



The Globalization of Bioethics and The Ethics of Globalization

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Global issues for ethics

- Global epidemics: flu, HIV/AIDS, SARS, TB
- Commodification of body parts
- Global economy, trade and value
- Ethics of research, ethics codes
- Professionalism
- Stem cell research
- Conduct of war; role of physicians in torture

Globalization (definition)

The breakdown of national boundaries in political and economic life.

Common theme: longing for liberation

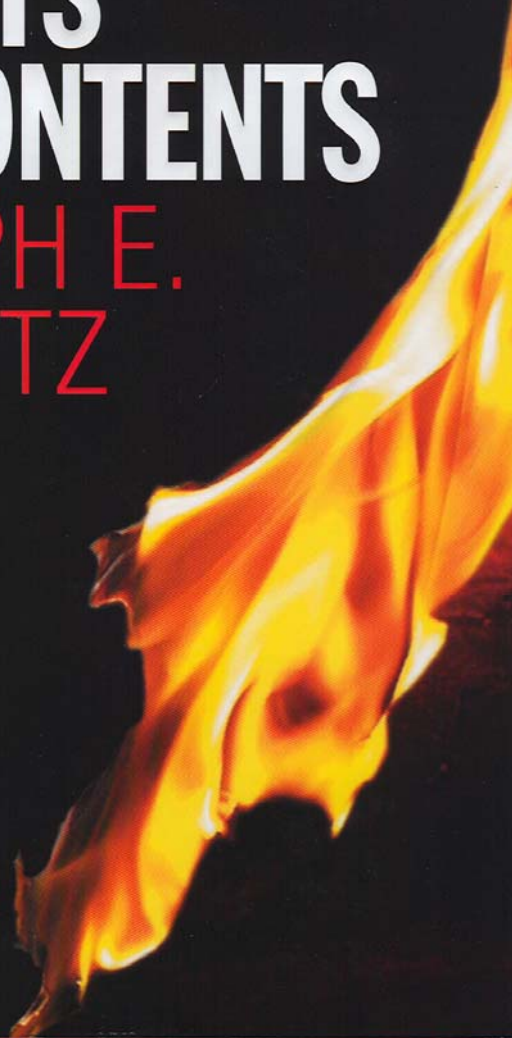
Freedom => choice

Choice => autonomy

GLOBALIZATION AND ITS DISCONTENTS

JOSEPH E.
STIGLITZ

Winner of the
2001 Nobel Prize
in Economics



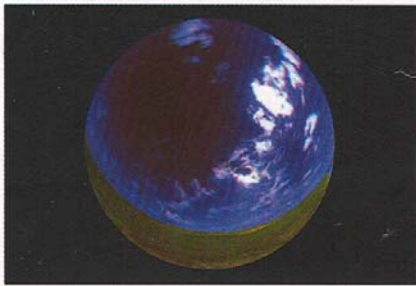
GLOBALIZATION AND ITS DISCONTENTS

THE RISE OF POSTMODERN SOCIALISMS

Roger Burbach, Orlando Núñez and Boris Kagarlitsky

OXFORD INDIA PAPERBACKS

DEVELOPMENT AS FREEDOM



AMARTYA SEN

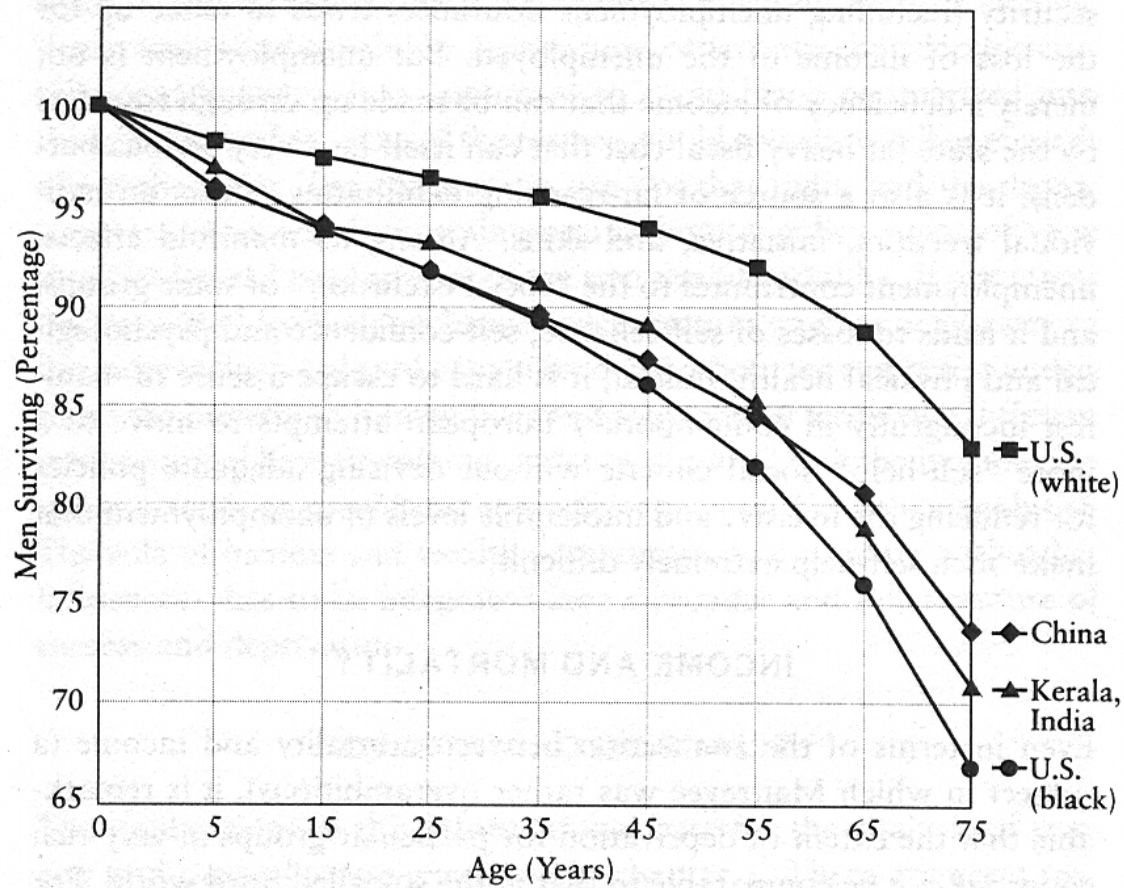
WINNER OF THE NOBEL PRIZE IN ECONOMICS

Freedom has a thousand charms
to show
That slaves, howe'er contented,
never know.

William Cowper

Wealth is not the good we are
seeking; for it is merely useful
and for the sake of something
else.

Aristotle: Nicomachean Ethics

FIGURE I.1: *Variations in Male Survival Rates by Region*

World Health Organization, 1994

NO-FLY ZONE



36th Parallel

IRAQ

Baghdad

33rd Parallel

32nd Parallel

NO-FLY ZONE



© 1992 MAGELLAN Geographix, Santa Barbara, CA

Physician Involvement in Torture

Nov, 2005: legislation offered by Senator McCain defines "cruel, inhuman, or degrading treatment or punishment" as treatment or punishment prohibited by "the Fifth, Eighth and Fourteenth Amendments to the Constitution of the United States." passed Senate

American Psychiatric Association: Psychiatrists should not in any way assist in torture or in so-called "coercive interrogations" which the APA draft defined as "degradation, threats, isolation, imposition of fear, humiliation, sensory deprivation or excessive stimulation, sleep deprivation, exploitation of phobias, or intentional infliction of physical pain such as use of prolonged stress positions."

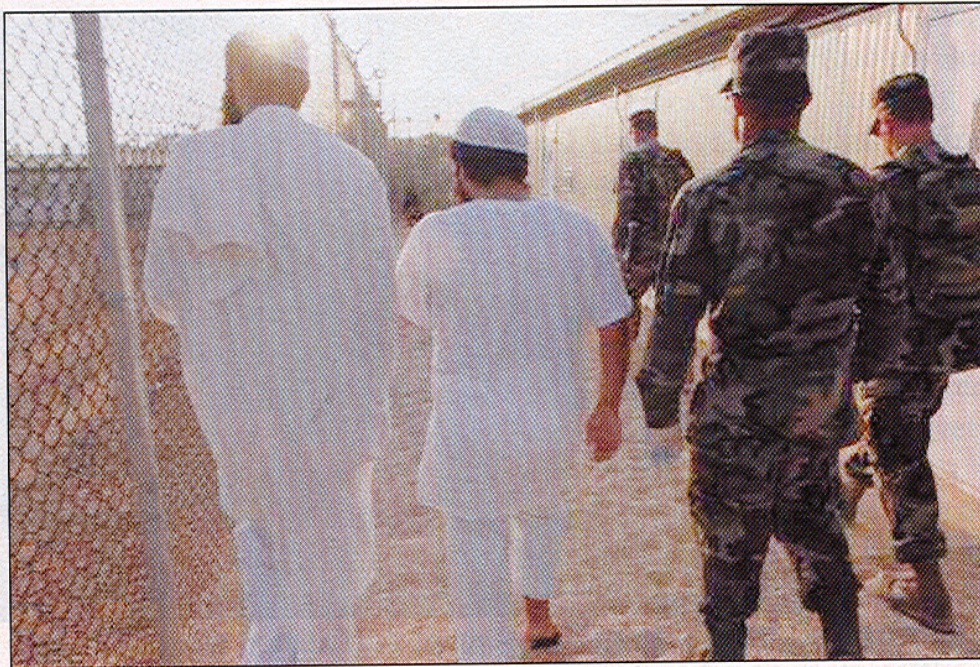
American Psychological Association excluded research into effective interrogations.

Autonomy and Fasting (hunger strike)

In order for *fasting* to be a political statement, it must be a choice.

A *starving* famine victim does not have the option of eating or not eating.

Sen: *Development As Freedom*, p 292



Department of Defense Photograph of Detainees and Guards at a Medium-Security Facility at Guantanamo Bay, Cuba.

Jonathan Moreno
New England J Med
NEJM.ORG
Dec. 15, 2005

Detainees at Guantanamo, who are imprisoned in an isolated environment far from their families, may not have the autonomy needed to make an informed decision to starve themselves.

Military doctors have a strong interest in keeping them alive, which may render them unable to assess objectively the motives and decision-making process of hunger strikers.

Human Rights Declarations for physicians

Nuremberg Code (Trials of War Criminals, 1949) voluntary consent is essential using human subjects in research

WMA Declaration of Geneva (1948) similar to Hippocratic Oath

WMA Declaration of Helsinki (1964) concerns biomedical research involving human subjects

WPA Declaration of Hawaii (1977) concern with political “abuse” of psychiatry

Declaration of Madrid (1996) euthanasia, torture, death penalty, sex selection, organ transplantation.

WPA Hamburg (1999) genetic research and counseling, discrimination on ethnic or cultural grounds, psychiatrists addressing the media

Ethical Relations with Big Pharma

The New York Times
nytimes.com

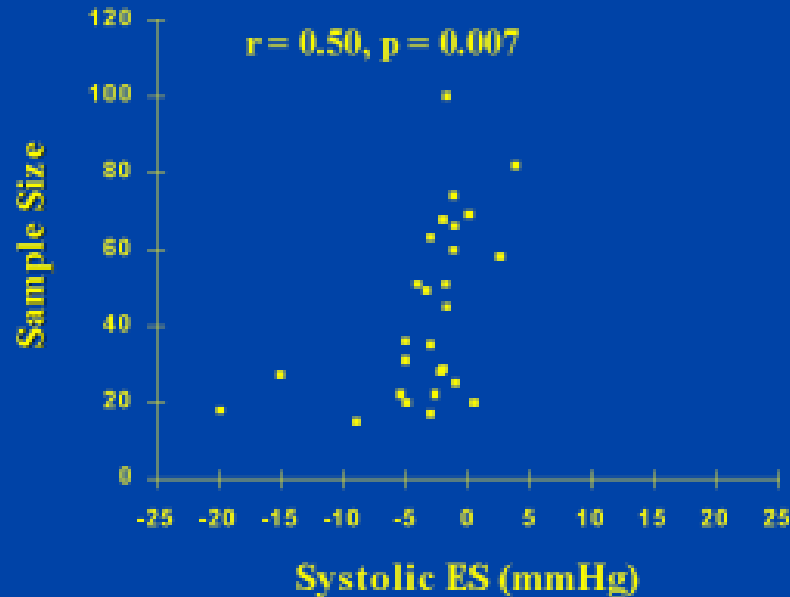


At game time, Onya cheers on the Washington Redskins. But she saves some of her energy for her job in pharmaceutical sales. Drug companies have found that former cheerleaders like Penny Otwell are good at persuading doctors.

November 28, 2005

Gimme an Rx! Cheerleaders Pep Up Drug Sales

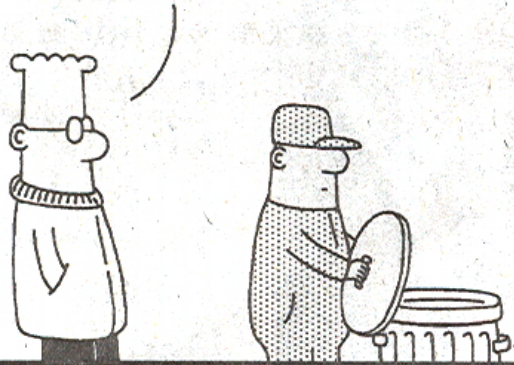
Funnel Plot - Example



Both the correlation as well as the funnel plot shown are suggestive of publication bias. The funnel plot is suggestive of publication bias because of missing values on the bottom right side of the graph. This data is from a study on the effects of aerobic exercise on resting blood pressure in women (See: Kelley GA, Kelley KS. Aerobic exercise and resting blood pressure in women: a meta-analytic review of controlled clinical trials. **Journal of Women's Health & Gender-Based Medicine** 8:787-803, 1999).

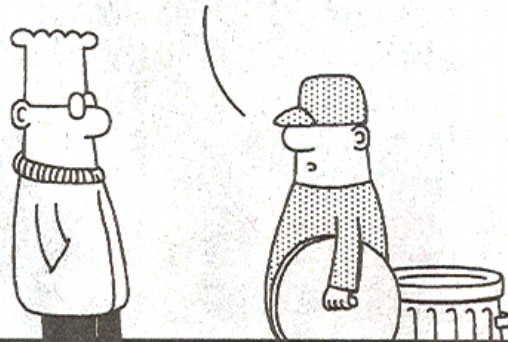
DILBERT

WHY IS IT UNETHICAL FOR HUMANS TO CLONE THEMSELVES?



www.dilbert.com scottadams@aol.com

MORALITY IS BASED ON ACCEPTED NORMS. AND ACCEPTED NORMS ARE BASED ON MORALITY.



11-28-05 © 2005 Scott Adams, Inc./Dist. by UFS, Inc.

IT'S SELF CAUSING?

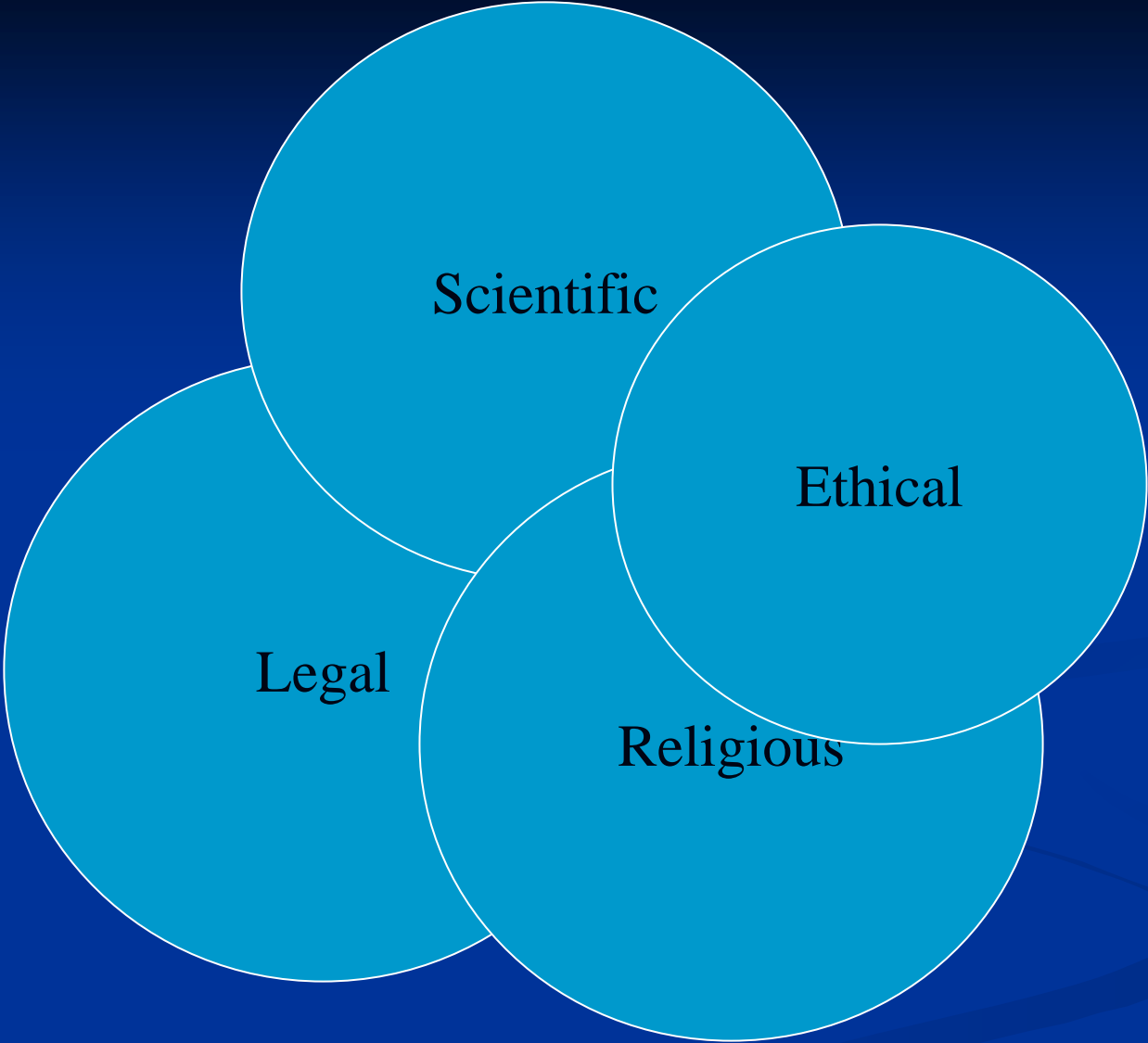


IRONI-
CALLY,
YES.





Frankenstein at Johnson City Library
Sunday, Feb 19 at 2:00 P.M.



Scientific

Ethical

Legal

Religious

Principles of Bioethics

- Beneficence
 - Physician-centered decisions
- Non-maleficence
 - First Do No Harm
- Autonomy
 - Patient's right to self-determination
- Justice
 - Fairness



Evolution of Ethical Priorities

1950s-1960s	1970s-1980s	1990s	2000+
Beneficence Autonomy	Autonomy Beneficence Social justice	Social justice Autonomy Beneficence	Social control Autonomy Beneficence

Justice

Allen R. Dyer: Ethics of Human Genetic Intervention
Experimental Neurology 144,168-172 (1997)

Human Genetic Intervention

	Somatic cells	Germ-line
Cure or prevention of disease	Gene therapy	Genetic Engineering
Enhancement of capabilities	Genetic Engineering	Genetic Engineering

Allen R. Dyer: Ethics of Human Genetic Intervention
Experimental Neurology 144,168-172 (1997)

Ethical Issues for Gene Therapy and Genetic Engineering

- Safety (nonmaleficence)
- Efficacy (beneficence)
- Informed consent (autonomy)
- Allocation of resources (justice)

Allen R. Dyer: Ethics of Human Genetic Intervention
Experimental Neurology 144,168-172 (1997)

Ethical issues in assisted reproduction

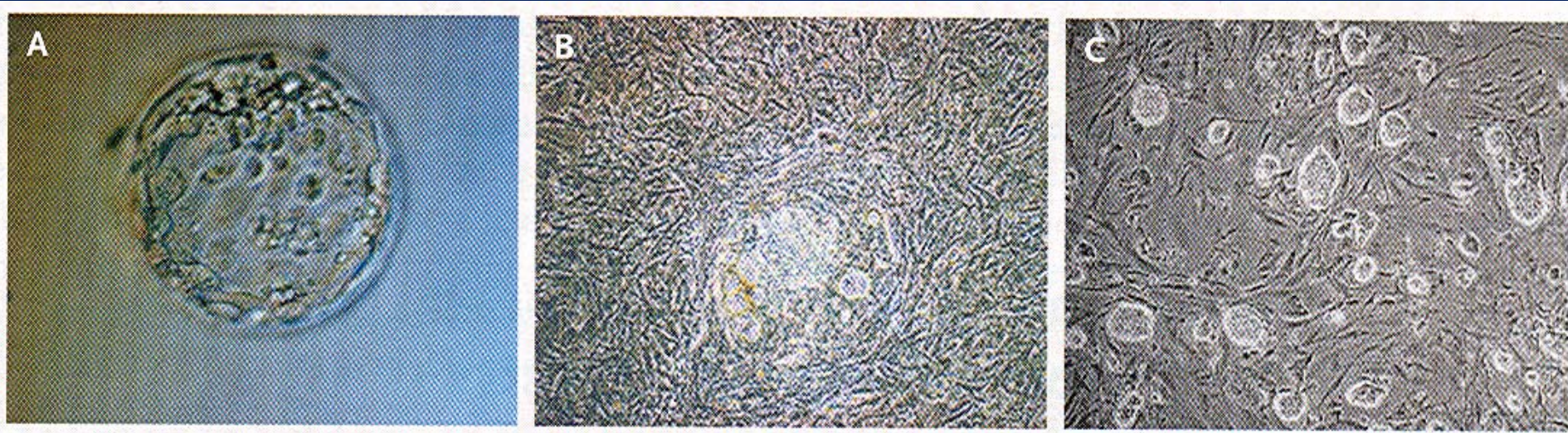
“Ethics, Advertising and Assisted Reproduction: The Goals and Methods of Advertising”

Concern for “commodification” of life and life products

Concern for availability, allocation, and pricing of the technology

Allen R. Dyer: *Women's Health Issues* 7:3, pp. 143-148. May/June 1997

Human Embryo



Blastocyst stage

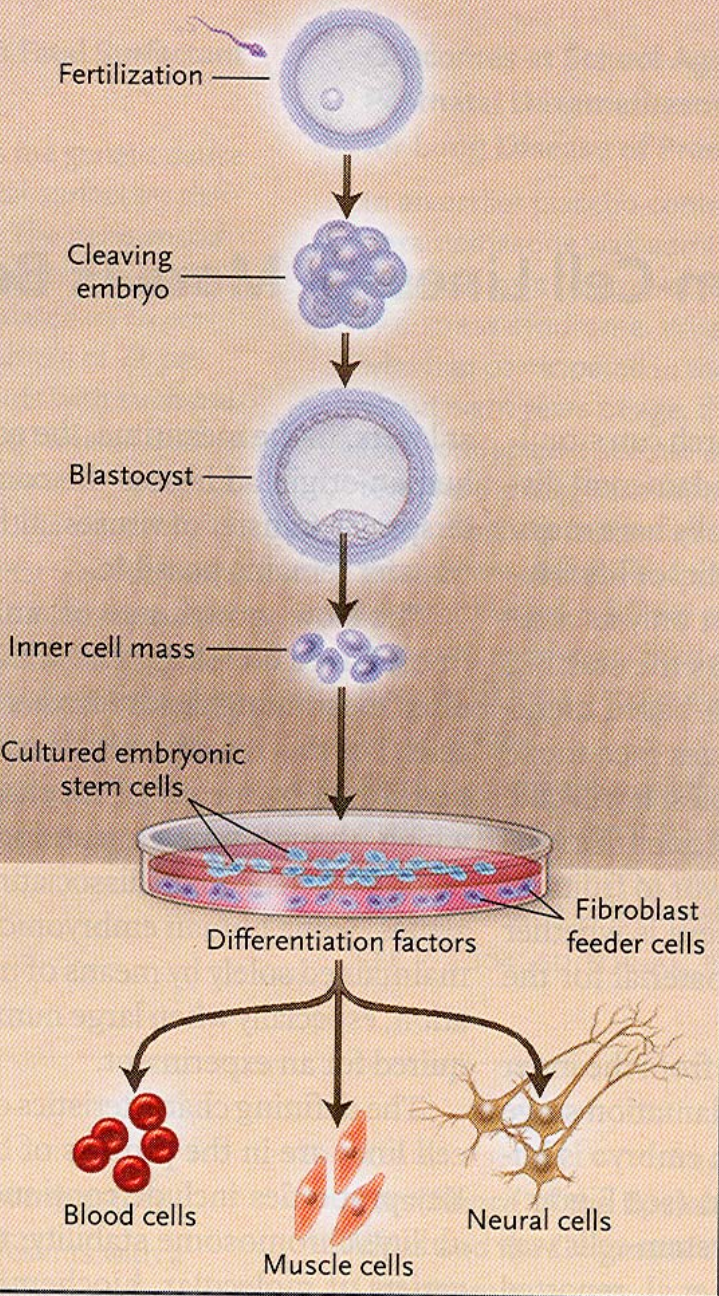
Immunosurgery

Embryonic stem cells

Scientific

STEM CELL (DEFINITION)

A cell that has the ability to continuously divide and differentiate (develop) into various other kind(s) of cells/tissues

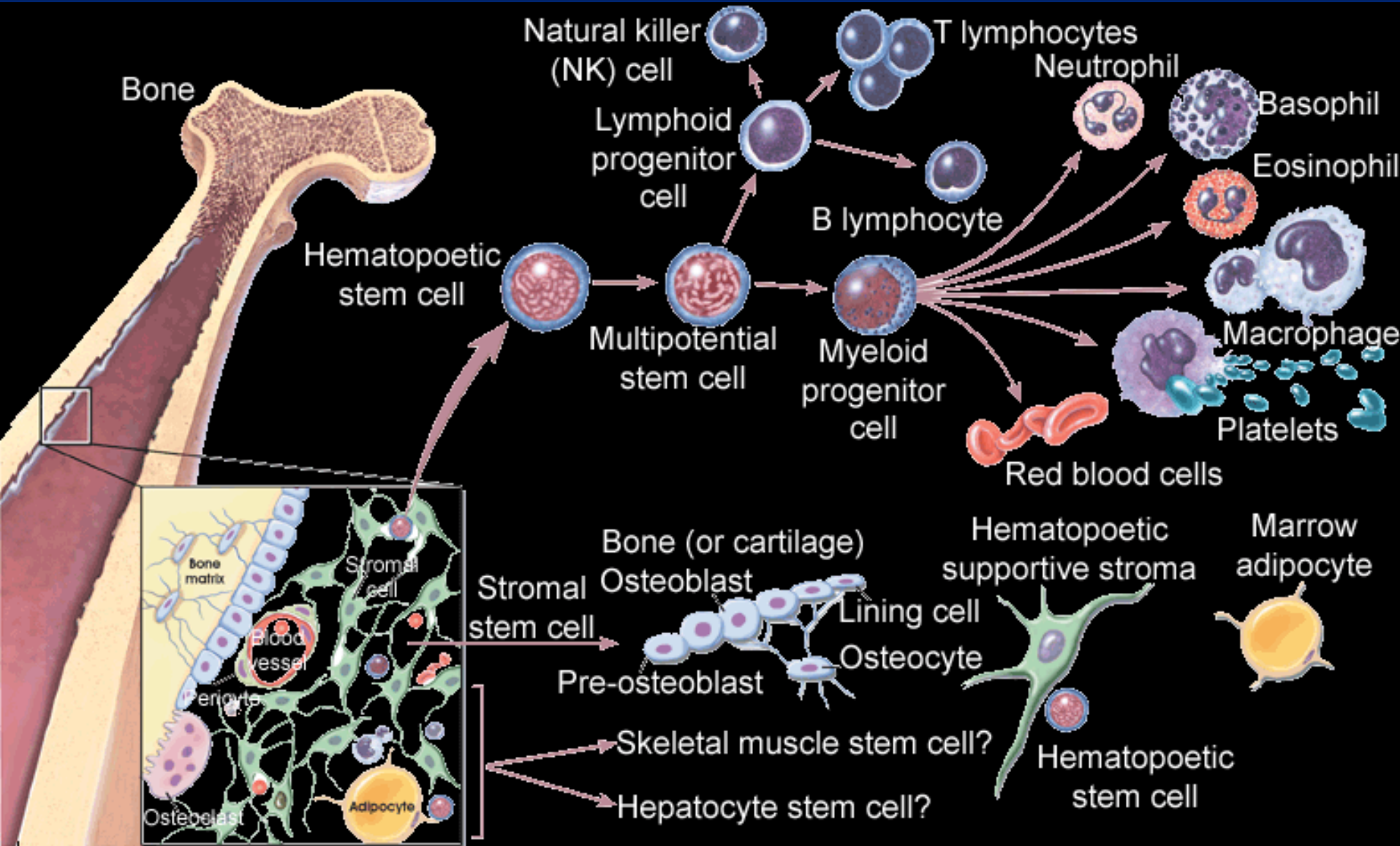


Stem cell type	Description	Examples
Totipotent	Each cell can develop into a new individual	Cells from early (1-3 days) embryos
Pluripotent	Cells can form any (over 200) cell types	Some cells of blastocyst (5 to 14 days)
Multipotent	Cells differentiated, but can form a number of other tissues	Fetal tissue, cord blood, and adult stem cells

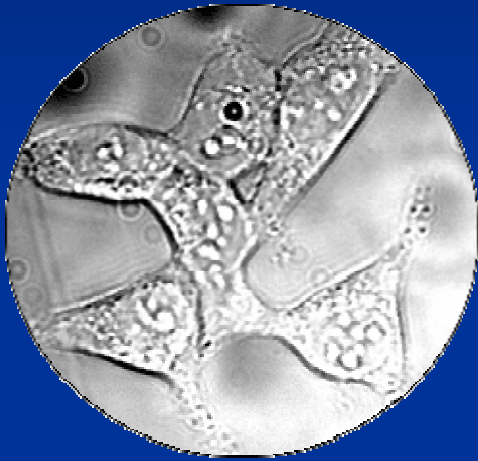
History of Human Stem Cell Research

- In 1968, the first bone marrow transplant was successfully used in treatment of SCID
- Since the 1970's, bone marrow transplants have been used for treatment of immunodeficiencies and leukemias

Bone Marrow Stem Cells



History of Human Embryonic Stem Cell Research



- 1954 – John Enders received a Nobel prize in Medicine for growing polio virus in human embryonic kidney cells

History of Human Embryonic Stem Cell Research



- In 1998, James Thomson (University of Wisconsin-Madison) isolated cells from the inner cell mass of the early embryo, and developed the first human embryonic stem cell lines.
- In 1998, John Gearhart (Johns Hopkins University) derived human embryonic germ cells from cells in fetal gonadal tissue (primordial germ cells).

Pluripotent stem cell “lines” were developed from both sources

History of Somatic Cell Nuclear Transfer (Cloning)



- 1952 – Briggs and King cloned tadpoles
- 1996 – The first mammal cloned from adult cells was Dolly, the sheep.
- 1998 – Mice cloned
- 1998 – Cows cloned
- 2000 - Pigs cloned
- 2001 - Cat cloned (CC = Carbon copy)
- 2002 - Rabbits cloned
- 2004 - Human Embryos cloned and embryonic stem cells extracted
- 2004 -- Bull serially cloned

Possible Uses of Stem Cell Technology

- Replaceable tissues/organs
- Repair of defective cell types
- Delivery of genetic therapies
- Delivery of chemotherapeutic agents

Diseases potentially treatable with stem cells

Cancer

Diabetes

Parkinson's

Alzheimer's

Spinal Cord injury

Heart Disease

Infertility

Basic knowledge of cell development

Who are stakeholders?

People with illnesses

Parents of children with illnesses

Physicians and scientists

Research Institutes: NIH, Universities,

Corporations and shareholders (those who might profit)

Government (s)

USA, California, UK, Australia, Czech Republic,
South Korea

Taxpayers

Churches and clergy

The cells themselves

Misconceptions hamper understanding

Sources of stem cells:

Adult stem cells:

bone marrow, blood, muscle, fat, nerves , etc.

Umbilical cord stem cells:

Umbilical cord blood and placenta

Embryonic stem cells:

From TABs or (supernumerary) IVFs

Embryos made solely for research purposes

Embryos made using somatic cell nuclear transfer (SCNT)

DNA

Possible points of contention

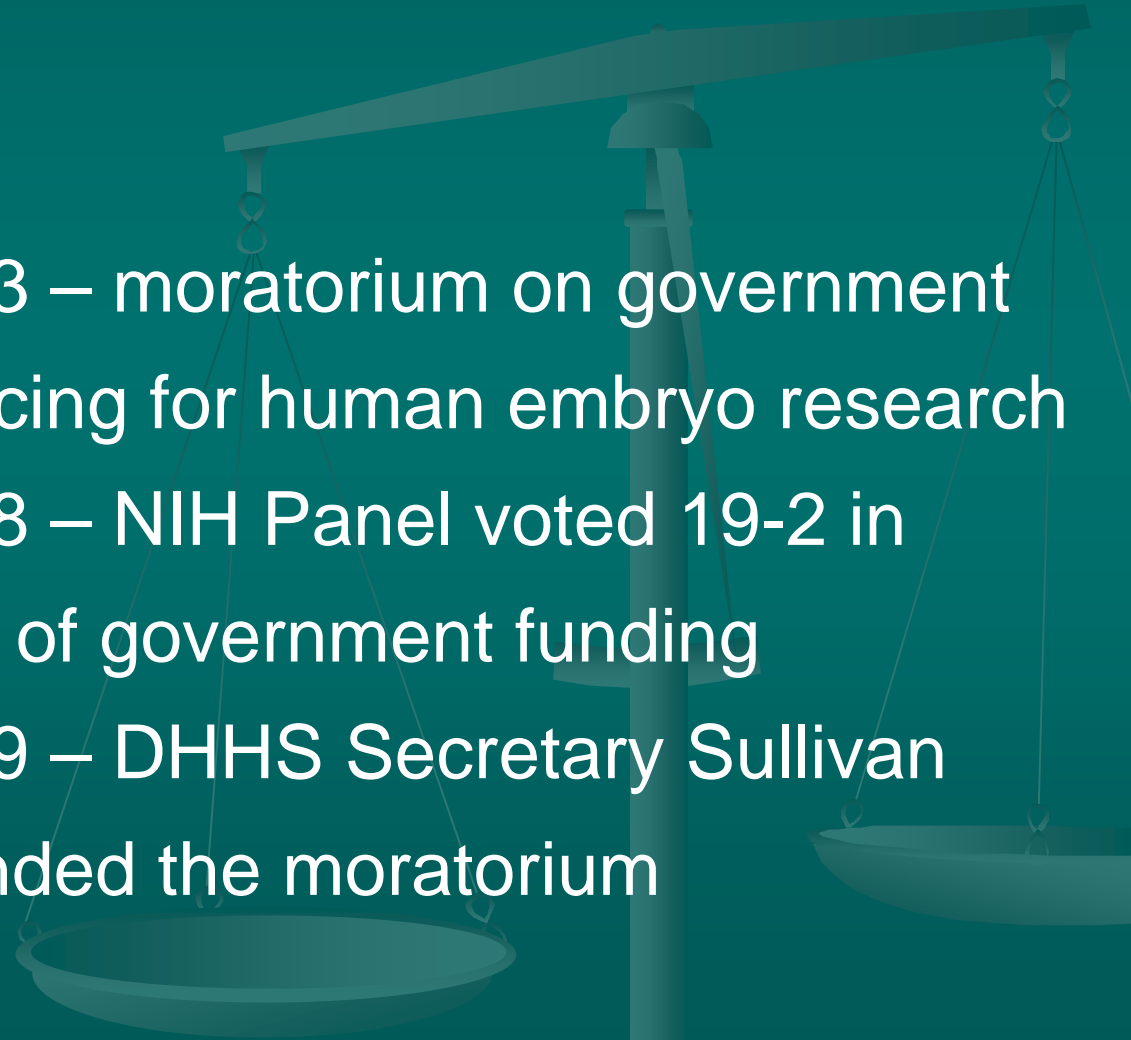
- Source of cells
- Source of funding
- Autonomy or freedom
- Respect for life
- Definition of “life”

Legal Considerations: Embryonic Stem Cell Research



Legal

- 1973 – moratorium on government financing for human embryo research
- 1988 – NIH Panel voted 19-2 in favor of government funding
- 1989 – DHHS Secretary Sullivan extended the moratorium



Legal Issues: Embryonic Stem Cell Research

- 1990 – Congress voted to override the moratorium, vetoed by President George H.W. Bush
- 1993 – President Clinton lifted the ban
- 1994 – the Human Embryo Research Panel favored research, but Clinton overrode the panel
- 1995 – Congress banned federal funding

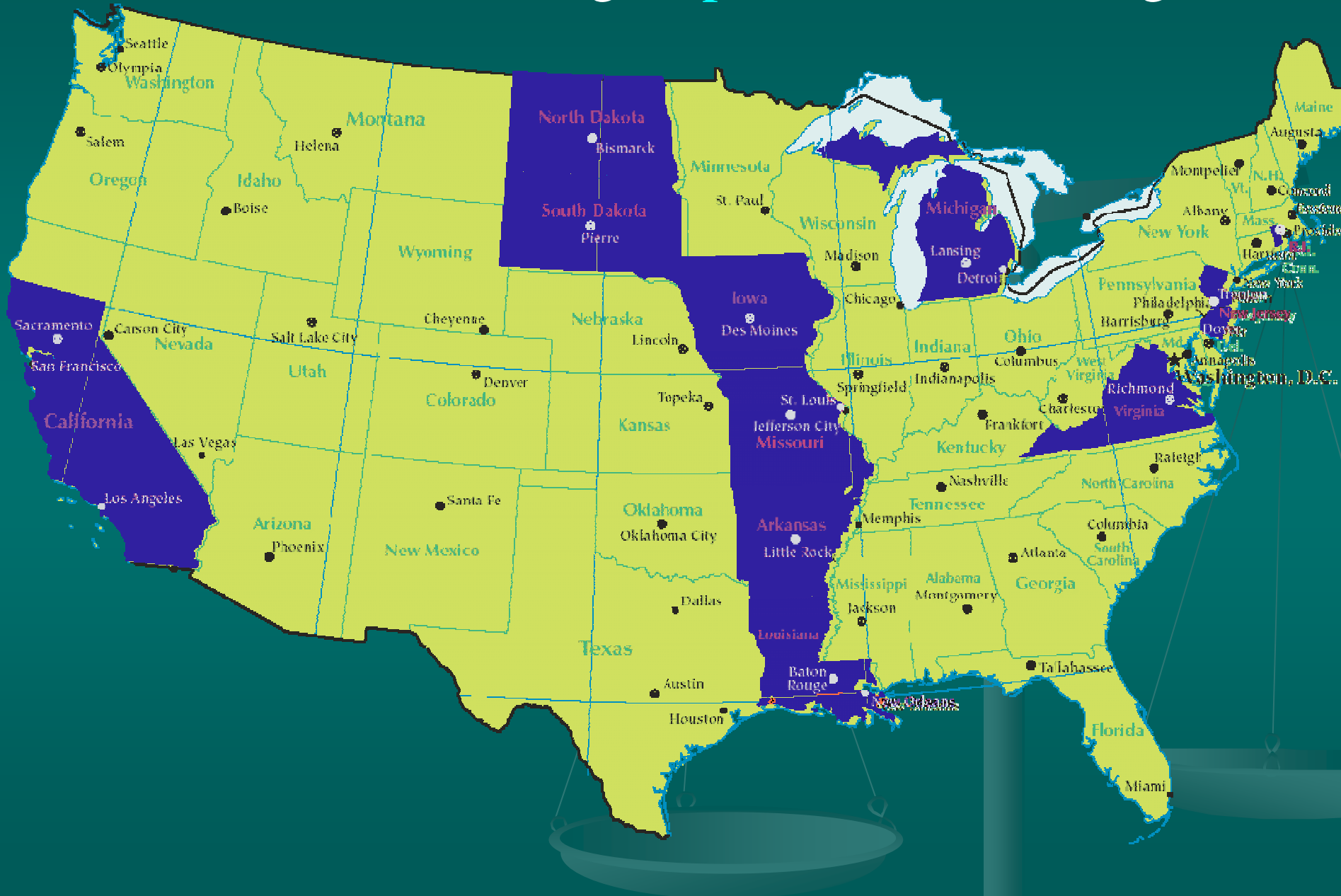


Legal Consideration: Embryonic Stem Cell Research

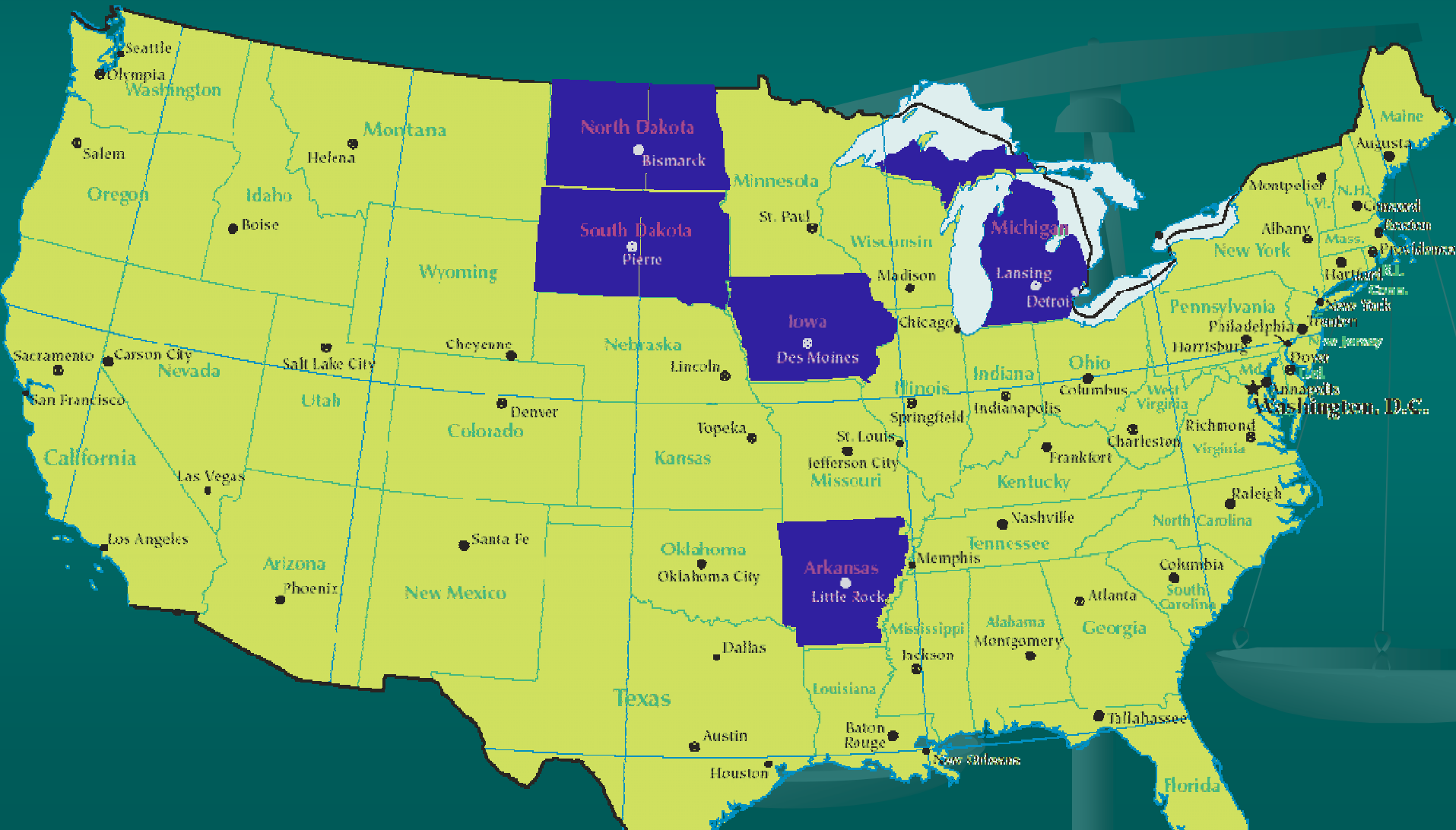
- August 25, 2000, President Clinton allowed funding of research based on cells from (aborted) human fetal lines, but not embryonic cells
- On August 9, 2001, President Bush announced his decision to allow Federal funds to be used only for research on existing human embryonic stem cell lines created prior to his announcement



Laws Banning Reproductive Cloning



Laws Banning Research Cloning



Embryonic Reproductive Cloning Laws Worldwide



Embryonic Research Cloning Laws Worldwide



Legislation on Reproductive/Therapeutic Cloning, Embryo Research, and Stem Cell Research 2003

Reproductive Cloning allowed	None
Therapeutic Cloning (SCNT) allowed (US,UK,Netherlands, Japan, Israel)	5
(General) Research on Embryos allowed +Australia,Brazil, Canada,Finland, France, Iceland, Spain, Sweden	13
Stem Cell Research on Spare Embryos allowed	12

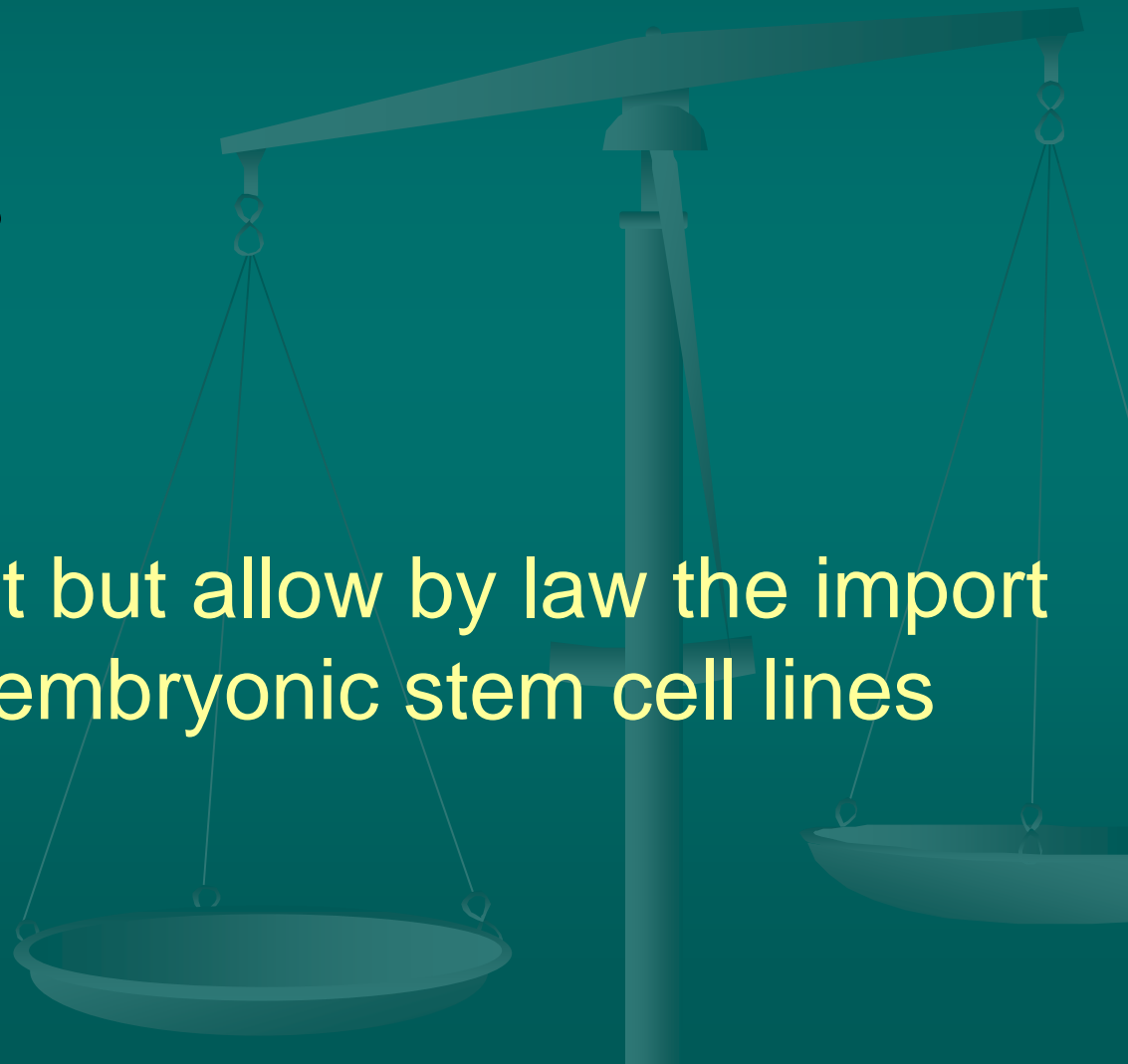
Source: *Encyclopedia of Bioethics*

Allow for the procurement of human embryonic cells from supernumerary embryos by law

- Finland
- Greece
- The Netherlands
- Sweden
- United Kingdom

Prohibit procurement but allow by law the import and use of human embryonic stem cell lines

Germany



IVF cells only to be used for medical assisted reproduction

- Austria
- Denmark
- France
- Iceland
- Spain

Allowing for creation of human embryos for stem cell procurement by law

United Kingdom



The Case for Federal Funding

“The only possible source for adequate support of our medical schools and medical research is the taxing power of the Federal Government. Such a program must assure complete freedom for the institutions and the individual scientists in developing and conducting their research work.”

- a) 1932
- b) 1945
- c) 1995
- d) 2004

The Case for Federal Funding

“The only possible source for adequate support of our medical schools and medical research is the taxing power of the Federal Government. Such a program must assure complete freedom for the institutions and the individual scientists in developing and conducting their research work.”

b) 1945 US Surgeon General Thomas Parran arguing for the establishment of the National Institutes of Health (NIH)

California Stem Cell Research and Cures Initiative

- November, 2004, ballot initiative passed
- Run by an Independent Citizen's Oversight Committee composed of politicians, advocacy groups, and executive officers of universities
- Provides \$3 billion for embryonic stem cell research
- Grants up to \$6 million
- Includes construction costs

Contributions from Religious traditions

(No consistent positions)

- Catholic (varies over time) tends to identify point of life at conception
- Protestant: varies by denomination, region, congregation, and parishioner
- Jewish tends to favor research, early intervention, prenatal diagnosis, and treatment
- Muslim tends toward pragmatism in particular context, e.g. goals of marriage, procreation
- Buddhist many considerations and interpretations.



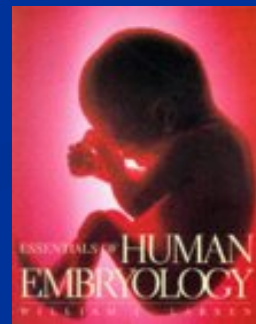
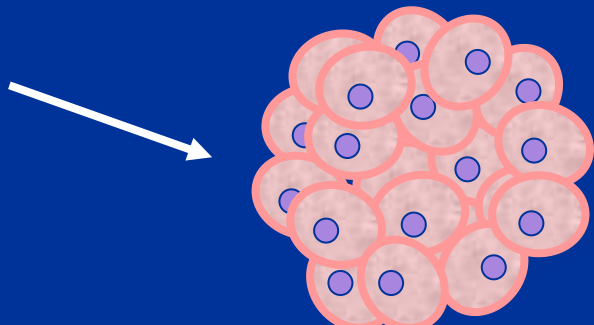
Religious

Early Judaism

- Genesis 1:28 “Be fruitful and increase in number.”
- Exodus 21: “When men strive together, and hurt a woman with child, so that there is a miscarriage, the one who hurt her shall be fined. If harm follows, then you shall give life for life.
- Developing life not give legal status of a person.
- Abortion not condoned in early Judaism.

Early Christianity

- New Testament takes no position on abortion or the status of embryonic or fetal life.
- Negative references to *pharmakeia* may refer to abortifacient drugs and not medicine generally.
- In translating Exodus from Hebrew to Greek, “harm” become “form”.



Catholicism

- The soul not joined to the body until formation.
- Only when fetal development advances to a stage that resembles human form is it possible for the human soul to be present.
- 40 days after conception for males/90 for females.
- Until 1869 Catholic Church recognized a distinction between the ensouled and unensouled fetus.

Another distinction

- *Possible* persons - entities that could possibly develop into persons if certain actions were taken with respect to them (e.g. implantation)
- *Potential* persons - entities that will develop into persons in the normal course of events unless that development is interrupted
- Development of “primitive streak” at 14 days a possible “moral marker”
- Development of gastrulation, organ formation, at 17 days
- Development of neural tube at 21 days

Protestant

- Many forms
- Luther and Calvin rejected the philosophical theology of Thomas Aquinas
- Protestantism sees abortion (and other reproductive decisions) as a matter of individual conscience (no papal authority)
 - now more tolerant of abortion as a matter of choice or individual responsibility (no state religion).
- Discouraged for less than urgent reasons

Contemporary Judaism

- Tolerant of contemporary public policy of “choice”
- Teaches abortion should be chosen only for compelling reasons.
- Embryo’s status for the first forty days according to Talmud “as if it were simply water”.
- Hence Judaism supportive of IVF and preimplantation genetic diagnosis.

Islam

- Koran 23:12-16 Human creation begins with a tiny drop from which the larger fetus is fashioned by God the creator, who breathes life into what is formed.
- Distinguishes between souled and unensouled fetus.
- End of 4th month-point when abortion is no longer permissible.
- Technology not valued abstractly: reproductive technology must serve health within context of marriage.

Asian Traditions

- More practical and less divisive than in West
- Require woman to make thoughtful and compassionate decisions
- In Japan fetal loss is mourned and observed with ritual and remembrance (*mizuko*)
- In China, abortion not only permitted but mandatory after first child.
- India, as China, has development stem cell lines. Public encouragement for potential benefit.

Buddhist Ethics

"Cloning is a different way of thinking about the recycling of life,"

"It's a Buddhist way of thinking."

Professor Yong Moon

from Korea's Seoul National University at the American Association for the Advancement of Science 2004

Just a few days earlier at the same conference, Moon was part of the team that announced it had successfully cloned human embryos and extracted sought-after and versatile embryonic stem cells.

***Hwang, W.S., et al. 2004. Evidence of a Pluripotent Human Embryonic Stem Cell Line Derived from a Cloned Blastocyst. *Science* 303: 1669-1674.**



S. Korea's Cloning Crisis

The South Korean team was the first to extract stem cells from cloned human embryos and the first to clone a dog

Dr. Hwang Woo Su announced he had (1) used eggs donated by junior colleagues working in his lab and (2) paid 20 donors \$1400.

Originally he had denied these claims.

NY Times, Nov 21, 2005

Call for international standards

Confucian tradition

- “Ren” = “good birth”
- Chinese generally have a concern to reduce the number of deleterious genetic diseases in the population.
- Collective good generally given higher priority than that of the embryo or individual rights.

Cloned Embryos

- Catholicism opposes ablation of inner cell mass (ICM) of blastocyst.
- Southern Baptist Convention (1999) vigorously opposition to destruction of innocent human life (including embryos)
- Presbyterian Church (USA) (2001) “We affirm the use of human stem cell tissue for research that may result in the restoring of health to those suffering from serious illness.”
- Judaism stresses God-given human role in mending creation. “The Torah commands us to treat and cure the ill and to defeat disease wherever possible.” (2002)

Ethical principles for Embryonic Stem Cell Research

- Principle of **Respect**
 - Embryo is human life which should not be damaged without reason and good cause.
 - Because of potential benefit in treating human diseases, research should be allowed and supported.
- Principle of **Informed consent** (autonomy)
- Principle of **Safety and utility** (non-maleficance)
- Principle of **Non-commercialization** (justice)
 - Tissues and cells should be donated
 - Buying and selling of gametes, embryos and fetal tissues should not be allowed.

Conclusion

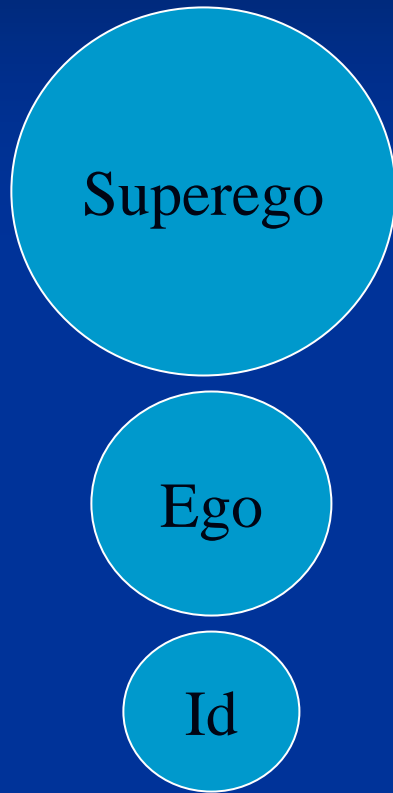
The religions today, even in their disagreements, serve to focus both our awe at the mysteries of our humanity and our anxieties about our futures.

Religious traditions will probably continue to adapt to our changing knowledge of ourselves and our growing powers to modify our nature. In so doing they will perhaps shed some light on our biological origins and on our technological destiny.

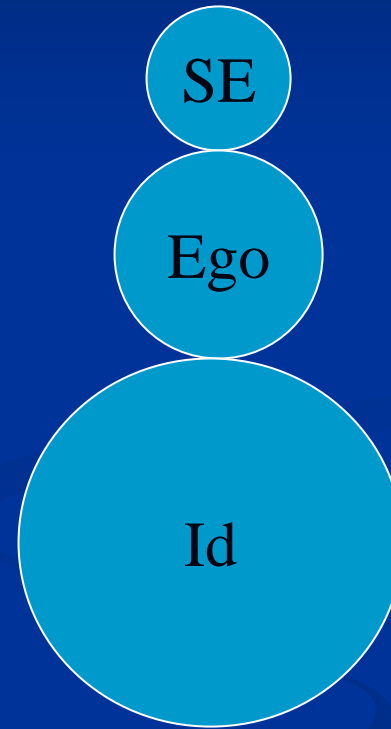
Ronald Cole-Turner

Encyclopedia of Bioethics

Dynamic Social Contract



Neurotic



Sociopath