

**THE CATHOLIC MORAL TRADITION AND
THE GENOME PROJECT AND DIVERSITY
PROJECT**

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1. INTRODUCTION

Catholic moral theology is distinct from philosophical ethics. Philosophical ethics proceeds on the basis of reason alone and appeals to those who have not heard or do not accept the Christian gospel.¹ Moral theology, however, “reflects upon the truths of faith ... to make clear how faith should shape Christian life.”² Moreover, Catholic moral theology is to be pursued “in the light of faith, under the guidance of the magisterium of the Church.”³

This is not to suggest that the Catholic Church rejects the findings of philosophical ethics. On the contrary, The Second Vatican Council urged a revision of ecclesiastical studies such that the “main object to be kept in mind is a more effective coordination of philosophy and theology so that they supplement one another in revealing to the minds of the students with ever increasing clarity the Mystery of Christ.”⁴

¹ Germain Grisez, *The Way of the Lord Jesus Volume One Christian Moral Principles*, (Chicago: Franciscan Herald Press, 1983), 7

² *Ibid.*, 6

³ Vatican Council II, *Optatam Totius*, n 16. “In lumine fidei, sub Ecclesiae Magisterii ductu.” [All translations of Vatican Council II taken from Austin Flannery ed., *Vatican Council II The Conciliar and Post Conciliar Documents Study Edition*, (Northport, New York: Costello Publishing Company, 1987)]

⁴ *Ibid.*, n 14. “In ecclesiasticis studiis recognoscendis eo imprimis spectandum est ut disciplinae philosophicae et theologicae aptius componantur et concordie ratione conspirent ad alumnorum mentibus magis magisque aperiendum Mysterium Christi.”

Philosophical subjects should be taught in such a way as to lead the students gradually to a solid and consistent knowledge of man, the world, and God.⁵

From the Catholic point of view faith does not contradict reason, nor reason faith. The First Vatican Council (1869-1870) insisted that faith and reason were complementary.

Even though faith is above reason, there can never be any real disagreement between faith and reason, since it is the same God who reveals the mysteries and infuses faith, and who has endowed the human mind with the light of reason. God cannot deny himself, nor can truth ever be in opposition to truth.⁶

In his recent Encyclical Letter, *Fides et Ratio*⁷, Pope John Paul II reminded the Catholic Bishops that “faith and reason are like two wings on which the human spirit rises to the contemplation of truth; and God has placed in the human heart a desire to know the truth – in a word, to know himself – so that, by knowing and loving God, men and women may also come to the fullness of truth about themselves.”⁸

In this Encyclical Pope John Paul traces the history of Christian theology, the synthesis of faith and reason in which the truth about God is proposed and explored, from the early Fathers such as Origen, the Cappadocian Fathers, Dionysius called the

⁵ *Ibid.*, 15. “Philosophicae disciplinae ita tradantur ut alumni imprimis ad solidam et cohaerentem hominis, mundi et Dei cognitionem acquirendam manuducantur.”

⁶ Vatican Council 1, *Dei Filius*, Caput IV. “Verum etsi fides sit supra rationem, nulla tamen unquam inter fidem et rationem vera dissensio esse potest: cum idem Deus, qui mysteria revelat et fidem infundit, animo humano rationis lumen indiderit; Deus autem negare seipsum non possit, nec verum vero unquam contradicere.” [Translation from Norman P Tanner, SJ ed., *Decrees of the Ecumenical Councils, Volume II*, (London: Sheed & Ward Ltd., 1990), 808-809]

⁷ *Faith and Reason*

Areopagite, and St Augustine through St Anselm and Thomas Aquinas. From the late mediaeval period onwards the legitimate distinction between theology on the one hand and philosophy and science on the other, became a tragic separation and even an opposition. The Catholic Church, however, continued to insist upon the need for the synthesis of faith and reason. *Credo ut intellegam*⁹. *Intellego ut credam*.¹⁰ Thus Pope John Paul II renews the call of the church for intellectuals to take seriously both philosophy and Revelation.

For between the vocation of the Blessed Virgin and the vocation of true philosophy there is a deep harmony. Just as the Virgin was called to offer herself entirely as human being and as woman that God's Word might take flesh and come among us, so too philosophy is called to offer its rational and critical resources that theology, as the understanding of faith, may be fruitful and creative.¹¹

On this basis the findings of the physical and philosophical sciences, in so far as they reveal the truth about man and about the created order, must be in harmony with the truths revealed by God in Christ and which may be found in Sacred Scripture and Sacred Tradition.¹²

Thus the Catholic Church, in its commitment to truth, including moral truth, is uniquely placed to morally evaluate developments in the applications of scientific knowledge. Unafraid of the truth wherever it may be discovered, in fact rejoicing in an ever deeper and more profound scientific knowledge of the universe, the Catholic magisterium and Catholic and Protestant moral theologians have been in the forefront

⁸ John Paul II, *Fides et Ratio*, Greeting

⁹ I believe in order to understand.

¹⁰ I understand in order to believe.

¹¹ John Paul II, *Fides et Ratio*, n 108

of ethical reflection not only on the human genome project but on the entire scientific enterprise. This is not surprising since Judaism, Christianity and Islam all propose a view of reality which is accessible to human inquiry.¹³

The Catholic Church has acknowledged the enormous benefits to human beings which scientific, medical, and psychological experiments on human individuals and groups can bring. Such scientific research, including applied research, is seen as “a significant expression of man’s dominion over creation” and as “precious resources when placed at the service of man and promote his integral development for the benefit of all.”¹⁴ This general approval of the scientific project is subject to certain important qualifications.

First, science and technology are essentially human projects. They are “ordered to man, from whom they take their origin and development; hence they find in the person and in his moral values both evidence of their purpose and awareness of their limits.”¹⁵

Secondly, the Church rejects any idea of “moral neutrality” in scientific research and its applications. It is an essentially human project involving human choices and is, accordingly, a profoundly moral project.¹⁶

Thirdly, the Catholic Church rejects any morality which seeks to approve scientific research and its applications solely on the basis of technical efficiency, or on the basis of a utilitarian calculation whereby benefits to majorities are purchased at

¹² Cf Vatican Council II, *Dei Verbum*, n 9

¹³ Cf theologians such as Thomas F Torrance, E.L. Mascall, SL Jaki, and G Florovsky

¹⁴ *Catechism of the Catholic Church* (CCC), n 2293

¹⁵ *Ibid.*

¹⁶ *Ibid.*, 2294

the expense of others, and especially on the basis that it serves prevailing political, social, or economic ideologies.¹⁷

Science and technology by their very nature require unconditional respect for fundamental moral criteria. They must be at the service of the human person, of his inalienable rights, of his true and integral good, in conformity with the plan and the will of God.¹⁸

2. NATURAL LAW

The Church's moral teachings conform to the natural law, which law may be apprehended by reason and further enlightened and clarified by the light of faith. Saint Paul accepted and taught that there is a certain normative form of morality to which everyone has access whether he is a Catholic or not. These requirements are "written on their hearts". So Gentiles, while they do not have the law which was divinely revealed to the Jews, nevertheless have this given standard of right conduct.¹⁹

These naturally known principles are the principles of "natural law".²⁰ The term "natural" here is not be contrasted with unnatural, and does not represent a contrast between the physical and the intellectual. These principles are *natural* in the sense that they are not humanly enacted but are objective principles which originate in human nature.²¹

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ *Romans 2: 14-16*

²⁰ Germain Grisez, *op. cit.*, 173

²¹ *Ibid.*

The principles of natural law are, then, not principles invented by, thought up by, or constructed by human beings. They are principles which arise from and correspond to human nature and account for our natural sense of right and wrong.

The principles of natural law are related to what Saint Thomas Aquinas calls the “eternal law”.²² Grisez summarises Saint Thomas’ teaching on this point: “People can plan their lives reasonably only because, in one way or another, they share in the universal plan perfectly present in God’s eternal law.”²³ The natural law is then, “nothing else than the rational creature’s participation of the eternal law.”²⁴ For Saint Thomas

The light of our reason is able to show us good things, and guide our will, in so far as it is the light of (ie derived from) God’s countenance.²⁵

That there are fundamental moral values and principles engraved in the hearts, minds, and consciences of human beings is attested to also by the Charter of the United Nations, the *Universal Declaration of Human Rights*, the *International Covenant on Civil and Political Rights*, and other universally accepted human rights instruments. Here universal agreement may be found to the notion of the inherent dignity of the human individual, that all members of the human family have certain fundamental rights deriving from that inherent dignity, that no innocent person is to be denied those rights on any basis whatsoever including disability and personhood,

²² *Summa Theologica*, 1-2, q. 91, a. 1; q. 93, a. 1

²³ Germain Grisez, *op. cit.*, 174

²⁴ *Summa Theologica*, 1-2, q. 91, a. 2. “Unde patet quod lex naturalis nihil aliud est quam participatio legis aeternae in rationali creatura.”

²⁵ *Summa Theologica*, 1-2, q. 19, a. 4. “Lumen rationis quod in nobis est, intantum potest nobis ostendere bona, et nostram voluntatem regulare, inquantum est lumen vultus tui, idest as vultu tuo derivatam.”

that the fundamental rights of the unborn child are equally to be protected in law²⁶, and that the State can make no legal provision for euthanasia or assisted suicide²⁷.

The promotion of fundamental human rights as consistent with the Catholic Church's teaching on natural law has been explicated consistently by the present Pope and following the teachings of Pope John XXIII, the Second Vatican Council, and Pope Paul VI.

Peace comes down to respect for man's inviolable rights - *Opus iustitiae pax* - while war springs from the violation of these rights and brings with it still graver violations of them.²⁸

Indeed the Fathers of the Second Vatican Council reminded governments of their special responsibilities to govern in such a way that, in every human endeavour, fundamental human rights would be safeguarded in law because human rights derive from the natural law.

The protection and promotion of the inviolable rights of man ranks among the essential duties of government.²⁹

In the exercise of their rights, individual men and social groups are bound by the moral law to have respect both for the rights of others and for their

²⁶ For a full account of the incompatibility of legal abortion with international law see Fleming, John I and Hains, Michael G, "What Rights If Any Do The Unborn Have Under International Law?", *Australian Bar Review*, November 1997, Volume 16 Number 2, 181-198. For some of the implications of this for the Genome Project and the Diversity Project see my "Ethics and the Human Genome Diversity Project", *Law and the Human Genome Review*, No 4 January-June 1996, 141-164 and especially pages 150-164

²⁷ Cf my "Euthanasia: Human Rights and Inalienability", *The Linacre Quarterly*, February 1996, Volume 63 Number 1, 44-56

²⁸ Pope John Paul II, *Redemptor Hominis*, n 17

²⁹ *Dignitatis Humane*, n 6

own duties toward others and for the common welfare of all. Men are to deal with their fellows in justice and civility.³⁰

Furthermore, society has the right to defend itself against possible abuses committed on the pretext of freedom of religion. It is the special duty of government to provide this protection. However, government is not to act in an arbitrary fashion or in an unfair spirit of partisanship. Its action is to be controlled by juridical norms which are in conformity with the objective moral order. These norms arise out of the need for the effective safeguard of the rights of all citizens and for the peaceful settlement of conflicts of rights, also out of the need for an adequate care of genuine public peace, which comes about when men live together in good order and in true justice, and finally out of the need for a proper guardianship of public morality.³¹

The connection between the pastoral promotion of human rights and the mission of the Church in the modern world is thus intimately connected because, says John Paul II, “every act which belittles man’s dignity and frustrates his potential for fulfilling himself is *an act contrary to God’s plan* for man and for all creation.”³²

Elsewhere John Paul II points to the explicit link between the natural law and the nature of the human person and in the face of those who claim freedom (autonomy) as an absolute. Such freedom, he says, “ends up treating the human body as a raw datum, devoid of any meaning and moral values until freedom has shaped it

³⁰ *Ibid.*, n 7

³¹ *Ibid.*

³² Pope John Paul II, “Human Rights Are By Nature Universal”, an address to the Congress on Human Rights, July 4 1998 and published in *L’Osservatore Romano* on July 29, 1998 (see pages 3 & 8)

in accordance with its design.”³³ But the human person is a psychosomatic unity. “The rational soul is *per se et essentialiter* the form of his body.”³⁴ Natural law refers to “man’s proper and primordial nature, the ‘nature of the human person’, which is *the person himself in the unity of soul and body*, in the unity of his spiritual and biological inclinations and of all the other specific characteristics necessary for the pursuit of his end.”³⁵ So it is that the “origin and foundation of absolute respect for human life are to be found in the dignity proper to the person and not simply in the natural inclination to preserve one’s own physical life.”³⁶

The connection between the dignity of the human person and human rights had been spelled out earlier by Pope John XXIII. Fundamental human rights spring from the inherent dignity of the human person.

May the time come as quickly as possible when every human being will find therein [ie in the *Universal Declaration of Human Rights*] an effective safeguard for the rights which derive directly from his dignity as a person, and which are therefore universal, inviolable and inalienable rights. This is all the more to be hoped for since all human beings, as they take an ever more active part in the public life of their own country, are showing an increasing interest in the affairs of all peoples, and are becoming more consciously aware that they are living members of the whole human family.³⁷

³³ Pope John Paul II, *Veritatis Splendor*, n 48

³⁴ *Ibid.* Cf Ecumenical Council of Vienne, Constitution *Fidei Catholicae*: DS, 902; Fifth Lateran Ecumenical Council, Bull *Apostolici Regiminis*: DS, 1440

³⁵ *Ibid.*, n 50

³⁶ *Ibid.*

³⁷ Pope John XXIII, *Pacem in Terris*, n 145

John XXIII's support for the *Universal Declaration of Human Rights* was not new. In 1948, when he was Papal Nuncio in Paris, Angelo Giuseppe Roncali [later Pope John XXIII] was active in the formulation of the Universal Declaration of Human Rights, and hoped that "the Universal Declaration would save humanity from another war."³⁸

From Pope John XXIII onwards the Catholic Church has expressly embraced (not without some reservations) the human rights instruments of international law, seeing in them a fidelity to the natural law and the possibility for greater recognition of and the protection of the dignity of the human person and fundamental human rights.

So then, the Catholic moral tradition, in accordance with the natural law, and in harmony with the relevant human rights instruments which constitute international law, promotes the inherent dignity of every human individual from the time of the fusion of the gametes³⁹ until natural death, the moral wrongness of killing innocent human life, the good of science and medicine wherever it is oriented to the good of persons and the protection of human life, and the good of knowledge of which knowledge of God is the supreme example (ie theology is *regina scientiarum*).

3. THE GENOME PROJECT & THE GENOME DIVERSITY PROJECT

The Human Genome Project (HGP) "is not just an isolated effort on the part of molecular biologists. It is a natural development of the current themes of biology as a

³⁸ Sean McBride, "The Universal Declaration - 30 Years After", in *Understanding Human Rights: An Interdisciplinary and Interfaith Study*, ed. Alan D. Falconer, (Dublin: Irish School of Ecumenics, 1980), 8ff. "The eminent French jurist and Nobel Peace Laureate, the late Renée Cassin, has paid eloquent tribute to the assistance which Monsignor Roncali then gave to the French delegation."

³⁹ In *Donum Vitae* (Instruction on Respect for Human Life in its Origin and on the Dignity of Procreation, SCDF, February 22 1987) the first moment of existence of the human person is the zygote, "the cell produced by the fusion of the two gametes (zygotum est cellula orta a fusione duorum gametum)". *Donum Vitae*, II

whole. In the simplest sense, the idea of determining the sequence of the human genome is an attempt to define all of the genes that make up a human being.”⁴⁰

It represents an attempt to

- i) identify and analyse the structure of each gene in the human genome,
- ii) discover how the genes function and interact with each other in various parts of the body and at different stages of human development,
- iii) correlate these findings with the genome studies of other organisms and discover an evolutionary trail through all the species, and
- iv) provide a rapidly expanding cooperation with biology and information sciences.⁴¹ “Scientists hope that the information that is collected will provide the foundations for more accurate genetic diagnoses, a greater understanding of all aspects of human biology, and more accurate tools with which to carry out various forms of genetic therapy.”⁴²

The Human Genome Diversity Project (HGDP) has to be ethically evaluated in the context of the Human Genome Project (HGP). Both are being developed under the umbrella of the Human Genome Organisation (HUGO)⁴³. The HGDP is a particular example of population genetics as it has developed this century. Population genetics “is a discipline studying genetic variation in defined populations, including relevant aspects of population structure and geographic variability of DNA sequences

⁴⁰ Walter Gilbert, “A Vision of the Grail”, Daniel J Kevles and Leroy Hood eds., *The Code of Codes*, (Cambridge, Mass: Harvard University Press, 1992), 83

⁴¹ Anna M Krohn & John I Fleming, *Genetics & Ethics*, (Adelaide: Southern Cross Bioethics Institute, 1994), 59

⁴² *Ibid.*, 60

⁴³ cf HGD Committee of HUGO, The Human Genome Diversity (HGD) Project. Summary Document, 1994; P Kahn, “Genetic diversity project tries again”, *Science* 266 (1994): 720-2

and their frequencies”⁴⁴ while the HGDP has been described as "an international anthropology project that seeks to study the genetic richness of the entire human species".⁴⁵

The scientific aims of the HGDP are:

- a) to investigate the variation occurring in the human genome by studying samples collected from populations that are representative of all of the world's peoples, and
- b) ultimately, to create a resource for the benefit of all humanity and for the scientific community world-wide. The resource will exist as a collection of biological samples that represents the genetic variation in human populations world-wide and also as an open, long-term, genetic and statistical database on variation in the human species that will accumulate as the biological samples are studied by scientists from around the world.

The main scientific value of the HGDP has been asserted to be:

- a) deepening our understanding of human history and identity.
- b) gaining knowledge about the environmental and genetic factors involved in predisposition and resistance to disease, so-called genetic epidemiology.
- c) encourage the development of local laboratories where genetic samples will be collected and analysed.⁴⁶

⁴⁴ Chee Heng Leng, Laila El-Hamamsi, John Fleming, Norio Fujiki, Genoveva Keyeux, Bartha Maria Knoppers, and Darryl Macer, "Bioethics and Human Population Genetics Research", International Bioethics Committee of UNESCO *Proceedings of the Third Session September 1995 Volume 1*, 39

Both of these projects involve not only an attempt to better understand human beings but also promise substantial benefits for the health and well-being of the human family. However, these same projects carry with them major ethical issues which have to be settled because these issues involve a challenge to fundamental human values. The Catholic Church has attended to the place of fundamental human values in the moral life over many centuries and is well positioned to consider and ethically evaluate the challenges which the new genetics pose for the human family.

4. PIUS XII AND HUMAN GENETICS (1953)

There are many who, focusing only on what they consider to be the negative aspects of certain teachings of the Catholic Church, believe that the Catholic Church is hostile to the entire genetic project. This is not the case as this brief review of the teachings of Popes over the last 45 years will reveal.

In 1953 Pope Pius XII described the practical aims or goals being pursued by genetics as “noble and worthy of recognition and encouragement.”⁴⁷ The Pope was fully cognisant not only of the theoretical interest in genetics but also of its practical possibilities which he described as “contributing towards the good of individuals and of the community - towards the common good. It proposes to accomplish this task principally in two fields: in that of genetic physiology and in that of genetic pathology.”⁴⁸

Pius XII understood well what he called the “fundamental tendency of genetics and eugenics ... to influence the transmission of hereditary factors in order to

⁴⁵ LL Cavalli-Sforza, "The Human Genome Diversity Project", paper presented to International Bioethics Committee of UNESCO, *Actes 1995 Volume II*, 71

⁴⁶ HGD Committee of HUGO, The Human Genome Diversity (HGD) Project. Summary Document, 1994

⁴⁷ Pope Pius XII, “Moral Aspects of Genetics” (September 7 1953), in *The Human Body: Papal Teachings*, 256-58, 260

promote what is good and eliminate what is injurious. *This fundamental tendency is irreproachable from the moral viewpoint.*⁴⁹ [Emphasis added]

We need to be clear here that what Pius XII is approving from a moral point of view are the goals (*teloi*) to which the genetic project is directed, ie the good of health, and the good of life. This is in tune with the long-standing Judeo-Christian moral tradition which sees human beings as made in the image of God (*imago Dei*) and therefore with an inherent dignity. Life is a great gift from God which must be protected and enhanced. Human beings are to be fruitful and multiply.⁵⁰ The *Torah*, received also by Christians in the Holy Bible, reveals a deep concern for people's health which is connected with spiritual and psycho-social health. The Hebrew word *shalem* means healthy or whole and has the same origin as *shalom* which means peace. The basic necessities for good health in the *Torah* may be summarised as rest, good food, circumcision, sexual hygiene, sexual relationships, cleanliness, and sanitation.⁵¹ In the Christian Gospels Jesus is depicted as one who "healed every disease"⁵². Thus the concern of Pope Pius XII for the health and well-being of people and his approval of the aims of the genetic enterprise is part of the Tradition of 4,000 years.

However, the approval is not an unqualified one. Certain methods used to attain these good ends and certain "protective measures" are, he says, morally questionable. "As is also ... a misplaced esteem for the ends to which genetics and eugenics tend." Among the methods contrary to "moral common sense and especially Christian morals" and which must be rejected in principle and in practice are

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ *Genesis* 1:28

racialism and eugenic sterilisation. Reasserting the teaching of his predecessor Pope Pius XI he rejects as contrary to the natural law not only eugenic sterilisation but every direct sterilisation of human persons. Sterilisation as a means of suppressing a genetic lineage affected by genetic disease is immoral because it directly attacks the procreative power of a human being which amounts to an attack on the transmission of life itself.

Pius XII concludes with a wish which has to it a very contemporary ring. It is worth citing in full.

Would that science, in weighing the means devised to achieve those ends, could remain always conscious of the fundamental difference that exists between the animal and vegetable world on the one hand, and man on the other! In the first case the means of bettering the species and race are entirely at the disposal of science. On the other hand, *where man is concerned, genetics is always dealing with personal beings, with inviolable rights, with individuals who, for their part, are bound by unshakable (sic) moral laws, in using their power to raise up new life.* Thus the Creator himself has established certain barriers in the moral domain, which no human power has authority to remove.⁵³ [Emphasis added]

It is interesting to note that Pius XII's remarks were made just after the discovery by Francis Crick and James B Watson, of the double helix structure of DNA and before the convincing evidence for its biological reality was established in

⁵¹ Daniel Ch Overduin and John I Fleming, *Life in a Test-Tube*, (Adelaide: Lutheran Publishing House, 1986), 11

⁵² Cf *Matthew* 4:23; 9:35; *Mark* 1:34; *Luke* 4:40; 6:17, 18; 7:21

⁵³ Pope Pius XII, *op. cit.*

the Meselson-Stahl experiments in 1957.⁵⁴ This is well before the real significance of the genetic enterprise was being ethically evaluated by other major institutions of international significance, including UNESCO which only dealt with the matter in the 1990s before proclaiming its *Universal Declaration on the Human Genome and Human Rights* (3 December 1997).

5. THE RISE OF MODERN EUGENICS

The decades following Pius XII's reflections on genetics have been marked by the reemergence not only of the neo-Malthusian population control movement thanks to the increasing domination of science over human procreation, but also of a eugenics freed from its racist associations. Many nations of the world have altered their public policy arrangements to encourage the widespread use of contraceptives, abortifacients, and sterilisation backed up with legal abortion on request. In 1961 Pope John XXIII examined the evidence for the so-called population problem and found it wanting.⁵⁵ Where the poorer nations of the world are concerned their problems are "very real" he says. But human life is sacred⁵⁶. Solutions to human problems which do violence to man's essential dignity are not acceptable.⁵⁷ Following Pius XII he reiterates the Church's concern that the transmission of human life is the result of a personal and conscious act and may not be interfered with by recourse to the ways and means which are permitted in the propagation of plant and animal life.⁵⁸

⁵⁴ Robert L Sinsheimer, *The Strands of a Life. The Science of DNA and the Art of Education*, (Berkeley: University of California Press, 1994), 89

⁵⁵ Pope John XXIII, *Mater et Magistra*, May 15 1961, nn 188-191

⁵⁶ *Ibid.*, n 194

⁵⁷ *Ibid.*, n 191

⁵⁸ *Ibid.*, n 193

In 1968 Pope Paul VI also rejected abortion and contraceptive practices of all kinds. He warned the world about human weakness, about the special vulnerability of the young who would use contraceptives as an easy means of eluding observance of the moral law, of a loss of respect by men for women as the woman becomes constantly “available” for selfish sexual gratification rather than as a beloved and respected companion. Paul VI also considered contraceptives to be a dangerous weapon in the hands of “public Authorities who take no heed of moral exigencies”.

Who could blame a Government for applying to the solution of the problems of the community those means acknowledged to be licit for married couples in the solution of a family problem?

Who will stop rulers from favouring, from even imposing upon their peoples, if they were to consider it necessary, the method of contraception which they judge to be most efficacious?

In such a way men, wishing to avoid individual, family, or social difficulties encountered in the observance of the divine law, would reach the point of placing at the mercy of the intervention of public Authorities the most personal and most reserved sector of conjugal intimacy.⁵⁹

The importance of all this for our considerations here is that the HGP and the HGDP do not occur in a moral or social vacuum. There is a symbiotic relationship between population control measures, abortion, contraception, and the eugenic desire to eliminate from the human family those who have been born or would be born with inherited disabilities, disabilities which may be expressed immediately or may express themselves later in a person’s life. The Catholic moral tradition has always

⁵⁹ Pope Paul VI, *Humanae Vitae*, n 17

understood the interconnectedness of these issues and the moral values and principles which they have in common. This understanding has been even more clearly developed and expressed in the last thirty years. Pope Paul VI saw what he called the “grave consequences” of artificial contraceptive practices. No one today seriously denies that contraceptives, particularly “the pill”, made possible the sexual revolution and the so-called sexual freedom including legalised abortion. The abuse of Government power and the power of Government approved family planning associations through compulsory sterilisation programmes⁶⁰, surreptitious imposed contraception⁶¹, and even by enforced abortion has been well documented.⁶² The Pope’s fears have been realised.

Later Pope John Paul II was to reflect upon the close connection between contraception and abortion “despite their differences of nature and moral gravity”.

The close connection which exists, in mentality, between the practice of contraception and that of abortion is becoming increasingly obvious. It is being demonstrated in an alarming way by the development of chemical products, intrauterine devices and vaccines which, distributed with the

⁶⁰ Cf India under Indira Ghandi

⁶¹ An account by Ubinig, of the trials of new contraceptive drugs and devices carried out by family planning associations on poor women in developing countries is revealing. Ubinig, based in Bangladesh, has alleged "gross violations of ethics ... an inadequate research practice and a lack of care for health of the women to whom Norplant was administered" in Bangladesh. This account further suggests that women were used as guinea pigs in medical trials without their knowledge and that they are further subjected to "an unsafe contraceptive as a means of population control." Ubinig, "Research Report Norplant, The Five Year Needle: An Investigation Of The Norplant Trial In Bangladesh From The User's Perspective", *Issues in Reproductive and Genetic Engineering*, 3:3, 211-228

⁶² The People’s Republic of China, according to John Aird, has provided for enforced birth control, abortion, and sterilisation to maintain its one-child-per-family policy. He has translated and published extracts from official instructions to cadres of the Communist Party. John S. Aird, *The Slaughter of the Innocents: Coercive Birth Control in China*, (Washington, D.C.: AEI Press, American Enterprise Institute, 1991), 45, 47, 48, 66, 71-72

same ease as contraceptives, really act as abortifacients in the very early stages of the development of the life of the new human being.⁶³

An integral, but often unacknowledged, part of population control measures has been the eugenic impulse to rid society of the “genetically unfit”. As genetic knowledge has widened the scope of prenatal diagnosis so it has increased the incidence of eugenic abortion. Eugenic infanticide is practiced in some parts of the world and is strongly recommended by some contemporary philosopher bioethicists. There is nothing new in this. Plato argued for positive eugenics through selective mating and breeding:

It follows from our former admissions that the best men must cohabit with the best women in as many cases as possible and the worst with the worst in the fewest, and that the offspring of the one must be reared and that of the other not, if the flock is to be as perfect as possible. And the way in which all this is brought to pass must be unknown to any but the rulers, if, again, the herd of guardians is to be as free as possible from dissension.⁶⁴

Although Plato’s interests were in building up the strong state for survival, the contemporary motivation, as exemplified by Helga Kuhse and Peter Singer, is different. Kuhse and singer have claimed that

there is a limit to the burden of dependence which any community can carry. If we attempt to keep all handicapped infants alive, irrespective of

⁶³ Pope John Paul II, *Evangelium Vitae*, n 13

⁶⁴ Plato, *The Republic, Book V*, Translated by Paul Shorey, Loeb Classical Library, ed. G.P. Goold, (Cambridge, Massashusetts: Harvard University Press, 1982), 461

their future prospects, we will have to give up other things which we may well regard as at least as important.⁶⁵

The curious thing is that while contemporary society marvels at the achievements of some outstanding persons who have overcome major disabilities, promises all kinds of social change so that persons with disabilities can function more easily in society, it also endorses and recommends eugenic abortion and even infanticide (by neglect) of so-called defective neonates. Moreover, the goals of the HGP include both the alleviation of suffering through a better understanding of the way the human body works and the elimination of individuals with certain genetic defects which are considered to constitute too great a burden on families and society to cope with.

Pope John Paul II has recently remarked on this prejudice against the weak which he calls "*a war of the powerful against the weak*".

A person who, because of illness, handicap or, more simply, just by existing, compromises the well-being or life-style of those who are more favoured tends to be looked upon as an enemy to be resisted or eliminated. In this way a kind of "*conspiracy against life*" is unleashed. This conspiracy involves not only individuals in their personal, family or group relationships, but goes far beyond, to the point of damaging and

⁶⁵ Helga Kuhse and Peter Singer, *Should The Baby Live?*, (Oxford: Oxford University Press, 1985), 170. Kuhse and Singer acknowledge in the Preface to this book that they "think some infants with severe disabilities should be killed." They then go on to deny that there is anything in their views that "in any way implies a lack of concern for disabled people in our community." *Ibid.*, v. Despite this disclaimer, people with disabilities in Germany saw in Peter Singer's expressed views the essence of eugenics, that distaste for lives afflicted by disability and a willingness to allow parents to have such children killed. Kuhse and Singer declare that they want improved services for "disabled people". It should be noted that such people prefer to be called people with disabilities, to emphasise their personhood rather than their disability. Given Kuhse and Singer's preference for defining personhood in terms of "self-awareness and a sense of the future" then there is reason to understand why there is a concern for at least some adult persons with disabilities. *Cf. ibid.*, 138

distorting, at the international level, relations between peoples and States.⁶⁶

Where prenatal diagnosis is concerned John Paul II sees no moral objections if it is “carried out in order to identify the medical treatment which may be needed by the child in the womb”. However, prenatal diagnosis

all too often becomes an opportunity for proposing and procuring an abortion. This is eugenic abortion, justified in public opinion on the basis of a mentality—mistakenly held to be consistent with the demands of “therapeutic interventions”—which accepts life only under certain conditions and rejects it when it is affected by any limitation, handicap or illness.

Following this same logic, the point has been reached where the most basic care, even nourishment, is denied to babies born with serious handicaps or illnesses. The contemporary scene, moreover, is becoming even more alarming by reason of the proposals, advanced here and there, to justify even *infanticide*, following the same arguments used to justify the right to abortion. In this way, we revert to a state of barbarism which one hoped had been left behind forever.⁶⁷

In the early part of the twentieth century eugenics was often intertwined with racism and notoriously so when the Nazis married together the existing eugenicism of the Social Darwinists which had so radicalised German society⁶⁸ in the Weimar Republic (especially the medical profession) with anti-Semitism and mystical notions

⁶⁶ Pope John Paul II, *Evangelium Vitae*, n 12

⁶⁷ *Ibid.*, n 14

of the superiority of the Aryan race. Post-war eugenics is, in the main, free of overt racism. Nevertheless, it is based on the idea of the inferiority of some members of the human family not because of race but because of genetic inheritance. So it is⁶⁹ that a geneticist of well-deserved international repute can persuade himself that “antenatal diagnosis of hereditary disorders and termination of pregnancy are not examples of eugenics. They are prophylactic procedures.”⁷⁰

He appears to confuse the eugenic mentality (ie the favouring of the well-born) with a particular programme of eugenics, the race hygiene movement in which it was believed that one could, by various means, improve humanity’s genetic stocks. The practical impossibility of such a project is now universally acknowledged. Nevertheless, less ambitious programmes of eugenics have been embraced and expressed in the terms in which Cavalli-Sforza recommends it.

Despite well-documented religious resistance to abortion, it is hard to understand why we should not avoid the enormous suffering caused for both patient and close relations, leaving parents with the thankless task of one day explaining to their own child that he or she is dying of an incurable disease, not to mention the serious economic consequences for family and society.⁷¹

So deeply is the eugenic mentality embedded in the mind of Luca Cavalli-Sforza that he is simply unable to recognise it for what it is. He believes that it is

⁶⁸ It is important to note that Social Darwinism, the race hygiene movement, and the desire to rid society of “unproductive burdens” was not limited to Germany. It had influenced fashionable thinking across Europe, the United States of America, and Australia.

⁶⁹ The rest of this section has been drawn from my “Ethics and the Human Genome Diversity Project”, *Law and the Human Genome Review*, No 4, January-June 1996, 155-157

⁷⁰ Luigi Luca Cavalli-Sforza and Francesco Cavalli-Sforza, *The Great Human Diasporas: The History of Diversity and Evolution*, (Reading, Massachusetts: Addison-Wesley Publishing Company, 1995), 250

⁷¹ *Ibid.*, 251

“almost self-evidently desirable to produce individuals who are good, intelligent, brave, and so on” (positive eugenics), it is just that “we don’t know to what extent these psychological traits are genetically controlled, or how they work.”⁷² It is self-evident because he assumes that medical science is wholly benign. And in an astonishingly intemperate attack on “most theologians of the Roman Catholic Church and their less subtle, but even more rigid, fundamentalist counterparts in other religions,” he wonders why they should be “so eager to condemn the parents of future sick children either to suffer this way or to never have children of their own ... in a better world a child would have the *right* to be born healthy.”⁷³ What such a *right* would mean, what standard of health meets the requirement of being born healthy, and how it could be guaranteed is difficult to know. Contradictorily, having denied the ambition of “negative eugenics” to eliminate physical and mental defects⁷⁴, he concludes with this statement of his belief in the attainability of the goals of “negative eugenics” in ways that will be wholly benign as far as the human race is concerned:

The medical applications of genetics are directed at the treatment and prevention of hereditary diseases, and are nothing to fear. We can prevent the birth of children with some of the most serious and widespread conditions, and we could eliminate almost entirely the birth of children with major genetic diseases. So far, this has meant terminating the pregnancy, but in the future less invasive methods may become possible.⁷⁵

It is important to note that Cavalli-Sforza is no racist. Indeed he is expressly an anti-racist. “The idea of race in the human species serves no purpose,” he says.

⁷² *Ibid.*, 253

⁷³ *Ibid.*, 263

⁷⁴ *Ibid.*, 249

⁷⁵ *Ibid.*, 263

And as for racial “purity”, “there are no pure races, and if we tried to create one, the results would be most uninviting.”⁷⁶ That science itself has provided the practical refutation of Cavalli-Sforza’s position may be found in the strong trend toward cloned and hybrid monocultures in commercial food stock production. All cereals in commercial use today are pure races (the agricultural monoculture), and cloning is about to purify the already hybridised commercial domestic stock.

Cavalli-Sforza acknowledges that “racism is a chronic disease that one cannot hope to suppress rapidly or easily”⁷⁷, that “racism is just one manifestation of a broader syndrome, xenophobia, the fear or hatred of foreigners, and more generally of those who are different.”⁷⁸ Nevertheless, “there is a hope, but it is for the relatively distant future.” And what is that hope? “The final weapon against racism is education, along with other social policies that can lend a strong hand in the same direction.”⁷⁹ However, experiments with strong social control that have been attempted this century indicate that ‘education’ may mean extirpation of dissenters, and, in any case, is remarkably unsuccessful as the Soviet experiment clearly exemplifies.

Cavalli-Sforza and other HGDP advocates argue that there is no scientific basis for believing that “there are races which are more ‘gifted’ or ‘smarter’ or ‘better’”, that there is a much wider diversity within groups than between groups, and that accordingly not only will racists receive no joy from the HGDP, “population genetics has given us the best proofs we have that racism is wrong.”⁸⁰ Such differences, they say, as appear between “races” or “groups” or “populations” are

⁷⁶ *Ibid.*, 237

⁷⁷ *Ibid.*, 244

⁷⁸ *Ibid.*, 241

⁷⁹ *Ibid.*, 244

superficial, skin deep, and probably represent adaptations to different climates. Nevertheless this argument is still based upon the idea that there are people with “better genes” and “worse genes” and that science is the basis on which such evaluative judgments can be made. It is just that you have a wider diversity within populations than between populations. The unspoken assumption about “superiority” being written into our genes provides justification for the eugenic mentality, even if it might not offer support to racism. But while it may be argued that “there is no scientific basis for believing that there are races which are more 'gifted' or 'smarter' or 'better', and thus racism is not supported by contemporary scientific research”

this argument needs to be carefully expressed or it may unwittingly appear to rely on the assumption that if you could in fact demonstrate that some races were more 'gifted' than others, had 'better' or 'smarter' genes than others then those races would be superior, and the other races inferior.⁸¹

In any case scientific arguments against racism are irrelevant to racists who simply don't care what politically correct scientists say. The fact is that racism, like eugenics, is as much an attitude of mind as it is a thought out position. Purportedly anti-racist scientific arguments can be interpreted as favouring racism while scientific ‘facts’ may simply be put in service of a pre-existing ideology or conveniently ignored. In any case “there is abundant new scientific evidence that there are indeed genetic-based racial differences significant to social performance. Among these performance differences are family stability, mental health, liability to addictions, saving vs. dissipation of resources, IQ, crime rates, age of menarche, multiple birth

⁸⁰ Luca Cavalli-Sforza, “Human Genome Diversity Project”, *op. cit.*, 77

⁸¹ UNESCO International Bioethics Committee Population Genetics and Bioethics Report, 20

rates, and many others.”⁸² Perhaps the uncomfortable truth that has to be faced is this: “Scientific information, in and of itself, is never likely to significantly undermine race as a political category or eugenics as a political and social movement.”⁸³

6. THE CATHOLIC RESPONSE TO DISABILITY

On 18 November the Sacred Congregation for the Doctrine of the Faith in its Declaration on Abortion stated that “discrimination based on the various stage of life is no more justified than any other discrimination”⁸⁴, that “modern genetic science offers clear confirmation” that a new human being exists from the time that the ovum is fertilized”, “that it is not up to the biological sciences to make a definitive judgment on questions which are properly philosophical and moral, such as the moment when a human person is constituted or the legitimacy of abortion”⁸⁵, and that even if “there are good reasons to fear that the child will be abnormal or retarded ... life is too fundamental a value to be weighed even against very serious disadvantages.”⁸⁶

On March 4 1981 a document was issued by the Holy See for the International Year of the Handicapped. That document clearly sets out the Catholic Church’s concern for the “plight of our weakest and most afflicted brothers and sisters”, its approval of the universal concern for those with disabilities as expressed in the United Nations’ *Declaration of the Rights of the Handicapped* and its *Declaration of the Rights of the Mentally Retarded*, and its noting of the “gains made and the

⁸² Hiram Caton, private correspondence and cf JP Rushton, *Race Evolution and Behavior: A Life History Perspective*, (New Brunswick: Transaction Books, 1995); Richard Hernstein and Charles Murray, *The Bell Curve*, (New York: Free Press, 1994); Roger Pearson, *Shockley on Eugenics and Race*, (Washington DC: Scott Townsend, 1992)

⁸³ UNESCO International Bioethics Committee Population Genetics and Bioethics Report, 15 November 1995, *op. cit.*, 21

⁸⁴ Sacred Congregation for the Doctrine of the Faith, *Quaestio de abortu*, n 12

⁸⁵ *Ibid.*, n 13

⁸⁶ *Ibid.*, n 14

perspectives opened up by scientific and social study, and the innovative plans being made and work being done by various groups in this field.”⁸⁷

In this document the Church’s moral tradition as it applies to the way in which we should, as a moral imperative, receive and treat persons with handicaps is clearly developed. Our solidarity with persons with handicaps requires that we recognise their human rights and so make available to them all necessary assistance which would enable them to participate in society at any level or dimension of which they are capable. The participation of persons with handicaps is to be characterised by the principles of integration, normalisation, and personalisation.

The Holy See notes the advances in science and technology which make early discovery of malformations and deficiencies possible. However, the use of that information for abortion or the suppression of the handicapped newborn is condemned as an attack on medical ethics and on the fundamental inalienable right to life.

Medicine loses its claim to nobility when, instead of attacking illness, it attacks life. ... Respect, dedication and the time and means needed for the treatment of the handicapped, including those with serious mental limitations, are the price a society must generously pay in order to remain truly human.⁸⁸

The Holy See is mindful of the heavy burden both on the handicapped person and his or her family. This is particularly felt at the time when parents learn of the “painful discovery that one of their children is handicapped”. If parents and the family are not supported at this time and throughout the lifetime of the handicapped

⁸⁷ The Holy See, “Devoted to the Handicapped”, in *The Pope Speaks*, volume 26, 1981, 157

child, there may be very serious consequences for the parents and for their handicapped child.

It is not enough, therefore, to make a diagnosis and then leave the parents to their own resources. Isolation from and rejection of society can lead them [the parents] to nonacceptance or even - God grant it may not happen - to rejection of the handicapped child.⁸⁹

Calling for legislative protection for the handicapped, the Holy See recognises that the eugenic impulse to be rid of social burdens is a strong one and not one that is necessarily accessible to reason. The Church sees that eugenicism is a habit of mind, an attitude, a prejudice, and an unhappy reminder of human frailty.

Nevertheless, since persons and society become truly human only when they begin consciously and deliberately to accept weakness and to acknowledge their solidarity with, and even to share in, the sufferings of others, the tendencies described above must be countered by proper education.⁹⁰

On 22 October 1983 the Holy See presented its *Charter Of The Rights Of The Family* to the world. The Catholic Church again insists on the protection of human life from the moment of conception, depicting abortion as “a direct violation of the fundamental right to life of the human being.”⁹¹ Moreover, “all interventions on the genetic heritage of the human person that are not aimed at correcting anomalies

⁸⁸ *Ibid.*, 161

⁸⁹ *Ibid.*, 162

⁹⁰ *Ibid.*, 165

⁹¹ *Charter Of The Rights Of The Family, Presented by the Holy See to all Persons, Institutions and Authorities Concerned with the Mission of the Family in Today's World*, 22 October 1983, Article 4 (a)

constitute a violation of the right to bodily integrity and contradict the good of the family.”⁹²

7. JOHN PAUL II & THE PURPOSE OF GENETIC MEDICINE

The fundamental ethical question posed by modern medicine, and with particular relevance to genetic medicine, is the purpose of medicine itself. Pope John Paul II identified the problem with his usual clarity in an Address to members of the World Medical Association in October 1983 entitled “Dangers of Genetic Manipulation”.

It is evident that the extraordinary and rapid advance of medical science entails frequent rethinking of its deontology. You are necessarily confronted with new questions which are stimulating but very delicate. With this the Church is in full sympathy, and it willingly supports your reflection, in its respect for your responsibilities. *The search for a satisfactory position on the ethical level, however, depends fundamentally on one’s conception of medicine itself. What must be established definitively is whether medicine is, indeed, at the service of the interests of those in good health, to whom the care of the sick would be subordinated.*⁹³

This is a crucially important issue in the Catholic moral tradition. Medicine should always be oriented to the good of persons, where ever possible for the restoration of good health, and for the alleviation of pain and distress. Referring approvingly to the Declaration of Geneva 1948 of the World Medical Association John Paul II insists that respect for human life is fundamental and the right to life

⁹² *Ibid.*, Article 4 (c)

inalienable. He reminded doctors of their duty to “oppose the ailment, whatever is contrary to life, but without sacrificing life itself which is the greatest good and over which we have not dominion. God alone is the master of human life and of its integrity.”⁹⁴ The human being is more than a body and has to be cared for “in the unity of his bodily, affective, intellectual and spiritual dimensions.”⁹⁵ And the human being has rights which have to be protected, particularly in the matter of “genetic manipulation”.

John Paul II begins the discussion on “genetic manipulation” by defending it when it is a strictly therapeutic intervention explicitly directed to the healing of various afflictions which stem from chromosomal abnormalities, and “provided it is directed to the true promotion of the personal well-being of man and does not infringe on his integrity or worsen his conditions of life. Such an intervention, indeed, would fall within the logic of the Christian moral tradition.”⁹⁶

John Paul II questions whether interventions on genetic inheritance that go beyond the limits of the therapeutic could also be regarded as morally acceptable. He then sets out the conditions that would have to be met before moral approval could be given to such interventions.

The basis for these conditions is found in the anthropological vision of the body as a unity of body and soul, because “in the body and through the body one touches the person himself in his concrete reality. To respect the dignity of man, consequently, amounts to safeguarding this identity of the man ‘corpore et anima unus’”. Thus:

⁹³ *Dangers of Genetic Manipulation*, Address by Pope John Paul II to members of the World Medical Association (October 29, 1983)

⁹⁴ *Ibid.*

⁹⁵ *Ibid.*

- genetic interventions on the human being must respect the dignity of man, safeguarding his identity “corpore et anima unus”.⁹⁷
- genetic interventions must not infringe on the origin of human life, that is, procreation linked to the union, not only biological but also spiritual, of the parents, united by the bond of marriage.
- genetic interventions must, consequently, respect the fundamental dignity of men and the common biological nature which is at the base of liberty, avoiding manipulations that tend to modify genetic inheritance and to create groups of different men at the risk of causing new cases of marginalization in society.
- the fundamental attitudes that inspire the interventions should not flow from a racist and materialist mentality aimed at a human well-being that is, in reality, reductionist. The dignity of man transcends his biological condition.⁹⁸

Pope John Paul’s fundamental concerns are with the separation between science and morality, and the dignity of the human person, the safeguarding of the human person from an arbitrary and unjust use of genetic manipulation.⁹⁹ It is arbitrary and unjust when human life is reduced to an object depriving the human being of his autonomy. For this reason the Pope finds the expression “genetic manipulation” an ambiguous one because it could cover such a wide range of activities from the immorally adventurous to “desirable and salutary interventions

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*, and cf Second Vatican Council, *Gaudium et Spes*, n 14

⁹⁸ *Ibid.*

aimed at the correction of anomalies such as certain hereditary illnesses, not to mention the beneficent applications in the domains of animal and vegetable biology that favor food production.”¹⁰⁰

8. JOHN PAUL II AND THE GENOME PROJECT

John Paul II addressed the members of the Pontifical Academy of Sciences on 28 October 1994 on “The Human Person - Beginning and End of Scientific Research”. In this address he speaks approvingly of the genome project.

The gradual discovery of the genetic map and the increasingly detailed knowledge of genome sequencing, research that will take several more years, are an advance in scientific knowledge which first of all causes justifiable wonder, particularly with regard to the reconstruction of the DNA chain, the chemical basis of genes and chromosomes. ... The multiple consequences for man, which can not be totally discerned yet, hold great promise. In fact, in the not-too-distant future, we can reasonably foresee that the whole genome sequencing will open new paths of research for therapeutic purposes. Thus the sick, to whom it was impossible to give proper treatment due to frequently fatal hereditary pathologies, will be able to benefit from the treatment needed to improve their condition and possibly to cure them.¹⁰¹

There is, therefore, no suggestion of an out-of-hand rejection of the HGP or, by implication, of the HGDP. The Pope fully appreciates all the beneficial

⁹⁹ Pope John Paul II returns to this theme in *Genetic Manipulation*, which is a Discourse of Pope John Paul II upon receiving the credentials of Sono Uchida, newly appointed Japanese ambassador to the Holy See, October 28, 1985

¹⁰⁰ *Ibid.*

¹⁰¹ *The Human Person - Beginning and End of Scientific Research*, Address of Pope John Paul II to the Pontifical Academy of sciences, October 28, 1994

possibilities of the genetic enterprise, the better prospects for the treatment of the sick, a clearer understanding of the “mysterious reality” of man and “the web of influences within which man exercises his freedom”. Indeed scientific progress in mapping the human genome is depicted as a “credit to human reason” and as something which honours the Creator and source of all life “who entrusted the human race with stewardship over the world.”¹⁰²

Briefly touching on some of the ethical issues arising out of applications of the knowledge gained in the HGP the Pope recalls some basic moral norms, the need to respect the specific nature of the human species, the transcendental vocation of every human being and his incomparable dignity, and the fact that the genome represents the biological identity of each human subject.

This biological identity of the human being established by the genetic map does not represent the whole reality of the identity of the human being. A human being cannot be reduced simply to his genetic inheritance and to any alterations a scientist may make to that inheritance. The biological cannot be separated from the spiritual because the human being is a psychosomatic unity. “By his nature and uniqueness, the human person is the norm for all scientific research.”¹⁰³

John Paul II then makes clear the position of the Church on certain matters which have arisen as a consequence of the modern genetic project including the HGP, positions which are as a consequence of the fundamental moral values which the Catholic Church wishes to defend.

- Patenting of human genes is not acceptable [as distinct from applications arising out of genetic research]. “Since the human body is not an object

¹⁰² *Ibid.*

that can be disposed of at will, the results of research should be made available to the whole scientific community and cannot be the property of a small group.”¹⁰⁴

- The use to which a person’s medical data is used should be subject to close ethical scrutiny. This is especially so when “information contained in the genome ... could be exploited by society to the detriment of individuals, for example by destroying embryos with chromosome abnormalities or by marginalizing those affected by one or other genetic disease.”¹⁰⁵
- People have a right to expect their privacy to be respected. A person’s biological privacy cannot be violated or investigated without that person’s explicit consent. Nor may that information be divulged to others “for uses which would not be of a strictly medical nature or for the therapeutic benefit of the person concerned.”¹⁰⁶
- “Independently of the biological, cultural, social or religious differences that distinguish human beings, *each individual has a natural right to be what he is and to have a sole responsibility for his genetic inheritance.*”¹⁰⁷
[Emphasis added]

9. PROGRESS

Ever since the Enlightenment human beings in general, and scientists in particular, have been beguiled by the ideology of scientific progress as a morally self-authenticating process. The undoubted benefits which science and technology have

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

brought to human beings has tended to blind us to the reality that scientific discoveries do not occur in a moral and social vacuum, and that we must always be alive to the moral and social consequences of the way in which scientific knowledge is applied. There are those who have imagined and continue to imagine that scientific endeavours are wholly benign, and that the previously unthinkable can become thinkable and even mandatory if “progress” demands it.

Francis Bacon, for example, understood well that “knowledge is power”, that when we understand how things work we are the better able to correct things when they go wrong because we now have mastery over them. The implications for the HGP and the HGDP are obvious. A better understanding of the genetic influences for cancer opens up the possibility of better treatments. On the other hand, a better understanding of chromosomal abnormalities in the preborn has led to the promotion of abortion as a means of “preventing” genetically influenced disabilities. This latter possibility seems to have been provided for in the *Universal Declaration on the Human Genome and Human Rights*.

States ... should foster, *inter alia*, research on the identification, prevention and treatment of genetically-based and genetically-influenced diseases, in particular rare as well as endemic diseases which affect large numbers of the world’s population.¹⁰⁸

Thus the political and philosophical notion of “progress” is problematic as far as the Catholic moral tradition is concerned. Indeed, the temptation to remake human society according to some social or political ideology, even at the expense of the

¹⁰⁸ Article 17, *Universal Declaration on the Human Genome and Human Rights*, UNESCO, 1997

human rights of individuals, and out of a motive of hubris can be seen from the contributions of thinkers from the Enlightenment to the present day.

For example, the 'elevation of the man-made, the artificial, over the natural' is the basis of Francis Bacon's materialist philosophy upon which basis he sought to build "the commonwealth of the New Atlantis, the happy land, the land of all earthly things worthiest of knowledge."¹⁰⁹ Bacon began his justification for the building of the 'Eupolis', the good city, the best possible human society by an appeal to charity, the desire to use knowledge to conquer nature in order to relieve the agonies which afflict the human condition.

Some "Baconian enthusiasts during the Commonwealth period understood the new philosophy as benevolent and utopian", yet, says Hiram Caton, "the linkage between power and goodness is riddled with difficulties, the most apparent being that the link is wholly contingent."¹¹⁰ Bacon's reply that everything can be abused is "hardly adequate", observes Caton, "since his proposal for unprecedented increase in human power opened the door to unheard-of abuses".¹¹¹

Caton draws attention to "a second set of statements on the ends of power, hardly noticed today" in which Bacon "dropped the unconvincing appeal to charity and related power to the end it typically seeks in human life, greatness."¹¹²

My purpose is to try whether I cannot in fact lay more firmly the foundations, and extend more widely the limits, of the power and greatness of man.¹¹³

¹⁰⁹ Howard B. White, "Francis Bacon", in *History of Political Philosophy*, eds. Leo Strauss and Joseph Cropsey, (Chicago and London: The University of Chicago Press, 1987), 367

¹¹⁰ Hiram Caton, *The Politics of Progress*, (Gainesville: University of Florida Press, 1988), 42

¹¹¹ *Ibid.*, 43

¹¹² *Ibid.*, 44

¹¹³ Francis Bacon, *Great Instauration*, bk. 1, para 116, in John M Robertson ed., *op. cit.*, 294

After an assessment of human ambition Bacon unveils "in a skyrocket of sparkling prose the grandest design of all: 'But if a man endeavour to establish and extend the power and dominion of the human race itself over the universe, his ambition (if ambition it can be called) is without doubt both a more wholesome thing and a more noble than the other two.'"¹¹⁴ Caton goes on to remark that ambition "in such Gargantuan excess" needs another name. "Hope of dominion over the universe bugles an assault on Mount Olympus to overthrow the kingdom of God."¹¹⁵

The link between science and life is power and greatness in Bacon's philosophy, a link "forged in the first instance by his methodological requirement of unified science, which demands that all inquiry search for the effective truth of efficient causes."¹¹⁶ The power to build the new world, the New Atlantis, "the empire of man over things depends wholly on the arts and sciences. For we cannot command nature except by obeying her."¹¹⁷

This inability of contemporary society effectively to criticise big science, with all its noble ambitions, is indicative of the extent to which Baconian philosophy has embedded itself in Western culture. This is not to say that no criticisms have been made. In recent years there have, of course, been increasing numbers of people, especially in "green" politics, who have expressed ambivalence about the achievements of modern science especially in its effects upon the environment. While some of these people have attempted to go to the heart of the matter, at a popular level the concerns are really expressed in terms of the need to preserve our habitat to ensure human survival. However, the Baconian dream of the New Atlantis

¹¹⁴ Francis Bacon, *Great Instauration*, bk. 1, para 129, in John M Robertson ed., *op. cit.*, 300

¹¹⁵ Hiram Caton, *op. cit.*, 44

¹¹⁶ *Ibid.*

¹¹⁷ Francis Bacon, *Great Instauration*, bk. 1, para 129, in John M Robertson ed., *op. cit.*, 300

lives on into the late twentieth century, particularly in the world view and assumptions of most scientists and intellectual elites. Thus Robert Sinsheimer, a distinguished molecular biologist and one of the originators of the HGP, could say of what he called the “new eugenics”:

It is a new horizon in the history of man. Some may smile and may feel that this is but a new version of the old dream, of the perfection of man. It is that, but it is something more. The old dreams of the cultural perfection of man were always sharply constrained by his inherent, inherited imperfections and limitations ... To foster his better traits and to curb his worse by cultural means alone has always been, while clearly not impossible, in many instances most difficult ... We now glimpse another route - the chance to ease the internal strains and heal the internal flaws directly, to carry on and consciously perfect far beyond our present vision this remarkable product of two billion years of evolution.¹¹⁸

In a television discussion on “Genetic Engineering” Justice Michael Kirby of the High Court of Australia and a member of the Ethical, Legal, and Social Issues committee (ELSI) of HUGO gave full expression to the Baconian, humanist and evolutionist dream:

The human being is the one species on our planet that can query about, struggle through, and find the human genome, and find what it means, find the keys that unlock it, at least potentially. You could say that it was at this moment in human history that the old human species found the way

¹¹⁸ Robert Sinsheimer, “The Prospect of Designed Genetic Change”, *Engineering and Science*, 32 (1969), 8-13; reprinted in Ruth Chadwick ed., *Ethics, Reproduction, and Genetic Control*, (London: Croom Helm, 1987), 145 and cited in Evelyn Fox Keller, “Nature, Nurture, and the Human Genome

to the new species. I mean only humans could do that. And there is at least some right or talk in the long term that the human species will ride on the shoulders of the current species and that that will be a development from the current species. Who are we in 1995 to say that that is completely impossible? If it happens it has happened out of the mind of humanity. And we should be optimistic about science.¹¹⁹

Hiram Caton, however, sounds a note of caution. Noting the link between contemporary genetics and eugenics he observes that “medical interventions already practiced and those promised for the future do not inspire confidence that the wisdom of eugenicists is more than the mechanic’s flair for stunning effects. The brief experience with handling truly awesome power, nuclear energy, resulted in weapons of ultimate destruction. Opening the human genome to manipulation is a comparable power whose effects may be other than those promised.”¹²⁰ And the humanist scholar Paul Kurtz has observed that

humanists are not immune to moral corruption either. I have learned from direct personal experience in humanist organizations that even so-called 'humanists' will at times use mendacious means to achieve their goals, and that they are as prone to vanity, jealousy, vindictiveness, and other foibles as other human beings.¹²¹

Project”, in Daniel J Kevles and Leroy Hood eds., *The Code of Codes*, (Cambridge, Mass.: Harvard University Press, 1993), 289-90

¹¹⁹ Michael Kirby, a discussion on “Genetic Engineering” in *Talking Heads*, PX .. 21.01.96, SBS Television, Australia

¹²⁰ Hiram Caton, “Eugenics”, in *Dictionary of Ethics, Theology and Society*, (London: Routledge, 1996), 331

¹²¹ Paul Kurtz, "Does Humanism Have an Ethic of Responsibility", in Morris B Storer ed., *Humanist Ethics*, (New York: Prometheus Books, 1980), 23

Pope John Paul II, in recognising the good that can be achieved from the HGP including the health benefits to society, is nevertheless alive to the problems and the temptations. As I recalled earlier he drew attention to that freedom which claims to be absolute which ends up treating the human body as a raw datum, to be reshaped in accordance with the plans of those who exercise that freedom.¹²² And the Holy Father is only too aware of the seductive nature of the doctrine of “progress”.

We must not allow ourselves to be beguiled by the myth of progress, as though the possibility of conducting research or of applying a technique would immediately qualify them as a good.¹²³

The idea that today is better than yesterday and that tomorrow will be better than today simply because of the “progress” of modern science is to suggest that all scientific research and the applications which flow from them are self-justifying from a moral point of view. Despite all the evidence to the contrary (including world wars, the Cold War, massive environmental destruction) the myth of progress and the optimism which accompanies it still continue to shape the moral outlook of many moderns. As John Finnis has put it, many thinkers have come to believe “that he and his community, race, class, or party are contributing to the attainment of some future plateau to which History will, with his assistance, progress.” Finnis sees this “assumption about the plateaux of progress, from which Humanity will not regress”¹²⁴ as clearly in JS Mill¹²⁵ as in Karl Marx.

The assumption that the basic point of good actions, projects, and commitments consists in their realizing some future good condition of the

¹²² Pope John Paul, *Veritatis Splendor*, n 48 and cf footnote 28 above

¹²³ *The Human Person - Beginning and End of Scientific Research*, Address of Pope John Paul II to the Pontifical Academy of sciences, October 28, 1994

¹²⁴ John Finnis, *Natural Law and Natural Rights*, (Oxford: Clarendon Press, 1980), 373

(then-existing) human race, can be observed in many versions of utilitarianism.¹²⁶

As Finnis goes on to point out, Immanuel Kant noted the defect in these propositions near the beginning of their popularity.

What remains disconcerting about all this is firstly, that the earlier generations seem to perform their laborious tasks only for the sake of the later ones, so as to prepare for them a further stage from which they can raise still higher the structure intended by nature; and secondly, that only the later generations will in fact have the good fortune to inhabit the building on which a whole series of their forefathers (admittedly, without any conscious intention) had worked without themselves being able to share in the happiness they were preparing.¹²⁷

Kant, though, chose not to deal with this defect because he wished to continue with his own

‘assumption’ that ‘nature does nothing unnecessarily’ (not in the individual, who is mortal, but ‘in the species, which is immortal’), not indeed ‘by instinct or by the guidance of innate knowledge’, but by the ‘reason’ which ‘nature gives’ man in order ‘to reach its ends’.¹²⁸

John Paul II, however, insists that “the moral goodness of all progress is measured by its genuine benefit to man, considered in relation to his two-fold corporal and spiritual dimension; as result, justice is done to what man is; if the good

¹²⁵ JS Mill, *On Liberty* (1859), chapter 1

¹²⁶ John Finnis, *op. cit.*, 373

¹²⁷ “Idea for a Universal History with a Cosmopolitan Purpose” [1784], trans. By HB Nisbet in Hans Reiss (ed.), *Kant’s Political Writings*, (Cambridge: 1970), 44 and cited in John Finnis, *op. cit.*, 373-4

¹²⁸ John Finnis, *op. cit.*, 374

were not linked to man, who must be its beneficiary, it might be feared that humanity were heading for its own destruction.”¹²⁹ Thus the temptation to put science in service of a ‘dream’ about what society should be like, and characterised as the demands of “progress”, instead of it being always put in service of human beings remains a genuine problem for scientists and for humanity as it seeks to come to terms with new knowledge and new possibilities arising from the HGP.

In 1995 the Pope made further reference to the use of the ideology of ‘progress’ and a ‘new world order’ as the justification for human rights abuses and the setting aside of traditional moral values:

Today there exists a great multitude of weak and defenceless human beings, unborn children in particular, whose fundamental right to life is being trampled upon. If, at the end of the last century, the Church could not be silent about the injustices of those times, still less can she be silent today, when the social injustices of the past, unfortunately not yet overcome, are being compounded in many regions of the world by still more grievous forms of injustice and oppression, *even if these are being presented as elements of progress in view of a new world order.* [Emphasis added]¹³⁰

Furthermore, the number of embryos produced is often greater than that needed for implantation in the woman's womb, and these so-called "spare embryos" are then destroyed or used for research which, *under the pretext of scientific or medical progress*, in fact reduces human life to the level of

¹²⁹ *The Human Person - Beginning and End of Scientific Research*, Address of Pope John Paul II to the Pontifical Academy of sciences, October 28, 1994

¹³⁰ Pope John Paul II, *Evangelium Vitae*, n 5

simple "biological material" to be freely disposed of.¹³¹ [Emphasis added]

Nor can it be denied that the mass media are often implicated in this conspiracy, by lending credit to that culture which presents recourse to contraception, sterilization, abortion and even euthanasia as a mark of progress and a victory of freedom, *while depicting as enemies of freedom and progress those positions which are unreservedly pro-life.*¹³² [Emphasis added]

In the name of progress and modernity the values of fidelity, chastity, sacrifice, to which a host of Christian wives and mothers have borne and continue to bear outstanding witness, are presented as obsolete.¹³³ [Emphasis added]

10. CONCLUSION

In this short essay I have discussed some of the myriad of ethical issues that have arisen out of the genetic project in the context of the Catholic moral tradition. I have sketched out the philosophical and ideological context within which the scientific project has developed since the Enlightenment and offered some critical reflections from a philosophical point of view as well as presenting the Church's own critical stance.

The Catholic Church is not hostile to science. On the contrary, it is welcomed as a project which can enrich human beings through the knowledge that it makes

¹³¹ *Ibid.*, n 14

¹³² *Ibid.*, n 17

¹³³ *Ibid.*, n 86

available as well as the beneficial contributions to the health and general well-being of mankind.

But the Catholic Church is conscious, too, of the rejection of fundamental human values, which is both implicit and explicit in the philosophical assumptions and the *praxis* of modern science. The rejection by the Church of practices which violate fundamental human rights should not be seen as a rejection of science. It is, rather, a call to science to recognise the limits of its own knowledge and sphere of action.

For example, in discussing the Catholic Church's rejection of reproductive cloning of human beings as being contrary to "the dignity of the person subjected to cloning and the dignity of human procreation" the Pontifical Academy for Life (Pontificia Academia Pro Vita) has stated that "the scientist cannot regard the moral rejection of human cloning as a humiliation; on the contrary, this prohibition eliminates the demiurgic degeneration of research by restoring its dignity." That is to say:

The most urgent need now seems to be that of re-establishing the harmony between the demand of scientific research and indispensable human values.¹³⁴

It is the fostering of a strong relationship between biomedical science and the true welfare of man and society which is the emphasis that the Catholic Church brings to the discussion of the HGP and the HGDP. For that relationship to flourish it is necessary to foster what the Holy Father, Pope John Paul II calls a "contemplative outlook" on man himself and the world, "with a vision of reality as God's creation

and in a context of solidarity between science, the good of the person and of society.”¹³⁵

It is the outlook of those who see life in its deeper meaning, who grasp its utter gratuitousness, its beauty and its invitation to freedom and responsibility. It is the outlook of those who do not presume to take possession of reality but instead accept it as a gift, discovering in all things the reflection of the Creator and seeing in every person his living image.¹³⁶

¹³⁴ Pontificia Academia Pro Vita, *Reflexions on Cloning*, (Città del Vaticano: Libreria Editrice Vaticana, 1997), 17. First published by *L'Osservatore Romano*, 25 June 1997 on page 7.

¹³⁵ *Ibid.*, 18

¹³⁶ Pope John Paul II, *Evangelium Vitae*, n 83 and cited in *ibid.*, 18-19