilizing8 it in glass or ceramic logs, which are then buried. You approved the same two-track approach for DOE

late last year. The report also calls for a bilateral U.S.-Russia agreement covering disposition of excess plutonium; U.S. cooperation with Russia, France and Germany on a pilot scale plant to convert the plutonium into fuel that can be burned in modern Russian nuclear reactors; and setting up some kind of management structure to finance and carry out the task. We are pursuing many of these already.

Interagency Working Group on CTBT. Bruce MacDonald and Jerry Epstein attended a meeting on May 30 of the Interagency Working Group on Arms Control, chaired by Bob Bell. Preparations remain under way to submit the CTBT package to the Senate on a schedule that has not recently changed. There are several classified developments related to CTBT that we need to speak with you about.

Humanitarian Demining. OSTP continues to participate in the interagency formulation of policy for negotiations on banning antipersonnel landmines. In addition, Jerry Epstein met on Tuesday, May 26 with Ron Lehman, former Director of the Arms Control and Disarmament Agency and currently director of the Center for Global Security Research (CGSR) at Lawrence Livermore National Laboratory. Lehman also chairs the Advisory Board of the International Science and Technology Center established to provide civilian research opportunities for scientists in the former Soviet Union. The CGSR is initiating a project to take a strategic look at technology needs and applications for humanitarian demining, an area of particular interest to OSTP. OSTP will be in close touch with CGSR,s activity in this area.

U.S./Russian Nuclear Scientific and Technical Cooperation Related to Stockpile Safety and Security and CTBT Monitoring and Verification. U.S. and Russian experts have meet on eight occasions since 1995 to discuss collaboration on unclassified activities related to computations, experiments and materials, nuclear weapon safety and security, and CTBT monitoring and verification. OSTP is participating in the interagency oversight and review of these exchanges, most recently to review a paper to be given to the Russians in an upcoming visit to Washington.

International Affairs:

Ukraine. Cathy Campbell continues to work with Ambassador Morningstar,s office to find a solution to the problem of Ukraine,s taxation of CRDF research grants. The most straightforward solution is to confirm that the CRDF activities are subject to the terms of the 1992 Assistance Agreement, which exempts USG assistance programs from taxation. However, there is disagreement among State and AID regarding the applicability of that Agreement to the CRDF. While the legal issue is debated, State has asked AID Kiev to include the CRDF on the list of USG sponsored programs which should be exempt from taxation as a matter of policy. If AID Kiev agrees, CRDF should be able to release its grants monies with the understanding that it will try to monitor the situation on the ground and confirm that the grants are in fact not taxed.

Russia. Cathy Campbell and I met with DOC and OVP staff to discuss next steps on the technology commercialization initiative with Russia. All agreed that the recent working group meeting in Moscow laid out a good framework for pursuing joint activities. Building on that momentum, we plan to initiate with Russia within the next few weeks activities related to developing an easily accessible information system on Russian technologies and U.S. technology needs and launching a study of selected successful and unsuccessful technology-based joint ventures. We also discussed DOC,s proposal to develop a USG-guaranteed equity fund for technology-based joint ventures. This is an exciting possibility but one which will require careful consideration within the USG particularly regarding the budget source and terms for the government guarantee. DOC is revising its draft proposal which will be the basis of consultations we will schedule with Ambassador Morningstar, Treasury, NSC, OVP, and OMB. Meanwhile, we will convene a meeting of representatives of other GCC committees to update them on the our broad technology commercialization initiative and lay the groundwork for featuring this initiative at the next GCC.

We also continue to work on additional funding for the CRDF. The concept of a private sector equity fund does not envisage a major role for CRDF (or any other organization). Nevertheless, OSTP and DOC agree that an equity fund should be accompanied by technical assistance focused on commercial mentoring, standards harmonization and technology assessment. These are activities that the USG could support through the CRDF.

*** (For Memo to POTUS) S&T Cooperation with Russia. We are working with the Department of Commerce to initiate a new program to foster U.S.-Russian technology commercialization. The purpose of these efforts are to better apply the Russian science base to the economic and social needs of the country. Efforts might include support for technology based joint ventures, training, and information system development. We hope to have the groundwork laid to feature this initiative when the Vice President convenes the next Gore-Chernomyrdin Commission meeting.

Brazil and Summit of the Americas. We prepared a background paper for Mack McLarty,s use in meetings this weekend in Lima to prepare for the March 1998 Summit of the Americas meeting in Santiago and the President,s trip to Brazil this autumn. The paper addresses potential information technology initiatives, which the Summit organizers are interested in as part of a broader focus on education technology and distance learning. Brazil,s S&T Minister Vargas proposed distance learning and Internet2 as central education themes for President Clinton,s visit to Brazil in October. Our background paper outlines some of the issues that need to be addressed in considering Brazil,s proposal and molding it into a potential hemispheric initiative for the Summit of Americas.

MEDEA Proposal for an East Asia Air Quality Monitoring Project. I have circulated the MEDEA proposal for review by the agencies. We have asked for comments by June 5. Recall that this was one idea mentioned by the Vice President in his trip to Asia. A group of MEDEA scientists, led by Prof. McElroy of Harvard, developed the attached proposal. I have asked the agencies to assess 1) the technical soundness of the proposal, 2) its relation to other work underway, 3) the resources required and available,

and 4) the possible contributions of other nations. The Environment Division has received a copy of the proposal

Global Disaster Information Network. Hane and Padovani attended a meeting on a feasibility study for the Global Disaster Information Network proposal. A report outline was agreed to and working groups formed, with a goal of briefing the Vice President on August 7 and finalizing the report by the end of September. There now appears to be better coordination with the existing National Communications System, which is conducting closely related activities. The focus is largely domestic, with little attention to international dimensions by this group.

Japan. The Government of Japan has accepted our response on a date for the Joint High Level Committee (JHLC) meeting and scheduled this for October 24 (Friday) in Tokyo. NSIA is still working with China to schedule those meetings during the following week. Hane met with future Deputy Science Counselor at the Embassy in Tokyo, Ted Kloth, to discuss the possible contributions of activities in the CISET Japan Working Group for the JHLC meeting.

South Africa. Deanna Behring and Laura Efros held an interagency meeting this week to begin preparations for the upcoming Gore-Mbeki Commission meetings, which are tentatively scheduled from July 29-31 in Washington. We have made good progress since the last BNC in our four key areas: capacity development; environmental and agricultural S&T; health; and technology commercialization. We will draft a letter from you to Minister Mtshali proposing an agenda for the S&T Committee meeting. In addition, I will meet with USAID,s new point person for the Gore commissions next week to discuss funding for S&T Committee projects under Gore-Mbeki, as well as the other commissions.

Emerging Infectious Diseases:

Denver Summit/G-7. The sherpas to the Denver Summit met last weekend at Airlie House, where there was some discussion of the EID initiative. There was general agreement on the substance of the initiative, which will focus on three areas in which the Eight can add value: 1) international outbreak response; 2) developing a global surveillance network; and 3) capacity development. The French have tried to introduce two additional issues: enhancing research and the question of international standards for drugs, vaccines, and diagnostics. On the latter issue, the U.S. feels that the question was adequately resolved at the most recent World Health Assembly, where a U.S.-sponsored resolution on this subject was adopted unanimously. On the research issue, our position has been to focus the EID initiative on operational issues in which the Eight can make the most difference. At the same time, the U.S. has proposed a separate research initiative on an HIV/AIDS vaccine. We expect our differences with the French to be resolved through the sherpas before the Denver Summit.

The French sherpa also proposed communiqu? language on human cloning. Their intention is move towards a universal ban on human cloning. We referred Tarullo to the Science Division and DPC to consider the language.

Congressional Hearings. Our plans to brief the staff of the Senate Foreign Operations Subcommittee on Appropriations are on hold, pending further discussion with the NSC and with OMB on the Administration,s plans for the increase in the 150 account.

Upcoming Events:

June 2-5 Defense Special Weapons Agency sixth annual arms control conference: &The Defense Implications of Arms Control.8 The conference will be held in Norfolk, Virginia. MacDonald will attend the last two days and will be a speaker on plutonium disposition and strategic arms control on one of the panels. Kiernan will attend the first two days.

June 3, 1997 The Twentieth Century Fund/Policy Luncheon Series. I will be speaker at a luncheon assessing U.S.-Russian Programs in Science and Technology.

June 26-27, 1997 OECD Megascience Meeting. To be held in Paris, France. I will lead the U.S. delegation, and I will be accompanied by an NSIA staff member.

July 3 Tom Fuhrman,s last day.

July or September Gore-Chernomyrdin Commission Meeting. To be held in Moscow. Cathy 1997 Campbell and I will be attending.

July 14-18 Seventh meeting of the Joint U.S.-Russian Plutonium Disposition Steering Committee. The meeting will be held in Moscow at MINATOM headquarters. MacDonald will lead the U.S. delegation, with Kiernan assisting.

July 29-31, 1997 Gore-Mbeki Commission Meeting. To be held in Washington, D.C.

September, 1997 APEC Ministerial Working Group Meeting. To be held in Singapore. Gerald Hane will attend.

cc: Kelly
Gwin
Foster
Smith
Diaz
Melillo
Gabriel

File Name: h:\wkrpt\053097.wpd

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: greider@cshl.org (greider@cshl.org [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 14:12:31.00

SUBJECT: Re: somatic versus differentiated somatic cells

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
>>>>
alex asks whether we make clear in the report that we are talking about DIFFERENTIATED somatic cell nuclear transfer cloning. i checked the text, and while it is implicit throughout the report (since we keep talking about the novelty of the dolly experiment being the purported use of a differentiated -- as opposed to embryonic -- somatic cell) it is true that the definition used in footnote 1, page 1 of the introduction does not make this clear.

one option is to say in all key places (intro, recs, preamble to recs) that when we say "somatic" we are referring to differentiated somatic. another option is to do a search-and-replace program for the entire report, and change "somatic" to "differentiated somatic" where necessary.

carol/david/steve/kathi -- your reactions?????

I say we stick to the term "somatic cells" as that is what is different about nuclear transplantaion cloning. Diploid somatic nuclei are use in place of the joining of two haploid germline nuclei.

In actuallity there is no black and white when it comes to "differentiated cells" there are different degrees of differentiation. At some stage embryonic cells differentiate and different tissues do it at different times. Also there are various stages to differentiation. Thus there are tons of shades of gray when one gets into this "differentiated" issue.

I must say I do not fully understand the issue that Alex is getting at in asking about using embryos to transfer from. I know that it is important to him as he has asked several times explicitly about this issue. Since I did not understand what the issue is I never answered this concern directly (also I was busy as many others are reading and writing drafts).

My understanding is that by using the term "somatic" we include all cells that are not germ cells.

Thus if one were to take a nucleus from an embryo and put it into a egg and BRING THE RESULTING EMBRYO TO TERM, that would be covered by our ban.

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>"The question of whether we intend that transfers from the nuclei of
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> need for clarity that agreeing on "model provisions" would provide."

it seems to me, only went to the stage of CREATING the embryo through nuclear transfer cloning. This is NOT covered by our ban, as I understand it.

Carol

PS I hope I am NOT making things muddier, this is getting very difficult to follow...

****
Carol Greider, Ph.D.
Cold Spring Harbor Laboratory
P.O. Box 100
Cold Spring Harbor, NY 11724

Phone: (516) 367-8808
Fax: (516) 367-8815
E-mail: greider@cshl.org
****

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: holtzman@mpi.com (holtzman@mpi.com [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 06:38:00.00

SUBJECT: Legislation and Clarity

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
Alta writes as a reason not to draft legislative langugage:

"One reason we CAN agree on the recommendations as they now (or soon will) stand is PRECISELY because we chose not to fight down to the wire on certain issues."

I am ok with this on some things, e.g., who should appoint the review body, or who the review body should be.

But, I'm NOT ok on this with respect to certain other matters, and here I side with Alex that we had better know, with clarity and no ambiguity, where we stand: what we are and are not recommending.

As far as I can see, that comes down to a few issues; but they will be precisely the ones on which the various interest groups in the debate will play legislative havoc.

I know our proposed prohibition encompasses nuclear transplantation of a diploid cell, taken from an existing or previously existing human being, to an oocyte wherein the resulting embryo is implanted and brought to term. However, does or does not our recommended prohibition encompass:

1- Nuclear transplantation cloning from a diploid cell, derived from an existing or previously existing human being, to an oocyte wherein the resulting embryo is not implanted and brought to term? YES or NO

2- Blastocyst splitting cloning wherein the resulting embryo(s) is (are)implanted and brought to term:
a- Only one implanted/only one resulting individual? YES or NO.
b- More than one resulting individual born at the same time YES or NO c- More than one resulting individual with at least one later individual implanted after an early genetically identical version has already been born and existed? YES or NO

3- Nuclear transplantation from a diploid cell(s),derived from an embryo, to oocyte(s) wherein the resulting embryo(s) are implanted and brought to term:
a- Only one implanted/only one resulting individual? YES or NO
b- More than one resulting individual born at the same time? YES or NO c- More than one resulting individual with at least one later individual implanted after an early genetically identical version has already been

born and existed? YES or NO

I believe that, as we have discussed matters, the answer to all of these questions is, "NO"; our recommended prohibition does not encompass any of these. I think we also recognize (at least I recognize) that the overwhelming majority of arguments (though not necessarily all) in favor of our proposed prohibition equally argues for prohibiting 2C and 3C. --I can live with this (not necessarily feeling good about my intellectual consistency), but I have difficulty with the notion that the Commission renders its recommendation unanimously...and then we walk out as individuals (representing the Commission as Larry has suggested???) and opine, with different opinions, on the subject of whether proposed pieces of legislation, which treat the questions above differently, comport with our recommendation. Is that what you mean/want Alta?

Hence, I think that we should draft something: Not necessarily Legislation, but Model provisions...and I think the key provision, really the only one we need to draft in precise detail, pertains to what activity it is with respect to which we are recommending a prohibition.

On matter such as whether the President, the Congress, or Secty HHS appoints the review body, a "model" provision could leave the appointing authority blank or provide an e.g.,("e.g., appointed by the president, or Congress, or Secty HHS, etc.").

I personally would prefer clarity/precision on the nature of the sunset: are we saying it should be time limited (with the review iniated 12-18 months prior to sunset); or our we saying it is open-ended, in which instance the review should be essentially continuous...but, even here, if we can't get agreement in the next couple of days, we could, I suppose, live with a model provision that comes in both flavors as reasonable alternatives.

Bottom line: we should shoot for NO AMBIGUITIES. In other words, we should be definitive in all instances, recognizing that in some cases, such as the appointing authority we are DEFINITIVELY INDIFFERENT as to who has the authority. --And I know no better way to get that clarity than to put together model provisions of the sort just described and of the sort which I think are embodied in the type of simple, straightforward draft alex has put together (Frank Ramsay, "If you can't say it, then you can't whistle it either.")

-steve

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 3-JUN-1997 10:16:36.00

SUBJECT: Re: Draft Cloning Legislation (fwd)

TO: acapron (acapron @ Law.usc.edu @ INET @ LNGTWY [UNKNOWN])
READ:UNKNOWN

TEXT:
Alex --

I would love to see your draft. My Fax no. is: (202)456-6027. If/when NBAC comes in with a recommendation for legislation, people here want to be prepared. Your assistance would be appreciated, but that should not be construed as an official request to NBAC. My comment to you that it would be well to have draft legislation in hand when the report is released was based, as you stated to NBAC, on the expectation that Congress could come up with its own version(s) without the degree of specificity that NBAC would desire. I think this will move very quickly and it won't be helpful to object to someone else's words without having alternative language to propose. I did not expect to receive an NBAC consensus draft, given the need for completing the report and discussion that would be required to do it properly.

-- Rachel

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: greider@cshl.org (greider@cshl.org [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 21:01:44.00

SUBJECT: Re: Principal recommendation

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
Alex sates:

>This raises three problems:
>
>a. There really isn't a "total lack of information" of safety, otherwise
>how could we affirmatively assert that the experiments "are LIKELY to
>involve substantial risk"? Rather, the problems that occurred in the
>Dolly experiment would leave any reasonable person with substantial doubts
>that it would be safe, or even feasible, to create a child using somatic
>cell nuclear transfer.

I hve not problem with statment referd to above.
As I understand this statement it means, a total lack of information of
the safety IN HUMANS, and based on some experiments in animals the risk to
humans are likley to be substantial.

>
>b. As to the transfer of nuclei from embryonic cells (assuming this is
>also encompassed in the ban), there really ISN'T a "total lack of
>information"

YES! the point is the IS a total lack of information on the risk
associated in humans

>
>c. The second part of the phrase, which points to "the total lack of
>information on the . . . effectiveness of this method in humans," also
>seems odd since "this method" has never been shown even to be possible.
>Talking about "lack of information on effectiveness" might make sense if,
>for example, one were in the midst of testing a new drug and the evidence
>was failing to show it to be effective. Again, this counsels replacing
>the "total lack of..." language.
>
>I think these problems would be resolved, then, if the text on line 6 of
>the draft recommendations read "because in the present state of
>scientific knowledge, substantial doubts exist about the safety, and even
>the feasibility, of using this technique in humans."

How about:

> The present INFROMATION FROM NUCLEAR TRANSFER CLONING EXPERIMENT IN
>ANIMALS RAISES substantial doubts about the safety, and even
>the feasibility, of using this technique in humans."

CAROL

****
Carol Greider, Ph.D.
Cold Spring Harbor Laboratory
P.O. Box 100
Cold Spring Harbor, NY 11724

Phone: (516) 367-8808
Fax: (516) 367-8815
E-mail: greider@cshl.org
****

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: racharo@facstaff.wisc.edu (racharo@facstaff.wisc.edu [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 14:26:59.00

SUBJECT: somatic cells

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
carol -- i'd like to ask you to think this through one more time for us. there are a couple of reasons why one might think this is a real issue:

1. efforts to do somatic cell nuclear transfer cloning using totipotent (or nearly totipotent) cells from early embryos had been going on for years; it was the use of a cell from an adult animal, i.e. a differentiated, cell, that started all the fuss.

2. part of the fuss stems from the prospect of now being able to duplicate a genome whose expression has been observed in that adult animal. from this come the fears of people looking around for body types they admire, for example, and choosing one to clone. this concern is not present when the cell that is used comes from an embryo, as no one yet knows how the embryo will turn out. in other words, using a cell from an embryo is still a crap shoot as far as what the outcome will be for the clone's appearance.

3. many of the harms we have identified as unacceptable in humans stem from the use of a cell that is differentiated. for example, fear that time and exposure will lead to point mutations or transpositions that will then manifest themselves throughout the body of the organism cloned from that cell are much less relevant when one is talking about a younger cell that has undergone only a few days worth of divisions. as another example, questions about the genetic "clock" and the life span of the cloned individual get progressively more serious the older the organism whose cell was used.

thus, the concerns that underlie our recommendations don't necessarily apply in full force to the use of this technology where the nucleus comes from a cell taken from an early embryo.

in light of this, could you think about this again and send us your thoughts?

r. alta charo, j.d.
associate professor, law & medical ethics
university of wisconsin law school & medical school

u.w. law school 608.262.5015 (tel)

975 bascom mall
madison, wi 53706

608.262.5485 (fax)
racharo@facstaff.wisc.edu

u.w. program in medical ethics: 608.263.3414 (tel)
mdethics@macc.wisc.edu

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: acapron@law.usc.edu (acapron@law.usc.edu [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 19:20:21.00

SUBJECT: Re: clarifications

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
On Tue, 3 Jun 1997, r. alta charo wrote:

> carol's restatement of the physical risks associated with using a nucleus from a cell taken from an embryo satisfies me, and i have no problem with including cells taken from an embryo within the bounds of the prohibition we are advocating with regard to nuclear transfer cloning.
>
Could Carol then please provide some language and citation for inclusion in the science chapter that would indicate the comparability of the risks in embryo-nucleus transfer? Plainly, the experience is not limited to ONE experiment as is true with the adult-animal-somatic-cell-nucleus transfer.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: racharo@facstaff.wisc.edu (racharo@facstaff.wisc.edu [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 13:29:42.00

SUBJECT: somatic versus differentiated somatic cells

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
alex asks whether we make clear in the report that we are talking about DIFFERENTIATED somatic cell nuclear transfer cloning. i checked the text, and while it is implicit throughout the report (since we keep talking about the novelty of the dolly experiment being the purported use of a differentiated -- as opposed to embryonic -- somatic cell) it is true that the definition used in footnote 1, page 1 of the introduction does not make this clear.

one option is to say in all key places (intro, recs, preamble to recs) that when we say "somatic" we are referring to differentiated somatic. another option is to do a search-and-replace program for the entire report, and change "somatic" to "differentiated somatic" where necessary.

carol/david/steve/kathi -- your reactions?????

r. alta charo, j.d.
associate professor, law & medical ethics
university of wisconsin law school & medical school

u.w. law school 608.262.5015 (tel)
975 bascom mall 608.262.5485 (fax)
madison, wi 53706 racharo@facstaff.wisc.edu

u.w. program in medical ethics: 608.263.3414 (tel)
mdethics@macc.wisc.edu

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: holtzman@mpi.com (holtzman@mpi.com [UNKNOWN])

CREATION DATE/TIME: 3-JUN-1997 16:04:45.00

SUBJECT: Re: somatic versus differentiated somatic cells

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
carol:
this is precisely why I asked my series of questions last night and why
model language, at least of the prohibition, seems desirable to me.
-steve
At 02:11 PM 6/3/97 -0500, you wrote:
>>>>
>>>>
alex asks whether we make clear in the report that we are talking about
DIFFERENTIATED somatic cell nuclear transfer cloning. i checked the text,
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to him as he has asked several times explicitly about this issue. Since I
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Thus if one were to take a nucleus from an embryo and put it into a egg and BRING THE RESULTING EMBRYO TO TERM, that would be covered by our ban.

Alex's question:

>"The question of whether we intend that transfers from the nuclei of
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> embryos to enucleated eggs be included in the moratorium highlights the
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> need for clarity that agreeing on "model provisions" would provide."

it seems to me, only went to the stage of CREATING the embryo through nuclear transfer cloning. This is NOT covered by our ban, as I understand it.

Carol

PS I hope I am NOT making things muddier, this is getting very difficult to follow...

****
Carol Greider, Ph.D.
Cold Spring Harbor Laboratory
P.O. Box 100
Cold Spring Harbor, NY 11724

Phone: (516) 367-8808
Fax: (516) 367-8815
E-mail: greider@cshl.org
****

<<<<

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Elizabeth Drye (CN=Elizabeth Drye/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 3-JUN-1997 18:31:47.00

SUBJECT: Draft cloning legislation

TO: William P. Marshall (CN=William P. Marshall/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Toby Donenfeld (CN=Toby Donenfeld/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Susan A. Brophy (CN=Susan A. Brophy/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Janet Murguia (CN=Janet Murguia/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Here is the first cut at cloning legislation. Please be ready to discuss
at our 11:00 meeting tomorrow. Thanks.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Elizabeth Drye (CN=Elizabeth Drye/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 3-JUN-1997 16:37:34.00

SUBJECT: Cloning

TO: Christa Robinson (CN=Christa Robinson/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Toby Donenfeld (CN=Toby Donenfeld/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: William P. Marshall (CN=William P. Marshall/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Please come to an 11:00 am meeting tomorrow in room 211. We will discuss
draft legislation, which I will e-mail to you shortly, and rollout next
week. Please
RSVP.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Elizabeth Drye (CN=Elizabeth Drye/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 3-JUN-1997 16:34:31.00

SUBJECT: Cloning legislation

TO: Susan A. Brophy (CN=Susan A. Brophy/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Tracey E. Thornton (CN=Tracey E. Thornton/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Janet Murguia (CN=Janet Murguia/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
On Saturday, the National Bioethics Advisory Commission is likely to vote to recommend legislation banning the cloning of human beings (using the technology that created Dolly the sheep). The President is tentatively scheduled to meet with the Commission members Tuesday, June 10, and present legislation we are preparing now to implement NBAC's recommendation. Can you let me know whom I should work with in your office to decide which, if any, members of Congress we should reach out to in advance? Sen Glenn and Congresswoman Morella, among others, have expressed an interest in working with us on this issue. Can you send someone to an 11:00 am, Wednesday June 4, event planning meeting in 211 OEOB? Thanks. Please call me if you have any questions 6-5573.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: acapron@law.usc.edu (acapron@law.usc.edu [UNKNOWN])

CREATION DATE/TIME: 4-JUN-1997 12:20:17.00

SUBJECT: Re: Principal recommendation

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
On Tue, 3 Jun 1997, Carol Greider at Cold Spring Harbor Laboratory wrote:
>
> How about:
>
> > The present INFROMATION FROM NUCLEAR TRANSFER CLONING EXPERIMENTS IN
> >ANIMALS RAISES substantial doubts about the safety, and even
> >the feasibility, of using this technique in humans."
>
>
> CAROL
I could sign on to that.
Alex

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 4-JUN-1997 10:56:15.00

SUBJECT: Cloning Q&A; PLEASE REVIEW. Thanks.

TO: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
---------- Forwarded by Rachel E. Levinson/OSTP/EOP on
06/04/97 10:55 AM ----------

Elizabeth Drye
06/04/97 10:51:12 AM
Record Type: Record

To: Elena Kagan/OPD/EOP, Rachel E. Levinson/OSTP/EOP
cc: Laura Emmett/WHO/EOP
Subject: Cloning Q&A; PLEASE REVIEW. Thanks.

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D78]MAIL43349345S.116 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

Q&A on National Bioethics Advisory Commission Recommendations
June 4, 1997

Q. The Washington Post reported today that NBAC will recommend a legislative ban on creating a child using the cloning technology that created Dolly the sheep. But the Post reports that the Committee won't prohibit the creation of embryos using this technology. Where does the President stand? Does he think we should allow cloned embryos?

A. The President is very concerned about using this new technology to clone human beings. He is deeply troubled by the prospect that it might someday be possible to create a child from one's own genetic material. That is why he asked NBAC to review the issue.

The question of creating embryos for research -- as opposed to creating a child -- is a separate question that raises distinct scientific and ethical issues. the President has already acted in this area. In 1994 he directed the National Institutes of Health not to fund the creation of human embryos for research purposes. Congress has also placed restrictions on embryo research.

As you know, NBAC has not issued its final report, and the President has not yet reviewed their recommendations. We will have more to say about it after he has reviewed it.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: holtzman@mpi.com (holtzman@mpi.com [UNKNOWN])

CREATION DATE/TIME: 4-JUN-1997 07:59:10.00

SUBJECT: What We are Recommending and Why

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
The suggestion of drafting a model provision of the prohibition we are recommending (now a dead issue), has provoked what, to me, is a far more important issue: WHAT are we recommending be prohibited, and WHY are we recommending the prohbition (=what is the basis of our recommendation of a prohibition). At least for me, there ought to be some logical connection between the what and the why.

1- WHAT is prohibited:
a- Nuclear transfer Babymaking ala Wilmut (nucleus from the cell derived from a person who is alive, or was previously alive; in other words, a paradigmatic diploid, differentiated, adult cell); or
b- Nuclear transfer Babymaking with any diploid nucleus (including nuclei from embryos).

--If SAFETY is the sole basis of our prohibition, then the Commission has only reviewed information pertinent to (a)and has no basis for also prohibiting (b). (Carol: you have quickly surveyed the literature on (b) and conclude, from a safety perspective, that it is equally problematic. Without arguing about whether your conclusion is correct, I think we can agree that the Commission has not reviewed this literature on (b) the way it has exhaustively reviewed the literature on (a)(an easy task since there is only one known instance of (a)) and therefore cannot draw the same conclusion).

2- WHY we are prohbiting
a- Safety
b- Something beyond safety.

We all agree on (a).
I have felt that there must be something beyond (a) that we all agree on because, otherwise, I don't understand why our prohibition doesn't simply say, "prohibited until such time as a panel of scientific/medical experts have deemed the evidence of safety and efficacy in appropriately controlled animal experimentation sufficient to warrant its attempt in humans". We don't say ONLY this: we think there are weighty moral and policy issues that also need further reflection (see OUR Recommendations II.A and IV.A). I think we envisage the review panel to be convened prior to the sunset to include non-scientific folk.

Larry takes me here to be arguing that the Commission unanimously has found the anti-cloning ethical/policy arguments to be persuasive. I am

emphatically NOT arguing that.

But I am suggesting that we MUST have found the debate to have raised sufficiently weighty, as-yet-unanswered-questions of a non-safety nature, to cause us to recommend, as being in the best interests of the nation, a pause during which babymaking cloning does not occur and during which the citizenry can engage in a reflective discourse on whether it is in our best interests as a people to have a society in which babymaking cloning is allowed; a discourse that will include considerations beyond safety and efficacy.

Again, if we don't agree on this, then I do not understand the (logical) structure of our recommendations (for that matter, I don't understand the coherence of our arguments in the Ethics and Policy Chapters with our conclusion).

In sum: beyond the safety issue, we do NOT have to agree that allowing babymaking cloning IS opening Pandora's Box to nevertheless agree that based on the fact the enough intelligent people, presenting not unreasonable arguments, have indicated their belief that it is Pandora's Box, that we think it wise to keep the Box closed while a deeper examination of whether it is or is not Pandora's Box takes place.

I think that, beyond safety, this IS our WHY for the prohibition.

If I am right on this, then it naturally leads one to look at the nature of the (non-safety)arguments that lead us to this conclusion. Since these arguments are largely based on the prospect of humans who are genetically identical to existing (or previously existing) people, it is a short step to the conclusion that a pause to reflect on this prospect should equally encompass a pause to reflect on the use on any technique that eventuates in the same prospect; hence, the logic of the argument forces one to consider whether the prohibition should also apply to those other technological methods when used in a manner that produces a genetic twin of an existing (or previously existing)person. This can be achieved through blastocyst splitting and nuclear transfer of embryonic nuclei precisely when one or more of the separated blasts/nuclei are frozen away and brought back out of storage after the first has been born (lived for a bit, etc.).

So it seems to me that we as a Commission have a few choices:

1-Stake our recommended prohibition on Safety Alone: in such case, we are dealing with Wilmut-cloning only and, i think, we need to reshape the Recommendations to reflect that the only thing to be considered during the period of the prohbition is safety/efficacy/scientific improvements in the method.

2-Stake our recommended prohibition not only on safety but also on the belief that we as a nation need further time to reflect on the moral/policy implications of this technological development. If we take this route, then we have two options:

a- Cast the net of prohbition to include any method of babymaking,

regardless of the technological approach, WHEN used in a manner that results in the production of a baby whose genome is identical to the genome of an existing or previously existing person; or,

b- Let the net of the prohibition only capture Wilmut-cloning (and therefore not prohibit Serial Twinning when achieved through other technological approaches).

I PERSONALLY prefer the former route finding it more intellectually consistent with (my understanding of) the WHY of our recommended prohibition; but I won't argue that here.

If we go the latter route (which, my gut says, is where at this eleventh hour we probably have to end up), then I understand the official position of the Commission to be something like the following: "The Commission was asked to consider Wilmut-cloning, NOTHING ELSE. We conclude it should be prohibited for now on the twin grounds just articulated: safety and the need for a pause to reflect. It is for others to notice, and conclude if they so desire, that the (non-safety) rationale for our recommendation may have (or has) equal force with respect to other technological methods when applied to make babies genetically identical to existing or previously existing people. Such a conclusion is NOT INCONSISTENT with the Commission's recommendation; however, the Commission recommendation DOES NOT EXPLCITLY address the matter".

If this is our position, then I know how to speak non-schizophrenically; to speak both as a member of the Commission, reflecting the unanimous opinion of the Commission, to speak as a private citizen in a manner that is not inconsistent with (but goes beyond)the position i took as a member of that unanimously united Commission.

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	SSN & DOB [partial] (1 page)	6/4/1997	P6/b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System
Default (Cloning)
OA/Box Number: 1100000

FOLDER TITLE:
[6/2/1997 - 6/6/1997]

2013-0365-F
wr10705

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Yolanda L. Comedy (CN=Yolanda L. Comedy/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 4-JUN-1997 20:42:17.00

SUBJECT: Press Conference Attendance

TO: Jonathan Foster (CN=Jonathan Foster/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Jonathan,

As requested, I am sending you a reminder that PCAST staff will also attend the Press Conference on Cloning.

Angela has West Wing Clearance--does she need an invitation?

[001]

Yolanda L. Comedy
DOB
SSN P6/(b)(6)

Jeanie Hall
DOB
SSN: P6/(b)(6)

All of us can be reached at 66100.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Cathleen A. Campbell (CN=Cathleen A. Campbell/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 4-JUN-1997 15:25:36.00

SUBJECT: 1

TO: mpifer (mpifer @ state.gov @ inet [UNKNOWN])
READ:UNKNOWN

TEXT:
Marilyn,

I have to return a call to Klaus May and Micah Krichevsky of Bionomics Internatnional in Rockville. The two of them had visited me awhile back to discuss their interest in a couple projects related to (1) a program for culture collections in Russia; and (2) a cooperative internatnional network for multifaceted leishmaniasis research. The first initiative is a proposed joint program involving Bionomics, the American Type Culture Collection, Bergey's Manual Trus, Committee ont he Status of Women in Microbiology and others and in Russia, BioInform Services, Biotechnology Center of St. Petersburg Univ, and Minsci. The proposed project seeks to enhance the sustainable development of biotechnology in Russia by strengthening microbial and cell line culture collections and related information , promoting joint ventures for commercial development of biological holdings, and other activities (including increasing opportunities for Russian women microbiologists). Bioinformatics has discussed this idea with agencies but at least as of a few months ago, had not identified any funding.

OSTP's biotech specialist, Rachel Levinson, agrees that work needs to be done to help preserve the Russian collections, but she is spearheading the National Bioethics Advisory Commission work on cloning and has not a minute to spare to explore Bionomics' idea further. Do you think that this is something we might want to explore through the S&T Committee? I'm hesitant to get too closely engaged with Bionomics because if they can't sell their idea to the funding agencies, then I'm not sure we should get involved. However, if it is a case where it might be helpful to get a handful of the right people (agency) reps in the same room, then maybe it's worth a stab.

Any thoughts?

cathy

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Steven W. Adamske (CN=Steven W. Adamske/O=OVP [UNKNOWN])

CREATION DATE/TIME: 4-JUN-1997 18:30:08.00

SUBJECT: Event on the 9th!

TO: Ansley Jones (CN=Ansley Jones/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: Kimberly H Tilley (CN=Kimberly H Tilley/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TEXT:
The President is doing the cloning event, although they are not calling it that, on Monday the ninth. There is a meeting tommorrow at 1:00 pm in room 472. I am planning on attending; should there be anyone else going?

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: lhmiike@mail.health.state.hi.us (lhmiike@mail.health.state.hi.us [UNKNOWN])

CREATION DATE/TIME: 4-JUN-1997 15:04:56.00

SUBJECT: Re: What We are Recommending and Why

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
Steve Holtzman wrote:
>
> The suggestion of drafting a model provision of the prohibition we are
> recommending (now a dead issue), has provoked what, to me, is a far more
> important issue: WHAT are we recommending be prohibited, and WHY are we
> recommending the prohbition (=what is the basis of our recommendation of
a > prohibition). At least for me, there ought to be some logical
connection > between the what and the why.
>
> 1- WHAT is prohibited:
> a- Nuclear transfer Babymaking ala Wilmut (nucleus from the cell
derived
> from a person who is alive, or was previously alive; in other words, a
> paradigmatic diploid, differentiated, adult cell); or
> b- Nuclear transfer Babymaking with any diploid nucleus (including
> nuclei from embryos).
>
> --If SAFETY is the sole basis of our prohibition, then the Commission has
> only reviewed information pertinent to (a)and has no basis for also
> prohibiting (b). (Carol: you have quickly surveyed the literature on (b)
> and conclude, from a safety perspective, that it is equally problematic.
> Without arguing about whether your conclusion is correct, I think we can
> agree that the Commission has not reviewed this literature on (b) the
way > it has exhaustively reviewed the literature on (a)(an easy task
since there
> is only one known instance of (a)) and therefore cannot draw the same
> conclusion).
>
> 2- WHY we are prohbiting
> a- Safety
> b- Something beyond safety.
>
> We all agree on (a).
> I have felt that there must be something beyond (a) that we all agree on
> because, otherwise, I don't understand why our prohibition doesn't
simply > say, "prohibited until such time as a panel of scientific/medical
experts > have deemed the evidence of safety and efficacy in appropriately
controlled > animal experimentation sufficient to warrant its attempt in
humans". We
> don't say ONLY this: we think there are weighty moral and policy issues
> that also need further reflection (see OUR Recommendations II.A and

IV.A). > I think we envisage the review panel to be convened prior to the sunset to > include non-scientific folk.
>
> Larry takes me here to be arguing that the Commission unanimously has found
> the anti-cloning ethical/policy arguments to be persuasive. I am
> emphatically NOT arguing that.
>
> But I am suggesting that we MUST have found the debate to have raised
> sufficiently weighty, as-yet-unanswered-questions of a non-safety nature, > to cause us to recommend, as being in the best interests of the nation, a > pause during which babymaking cloning does not occur and during which the > citizenry can engage in a reflective discourse on whether it is in our best
> interests as a people to have a society in which babymaking cloning is
> allowed; a discourse that will include considerations beyond safety and
> efficacy.
>
> Again, if we don't agree on this, then I do not understand the (logical)
> structure of our recommendations (for that matter, I don't understand the
> coherence of our arguments in the Ethics and Policy Chapters with our
> conclusion).
>
> In sum: beyond the safety issue, we do NOT have to agree that allowing
> babymaking cloning IS opening Pandora's Box to nevertheless agree that
> based on the fact the enough intelligent people, presenting not
> unreasonable arguments, have indicated their belief that it is Pandora's
> Box, that we think it wise to keep the Box closed while a deeper
> examination of whether it is or is not Pandora's Box takes place.
>
> I think that, beyond safety, this IS our WHY for the prohibition.
>
> If I am right on this, then it naturally leads one to look at the nature of
> the (non-safety)arguments that lead us to this conclusion. Since these
> arguments are largely based on the prospect of humans who are genetically > identical to existing (or previously existing) people, it is a short step > to the conclusion that a pause to reflect on this prospect should equally > encompass a pause to reflect on the use on any technique that eventuates in > the same prospect; hence, the logic of the argument forces one to consider
> whether the prohibition should also apply to those other technological
> methods when used in a manner that produces a genetic twin of an existing > (or previously existing)person. This can be achieved through blastocyst > splitting and nuclear transfer of embryonic nuclei precisely when one or > more of the separated blasts/nuclei are frozen away and brought back out of > storage after the first has been born (lived for a bit, etc.).
>
> So it seems to me that we as a Commission have a few choices:
>
> 1-Stake our recommended prohibition on Safety Alone: in such case, we are
> dealing with Wilmut-cloning only and, i think, we need to reshape the
> Recommendations to reflect that the only thing to be considered during

the > period of the prohbition is safety/efficacy/scientific improvements in the > method.
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> 2-Stake our recommended prohibition not only on safety but also on the
> belief that we as a nation need further time to reflect on the moral/policy
> implications of this technological development. If we take this route,
> then we have two options:
>
> a- Cast the net of prohbition to include any method of babymaking,
> regardless of the technological approach, WHEN used in a manner that
> results in the production of a baby whose genome is identical to the genome
> of an existing or previously existing person; or,
>
> b- Let the net of the prohibition only capture Wilmut-cloning (and
> therefore not prohibit Serial Twinning when achieved through other
> technological approaches).
>
> I PERSONALLY prefer the former route finding it more intellectually
> consistent with (my understanding of) the WHY of our recommended
> prohibition; but I won't argue that here.
>
> If we go the latter route (which, my gut says, is where at this eleventh
> hour we probably have to end up), then I understand the official position > of the Commission to be something like the following: "The Commission was > asked to consider Wilmut-cloning, NOTHING ELSE. We conclude it should be
> prohibited for now on the twin grounds just articulated: safety and the
> need for a pause to reflect. It is for others to notice, and conclude if > they so desire, that the (non-safety) rationale for our recommendation may > have (or has) equal force with respect to other technological methods when
> applied to make babies genetically identical to existing or previously
> existing people. Such a conclusion is NOT INCONSISTENT with the
> Commission's recommendation; however, the Commission recommendation DOES
> NOT EXPLCITLY address the matter".
>
> If this is our position, then I know how to speak non-schizophrenically; to > speak both as a member of the Commission, reflecting the unanimous opinion > of the Commission, to speak as a private citizen in a manner that is not > inconsistent with (but goes beyond)the position i took as a member of that > unanimously united Commission.

yes, i believe you have the logic right. we ARE recommending a prohibition of the specific technology at issue for babymaking on safety grounds, acknowledging a great host of ethical concerns even if the safety issue is eventually resolved, and which may (do) also apply to other specific methods of babymaking. again, though, i do not believe we should (or can) make all of these refinements in our report. we can, however, collectively and individually, address these related issues following the delivery of our report. larry

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Angela_Phillips_Diaz@oa.eop.gov (Angela_Phillips_Diaz@oa.eop.gov [UNKNOWN])

CREATION DATE/TIME: 5-JUN-1997 15:43:45.00

SUBJECT: PCAST MEMBERS PARTICIPATION IN JUNE 9TH WHITE HOUSE EVENT ANNOU

TO: Susanne Bachtel (CN=Susanne Bachtel/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TO: WUL@WATSON.IBM.COM (WUL@WATSON.IBM.COM [UNKNOWN])
READ:UNKNOWN

TO: CMVEST@MIT.EDU (CMVEST@MIT.EDU [UNKNOWN])
READ:UNKNOWN

TO: SHARPPA@MIT.EDU (SHARPPA@MIT.EDU [UNKNOWN])
READ:UNKNOWN

TO: TSIGAN@KIDSAT.UCSD.EDU (TSIGAN@KIDSAT.UCSD.EDU [UNKNOWN])
READ:UNKNOWN

TO: MMOLINA@MIT.EDU (MMOLINA@MIT.EDU [UNKNOWN])
READ:UNKNOWN

TO: DMACARTH@DYNAMAC.COM (DMACARTH@DYNAMAC.COM [UNKNOWN])
READ:UNKNOWN

TO: JD%CARNEGIE@MCIMAIL.COM (JD%CARNEGIE@MCIMAIL.COM [UNKNOWN])
READ:UNKNOWN

TO: MGM@SANTAFE.EDU (MGM@SANTAFE.EDU [UNKNOWN])
READ:UNKNOWN

TO: JOHN_YOUNG@HP.COM (JOHN_YOUNG@HP.COM [UNKNOWN])
READ:UNKNOWN

TO: VVWELD@CCMAIL.MONSANTO.COM (VVWELD@CCMAIL.MONSANTO.COM [UNKNOWN])
READ:UNKNOWN

TO: DAVID@DESHAW.COM (DAVID@DESHAW.COM [ONDCP])
READ:UNKNOWN

TO: JODI@POBOX.UPENN.EDU (JODI@POBOX.UPENN.EDU [UNKNOWN])
READ:UNKNOWN

TO: PRAVEN@NAS.EDU (PRAVEN@NAS.EDU [UNKNOWN])
READ:UNKNOWN

TO: SMALCOM@AAAS.ORG (SMALCOM@AAAS.ORG [UNKNOWN])
READ:UNKNOWN

TO: JOHN_HOLDREN@HARVARD.EDU (JOHN_HOLDREN@HARVARD.EDU [UNKNOWN])
READ:UNKNOWN

TO: JEAN_K_ROSS@CCMAIL.ORL.MMC.COM (JEAN_K_ROSS@CCMAIL.ORL.MMC.COM [UNKNOWN])
READ:UNKNOWN

TO: FJAYALA@UCI.EDU (FJAYALA@UCI.EDU [UNKNOWN])
READ:UNKNOWN

CC: Jeanie_M._Hall@oa.eop.gov (Jeanie_M._Hall@oa.eop.gov [UNKNOWN])
READ:UNKNOWN

CC: Cheryl_E._Hill@oa.eop.gov (Cheryl_E._Hill@oa.eop.gov [UNKNOWN])
READ:UNKNOWN

CC: Yolanda_L._Comedy@oa.eop.gov (Yolanda_L._Comedy@oa.eop.gov [UNKNOWN])
READ:UNKNOWN

TEXT:
Message Creation Date was at 5-JUN-1997 15:40:00

On Monday, June 9, @ ~ 11:45 a.m., the President, Harold Shapiro (Chair of National Bioethics Advisory Commission [NBAC]), et al will announce the results/recommendations in response to the President's charge regarding cloning.

All PCAST members will be receiving (if you haven't already) a phone call from the White House Social Office inviting you to this event in the East Room of the White House. Given PCAST's interest in this topic, we have revised the Monday meeting schedule to accommodate this change so that all may attend. Therefore, when you receive the call from the social office please indicate your acceptance.

We should have a revised agenda for June 9th by tomorrow & will fax an updated version to you tomorrow.

I hope that this last minute change has not caused any difficulties for you. Please feel free to call me at 202/456-6100 if you would like to discuss further.

Looking forward to seeing you on Monday.

Regards,

Angela

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Steven W. Adamske (CN=Steven W. Adamske/O=OVP [UNKNOWN])

CREATION DATE/TIME: 5-JUN-1997 18:35:33.00

SUBJECT: Cloning Event

TO: Jim Kohlenberger (CN=Jim Kohlenberger/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: Lawrence J. Haas (CN=Lawrence J. Haas/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: Kimberly H Tilley (CN=Kimberly H Tilley/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: Virginia M. Terzano (CN=Virginia M. Terzano/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TEXT:
On monday the President and Vice President will release the cloning report by the cloning commission. As of right now, the format is the VP will welcome and intro the chair of the commission who will intro the President. Is there any objections to this format?

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 5-JUN-1997 12:10:24.00

SUBJECT: POTUS Weekly Report

TO: Cynthia M. Chase (CN=Cynthia M. Chase/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
June 5, 1997

MEMORANDUM FOR THE PRESIDENT

FROM: JOHN H. GIBBONS

CC: ERSKINE BOWLES

SUBJECT: OSTP WEEKLY REPORT

FEEDBACK ON MORGAN STATE SPEECH

Reaction to your address at Morgan State has been favorable. The media focused on your call for developing an AIDs vaccine. The science community is nervous about that challenge, but is certainly optimistic. Reaction of the science and biotechnology communities to your principles for goverance of technology were broadly favorable. Some conservatives have opined that an overall more effective commitment would be to double the biomedical research budget in 10 years.
(Rachel -- Please add sentence here about current state of biomedical research, and projected increases for fiscal years ahead.)

CLONING -- BACK IN THE HEADLINES

This coming Saturday (June 7th), the National Bioethics Advisory Commission (NBAC) will meet to finalize its recommendations to you on creating human beings by somatic cell nuclear transfer technology, a form of cloning. On May 16th, an attorney for the Washington Post submitted a request to NBAC Chair Harold Shapiro for &all drafts of the final report... to be discussed at the public meeting on May 17th.8 HHS counsel proposed and WH counsel agreed that the request had merit, and the draft was given to the press. Next Monday (June 9th), NBAC will present its report to you that will recommend a legislative ban on creating a child using the cloning technology, whether in a research or a clinical

setting, that was used to create Dolly the sheep. The NBAC report concludes that &it is morally unacceptable for anyone...to attempt to create a child8 but that the cloning of DNA sequences, cell lines, and tissues (which do not involve the creation of human beings) are scientifically important and not ethically problematic.

OSTP TO TAKE ON PNGV RESPONSIBILITIES

Mary Good,s departure as the designated federal head of the Partnership for a New Generation of Vehicles (PNGV) program has raised concerns of the directors and the industry VP,s about our maintaining the program,s funding and status. To ensure there is no disruption in progress on PNGV programs, I will step in as interim chair of the Operational Steering Group (OSG) and as head of the PNGV until a replacement for Dr. Good is identified, or a new Undersecretary of Commerce is selected.

PLUTONIUM DISPOSITION.

The final report from the U.S.-Russian Independent Scientific Commission on Disposition of Excess Weapons Plutonium, co-chaired by John Holdren of your Committee of Advisers on Science and Technology (PCAST) is on its way to you. It emphasizes the need for both countries to proceed as quickly as possible to dispose of excess weapons-grade plutonium by burning it in modern nuclear reactors and by &immobilizing8 it in glass or ceramic logs, which are then buried. You approved this two-track approach for DOE late last year. Additionally, the report calls for a bilateral U.S.-Russia agreement covering disposition of excess plutonium; U.S. cooperation with Russia, France and Germany on a pilot scale plant to convert the plutonium into fuel that can be burned in modern Russian nuclear reactors; and fashioning a management structure to finance and carry out the task. You may want to mention this work when you meet with PCAST next week.

WORLD BANK: INTERNATIONAL ENERGY STRATEGY

Parallel to your charge to the PCAST to develop a strategic energy R&D plan for the U.S., OSTP and the World Bank have launched an international process with energy experts from several G-7 countries, private industry, our national laboratories and universities to design a pathway to a sustainable world over the next century. The goals: universal access to electricity, world carbon dioxide emissions remaining at close to today,s levels, and per capita emissions lowered to a tenth of today,s U.S. average.

HEAVENLY SNOWBALLS: A STARTLING DISCOVERY

Recent satellite observations of the earth,s atmosphere strongly indicate that the planet is being hit by house-sized snowballs--chunks of ice at a very surprisingly high rate. In fact, if such collisions have been going

on for several billion years at a comparable rate, it could account for earth,s entire water resource. If verified, this would revise long accepted theory about the origins of life.
It has been conjectured for a decade that water was a later addition to earth,s evolution as a stony, solid planet rather than part of the original accreted material, but this is the first hard evidence. Perhaps life itself somehow accompanied the ice, placing us even more intimately in touch with the cosmos than we once thought!

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 5-JUN-1997 16:10:07.00

SUBJECT: PCAST MEMBERS PARTICIPATION IN JUNE 9TH WHITE HOUSE EVENT ANNOUNCING NBAC RESULTS

TO: JGIBBONS (JGIBBONS @ OSTP.EOP.GOV @ inet [OSTP])
READ:UNKNOWN

TO: WUL (WUL @ WATSON.IBM.COM @ inet [UNKNOWN])
READ:UNKNOWN

TO: CMVEST (CMVEST @ MIT.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: SHARPPA (SHARPPA @ MIT.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: TSIGAN (TSIGAN @ KIDSAT.UCSD.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: MMOLINA (MMOLINA @ MIT.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: DMACARTH (DMACARTH @ DYNAMAC.COM @ inet [UNKNOWN])
READ:UNKNOWN

TO: JD%CARNEGIE (JD%CARNEGIE @ MCIMAIL.COM @ inet [UNKNOWN])
READ:UNKNOWN

TO: MGM (MGM @ SANTAFE.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: JOHN_YOUNG (JOHN_YOUNG @ HP.COM @ inet [UNKNOWN])
READ:UNKNOWN

TO: VVWELD (VVWELD @ CCMAIL.MONSANTO.COM @ inet [UNKNOWN])
READ:UNKNOWN

TO: DAVID (DAVID @ DESHAW.COM @ inet [ONDCP])
READ:UNKNOWN

TO: JODI (JODI @ POBOX.UPENN.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: PRAVEN (PRAVEN @ NAS.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: SMALCOM (SMALCOM @ AAAS.ORG @ inet [UNKNOWN])
READ:UNKNOWN

TO: JOHN_HOLDREN (JOHN_HOLDREN @ HARVARD.EDU @ inet [UNKNOWN])
READ:UNKNOWN

TO: JEAN_K_ROSS (JEAN_K_ROSS @ CCMAIL.ORL.MMC.COM @ inet [UNKNOWN])
READ:UNKNOWN

TO: FJAYALA (FJAYALA @ UCI.EDU @ inet [UNKNOWN])
READ:UNKNOWN

CC: Jeanie M. Hall (CN=Jeanie M. Hall/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Cheryl E. Hill (CN=Cheryl E. Hill/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Yolanda L. Comedy (CN=Yolanda L. Comedy/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TEXT:
On Monday, June 9, @ ~ 11:45 a.m., the President, Harold Shapiro (Chair of National Bioethics Advisory Commission [NBAC]), et al will announce the results/recommendations in response to the President's charge regarding cloning.

All PCAST members will be receiving (if you haven't already) a phone call from the White House Social Office inviting you to this event in the East Room of the White House. Given PCAST's interest in this topic, we have revised the Monday meeting schedule to accommodate this change so that all may attend. Therefore, when you receive the call from the social office please indicate your acceptance.

We should have a revised agenda for June 9th by tomorrow & will fax an updated version to you tomorrow.

I hope that this last minute change has not caused any difficulties for you. Please feel free to call me at 202/456-6100 if you would like to discuss further.

Looking forward to seeing you on Monday.

Regards,

Angela

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Lawrence J. Haas (CN=Lawrence J. Haas/O=OVP [UNKNOWN])

CREATION DATE/TIME: 5-JUN-1997 19:31:25.00

SUBJECT: Re: Cloning Event

TO: Steven W. Adamske (CN=Steven W. Adamske/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

CC: Kimberly H Tilley (CN=Kimberly H Tilley/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

CC: Jim Kohlenberger (CN=Jim Kohlenberger/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

CC: Virginia M. Terzano (CN=Virginia M. Terzano/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TEXT:
No, that sounds right. Thanks.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 5-JUN-1997 17:27:44.00

SUBJECT: PCAST Members Invitation to NBAC Event @ White House June 9th

TO: Lilian Shiao-Yen Wu (Lilian Shiao-Yen Wu @ 19149453434 @ fax [UNKNOWN])
READ:UNKNOWN

Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TEXT:
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Looking forward to seeing you on Monday.

Regards,

Angela

p.s. Lilian -- has your email address changed; I tried to send this note by email twice & it bounced back both times.

Message Sent
To:_____
FJAYALA @ UCI.EDU @ inet
MGM @ SANTAFE.EDU @ inet
JEAN_K_ROSS @ CCMAIL.ORL.MMC.COM @ inet
JD%CARNEGIE @ MCIMAIL.COM @ inet
JOHN_HOLDREN @ HARVARD.EDU @ inet
DMACARTH @ DYNAMAC.COM @ inet
SMALCOM @ AAAS.ORG @ inet
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JODI @ POBOX.UPENN.EDU @ inet
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VVWELD @ CCMAIL.MONSANTO.COM @ inet
WUL @ WATSON.IBM.COM @ inet
JOHN_YOUNG @ HP.COM @ inet
JGIBBONS @ OSTP.EOP.GOV @ inet

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Mary A. Dixon (CN=Mary A. Dixon/O=OVP [UNKNOWN])

CREATION DATE/TIME: 5-JUN-1997 16:12:58.00

SUBJECT: WEEK AHEAD REPORT

TO: Virginia M. Terzano (CN=Virginia M. Terzano/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TEXT:
This week's radio address: hate crimes

Next week: a cloning announcement -- Monday
Juvenile Justice event
Radio address: race or immigration
17th will be Title IX

They really want the VP to be doing Race -- especially on the 14th while in Ohio. FLOTUS will be doing RAce in Ohio on the same day.

They really want to know what happens with AARP, also.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: bernie@itsa.ucsf.edu (bernie@itsa.ucsf.edu [UNKNOWN])

CREATION DATE/TIME: 5-JUN-1997 15:01:26.00

SUBJECT:

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
I have been spending the last three days in Philadelphia writing board questions for medical students. In trying to catch up with what has happened over the past few days, I wanted to add the following points to the discussion.

1. I think the clarification of WHY we believe WHAT we will recommend has been very helpful: even if safety issues were addressed, we would not want creation of children through Dolly techniques unless the ethical and social issues were fully debated and there was agreement that it would be appropriate to proceed. We are altering the usual presumption in favor of individual liberty because of concerns that the ethical issues raised by cloning children are in essence different from concerns raised about other types of assisted reproductive technology. While the Commission is not persuaded that Dolly cloning of children raises such compelling ethical concerns as to render it unethical even if the safety issues were resolved, we do believe that the concerns are strong enough to warrant discussion before allowing cloning to proceed. In other words, we do not want this PARTICULAR technology to get out of control and take on a momentum of its own because it MAY be a much more profound step than other ART technologies.

2. I think we need to pay attention to how the President as well as the press pick up on our report. To be blunt, I think that there is a possibility that the subtance of our report will be ignored and the President will make his own policies, taking into account the tremendous (additional) political pressures he will be placed under. Thus, while I strongly urge us to continue to omit from the report the issues that the press and the right-to-life groups are so interested in, it would be helpful if we think through what we say to the President on Monday regarding these issues. Do we have a private advisory role to the President that is distinct from our public advice? Ie, what are the arguments for advocating legislation prohibiting Dolly-cloning, but not prohibiting nuclear transplantation for research purposes that do not include implantation? This is a question the President will face, even if we do not discuss it in our report.

In preparation for Monday, I also think we should think about (without including these issues in the written report) whether the safeguards currently in place for human subjects research are adequate. I believe that women who would donate oocytes for nuclear transplantation research (not for implantation) in the private sector need additional safeguards.

The NIH panel thought about these issues in length, and some of its recommendations regarding using only women who would undergo retrieval for other purposes (either ART or elective surgery) could be approached to donate, specific consent regarding nuclear transplantation, no payment) seem applicable here. Another issue we should think about before Monday is whether it would be ethical from a human subjects point of view to allow investigators in the private sector to ask women to volunteer for non-implantation cloning research given the current state of animal data. Ie, is there sufficient scientific warrant to justify proceeding to human research at this time? I personally would argue that without convincing evidence that it is appropriate to proceed from animal to human research on a particular topic, it would be unethical to ask a woman to undergo hormonal manipulation specifically for the purpose of non-implantation cloning research and that in addition it would be unethical to ask a woman who is undergoing infertility treatment to donate an oocyte because she would be foregoing the potential benefit of using that ooctye to treat her infertililty.

3. With regard to the press, I suggest that we talk on Saturday (if needed over lunch) on how to present our recommendations so that the public and the press understand them. I.e, how should we respond to questions about creating clones for research purposes. I suggest that we start with, "Our report deals with... There already has been extensive discussion, a previous national committee report, and public policy by both the executive and legislative branches on this issue." Do we then want to comment on the ethical issues as individuals or to remain silent and let others carry on the embryo discussion? My point is that the press will focus on any statement that appears newsworthy, so that if anyone says anything that is inconsistent with what we as a Commission want to say, that will get picked up by the press and other interviews won't.

4. With regard to the ethics chapter, thanks to Harold and Kathi for resuscitating it. I have two requests for revision. First, I would put back material on how issues are linked in policy debates. Previously we had said regarding policy deliberations:
Another special concern is the impact of one public policy on other polcies. For example, opponents of a particular policy may link it to other issues in the political process, and in the process thwart other widely acceptable and desirable policies.
Second, I think some of the material at the beginning of the commodification section needs to be trimmed. While I admire Martha Nussbaum, only the last of her ten points is directly pertinent to cloning.

Bernard Lo, M.D.
521 Parnassus Ave.
Room C-126
University of California San Francisco
San Francisco, CA 94143-0903
Ph: 415-476-5370
Fax: 415-476-5020

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 5-JUN-1997 16:13:39.00

SUBJECT: PCAST MEMBERS PARTICIPATION IN JUNE 9TH WHITE HOUSE EVENT ANNOUNCING NBAC RESULTS

TO: wul (wul @ watson.ibm.com @ inet [UNKNOWN])
READ:UNKNOWN

TEXT:
2nd try
---------- Forwarded by Angela Phillips Diaz/OSTP/EOP on 06/05/97 04:01 PM ----------

Angela Phillips Diaz
06/05/97 03:40:48 PM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: Yolanda L. Comedy/OSTP/EOP, Jeanie M. Hall/OSTP/EOP, Cheryl E. Hill/OSTP/EOP
Subject: PCAST MEMBERS PARTICIPATION IN JUNE 9TH WHITE HOUSE EVENT ANNOUNCING NBAC RESULTS

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Looking forward to seeing you on Monday.

Regards,

Angela

Message Sent
To:
FJAYALA @ UCI.EDU @ inet
MGM @ SANTAFE.EDU @ inet
JEAN_K_ROSS @ CCMAIL.ORL.MMC.COM @ inet
JD%CARNEGIE @ MCIMAIL.COM @ inet
JOHN_HOLDREN @ HARVARD.EDU @ inet
DMACARTH @ DYNAMAC.COM @ inet
SMALCOM @ AAAS.ORG @ inet
MMOLINA @ MIT.EDU @ inet
PRAVEN @ NAS.EDU @ inet
TSIGAN @ KIDSAT.UCSD.EDU @ inet
JODI @ POBOX.UPENN.EDU @ inet
SHARPPA @ MIT.EDU @ inet
DAVID @ DESHAW.COM @ inet
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WUL @ WATSON.IBM.COM @ inet
JOHN_YOUNG @ HP.COM @ inet
JGIBBONS @ OSTP.EOP.GOV @ inet

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
002. email	SSN & DOB [partial] (2 pages)	6/5/1997	P6/b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System
Default (Cloning)
OA/Box Number: 1100000

FOLDER TITLE:
[6/2/1997 - 6/6/1997]

2013-0365-F
wr10705

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: QUINLANM@od6100m1.od.nih.gov (QUINLANM@od6100m1.od.nih.gov [UNKNOWN])

CREATION DATE/TIME: 5-JUN-1997 14:14:02.00

SUBJECT: NBAC Staff Information

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TEXT: [002]
Rach,

Attached is the list of pertinent information on the NBAC staff. I sent
it to Donna earlier.

Margaret C. Quinlan
National Bioethics Advisory Commission
- Whstaff.rtf========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
{\rtf1\ansi \deff0{\fonttbl
{\f0\froman Times New Roman;}}{\colortbl
\red0\green0\blue0;}
{\stylesheet{\fs20 \snext0 Normal;}
}\margl1440\margr720\ftnbj\ftnrestart \sectd \sbknone\endnhere

\pard \qc\sl0
{\plain }{\plain \b\ul NBAC STAFF INFORMATION}{\plain \par
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}{\plain \par
}{\plain \par
}{\plain \b\ul Name \tab DOB \tab Social Security
#\tab Office Phone/Home Phone}{\plain \b \par
}{\plain \par
}{\plain Kathi Ellen Hanna, Ph.D.\tab P6/(b)(6) tab \tab 301/
855-4466\par
}{\plain \par
}{\plain William Fine Raub, Ph.D.\tab P6/(b)(6) ab 202/401
-9456; 301/881-0205\par
}{\plain \par
}{\plain Henrietta Hyatt-Knorr\ta P6/(b)(6) ab 301/402-42
42; 301/421-9325\par
}{\plain \par
}{\plain Richard Riseberg\tab \tab P6/(b)(6) b 301/443-264
4; 301/572-7293\par
}{\plain \par

}{\plain Patricia Norris\tab \tab P6/(b)(6) ab 301/402-424
2; 202/244-8728\par
}{\plain \par
}{\plain Joel Mangel\tab \tab \tab P6/(b)(6) ab 301/402-4242
; 301/384-4095\par
}{\plain \par
}{\plain William Freeman\tab \ta P6/(b)(6) ab 301/402-4242;
301/654-1795\par
}{\plain \par
}{\plain Margaret Quinlan\tab \tab P6/(b)(6) ab 301/402-4242
; 301/565-3236\par
}{\plain \par
}{\plain Everson Randolph Hull\ta P6/(b)(6) tab 301/402-4242
; 301/962-0723\par
}{\plain \par
}{\plain Sean Simon\tab \tab \t P6/(b)(6) 01/402-4242;
202/332-3838\par
}{\plain \par
}{\plain Emily Feinstein\tab \ta P6/(b)(6) ab 301/402-4242
; 202/232-7667\par
}{\plain \par
}{\plain Robert Tanner\tab \ta P6/(b)(6) 301/402-4242;
301/913-0297\par
}{\plain \par
}{\plain Robin Dorsey\tab \tab \ta P6/(b)(6) ab 301/402-42
42; 301/946-8316\par
}{\plain \par
}{\plain LaShell Gaskins\tab \ta P6/(b)(6) b 301/594-710
8; 202/397-4060}}========== END ATTACHMENT 1 ==========

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 5-JUN-1997 16:10:10.00

SUBJECT: PCAST Members Invitation to NBAC Event on June 9 @ White House

TO: charles sanders (charles sanders @ 19199327588 @ fax [UNKNOWN])
READ:UNKNOWN

Angela Phillips Diaz (CN=Angela Phillips Diaz/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TEXT:
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Regards,

Angela

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To:_____
FJAYALA @ UCI.EDU @ inet
MGM @ SANTAFE.EDU @ inet
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WUL @ WATSON.IBM.COM @ inet
JOHN_YOUNG @ HP.COM @ inet
JGIBBONS @ OSTP.EOP.GOV @ inet

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: acapron@law.usc.edu (acapron@law.usc.edu [UNKNOWN])

CREATION DATE/TIME: 6-JUN-1997 09:53:27.00

SUBJECT: Re: your mail

TO: nbac-members@lists.Princeton.EDU (nbac-members@lists.Princeton.EDU [UNKNOWN])
READ:UNKNOWN

TEXT:
I too am on the road and only now have gotten to e-mail. So I will
respond to just a couple of Bernie/s excellent comments:

On Thu, 5 Jun 1997 bernie@itsa.ucsf.edu wrote:

>
> I have been spending the last three days in Philadelphia writing board
> questions for medical students. In trying to catch up with what has
> happened over the past few days, I wanted to add the following points to
> the discussion.
>
> 1. I think the clarification of WHY we believe WHAT we will recommend
has > been very helpful: even if safety issues were addressed, we would
not want > creation of children through Dolly techniques unless the
ethical and social
> issues were fully debated and there was agreement that it would be
> appropriate to proceed. We are altering the usual presumption in favor
of > individual liberty because of concerns that the ethical issues raised
by > cloning children are in essence different from concerns raised about
other
> types of assisted reproductive technology. While the Commission is not
> persuaded that Dolly cloning of children raises such compelling ethical
> concerns as to render it unethical even if the safety issues were
resolved,
> we do believe that the concerns are strong enough to warrant discussion
> before allowing cloning to proceed. In other words, we do not want this
> PARTICULAR technology to get out of control and take on a momentum of its
> own because it MAY be a much more profound step than other ART
> technologies.
>
Bernie: I think we need to discuss this more, because I sensed that we
did not have agreement on that position. I continue to believe that we
should not have cloning even if the safety issues were handled. I dont
know how the upreme Court would treat such restrictions, though I THINK
they would not find them unconstitutional. But even the risk that they
might would not keep me from saying that I think cloning is on balance a
very bad idea for human beings. But I was under the impression that this
was distinctly a minority view, in part because people realize that many
of the underlying objections apply to other forms of ART, of which
cloning is just a more profoundly disturbing categoryas well as being
something different.

So, i suspect more discussion is needed. IF we don't have agreement, it then seems to me we need to decide whether in a state of non-agreeemnt, we want to say that the moral concerns are a REASON FOR the moratorium, or the moratorium is an opportunity to consider the moral concerns further.

> 2. I think we need to pay attention to how the President as well as the
> press pick up on our report. To be blunt, I think that there is a
> possibility that the subtance of our report will be ignored and the
> President will make his own policies, taking into account the tremendous
> (additional) political pressures he will be placed under. Thus, while I
> strongly urge us to continue to omit from the report the issues that the
> press and the right-to-life groups are so interested in, it would be
> helpful if we think through what we say to the President on Monday
> regarding these issues. Do we have a private advisory role to the
> President that is distinct from our public advice? Ie, what are the
> arguments for advocating legislation prohibiting Dolly-cloning, but not
> prohibiting nuclear transplantation for research purposes that do not
> include implantation? This is a question the President will face, even
if > we do not discuss it in our report.
>
I agree. We can try to hide, but he wont be able to.

> In preparation for Monday, I also think we should think about (without
> including these issues in the written report) whether the safeguards
> currently in place for human subjects research are adequate. I believe
> that women who would donate oocytes for nuclear transplantation research
> (not for implantation) in the private sector need additional safeguards.
> The NIH panel thought about these issues in length, and some of its
> recommendations regarding using only women who would undergo retrieval
for
> other purposes (either ART or elective surgery) could be approached to
> donate, specific consent regarding nuclear transplantation, no payment)
> seem applicable here. Another issue we should think about before Monday
is > whether it would be ethical from a human subjects point of view to
allow
> investigators in the private sector to ask women to volunteer for
> non-implantation cloning research given the current state of animal
data. > Ie, is there sufficient scientific warrant to justify proceeding
to human > research at this time? I personally would argue that without
convincing > evidence that it is appropriate to proceed from animal to
human research on
> a particular topic, it would be unethical to ask a woman to undergo
> hormonal manipulation specifically for the purpose of non-implantation
> cloning research and that in addition it would be unethical to ask a
woman
> who is undergoing infertility treatment to donate an oocyte because she
> would be foregoing the potential benefit of using that ooctye to treat
her > infertililty.
>
One of the huge idsadvantages of our dodging the embryo-only research issue is that we didn't get into these important issues. Perhaps we can pass along some of the better conclusions of the embryo panel, as you

suggest.

> 3. With regard to the press, I suggest that we talk on Saturday (if needed > over lunch) on how to present our recommendations so that the public and > the press understand them. I.e, how should we respond to questions about > creating clones for research purposes. I suggest that we start with, "Our
> report deals with... There already has been extensive discussion, a
> previous national committee report, and public policy by both the executive > and legislative branches on this issue." Do we then want to comment on the > ethical issues as individuals or to remain silent and let others carry on
> the embryo discussion? My point is that the press will focus on any
> statement that appears newsworthy, so that if anyone says anything that is > inconsistent with what we as a Commission want to say, that will get picked > up by the press and other interviews won't.
>
Moreover, the press will see the holes, even if we try to hide them. The POST already illustrated what happens when an editor tell a reporter "Can't you make more of a story out of this ???"

> 4. With regard to the ethics chapter, thanks to Harold and Kathi for
> resuscitating it. I have two requests for revision. First, I would put
> back material on how issues are linked in policy debates. Previously we
> had said regarding policy deliberations:
> Another special concern is the impact of one public policy on other
> polcies. For example, opponents of a particular policy may link it to
> other issues in the political process, and in the process thwart other
> widely acceptable and desirable policies.
> Second, I think some of the material at the beginning of the
> commodification section needs to be trimmed. While I admire Martha
> Nussbaum, only the last of her ten points is directly pertinent to cloning.
>
Regarding Nussbaum, I suggested to Kathi in my edits that she put the other nine points into a footnote (dropping them might be OK too...but at least get them out of the text). Im looking forward to seeing what the editing produced. And I agree that Kathi did a wonderful job on the redraft.

Alex

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Susanne Bachtel (CN=Susanne Bachtel/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 6-JUN-1997 17:02:57.00

SUBJECT: Re: Monday's Events

TO: Jonathan Foster (CN=Jonathan Foster/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Thanks:
2. VP's office called to confirm (1) he'll be at the cloning briefing at 11 with the Prez
(2) they need stuff for the briefing book for him re PCAST (any t.p.'s?)

(re this - Angela is working on something - hopes to have to jHG by COB)

I'll see that it gets to Chris Ulrich for the briefing book no later than Sunday.