Cloning

What Is Cloning?

A form of reproduction in which offspring result not from chance union of egg and sperm from deliberate replication of the genetic makeup of another person.

This and other definitions modified from The President’s Council on Bioethics, Human Cloning and Human Dignity: An Ethical Inquiry, 2002. [www.bioethics.gov/reports/cloningreport/fullreport]

How Is It Done?

The nuclear material (containing the DNA) of any cell from a person to be cloned, the donor, is put into an oocyte (egg) which has had its nuclear removed.

So the result is genetically virtually identical to the donor.

Result is a cloned human embryo, which may or may not be implanted in a woman’s woman to develop into a child.

Kinds of Cloning

• Cloning-to-produce-children (“reproductive cloning”): The cloned human embryo is formed for the purpose of implanting in a woman’s womb to initiate pregnancy.

• Cloning-for-biomedical-research (“therapeutic cloning”): The cloned human embryo is used for research or to extract stem cells for purpose of gaining knowledge and developing cures for human diseases.

What Are Stem Cells?

• Cells able to develop into nearly any other type of cell.
  – Adult stem cells found in skin, gut, blood
  – Embryonic germ cells originate in reproductive cells of fetus.
  – Embryonic stem cells found in very early development of embryo (when it has about 100 cells)

Sources for Stem Cells

• From adults
  – Least controversial but perhaps least promising.

• Fetal germ cells following abortion

• Embryos created by IVF (in excess); no longer needed by couple

• Embryos created by IVF for purpose of research

• Embryos created asexually by somatic cell nuclear transfer. Cloning-for-research. (Sometimes called “therapeutic cloning”)
### Factual Issues

- How much promise to prevent and cure disease does stem cell research have?
- Would cells derived from adults work just as well as those from embryos?
- Are there enough stem cell lines already created or do we need more for research?
- Would using otherwise discarded fetuses provide an incentive for abortion?
- Can adequate research proceed without federal funding?

### Ethical Issues

- What is the moral status of a human (pre-) embryo?
- Does it make a moral difference whether created for purpose of research?
- Does it make a moral difference if embryo would otherwise be discarded?
- What should public policy be in an area full of moral and religious controversy?

### Embryonic Stem Cell Research: To Fund or Not to Fund?

- Do not fund (prohibit?) use of any stem cells even if already created (because implicated in killing embryo)
- Fund use of embryonic stem cell lines that have already been created. (No funding for the creation in future.)
- Fund creation of stem cell lines but only from embryos already in storage and otherwise to be discarded.
- Fund creation of stem cell lines from future embryos/fetuses if they would otherwise be discarded.
- Fund creation of stem cell lines from any embryo, including those created for this purpose (perhaps through cloning)

### Cloning-to Produce Children: Issues to Consider

- Arguments in favor of cloning
- Arguments against cloning
- How much weight should we give to popular “repugnance”?
- Even if arguments against the (ethical) desirability of cloning are stronger, are they strong enough to ban the practice?
- Are they strong enough to ban research?
- Is it morally relevant that Michigan economy in recession and could be helped by attracting biomedical research?

### Some underlying issues

- Should we be welcoming or cautious about new technology?
- …especially about new technology that changes deep traditions
- How strong a moral claim to people have to create genetically related child?
- What weight, if any, should be given to “repugnance”?}

### Arguments for Cloning

- People have a right to reproductive freedom.
- People may want cloning in some situations
  - Infertile couple
  - Couple who are carriers of genetic defect.
  - Cloning avoids need to involve third party or take risk with prenatal testing and possible abortion.
  - Child needs bone marrow transplant. Can create clone as organ donor
  - “Duplicate” a child who dies
- We could duplicate people with great talent.
- Educational benefits
Cloning

President’s Council Recommendation
• Permanent ban on cloning to produce children
• 4-year moratorium on ban for “research”—time for democratic deliberation

Kass’s Repugnance
• Beyond rational argument, we learn from repugnance: “shallow are those who have forgotten how to shudder.”
• Macklin: “Intuition has never been a reliable epistemological method, especially since people notoriously disagree in their moral intuitions…If objections to cloning can identify no greater harm that 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.” (NBAC in Munson, p. 719)

Arguments Against Cloning
• An experiment now that could create dangerous mutations, harming the child
• The right to reproductive freedom doesn’t include a right to decide what kind of children to have.
• More than that, it violates a child’s right to an “open identity.”

Dangerous Experiment?
• Dangers to cloned humans now (based on experience with animals) leads most to oppose doing it with our current knowledge.
• Question: should we oppose it in principle or “at this time” (NBAC) and leave the possibility open?
• What if no greater rate of mutation and done to help a couple procreate (Strong)?

Further Arguments for/against
• We already have identical twins
  – But this is different. A clone could see how his/her “clone” lived life if much older.
• It doesn’t deny open future because people are not genetically determined
  – But people might feel that it does, and that itself is a psychological harm.
  – Those who did the cloning would have expectations the cloned person would unfairly be expected to meet.
  – Strong: we can educate and if it becomes more common, this perception will change.

Kass: Perversities of Cloning
• Changes begetting into making: here we manufacture human beings as man-made things.
• The creator stands above the created thing: “profoundly dehumanizing no matter how good the product.
• Changes the whole way we look at children, no longer to be loved unconditionally.
Cloning

What Social Policy to Adopt?

- Even if ethically problematic, not itself an argument for banning.
- Should we enact a permanent ban?
- What about other countries? Would need an international ban?
- If impossible, should we ban the research right now?
- What about cloning-for-research?

Surrogate Motherhood

Two Kinds of Surrogacy

- "Surrogate mother" or "genetic surrogate": surrogate contributes ovum and becomes pregnant. Sperm is from man who contracts with surrogate. (His wife will usually adopt child. Should a single man be allowed to have a child this way?)
- "Gestational surrogate": surrogate is pregnant with child that is genetically unrelated to her.

Another distinction

- Commercial surrogacy: money paid
  - This is focus of essays
  - Michigan first State to prohibit
- Non-commercial
  - Could be friend or relative who gifts "gift" of carrying child

Still another distinction

- Surrogacy because wife (or partner) of person contracting (typically husband) biologically unable to carry child.
- Surrogacy out of convenience: a woman (typically wealthier) prefers to hire someone who needs the money to carry child for her

Baby M Case

- Mary Beth Whitehead agreed to be surrogate mother, then changed her mind.
- Stormy history; eventually Court ruled for Sterns. Do you agree with its decision?
- Michigan law prohibits commercial surrogacy. Some other States won’t enforce contracts.
Cloning

What should the law be?
Some possibilities
- Enforce any contract parties agree to, just like any other contract.
- Put conditions on the contract. Examples:
  - Surrogate must have had children before?
  - Surrogate can change mind for certain periods after birth?
  - Surrogate paid for service, not for “delivering the baby”?
- Make all commercial contracts illegal; allow noncommercial contracts.
- Distinguish between surrogate motherhood and gestational surrogate.

Steinbock Rejects Arguments for Prohibiting
- Paternalistic: protect woman, perhaps because truly informed consent impossible
  - We allow people to make other decisions that may harm them
  - Also, we can require postnatal waiting period
  - It’s coercive and exploitative of low-income women.
  - Many women choose this just as people choose unpleasant work for money. Some enjoy it.
  - Violates human dignity for woman’s body to be used for profit.

Steinbock (continued)
- Harms the child
  - Depends on empirical data (not available)
  - Even if psychological damage, child better off than not having been born
  - Child only “wronged” if deprived of minimally decent life. Unlikely; more like problems of adoptees.
  - However, if evidence develops of serious psychological problems, then good reason to ban surrogacy.
- Harms siblings
- Steinbock: good reasons for caution and regulation but not for legal prohibition.

What happened to Autonomy?
- Rachels’ principle:
  If a policy or practice benefits everyone concerned and violates no one’s rights, it is acceptable.
- Parties in a surrogate contract are making free choices
- Child benefited; otherwise would not exist

Krimmel (not assigned)
- Inherently wrong to separate the decision to create child from decision to parent.
- Wrong to create child with purpose of transferring; using child as a means
- This fundamentally changes the way we look at children in general
- No objection to gestational surrogate: “no worse than employing others to educate” (Clearly Anderson would disagree)

Commodification
- Anderson: some things are appropriately treated as commodities in free market
- NOT appropriate to treat other things that way; e.g., we ban selling slaves (and organs)
- Surrogate arrangements wrong because they commodify
  - Children
  - Women’s bodies
Virtue Ethics

- Often discusses "appropriate response" to situation, even aside from action
- David Cash watched his friend who molested and killed 7-year-old Sherrice Iverson.
- "It's not my life" an inappropriate emotional response, even apart from action

Surrogacy and Children

- Appropriate parental response: "passionate, unconditional commitment to nurture"
- Market norms are not appropriate
- Commercial surrogacy "substitutes market norms for…parental love."
- Children treated as commodities
- "Expressive significance": surrogacy threatens all children because it changes the way children are valued.

Special Value of Involuntary Genetic Ties

- Surrogacy undermines system of involuntary genetic ties of obligation
- Provides children with a "set of preexisting social sanctions which give them a more secure place in the world" including extended family.

Women's Labor as Commodity

- Requires surrogate to suppress natural love; alienated labor
- Denies pregnant woman's perspective; her emotional labor and grief are disregarded.
- Surrogate often has "gift" values but degraded by market considerations
- This argues against gestational surrogacy as well as genetic surrogacy.

Role of the Law

- Anderson thinks this argues for laws banning commercial surrogacy
- What does this say about proper role of government?
- Opposing view: government should stay out of promoting virtue.
- Nevada: prostitution legal and regulated