

## BIOETHICAL DECISION MAKING

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### Biotechnology

Life is complicated. As “living human documents,” caring people live their lives in a complex web of social networks and interpersonal relationships. These multiple relationships can be life giving or life draining depending the health and quality of these inter-human connections. Historically the Christian practice of “pastoral care” has focused on healing broken relationships, strengthening the quality of existing relationships, and equipping people to build new relationships. Spiritual care and counselling continues this practice as people of different faiths and of no faith encounter each other.

Life is also complex. Scientists are now unlocking the genome, the very mysteries of life, in their work that is exploring and identifying the genotypes of people and other living organisms. This has opened up an entire new field of endeavor which has been called “biotechnology.” This contentious work has been hailed for its great potential, critiqued for its dangers to people, and even condemned for the implications it may have for what many understand as the earth community. The World Council of Churches captured some of the transformative dynamic when it reported in 1989,

*Industrialized civilization is opening a new chapter in its history. The revolution of biotechnology now sweeping the world is granting power over the genetic structures of human life. Radically new possibilities controlling human reproduction choices are being conferred upon people. Power over the internal composition and structure of living matter is at hand. Humanity is now developing the tools capable of redesigning the inner fabric of life for biological organisms, including our selves. The relationship of humanity to the created world is undergoing a historically unprecedented transformation.<sup>1</sup>*

Traditionally biotechnology such as selective breeding has been used for some 6000 years tracing its roots to the Babylonians, Egyptians and Romans. George Mendel in the 19<sup>th</sup> century in his work with seeds identified “genes” establishing a basis for the study of genetics. The scandalous application of eugenics and human experimentation during World War II led to the development of the Nuremberg Code during the trials of war criminals at Nuremberg in 1949 (see Canadian Medical Association at [http://www.cma.ca/index.cfm/ci\\_id/12790/la\\_id/1.htm](http://www.cma.ca/index.cfm/ci_id/12790/la_id/1.htm)) With the discovery in 1943 that deoxyribonucleic acid (DNA) carried genetic information and that this information could be manipulated, a new era of “modern biology” began.<sup>2</sup> The term biotechnology was first coined by a Hungarian engineer, Karl Erely in 1919.<sup>3</sup> Biotechnology is generally defined as... *taking a living organism and using it to produce something.*<sup>4</sup>

## Bioethics

Bio-ethical issues began to emerge in the public consciousness in North America in 1962 when Life Magazine published an article on the Seattle Artificial Kidney Program.<sup>5</sup> In 1973 there was the U.S. Supreme Court Roe versus Wade decision on abortion. In 1973 there was the fetal tissue debate and in 1974 when the infamous Tuskegee Syphilis Study was exposed which led in the U.S. to the creation of National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research to develop principles to guide treatment and research. In 1979, the Belmont Report was released that included principles and requirements to guide researchers and practitioners.

The complications and complexities of human life has always been the focus of attention for faith based communities. One description of the objective in the practice of spiritual care and counselling has been broadly described as ... *creating a space where we can confront the essential truths about ourselves and our relationships, including our families and community.*<sup>6</sup> One of the consequences of biotechnology is to widen and deepen the scope of considerations for people and for those accompanying those for whom they have a professional responsibility.

Helping people and institutions make personal and social choices based upon their values and convictions has always been the focus of attention for faith based communities. This is accomplished and expressed in various ways in different religious traditions. Bioethics originates from the Greek word for life (*bios*) and the term used to describe right conduct (*ethics*).

Unraveling and addressing the dilemmas posed by new biotechnologies and determining an appropriate course of action is the field of bioethics. Bioethics began as a single discipline, focusing on principally bio-medical issues but quickly became interdisciplinary pulling together medicine, molecular biology, genetics, biology, as well as law, philosophy, public policy and theology. According the ethicist Dr. Al Jonsen, contemporary bioethics is a “*mélange* of disciplines” which works within the large history of care, law, medicine and the wider context of public policy discussion.<sup>7</sup> Whereas initially some have argued that the “secularization” of bioethics was way to keep the focus of ethical deliberation within the realm of scientific discussion, ethicist like Dr. Lisa Sowle Cahill have called for a participatory theological bioethics that engages a wider public.<sup>8</sup>

### The Mouse That Roared

In May 2002 the Supreme Court of Canada met to decide the fate of a mouse. Harvard University was seeking a Canadian patent for its’ “Oncomouse” which had been genetically engineered for cancer research. A patent had been granted in the United States in 1987. The Canadian Council of Churches opposed the precedent setting effort to patent a higher life form. The CCC received intervener status in the Government of Canada’s appeal to the Supreme Court. On December 5, 2002, writing for the majority, Mr. Justice Michel Bastarache agreed writing, “the best reading of the words of the (Patent) Act supports the conclusion that higher life forms are not patentable.....” ([www.ccc-cce.ca](http://www.ccc-cce.ca))

## Bio-engineering, Bio-medicine, and Sexuality

Biotechnology affects a wide variety of human and non-human activity. Fundamentally biotechnology is about intervening in the life creating- sustaining-ending process. There are a wide range of areas that use biotechnology (e.g. agriculture, forestry, mining etc.) While the focus here will be primarily on those issues that relate to the provision of spiritual care to people, these broader issues do raise questions that do impact people and the care they can receive. It might be helpful to identify at least three broad types of issues posed by biotechnology applications – (1) Bio-Engineering issues, (2) Bio-Medical issues and (3) Sexuality issues.

Bio-engineering generally involves the manipulation of genetic material. Genetically engineered or modified organisms have been enabled by the capacity to transfer of genetic material across natural species boundaries and between species. Bio-medical technological advances have made it possible to intervene earlier in the life creating process, to perform medical procedures inconceivable just a few years ago and to prolong life beyond what has been the traditional understanding of death. While not traditionally understood as within the arena of bioethics, the Royal Commission on Reproductive Technologies has helped make it clear that issues of human sexuality can be involved when biotechnology is used. Table 1 offers some examples of the kinds of issues that may be raised.

**Table 1 Some Examples of Bioethical Issues Pertaining to Care Institutions**

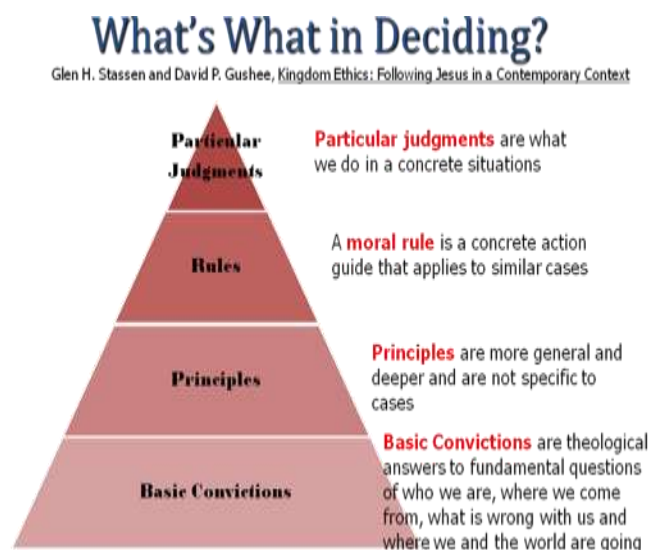
Bio-engineering Issues	Bio-medical Issues	Sexuality Issues
The use of genetic information technologies in health-care systems	Withdrawing or withholding various forms of life supporting treatment for critically ill patients;	Prenatal diagnosis, genetic screening and selective abortion
The use of genetically modified food in health care and long term care institutions versus organic food and hormone and antibiotic free dairy goods (e.g. the Health Care without Harm pledge) <sup>9</sup>	Psychosurgical, psychopharmacological and conditioning approaches to control human behavior	Sperm and egg donations
The impact of the institutional use of biotechnology on the environment (e.g. bio-filtration, bio-remediation to detoxify toxic wastes)	The Human Genome project and genetic therapy	Birth control
Brain and computer interfacing	Transplantation of organs, xenotranplantation (animal organs)and artificial organs	Reproductive Technologies (e.g. infertility treatments, artificial insemination,etc.)

Bio-engineering Issues	Bio-medical Issues	Sexuality Issues
Gene Therapy	Definitions of “death” and decisions at the end of life	In Vitro fertilization, surrogate motherhood, procreative liberty, artificial womb
	Body modification	Intersex or Disordered Sexual Development issues

## Doing Bioethics

How should a person of faith begin to discern reliable responses and answers to the dilemmas and questions posed by this “modern biology”? This is especially germane for those providing religious and spiritual care in institutional settings. Doing bioethics is our means to respond to these important questions. If biotechnology is about intervening in the life creating- sustaining- ending process, bioethics is about determining the appropriate level and degree of intervention that should be permitted or allowed. Chaplains and religious leaders do have a contribution to make to these conversations but it does require the ability to evaluate the research and careful attention to the process and method by which bioethics is done.

Ethical issues emerge when in an encounter with a new situation or possibility, a dilemma or paradox presents itself where the customary morality that has governed our response in the past, does not seem to address this new reality or possibility. The first step in ethical deliberation is to identify clearly and as precisely as possible the dilemma or what we might call **the ethical question**. Responding to this question involves **describing and analyzing the context** (identifying who is affected, why and how). Subsequently this leads us to make some **judgments based upon our faith values** about how to proceed or what to do. Glen Stassen and David Gushee (See figure “What’s What in Deciding”) have provided a helpful description of the various ways to help understand the way people of faith express their values (See Figure).<sup>10</sup> Lastly the process leads to allow us to take some **action**,



which probably will lead to further questions. Bioethics involves the same process but as applied to questions emerging from this new modern biology.

There are many and varied theological approaches to actually doing bioethics. There are distinctive contributions that each approach can make to particular issues and at different points in time. Dr. Richard Crossman, former chairperson of the Canadian Council of Churches' Biotechnology Reference Group, has offered a typology of four approaches to doing bioethics which are helpful in understanding the various contributions of different ethicists.<sup>11</sup> The first approach is an “**ethics of certainty**” that “... emerges, based upon inviolable ‘universal’ laws or principles that can be derived from a number of sources (biblical and non-biblical/religious and scientific).<sup>12</sup> These are then applied to specific issues. The second approach is an “**ethics of adaptability**” which assumes that everything is relative. Here ethical decision is a cost benefit calculus that leads to doing the “... thing most useful to one’s own fulfillment or the fulfillment of one’s own particular community.”<sup>13</sup> The third approach in Crossman’s typology is the “**ethics of vision.**” Here there is recognition of “...the need for a universal standard, but recognizes that such a standard must be more sensitive to the particularities to which it is applied in the future.”<sup>14</sup> This approach sets a long term direction and is based upon the ideals people hold. Crossman argues that each of these approaches is helpful only in part and at particular times. Crossman argues for a fourth approach that enhances “the wholesomeness of life,” using all three of the previous three approaches at the appropriate time so as to allow for the greatest amount of “life integration,” “life development” and “life transformation.”<sup>15</sup>

Doing ethics or bioethics is never a solitary task. Many institutions have a committee that addresses ethical questions. An **Institutional Ethics Committee** normally has three aims. First they are designed to educate colleagues and those they serve on issues and their bioethical implications. Secondly, a committee can review, evaluate and modify the institutional policies in the face of changing realities. Thirdly, such a committee can provide case consultation to clarify the ethical issues and provide helpful direction and advice. The more pervasive nature of biotechnology today will broaden, deepen and expand the scope and the important role of these committees.

## A Question of Life

Stephen Allen, a Presbyterian staff member of the Canadian Council of Churches' Biotechnology Reference Group, reminds us, “We learned long ago that technology is not neutral or value free. Bio-engineering techniques are shifting some boundaries we never knew could be crossed...”<sup>16</sup> Allen goes on to point out that we cannot turn back the clock on biotechnology nor should we treat all biotechnologies as inevitable. The larger question then to ask is what forms of biotechnology can help human life in particular and life more generally to flourish in ways that are sustainable and respecting the Creator’s intention? This is the task and the challenge of bioethics today.

## For Reflection and Group Conversation

1. Can you add to the list of bio-engineering issues? Can you add to the list of biomedical issues? Can you give some samples of where bio-technology and sexuality leads to ethical dilemmas?
2. Knowing what we do today and from your experience, are there principles that you would add to a revised Nuremburg Code? What would the principles be for guidelines for your organization or institution?
3. Have you been part of an Institutional ethics committee? Were any of the methods mentioned present in your deliberations? Can to identify when one approach was used and why?
4. Search for Bioethics articles from other than Christian faith traditions.

## Some Resources

*These are some resources in the field of Bioethics. This is a rapidly expanding field and writers from other than Christian traditions are beginning to add to the body of available literature.*

Cahill, L. S. (2005). Theological Bio-Ethics. Washington, D.C., Georgetown University Press.

A Heath Care Covenant Toronto, The Canadian Council of Churches (2007).

Jersild, Paul (2009) The Nature of Our Humanity. Minneapolis, MN. Fortress Press.

Jonsen, A. R. (1998). The Birth of Bioethics. Toronto, Ontario, Oxford University Press.

Meilander, G. (1996). Bioethics A Primer for Christians. Grand Rapids, Michigan, William B Eerdmans Publishing Company.

Palardy, N., Ed. (2000). Biotechnology and Genetic Engineering Current Issues, Ethics, and Theological Reflection. Toronto, Division of Mission in Canada, The United Church of Canada.

Sutton, A. (2008). Christian Bioethics A Guide for the Perplexed. New York, New York, T & T Clark.

Tubbs, J. B. J. (2009). Bioethical Terms. Washington, D.C, Georgetown University Press.

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### End Notes

<sup>1</sup> “Biotechnology - Its challenges to the churches and the world,” Report by the WCC Subunit on Church and Society, August, 1989 at <http://www.oikoumene.org/en/resources/documents/wcc-programmes/justice-diakonia-and-responsibility-for-creation/science-technology-ethics/08-89-biotechnology.html>

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<sup>2</sup> “What Is Biotechnology?” Government of Canada, February 2, 2006 at [www.biobasics.gc.ca](http://www.biobasics.gc.ca).

<sup>3</sup> Ibid.

<sup>4</sup> Nancy Palardy Biotechnology and Genetic Engineering Current Issues, Ethics, and Theological Reflection. (Division of Mission in Canada, The United Church of Canada, Toronto, 2000) p. 9.

<sup>5</sup> Mark G Kuczewski “Lecture 1 Bioethics: History and Resources,” Neiswanger Institute for Bioethics and Health Policy Loyola University Chicago Stritch School of Medicine at [www.-hsc.usc.edu](http://www.-hsc.usc.edu).

<sup>6</sup> David Pfrimmer, “ Why Theological Schools, Educators and Supervisors Need Each Other”, The Spiritual Care Giver’s Guide(The South Western Region of the Canadian Association for Pastoral practice and Education and Waterloo Lutheran Seminary, 2008) p. 56.

<sup>7</sup> Al Jonsen, The Birth of Bioethics Oxford University Press, New York, 1998, p. 342

<sup>8</sup> Lisa Sowle Cahill, Theological Bioethics - Participation, Justice, Change (Georgetown University Press, Washington, D.C., 2005)p. 23ff.

<sup>9</sup> Canadian Centre for Policy Alternatives Monitor, (CCPA, Ottawa, ON, June 2009) p.39.

<sup>10</sup> Glen H. Stassen and David P. Gushee, Kingdom Ethics: Following Jesus in a Contemporary Context (Downer’s Grove, Il: Intervarsity Press,2003) Chapter 5.

<sup>11</sup> The Taskforce on Churches and Corporate Responsibility, Biotechnology and Genetic Engineering – Current Issues, Ethics and Theological Reflection (Division of Mission in Canada, The United Church of Canada, Toronto, ON, 2000) pp. 52-63.

<sup>12</sup> Ibid.,p.55

<sup>13</sup> Ibid., p.56

<sup>14</sup> Ibid., 57

<sup>15</sup> Ibid.pp.57-58.

<sup>16</sup> Stephen Allen, “The Oncomouse: A Test Case in Accountability” in Life Patent Pending (The Canadian Council of Churches, Toronto, ON,) p.9 (also at [www.ccc-cce.ca](http://www.ccc-cce.ca))