

CHRISTIAN DOCTRINES, ETHICAL ISSUES, AND HUMAN GENETICS

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[The basis of Christian ethics is a balance of the doctrines of creation, sin, redemption, and fulfillment which are at the heart of all human situations. Applying these four doctrines to human genetics leads to: recognizing a creative human role that respects the inner constitution of the human creature; being alert to the human capacity to misuse God's gifts and creatures; welcoming the opportunity to extend God's healing power in history; and promoting human solidarity in the application of genetic development for the common good.]

WHEN CATHOLICS APPROACH ethical questions in various fields from social and political issues to economic and medical areas, what resources do they possess, precisely as Catholics, to enable them to address these issues? And what light would such Catholic resources provide in the field of human genetics? These are the two questions that I address in this present study. As I consider the first question—what resources address ethical issues—there is a series of layers of reply. The first obvious reply, particularly for Catholics, can be that they have the teaching of the Church as a guide, and, behind that, the Bible with its codes of moral instructions ranging from the Ten Commandments in the Hebrew Bible to the Sermon on the Mount and the Great and the New Commandments proclaimed by Jesus in the New Testament.

As one considers such detailed ethical codes, however, one can reasonably ask what lies behind these moral rules to give them their compelling

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force and intrinsic authority. An attractive answer is that such moral commands are the practical expression of moral values, such values as life, or love, or truth, or justice, or human dignity and human freedom. “Thou shalt not kill,” for instance, is more than the forbidding of murder; it expresses the obligation to show practical respect for the value of human life. As John Paul II explained in his encyclical *Evangelium vitae*: “As explicitly formulated, the precept ‘You shall not kill’ is strongly negative: it indicates the extreme limit which can never be exceeded. Implicitly, however, it encourages a positive attitude of absolute respect.”¹ In fact, I suggest that a moral rule or commandment is in reality a single-value pressure group, a verbal injunction to respect one specific value in our behavior. This is why when one sometimes talks of a conflict of rules or of viewing moral dilemmas as having to choose between obeying one rule and breaking another, one is operating at a superficial or surface level of ethical analysis. What one is really faced with is a deeper conflict, a competition between conflicting moral values, each of which is claiming to be expressed in our behavior and each of which can be expressed verbally as a moral precept to be observed. As the pope went on to recognize, after pointing out the implicit respect for human life contained in the negative commandment “you shall not kill,” “there are in fact situations in which values proposed by God’s Law seem to involve a genuine paradox,” a conflict of values which he saw, for example, in the case of defending oneself from attack, “when,” as he pointed out, “the need to render the aggressor incapable of causing harm sometimes involves taking his life.”² Earlier in his papacy John Paul II had given a most interesting—and authoritative—illustration of this need to choose at times between moral values, in his 1982 message to the United Nations on the moral acceptability of nuclear deterrence. As he observed: “the situation is complex and a number of values come into play, some of them at the highest level. Different points of view can be expressed. The problems must therefore be faced with realism and honesty.”³

One can take a further step: where do these moral values come from? Why should we respect life, truth, and justice? One reply is that we respect them because God, through the Bible and the Church, so commands. Another reply that represents a strong philosophical current within the Catholic tradition of Christian reflection is because it is the properly human way to behave. If one reflects on what it is to be human, one can conclude that the importance of these and other moral values arises simply from human nature as created so by God. Ultimately, then, whether through the Church

¹ John Paul II, *Evangelium vitae* (1995) no. 54.

² *Ibid.* no. 55.

³ *Acta apostolicae sedis* 74 (1982) 872–83, at 876.

or the Bible or created human nature, one is driven back to God, as the origin of human moral values and of the practical moral rules to be derived from them. However, it is important to realize that the basic fundamental reason for this is not because of what God has said, but because of what God has done. The ultimate basis of morality is not the command or the will of God, but the character of God, how God is given to behaving. It is how God has behaved toward humans which forms the basis of ethics, of how one should behave toward God and toward one another. As the First Letter of John puts it: "If God so loved us, we also ought to love one another" (1 John 4:11). Or, as Jesus puts it in the Sermon on the Mount, we are God's children, so we should learn to take after our Father (Matthew 5:45).

THE PILLARS OF CHRISTIAN DOCTRINE

Our ultimate moral resource, then, is to be found, not in moral instruction or rules or codes, nor even in human moral values, but in beliefs about God, in our understanding of what God has done for humanity and God's own values that are revealed in the great deeds that God has done. Christian ethical behavior has been well described as "lived faith." In fact, I suggest that our ultimate moral resources are to be found in the four great doctrinal pillars of Christian belief about God: creation, sin, salvation, and fulfillment. I think it is important to note, however, that within Christian reflection it is characteristic of the ideal Catholic approach to try to maintain a balance and tension in regard to these four pillars, whereas other expressions of Christianity may show a preference for one of these beliefs over the others and may allow that inclination to influence, even to dominate, one's moral positions.

I suppose the most evident of these different Christian projections upon reality has been the tendency in Protestantism since its inception to react to what was seen as the facile optimism and rationalism of medieval Scholasticism and to stress the doctrine of sin. In this emphasis, the tendency is to view human nature as radically suspect and human society as characteristically depraved, life composed largely of occasions of sin and of a series of moral pitfalls, by contrast with a Catholic attitude that tempers and balances recognition of the doctrine of sin with the positive and hope-filled doctrines of creation and salvation. Again, in recent times, the Christian doctrine of fulfillment has been at risk of becoming out of balance with the others. The traditional doctrine of eschatology, literally, "the last things"—death, judgment, hell, and heaven—which referred to God's actions toward us after our earthly life is over, has been transformed in the past 50 years through the development of political theology. In this construction of human history, God is believed to be continually at work in events and is gradually bringing about even now the fulfillment of the

divine plan for humanity. The eschatological corollary is for us human creatures to identify the clues of God's dynamic presence—the signs of the times—and to work actively with God to change society, pursuing social justice to create a situation in which all humans are enabled even now to live lives worthy of their divine origin and destiny. In this emphasis the hazard is one of prophetic impatience, which can overshadow the other doctrines, aiming as it does to produce the final fulfillment of the kingdom of God within history by creating heaven on earth, in neglect of a realistic recognition of the doctrine of sin and of the human resistance and intransigence to which sin can lead.

A balanced belief in the four pillars of doctrine would acknowledge the basic significance of the doctrine of creation as the opening stage in the divine project for the human race. God's creation of humankind, male and female, "in our image, according to our likeness," as Genesis 1:26 describes it, is the theological basis for asserting the fundamental dignity of all human beings without exception, as well as recognizing their inalienable value and destiny as individuals. Here, of course, is the basis for the Catholic moral tradition of natural law that has found modern enrichment in the powerful program of fundamental human rights, now such a central element of the Church's moral and social teaching.

Thus described, the doctrine of creation and its moral implications stimulate reflection along several lines. One is how we are to understand the idea that we have each been created in the divine image and likeness, as revelation expresses it. Historically, Catholic Christian reflection on the *imago Dei* in humankind, in broad contrast to the Protestant tendency, has searched for some special characteristic in human beings by which they stand out from the rest of physical and animal creation that is put under their authority.⁴ The most obvious candidate for such a distinguishing characteristic is possessing a share in the divine power over the rest of animal and physical creation, and this readily results in understanding human creatures as co-creators with God, not simply passive recipients of God's creative action, but commissioned to exercise active dominion, stewardship, and initiative as God's vice-regent.⁵ Another, and historically the most popular human characteristic that is considered to reflect the divine image, notably by Thomas Aquinas, is the gift of intelligence or rationality, the human power of reason enabling humans to share an appreciation of

⁴ Paul Ramsey distinguishes between seeing the image of God as an inherent element of human nature (the "substantialist" concept) and viewing it as a relationship (the "relational" concept) between humanity and God. See his *Basic Christian Ethics* (New York: Scribner, 1950) 250.

⁵ See Douglas John Hall, *Imaging God: Dominion as Stewardship* (Grand Rapids: Eerdmans, 1986) 71.

the divine plan and in their actions to help bring God's providence into being.⁶ A third possibility could be that what constitutes the image of God in humankind is something to do with personhood in humankind reflecting personhood in God. The intimate nature of divine existence, according to Christian belief, is the relationships that exist among Father, Son, and Spirit in the divine life of the Trinity, so that God is in a deeply mysterious way essentially interpersonal, even social. It is suggested that this is also what is at the center of our being human. As individuals, we are created in God's image, that is as a person, an individual-in-community, with an intrinsic social dimension; but as a species we are also created together in God's image, to form God's human family, commissioned to mirror in all our human relationships the loving intercommunion of persons that is of the very nature of God.⁷

A second aspect of the traditional doctrine of creation that today calls for more serious reflection, perhaps especially for its potential moral implications, arises from the acceptance of the idea of human evolution, and its concept of nature as emerging continuously in history through a series of progressive stages of being. Audrey Chapman is surely correct in observing that "there has been surprisingly little systematic theological exploration of the implications of evolution for understanding human nature," and, I would add, for exploring human morality.⁸ Without formally committing himself or the Catholic Church to the idea of human evolution, Pope Pius XII acknowledged in 1950 the distinct possibility of explaining the origin of the human body from existing living material, while insisting that "souls are immediately created by God."⁹ One has to beware here of a view of human evolution that regards the human being as composed of two distinct elements, spiritual soul and physical body, in such a way that all that counts is the soul, and the body is regarded simply as an instrument of the soul, or even as a prison of the soul. Such a view of the body, whether as a neo-Platonist prison or as a Cartesian instrument, disregards the more biblical and Aristotelian Catholic tradition of the human being as a single unit in which soul and body are complementary, which can be described

⁶ Ibid. 92–94. For a useful survey of modern bioethical literature on the image of God, see James J. Walter, "Theological Issues in Genetics," *Theological Studies* 60 (1999) 124–29.

⁷ See John Mahoney, *The Making of Moral Theology. A Study of the Roman Catholic Tradition* (New York: Oxford University, 1987) 345–46.

⁸ Audrey R. Chapman, *Unprecedented Choices: Religious Ethics at the Frontiers of Genetic Science* (Minneapolis: Fortress, 1999) 170. Chapman has provided a useful survey and analysis of approaches to genetic issues on the part of major Christian bodies and individual theologians.

⁹ Pius XII, *Humani generis* (1950) no. 575; Denzinger-Schönmetzer, *Enchiridion symbolorum*, ed. 33 (1965) no. 3896.

equally as embodied soul and as ensouled body, and which is created as such and destined as such, both soul and risen body, for eternal life.

Given the possibility of human evolution, it may be helpful to consider how one's view of God and of God's actions may differ depending on whether one views God as the direct creator of all that exists, in a non-evolutionary view of the world, or whether one views God as direct creator only of human souls but indirect creator of all else that evolves. The God who is considered as the director creator of all that exists is most readily viewed as God the transcendent craftsman, who occasionally intervenes in history and externally fashions and shapes individual unconnected things, like the potter in the popular biblical image. By contrast, considering God as the indirect creator of all except spiritual souls invites one to view God in a more immanent mode, as the creative spirit dynamically present and active within the physical and biological worlds as these are continually developing. There God is envisioned as the inherent cause of causes, enabling things from within to develop themselves and to transcend themselves in their increased becoming. This is seen particularly and uniquely in the case of emerging humankind, as God impels the infrahuman to make a qualitative leap to the higher plane of hominization, so that what was hitherto a member of the animal kingdom has now crossed a threshold to become a human person endowed with intelligence and freedom in the image of God. As Karl Rahner expressed it, God's self-communication was incorporated in the world at creation, and progressively and with the emergence of humankind "the history of nature and the world becomes the history of salvation and revelation when man is reached."¹⁰

If, then, the human being as such can be considered as a historical consequence of evolution, at one stage of which its soul is directly created by God, then the process of that evolutionary past in its physical, environmental, and social aspects, must throw light on humanity's present constitution; and similarly the prospect of its evolutionary future, physical, environmental, and social, must be one in which humanity, in virtue of being created in God's image, has a conscious part to play and a moral responsibility to collaborate. One of the most influential ways in which Teilhard de Chardin in his book *The Phenomenon of Man* influenced modern theological thinking, as John Macquarrie has observed, "is the way in which he shows how tendencies that work blindly in nature come to self-consciousness and take over responsible self-direction in man."¹¹

The moral responsibilities incumbent on humankind resulting from the

¹⁰ Rahner, "Evolution," in his *Encyclopedia of Theology* (New York: Crossroad, 1989) 481.

¹¹ John Macquarrie, *Principles of Christian Theology* (New York: Charles Scribner, 1977) 225–26.

doctrine of creation, and our failures to respect them, must sooner or later bring to our attention the mysterious capacity that we humans have to misuse the gifts of God, a capacity that we call sin. The doctrine of sin constitutes the second of the major pillars of Catholic belief that form, as I have suggested, the ultimate basis of our moral values and tenets. As I have already remarked, Protestant and Catholic traditions of Christian reflection take quite strongly adversarial positions on the prevalence and consequences of sin in the human condition. One of the major doctrinal aims of the Council of Trent, at the time of the Reformation, was to acknowledge on the one hand the reality of human sinfulness that we all “inherit” from the historically original sin of our first parents and yet on the other hand to balance this with a respect for the continuing authenticity and validity of created humanity, as not corrupted but wounded, not destroyed yet certainly weakened. I am inclined to believe personally that there is no sharper ethical divide among Christians, in history as in the present, and including individual Catholics as well as Protestants, than in the place and the degree which they accord to the presence of human sin and sinfulness as a characteristic of modern society. I often speculate that this is as much a matter of individual temperament as it is of theology. Yet, as I have suggested elsewhere, a spirituality based on radical sinfulness is unhealthy and pernicious in the contempt for self and the self-hatred that it can engender, and for which it has manifestly been responsible at many periods of history. And a theology of sin, if allowed to get out of hand, vitiates all human behavior and endeavor at their core and radically undercuts the inherent dignity and goodness of God’s human creatures.¹²

Nevertheless, one ignores the doctrine of human sinfulness at one’s own peril, and at the risk of indulging in moral complacency and Pollyanna-ism, and even of imperceptibly cultivating ethical blindness. As Vatican II noted in its teaching on the respect due to conscience, even when honestly mistaken, “this cannot be said when a person shows little concern for seeking what is true and good and conscience gradually becomes almost blind from being accustomed to sin.”¹³

Overinsistence on the doctrine of sin and its prevalence in human living today, however, is not only in danger of disregarding the prevailing goodness and validity of God’s creation. Through Luther and Calvin it can claim to be evangelical rather than Scholastic, but its alleged prevalence seems to me to be more inspired by the pessimism of St. Augustine of Hippo than

¹² See Jack Mahoney, “Christian Approaches to Modern Business Ethics,” *The Month* 27, no. 2 (February 1994) 57–62.

¹³ *Gaudium et spes* no. 16. The Vatican II translations are taken from *Decrees of the Ecumenical Councils*, ed. Norman P. Tanner, S.J., vol. 2 (Washington: Georgetown University, 1990).

by the teaching of St. Paul, making nonsense as it seems to do of the remarkably hope-filled claim of Romans 5:20, that “where sin increased, grace abounded all the more.”¹⁴ In other words, stressing sin also downplays the third major doctrine, that of our salvation by and in Christ Jesus. It is a moralizing commonplace to comment on repeated human failings that, after all, we live in a fallen world and share a fallen nature; yet in point of fact, we do not. We live in a fallen-and-redeemed world: as we sing in often blithe disregard, “ransomed, healed, restored, forgiven”! In other words, the Christian Good News proclaims that ours is a world in which Jesus has triumphed over sin. We should never allow ourselves to forget that the Christ of today is the risen Christ who has conquered sin and death; and that we are called, as Paul points out, to know the *dunamis*, or the power, of his Resurrection (Phil 3:10), as a cosmic event affecting the whole of creation.

It is important therefore to realize that Christ’s Resurrection is in living and historical continuity with the divine action of creation. As the Gospel of John expresses it, the Word who was with God in the beginning and through whom the world came into being is the same Word who subsequently became flesh and from whose fullness we have all received (John 1: 2-16). Reflections such as these led the bishops of Vatican II to teach, in words that would make even some Catholic pessimists feel uncomfortable, that “we are witnesses that a new humanism is being born in which the human is defined above all in terms of our responsibility to our sisters and brothers and to history.”¹⁵

Thus, in the Catholic tradition of Christian theology, creation was not abandoned, and a new beginning made in Christ. On the contrary, creation is still in progress, now refreshed by the power and Spirit of the risen Christ, and is on its way to the culmination designed and willed by God from the beginning. This forms the fourth and final basic doctrine that I identified, that of fulfillment, the doctrine expressing the belief that the trajectory of God’s overall initiative of love will bring us in time to the final completion of God’s destiny for us. As I have also implied, modern understanding of final fulfillment is of a piece with the Christian understanding of one’s role in responsibly sharing the work of creating, that life is not just a waiting room for eternity, but that the final fulfillment of society is one in which one is called to take an active part, in recognition of the Christian call to transform society and contribute even now to the realization of God’s kingdom.

These, then, are the four great doctrinal pillars of Christian belief: cre-

¹⁴ See Mahoney, *The Making of Moral Theology*, chap 2, “The Legacy of Augustine.”

¹⁵ *Gaudium et spes* no. 55.

ation, sin, salvation, and fulfillment that I suggest are the ultimate theological resources available to us as we face the ethical issues of modern life. From these emerge the divine and, by derivation, the human values intended to permeate our moral stance. These values in their turn find expression as the occasion requires in ethical principles, codes, and rules designed to guide our moral choices and behavior in various situations. It is characteristic of Catholic Christianity to aim at keeping all these doctrines in balance and tension and not to concentrate on one to the neglect of the others, whether creation, or sinfulness, or the cross of Christ, or creating the final kingdom of God here in history.

GENETIC IMPLICATIONS OF THE DOCTRINE OF CREATION

To apply this thesis, I propose to survey what moral light, if any, such a Catholic fourfold doctrinal approach can cast on the field of human genetics. As a prelude to conducting this test, however, I think it would be helpful to acknowledge two difficulties connected with moral theology and bioethical issues. The first, to do with moral theology as such, was once explored with characteristically sinewy thoughtfulness by Rahner in an important article that he entitled, perhaps mischievously, "On Bad Arguments in Moral Theology."¹⁶ Rahner noted that anyone occupied with questions of moral theology realizes that often proofs offered for particular positions really assume from the start the conclusion that they are intended to prove, and are thus convincing only to someone who already accepts the conclusion on other grounds.¹⁷ One particular reason for this, he suggested, is that the argument put forward may be an attempt to articulate or make explicit a moral insight that one already possesses and of which one is already convinced. In this suggestion Rahner was fully in line with the Catholic tradition of a moral "sense," or a moral "feel," or "taste" for situations that is enjoyed by the faithful, individually or in common, to which St. Paul and the Church's magisterium have given regular recognition.¹⁸ It may be a theological equivalent of the sentiment of Robert Browning, that a person's reach should exceed his grasp.¹⁹ And Rahner, it appears, would cheerfully have agreed with the criticisms of Jan Christian Heller as describing Christian contributions to the public debate on genetic

¹⁶ Rahner, "On Bad Arguments in Moral Theology," *Theological Investigations* 18 (New York: Crossroad, 1983) 74–85.

¹⁷ *Ibid.* 74.

¹⁸ See Mahoney, *The Making of Moral Theology* 206–10, 287–88.

¹⁹ See the poem of Robert Browning, "Andrea del Sarto," in *Robert Browning*, ed. Adam Roberts (New York: Oxford University, 1997) 240–46.

medicine as, at least sometimes, “moral intuitions seeking reasons or grounds.”²⁰

Rahner deployed this line of reflection in his writings on genetic medicine, as well as articulating explicit arguments that he acknowledged may actually be inadequate. Recognizing such a religious moral “feel” for a situation has some similarity with ethical theories of intuitionism, and shares their strengths as well as difficulties; and in particular, of course, the question of how one is to distinguish between legitimate insight and perhaps outdated culture or prejudice, or between reasoning and rationalization.²¹ The conclusion one must come to is that, although unexpressed moral insights may be valid and true as they struggle to find articulation, and although such insights may well extend beyond the limitations of particular historical arguments or inadequate formulations, nevertheless in the human search for truth we cannot dispense with using our God-given power of reason, and with working and communicating in the shared medium of articulate and expressed arguments and counter-arguments.²²

The second preliminary difficulty to be considered before examining how the basic Christian doctrines may apply to human genetic medicine concerns not so much argumentation as language, and how this is frequently deployed in moral discussions, and especially in bioethical issues. Issues concerning life and moral decisions with life implications are capable of arousing very strong emotions, and advocacy of one or other position can on occasion take the form of something very little short of bullying. Frequently terms used in what may purport to be argument or debate on a life issue or on a medical procedure are emotionally colored and morally loaded, sometimes aimed at creating anxiety, and expressing an implicit non-negotiable attitude on that issue or that procedure, which actually makes balanced consideration and mutually respectful discussion extremely difficult. In the field of genetics, people’s emotional and moral views are immediately evident from terms such as “tampering with nature,” “designer babies,” “tinkering with genes,” and “playing God.” In the words of the late Richard McCormick such emotionally and therefore morally loaded terms “serve above all as slogan-summaries of one’s value commitments. They do not argue and enlighten those commitments.”²³ And in a

²⁰ Jan Christian Heller, “Religiously Based Objections to Human Cloning: Are They Sustainable?” in *Human Cloning*, ed. James M. Hunter and Robert F. Almeder (Towota, N.J.: Humana, 1998) 174, quoted in Chapman, *Unprecedented Choices* 123.

²¹ See Mahoney, *The Making of Moral Theology* 206–10, 287–88.

²² See Mahoney, “Moral Reasoning in Medical Ethics,” *The Month* 18, no. 9 (September 1985) 293–99.

²³ Richard A. McCormick, *How Brave a New World? Dilemmas in Bioethics* (Garden City, N.Y.: Doubleday, 1981) 306.

later work, *The Critical Calling*, McCormick simply described, or dismissed, such phrases as “rhetorical shibboleths.”²⁴ More recently, the great importance of language in the field of human genetics is brought out in the report *Human Cloning and Human Dignity* produced by the U. S. President’s Council on Bioethics which noted “attempts to select and use terms in order to gain advantage for a particular moral or policy position” and which preferred that moral arguments “proceed on their merits, without distortion by linguistic sloppiness or chicanery.”²⁵ Proceeding now to explore the applications to human genetic medicine of the four Christian doctrines that I have identified, and starting with the doctrine of creation, I suggest that the allegation of “playing at God” is the most intimidating expression of disapproval uttered against genetic modification, and yet also the most opaque. There seems very little opposition, at least in principle, to using genetic technology for a therapeutic purpose, or “negatively,” to remedy some genetic defect in an individual. Indeed Pius XII was one of the first major moral leaders to give encouraging approval to such a program, some 50 years ago.²⁶ Yet few Christians, if any, would condemn such therapeutic genetic medicine on the grounds that it is tinkering with nature or as playing at God, even though, like all of medicine, its purpose is in fact to remedy the faults of nature, and to correct the physical situation into which some individuals are unhappily born in God’s providence. It is when more positive genetic steps are envisaged, in an aim to “improve” the blueprint of nature, or to enhance the human, that the charges of aping, or playing at, God are more commonly deployed. Chapman, for instance, recalls how in June 1980 the leaders of the Protestant, Catholic, and Jewish communities in the United States wrote publicly to President Jimmy Carter to express their concern at the perils of genetic engineering, and warned that “those who would play God will be tempted as never before.”²⁷ The subsequent 1982 report of the President’s Commission entitled *Splicing Life* considered the force of this charge of playing at God and concluded that it was not so much an objection to genetic research as “an expression of awe—and concern.”²⁸

In rebuttal of the charge it is common, and correct, to recall that the doctrine of creation and of humankind created in the image of God allocates an active role to human creatures to use their God-given intelligence

²⁴ Richard A. McCormick, *The Critical Calling: Reflections on Moral Dilemmas Since Vatican II* (Washington: Georgetown University, 1989) 265.

²⁵ *Human Cloning and Human Dignity*, Report of the [U.S.] President’s Council on Bioethics, chaired by Leon R Kass (New York: Public Affairs, 2002) 42, 43.

²⁶ Pius XII, Address to the First International Symposium on Genetic Medicine, Rome, September 7, 1953, *Acta apostolicae sedis* 45 (1953) 596–607, at 605.

²⁷ Chapman, *Unprecedented Choices* 27–28.

²⁸ *Ibid.* 52–53.

in responding to the call to collaborate with God in an ongoing project of creation. In a remarkable passage linking God's providence with human initiative, Thomas Aquinas explains that rational creatures are subject to divine providence in a more excellent manner than all other creatures, "insofar as they are given a share in providence, by taking foresight for themselves and for others."²⁹ And when this is viewed within the context of the emergence of humankind through the historical process of evolution there appears an even clearer role for humankind now to engage intelligently and with conscious initiative in taking its own future in hand, not only socially, politically and environmentally, but also (why not?) biologically. The point is usefully made by Chapman when she comments that: "Learning how to manipulate the genetic basis of all life also provides the potential of altering the course of evolution," although it would be more correct to refer not to "altering" the course of evolution as to consciously taking over the course of evolution.³⁰ In an informative summary of the various meanings that can be given to the term "playing at God," and of the differing, invariably disapproving, motives that underlie the invoking of this term, Thomas Shannon noted that the term "playing at God" focuses on the awesome power for good or ill over human nature that humankind is now developing and exploring; and that the moral question is to what extent we are in so doing "serving God's own purposes."³¹

Positive thoughts such as these led Rahner, writing in the 1960s, to assert in an article entitled "The Experiment with Man" that Christians should "not take fright at the self-manipulation of man" that was beginning to develop in so many areas of life. In fact, he described it as "symptomatic of a cowardly and comfortable conservatism hiding behind misunderstood Christian ideals and maxims" to engage only in pessimistic forebodings and simply condemn the age of self-manipulation on which humankind is embarking.³² In contrast to such a timid and fearful attitude to the possibilities of self-manipulation on the part of humankind, Rahner declared that "according to a Christian understanding, man, as the being who is free in relation to God, is in a most radical way empowered to do what he wills with himself, freely able to align himself towards his own ultimate goal."³³

This surprisingly open, almost sanguine, approach to human self-

²⁹ "Fit providentiae particeps, sibi ipsi et aliis providens," Aquinas, *Summa theologiae* 1-2, q. 91, a. 2.

³⁰ Chapman, *Unprecedented Choices* 6.

³¹ Thomas A. Shannon, "Ethical Issues in Genetics," *Theological Studies* 60 (1999) 111-34, at 131. For other explanations of the phrase playing at God, see Chapman, *Unprecedented Choices* 52-57.

³² Rahner, "The Experiment with Man," in *Theological Investigations* 9 (New York: Herder & Herder, 1972) 211.

³³ *Ibid.* 212.

manipulation on the part of the leading Catholic theologian of his day aroused considerable reaction and alarm on the part of one of the leading contemporary Protestant moralists, Paul Ramsey, who remains the most influential exponent of the temptation that many see inherent in all positive genetic medicine to usurp the divine initiative and, as he put it, to “grasp after godhead.”³⁴ Ramsey took Rahner to detailed task in his own 1970 study, entitled *Fabricated Man*, in a section significantly entitled “Questionable Aspirations to Godhood.”³⁵ According to Ramsey, Rahner “clings to the belief that men are wise enough to invent themselves . . . [and] . . . good enough to form themselves,” whereas his own repeated view, tantamount to a slogan, is that “men should not play God before they have learned to be men, and . . . when they learn to be men they will not play God.”³⁶

Possibly Ramsey did not do full justice to Rahner in his criticisms of Rahner’s approach to human self-manipulation. For one thing, early in his article Rahner explicitly excluded moral considerations on what is permissible or obligatory, and what is not permitted, and why, with respect to possibilities and methods of self-manipulation.³⁷ In fact, the German theologian was operating at a rather stratospheric level of abstraction, even for Rahner, in which he seemed preoccupied with the connection between objective and subjective morality and God, and appeared mainly concerned with humankind’s subjective moral state before God, irrespective of whatever objective forms of self-manipulation it might see fit to espouse.

Entering into the discussion at this stage, McCormick came to the defense of his fellow Jesuit, pointing out that Rahner’s views on genetic manipulation are not accurately represented if they are drawn only from this article. For, as McCormick added, not much later Rahner published another, more practically orientated, article entitled “The Problem of Genetic Manipulation,”³⁸ in which, according to McCormick, he argued in a way similar to Ramsey, and where he “manifests a deep skepticism, even negativism, where eugenic genetic manipulation is concerned.”³⁹

It is true that in this second article Rahner may be thought to have come down to earth to some extent, if we consider his negative moral verdict on the genetic manipulation involved in artificial insemination by a donor, or on any other genetic development being pursued, especially by the State, outside the context of the sexual union within marriage which finds its

³⁴ Paul Ramsey, *Fabricated Man: The Ethics of Genetic Control* (New Haven: Yale University, 1970) 146.

³⁵ *Ibid.* 138–47.

³⁶ *Ibid.* 140, 143.

³⁷ Rahner, “Experiment with Man” 210.

³⁸ Rahner, “The Problem of Genetic Manipulation,” in *Theological Investigations* 9 (New York: Herder & Herder, 1972) 225–52.

³⁹ McCormick, *How Brave a New World* 295, n. 26.

expression when a married couple lovingly produce their own child.⁴⁰ As he wrote: “genetic manipulation does two things: it fundamentally separates the marital union from the procreation of a new person as this permanent embodiment of the unity of married love; and it transfers procreation, isolated and torn from its human matrix, to an area outside man’s sphere of intimacy.”⁴¹ In more general terms, he proposed a single moral criterion for every instance of genetic manipulation: that it “must be adjudged according to whether it is appropriate to or contrary to the nature of man.”⁴²

For all the obvious difficulties involved in appealing to human nature as normative of moral actions, difficulties to which Rahner was by no means blind, it does appear that, rather than making dramatic but content-less allegations of aping God or rivaling God, one should look at the positive content of the doctrine of creation, that is, at the *humanum* or inner constitution of the human creature, for moral criteria with which to assess genetic advances. Ramsey was driven to ask, almost desperately, “can any *articulate* meaning be given to the term ‘playing God’ as a negative, critical norm of the moral life of mankind? Is this merely a pious notation or warning, having little or no determinate significance in deciding man’s proper action?”⁴³ And the significance of moral concentration on the *humanum*, instead, receives strengthening when human nature and the traditional natural law are considered in their modern expressions of the nature of the human person and the doctrine of human rights.⁴⁴ As Bernard Häring commented in his study of manipulation in bioethics, any attempt to identify criteria for improving the human genetic inheritance can refer only to “interventions that respect the dignity of the human person.”⁴⁵

Of such criteria arising from the dignity of the human person, the most obvious must be the fundamental right to life of every human individual without exception. It is the insistence on the full right to life of the product of human conception from its beginning that underlies the Catholic Church’s flat refusal to approve any action that involves destroying the early human embryo. It is interesting that in his article on genetic manipulation Rahner cited the finding that 50% of human fertilized ova do not implant and reflected that this may affect the centuries-old conviction that they are “real human beings with ‘immortal’ souls and an eternal des-

⁴⁰ Rahner, “The Problem of Genetic Manipulation” 236–37, 245–46.

⁴¹ Ibid. 246.

⁴² Ibid. 230.

⁴³ Ramsey, *Fabricated Man* 142 (emphasis in original).

⁴⁴ See Mahoney, *The Making of Moral Theology* 113–14.

⁴⁵ Bernard Häring, *Ethics of Manipulation: Issues in Medicine, Behavior, and Genetics* (New York: Seabury, 1975) 187–88.

tiny.”⁴⁶ And on the basis of this possibility he later concluded with regard to experiments on human embryos that “it would be conceivable that, given a serious positive doubt about the human quality of the experimental material, the reasons in favor of experimentation might carry more weight, if considered rationally, than the uncertain rights of a human being whose very existence is in doubt.”⁴⁷

In this essay Rahner was, of course, writing 20 years before the Vatican document *Donum vitae*, and before its rhetorical question: “how could a human individual not be a human person?” leading to its authoritative conclusion that “the human being is to be respected and treated as a person from the moment of conception.”⁴⁸ Rahner was also, of course, writing well before the more recent statement of John Paul II in his 1995 encyclical *Evangelium vitae* where, drawing formally on his papal authority and on the consensus of the Church’s bishops, he stated: “I confirm that the direct and voluntary killing of an innocent human being is always gravely immoral,” a class of action within which he included destruction of the human embryo, relying explicitly on the argumentation of *Donum vitae* that I have just quoted.⁴⁹ In 1982 John Paul II had addressed the same condemnation to non-therapeutic experimentation on the human embryo: “I condemn, in the most explicit and formal way, experimental manipulations of the human embryo, since the human being, from conception to death, cannot be exploited for any purpose whatsoever.”⁵⁰

Given this absolute Catholic veto on any non-therapeutic experimentation on the human embryo that puts a major moral barrier in the way of embryo research, it could appear that there is little point in exploring any further implications of the doctrine of creation for the field of genetic medicine. However, not everyone in the field of genetics accepts the arguments or force of the Catholic position, as McCormick illustrated in *The Critical Calling*⁵¹ and as Keenan has documented;⁵² and Shannon has pointed to a new pressure on the position that every human personal life begins at fertilization, when he notes that in cloning “there is no fertiliza-

⁴⁶ Rahner, “The Problem of Genetic Manipulation” 226, n. 2.

⁴⁷ Ibid. 236.

⁴⁸ Congregation for the Doctrine of Faith, *Donum vitae* (1987) 5.1.

⁴⁹ John Paul II, *Evangelium vitae* (1995) nos. 57, 60.

⁵⁰ Pope John Paul II, Address to Convention on Experiments in Biology, October 23, 1982, *Acta apostolicae sedis* 75 (1983) 37.

⁵¹ McCormick, *The Critical Calling* 343–50.

⁵² James F. Keenan, “Genetic Research and the Elusive Body,” in *Embodiment, Morality and Medicine*, ed. Lisa Sowle Cahill and Margaret A. Farley (Boston: Kluwer, 1995) 61–62. For a forceful expression of the official Catholic position, see William E. May, “Pope John Paul II’s Encyclical *Veritatis Splendor* and Bioethics,” in *Pope John Paul II and Bioethics*, ed. Christopher Olafsen (Boston: Kluwer,

tion and no sperm” and then concludes that “cloning continues to force the debate over the moral status of the human embryo.”⁵³ The debate on the moral status of the human embryo obviously remains central to public policy decisions affecting the use of the embryo for experimental purposes, and the arguments for and against its use have been carefully marshaled in the President’s Report *Human Cloning and Human Dignity*.⁵⁴ Given the public uncertainty, therefore, regarding the status of the early human embryo, it does seem useful to explore also the other implications of the doctrine of creation, by looking at the whole range of arguments that are deployed to defend the fully developed human child or adult person against what are perceived as genetic attacks, whether in the process of partial genetic enhancement or of complete genetic duplication.

To begin with the prospect of complete genetic duplication, or human reproductive cloning, as contrasted with therapeutic cloning to produce master cells, what is it that people fear in human cloning? It appears to be partly the specter of a multitude of copies of the same individual being mass-produced along the lines of the genetic assembly-line fantasized by Aldous Huxley in his *Brave New World*. After all, simple, or occasional genetic duplication occurring naturally, as in the case of identical twins, seems to be more charming and fascinating than repugnant. As one British ethicist, Jonathan Glover, remarked, “when people are repelled by the thought of clones, they usually have in mind the creation of whole batches of people of identical composition.”⁵⁵

Perhaps, however, fear of cloning even the occasional individual arises because it is pursued in a calculating manner rather than occurring spontaneously, and because it is also perceived as a threat to the uniqueness and inner intimacy of the original individual in their personal identity. Yet, apart from the fact that the clone of a human being cannot be absolutely identical genetically with the original—a complete human Xerox seems impossible—cloning of this kind appears to be substantially equivalent to what has been called producing a delayed identical twin. Moreover, this fear of the inner sanctuary of a person being violated by genetic replication is implicitly based on a genetic reductionism and genetic determinism of the human individual, presuming that all we are is our body and in particular our genes, and that we are completely predetermined in our behav-

forthcoming). May’s text is accessible on his website <http://www.christendom-awake.org/pages/may/may.html>

⁵³ Shannon, “Ethical Issues” 121.

⁵⁴ *Human Cloning and Human Dignity* 150–82.

⁵⁵ Jonathan Glover, *What Sort of People Should There Be? Genetic Engineering, Brain Control and Their Impact on Our Future World* (London: Penguin, 1984) 36.

ior by our genetic makeup. But as the bioethicist John Harris shrewdly observed: “cloning does not produce identical copies of the same individual person. It can only produce identical copies of the same genotype.”⁵⁶ In point of fact, it is part of the Christian understanding of the human that, enormously significant though they are, our genes constitute no more than our physical, or bodily makeup, within the spirit-body unity of the whole human person.

In his approving assessment of the science of genetics as “contributing to the good of individuals and of the community, the common good,” Pius XII compared the body to a musical instrument being played by the soul, and observed that although no one can make up for a completely defective instrument, a good musician can make up for many deficiencies in an instrument and is able to play better and with more ease with a perfect instrument. He was careful to add that this was only a comparison, and was not intended to deny the substantial unity of body and soul, matter and spirit, in the human being.⁵⁷ For, as Keenan has shown in his article “Genetic Research and the Elusive Body,” our ethical approach to genetic research has to find a middle way between reductionism on the one hand, where the human spirit is dissolved into the human genome without remainder and is totally explained in genetic terms, and dualism on the other hand, where body and soul are viewed as two separate and distinct entities, and the soul can treat the body purely as an instrument to be manipulated and disposed of as it sees fit.⁵⁸

Addressing the Pontifical Academy for Life in 1998, John Paul II described the human genome as “in a way the last continent to be explored,” and he put it into its full human context by noting that the “human genome not only has a biological significance, but also possesses anthropological dignity, which has its basis in the spiritual soul that pervades it and gives it life.”⁵⁹ It is true, then, as Glover concluded: “that our nature is not determined entirely by our genes, but they do set limits to the sorts of people we can be.”⁶⁰ Nevertheless, the practical consequence of this is to acknowledge the importance of genetic makeup for human living, without aiming to explain life entirely in genetic terms.

Not only the cloning of individual human beings, whether through em-

⁵⁶ John Harris, *Clones, Genes and Immortality: Ethics and the Genetic Revolution* (New York: Oxford University, 1998) 27.

⁵⁷ Pius XII, Address to the First International Symposium on Genetic Medicine, *Acta apostolicae sedis* 45 (1953) 604–5.

⁵⁸ Keenan, “Genetic Research and the Elusive Body” esp. 59, 62–63, 68–69.

⁵⁹ John Paul II, Address to the Members of the Pontifical Academy for Life, February 24, 1998, sections 2 and 4.

⁶⁰ Glover, *What Sort of People* 56.

bryo splitting or through nuclear substitution, and whether for therapeutic or for reproductive purposes, arouses moral objections. So also do various lesser genetic interventions that are aimed at human improvement; and all such proposals for genetic enhancement attract a whole range of objections based on such considerations as the personal identity, the genetic integrity, the dignity and the genetic patrimony of the human person. On such claims Chapman concludes that “there is still a lack of intellectual clarity and precision as to what is implied and what is required to uphold the dignity and worth of the person.”⁶¹ In his comments on what he calls the “widespread panic at the possibilities opened up by Dolly,”⁶² and the alarm at the success of using the cell nucleus of an adult animal, Harris questions the force and the rhetoric of some of the arguments rushed out by various public bodies to protect individuals against positive genetic modification in general, and cloning in particular.⁶³ How is human dignity attacked by such modification? he asks. Is the dignity of one natural identical twin threatened by the existence of the other? Likewise, Shannon asks: “how is human dignity compromised by a conception that is artificially achieved? What is the basis of the asserted right to be conceived ‘naturally’?”⁶⁴

To these one can add one’s own further questions: How true is the fearful prediction that cloned children would be regarded as somehow sub-human? Once the media sensationalism had faded away this did not turn out to be the case of children born of artificial insemination by a donor, or of Louise Brown, the first child to be produced by *in vitro* fertilization. Again, what exactly is implied by genetic patrimony or genetic integrity, and the claim that as a matter of human rights they should be left completely intact? Such moral immunity does not apply, as we have seen, to genes that are defective or to genetic predispositions to various human maladies. The President’s Council’s Report *Human Cloning and Human Dignity* presents an extremely daunting worst case scenario of all that could and might very well go wrong in attempts to clone human embryos.⁶⁵ However, its argumentation appears to stumble when it turns to examine more principled objections, and especially when it claims that “human dignity is at stake.”⁶⁶ For its contention here is that it is for some reason morally preferable to “accept” a child as a “gift” and a “mystery” rather

⁶¹ Chapman, *Unprecedented Choices* 232.

⁶² John Harris, “Cloning and Balanced Ethics,” in *Bioethics for the New Millennium*, ed. Iain Torrance (Edinburgh: Saint Andrew, 2000) 46.

⁶³ John Harris, *Clones, Genes and Immortality: Ethics and the Genetic Revolution* (New York: Oxford University, 1998) 31–35.

⁶⁴ Shannon, “Ethical Issues in Genetics” 121.

⁶⁵ *Human Cloning and Human Dignity* 99–110.

⁶⁶ *Ibid.* 118.

than to produce a child as a willed and controlled achievement.⁶⁷ “The notion of life as a gift, mysterious and limited, is under siege.”⁶⁸ But what precisely is meant here by life as a “gift,” and as “mysterious”? Why are these characteristics essential to human dignity? The sentiment expressed sounds suspiciously like a moral preference for chance over planning. It misses the point that the fundamental mystery to be respected is the phenomenon of human existence itself coming into being, regardless of what specific characteristics that existence may take or be designed to take.

If the response to all these questions is that negative or therapeutic genetic intervention is acceptable, but not positive intervention that would be harmful to the child or future generations, then the force of all these grand claims, including those of retrospective rights, seems to be completely and adequately captured in one simple but all embracing ethical principle: any genetic procedure that will turn out to be harmful to the future child or to a future generation, or contrary to their interests, is morally unacceptable.

One interesting illustration of this moral procedure of making the interests of a future child paramount is to be found in the possibility of sex selection of children.⁶⁹ Unhappily, abortion before birth and exposure after birth have been for centuries commonplace in some societies as a way of disposing of an unwanted child, including one of a particular sex. However, sex determination has now become possible at a much earlier stage, through the selection or rejection of suitable embryos for implantation in the womb, or even before conception through the selection of appropriate semen to be used in fertilization. One argument in moral favor of these last two methods of sex selection, the pre-implantation and the pre-fertilization methods, is that their increased availability will diminish abortion and infanticide when these are motivated by gender considerations and social or political pressures.

Another major argument for such sex selection is not cultural but medical, in the wish to have a child who is not subject to genetic disorders and illnesses that are sex-connected, such as hemophilia and Duchesne muscular dystrophy, where normally only males are victims although females may be carriers. However, despite this consideration, or perhaps apart from it, there are moral objections commonly made against sex selection on the grounds of “objectifying” or “commodifying” the child, or as an instance of “human quality control” or of the producing of “designer babies.” Interestingly, there appear to be no similar vocal objections to a woman or man

⁶⁷ Ibid. 119.

⁶⁸ Ibid. 127.

⁶⁹ See John Mahoney, “The Ethics of Sex Selection,” in *Medicine, Medical Ethics and the Value of Life*, ed. Peter Byrne (New York: Wiley, 1990) 141–57.

“pre-selecting” or “pre-packaging” offspring by choosing a suitable partner for procreation, or by both deciding to have children in a certain social or political milieu, or by grooming their child environmentally and socially in providing them with mental and character formation from nursery school to college, all of this apparently for their own good.

Additionally, it is worth considering the moral objection that those who arrange to have a child of a chosen sex in order to satisfy the wishes or needs of the parents, or of others in the family, are using the child as a means to an end and not, in the famous Kantian maxim, as an end in itself; for this application of Kant is frequently oversimple. Kant did not object to one using other people as a means, but to using others *merely* as a means, that is, completely disregarding their interests and intrinsic dignity, and dehumanizing them in the process. As a matter of fact, one uses others as means all the time—that is part of what living in society is all about—and such behavior is not morally objectionable. It is when one reduces other people solely to being means to one’s own ends that one degrades them. In other words, it is common for people in making human choices to act from “mixed motives,” or from several different motives at any one time, and this can apply also to the choice to have a child. And provided that the child’s own interests are kept paramount, there can be no moral objection to wanting such a blessing for other more personal reasons also.

Similar considerations based on focusing on the interests of a future child also appear to be helpful when we consider how the doctrine of creation may throw light precisely on the possibility of positive genetic treatment, or of aiming to improve or enhance the genetic endowment of a future individual. Of course, the distinction between correction and enhancement is a rather blunt one. It seems to make no provision for preventive or avoidance measures, such as vaccination. Again, since the concept of health or well-being is a relative one in many respects, and can include environmental and social well-being almost as much as physical or mental well-being, then it might be thought acceptable to expand “therapeutic” genetic measures to include helping an individual to adapt to different physical and social environments. As Scott Rae and Paul Cox point out: “one’s notion of a defect can be subjective,” including, for instance, sensitivity to one’s height or other physical features.⁷⁰ A Working Party of [British] Catholic Bishops’ Joint Commission on Bioethical Issues, considering this idea, did

⁷⁰ Scott B. Rae and Paul M. Cox, *Bioethics: A Christian Approach in a Pluralistic Age* (Grand Rapids: Eerdmans, 1999) 119. The expressed aim of the authors is “to develop a more biblically based Christian voice in bioethics” (11), and in so doing they display impressively the strengths of such an approach, but also its weaknesses, including a quite anachronistic acceptance of biblical data (e.g., Psalm 139 and the Visitation of Mary, Luke 1:39–56) as providing a treatise on human embryology (see 130–39).

not rule out in principle on moral grounds the possibility of positive, or “perfective,” genetic intervention to enhance the human well-being of a child.⁷¹ Bernard Häring’s comment is worth recalling: “I think that, on principle, we cannot simply condemn man’s desire to improve directly, and even by constructive manipulation of the genes, the genetic basis of human existence.”⁷² Indeed, John Paul II was prepared to consider what he termed “interventions aimed at improving the human biological condition,” provided that certain conditions and premises were respected, as he explained in his 1983 address to the World Medical Association on “The Ethics of Genetic Manipulation.” The conditions he identified then comprised respecting and safeguarding the body-soul identity and the dignity of every human being; not attacking the origin of human life, namely, procreation linked to the bodily and spiritual union of the married parents; avoiding manipulations that will create new marginalizations in society; and avoiding a racist and materialist mentality. “Genetic manipulation becomes arbitrary and unjust,” he concluded, “when it reduces life to an object, when it forgets that it has to do with a human subject capable of intelligence and freedom, to be respected whatever its limitations, or when genetic manipulation treats the human subject in terms of criteria which are not based on the integral reality of the human person at the risk of doing damage to its dignity.”⁷³

GENETIC IMPLICATIONS OF THE DOCTRINE OF SIN

This paramount concern for the interests of the future child and of future generations is also, I suggest, usefully kept at the center of our considerations when we turn to the implications for genetic medicine of the second central Christian doctrine that I began by identifying, that of the doctrine of sin. For here again, as in our reflections on the charges of playing at God in genetics, charges of pride and *hubris* against God which literally interpret the mythical account of the origin of sin (Genesis 2:15–17) do not appear to be very helpful. A Protestant tradition that is almost exclusively biblically centered cannot but view sin in the fields of human knowledge and technology as defiance of divine restrictions, echoing the original sin of our protoparents; and this approach is characteristically summed up in Reinhold Niebuhr’s diagnosis that modern society suffers from a “pride of

⁷¹ *Genetic Intervention on Human Subjects*, The Report of a Working Party of the Catholic [British] Bishops’ Joint Committee on Bioethical Issues (London: The Linacre Centre, 1996) 36–40.

⁷² Häring, *Ethics of Manipulation* 183.

⁷³ John Paul II, Address to the World Medical Association, October 29, 1983, *Acta apostolicae sedis* 76 (1984) 392–94.

knowledge,”⁷⁴ as if the Christian doctrines of creation and sin should be rewritten in terms of a Promethean theft of the prerogative of the gods.⁷⁵ The Fathers of Vatican II put the Catholic belief to the contrary in forthright terms when they stated: “Far from thinking, then, that the achievements of human enterprise and ability are in opposition to the power of God, or that the rational creature is a rival to God, Christians are of the view that the successes of the human race are a sign of God’s greatness and a result of God’s marvellous design.”⁷⁶

Of course, in our creative sharing in divine Providence, it is entirely and always possible for us to get things wrong, or to act from wrong motives; there is no lack of opportunities for such sinful behavior in the field of genetics on the part of various groups of people. From the point of view of research scientists and those involved in assisted reproduction clinics, there are, of course, the standard risks of any new technology, with the possibilities of miscalculation, disastrous accidents, and unforeseen side effects, as well as issues to do with the competitive pressure to achieve results and the desire for peer recognition and public prestige. The haunting question that the scientific community must constantly face as it moves as rapidly as permitted into unknown genetic territory is, what do you plan to do with your mistakes?

Another group in society that has an important stake in expanding the field of genetics, and is therefore subject to the temptation to abuse it, is composed of those who will profit financially. Here the most obvious beneficiaries are the large medical and pharmaceutical companies interested in the commercial exploitation of genetic advances and prepared to invest vast sums of money in private research facilities. As Bernard Häring commented: “we have substantial reasons to fear that genetic engineering could fall under the heartless rules of the market.”⁷⁷ There are also in this group those only too happy to exploit human unhappiness or desire for novelty by providing websites and other entrepreneurial agencies that offer à la carte genetic choices with a price tariff reflecting the various physical, mental, and emotional characteristics on one’s check list.⁷⁸ And a third group is composed of the politically powerful in society, who are prone to succumbing to the technological imperative and who are inevitably interested in the political potential and the social policy applications of genetic discoveries

⁷⁴ Reinhold Niebuhr, *The Nature and Destiny of Man: A Christian Interpretation* (New York: C. Scribner’s Sons, 1941–45) 200.

⁷⁵ See Jack Mahoney, “The Sin of Pride,” in *Tradition and Unity: Sermons Published in Honour of Robert Runcie*, ed. Dan Cohn Sherbok (London: Bellew, 1991) 282–89.

⁷⁶ *Gaudium et spes* no. 34.

⁷⁷ Häring, *Ethics of Manipulation* 185.

⁷⁸ See www.genochoice.com; www.dnanow.com.

and advances. Here, for instance, is where there is a danger of developing systematic genetic discrimination and of creating a genetic underclass in a society. Writing on the need to protect the subjects of genetic developments from such vested interests in society, David Galton identifies “the excesses of overenthusiastic doctors and scientists, . . . the greed and ambition of corporations and profiteers, and . . . political manipulators out to gain or keep power for themselves.”⁷⁹

There is one further group that can be identified as at moral risk in seeking advances in the field of genetic medicine, not for therapeutic reasons but aimed at human improvement and enhancement, namely the group comprising individuals or couples who seek help to have a particular type of child, or a child with particular physical characteristics, or who may have exhausted all other possibilities at producing a family. Here, regrettably, in spite of what I have already said about the moral legitimacy of some such projects for a variety of medical and other reasons, and notwithstanding what I have observed about the moral legitimacy of acting from mixed motives, one does need to be aware that individuals can be motivated mainly by selfish or trivial considerations, rather than considering principally the interests of a future child. Glover makes a very consistent point when he observes that, if one of society’s aims is to protect children from harm arising from personal or social mistreatment after they have been born, we should also protect children “from being harmed by their parents’ genetic choices.”⁸⁰ The Working Party of the British Catholic Bishops that I have already quoted was also aware that “if the parents are obsessively concerned with some positive feature it may be that their concern is not to *benefit* the child, but to have the child meet their own personal specifications.”⁸¹

In all of these areas of genetic modification that can carry an ethical health-warning, Ramsey’s insistence on human lack of wisdom does have much to commend it. After all, as he points out, we have not been particularly noted for wisdom in the control of our environment, nor in public policy-making in social and political matters.⁸² When we consider the possible failure to take account of the inevitable limitations of our horizons, the ignorance of which desirable qualities and what values would really profit future children and adults, the ephemeral incentives of fashions and fads, as well as of scientific prestige, commercial competitiveness and ruthlessness, and the ambitions of totalitarian regimes, we can hardly disagree with Bernard Häring’s conclusion that “the present situation is one of

⁷⁹ David Galton, *In Our Own Image: Eugenics and the Genetic Modification of People* (London: Little, Brown, 2001) 133.

⁸⁰ Glover, *What Sort of People* 48.

⁸¹ *Genetic Intervention on Human Subjects* 40 (emphasis in original).

⁸² Ramsey, *Fabricated Man* 96.

abundant technical knowledge faced with a great lack of wisdom for guiding the evolutionary process.”⁸³

GENETIC IMPLICATIONS OF THE DOCTRINE OF SALVATION

When we move now to the third of the doctrines that I have identified, the salvation of the world in which we live by the death and Resurrection of Christ, what emerges into prominence is the therapeutic potential of human genetics. The various healing miracles and cures that Jesus is described as performing during his earthly ministry show him ushering into human history God's saving and healing power. And within a Christian theological context the entire practice of medicine is a practical extension in society of this healing ministry of Jesus to his sisters and brothers, and of what Paul calls the power of Christ's Resurrection (Philippians 3:10) affecting all humankind since that cosmic event.

Within this perspective, then, our spontaneous reaction to advances in medicine, including genetic medicine, should be more in a spirit of gratitude to a healing God and to those who collaborate with God, than in the all-too-prevalent spirit of apprehension which is widespread, especially, it would strangely seem, among religious people, about the possible abuses of such divine gifts of human research and ingenuity. However, such a basic christological approach to the advance and practice of medicine is not meant to imply in utopian terms that all human ills and ailments will eventually be cured in this life. The doctrine of human salvation also helps us realize that the healing work of God in Christ this side of death applies to the human spirit as well as to the human body, and can make physical conditions or situations that are incurable or irremediable, such as a couple's having a genetically impaired child or the tragedy of shared infertility, at least humanly tolerable and even acceptable. A common remark among people who have visited the Marian shrine at Lourdes, for instance, is the recognition that, for all the physical cures for which it is rightly famed, vastly more spiritual healings take place there, as sick and disabled individuals acquire a spirit of tranquility and trustful acceptance that can relieve and transform their lives while perhaps leaving their ailing bodies unaffected. And this realization of the holistic effects of the power even now of Christ's Resurrection may prove some consolation in such instances for the sick and for those who care for them, without encouraging any lessening of human efforts to remedy their situation.

Exploring the significance of this doctrine of Incarnation and salvation in our approach to ethical issues cannot but call to mind one of the continuing issues that is to be found in the subject of Christian ethics, or ethics based on the Christian religion: that of its relationship to purely human or secular

⁸³ Häring, *Ethics of Manipulation* 186.

ethical systems in addressing ethical issues, including those occurring in the field of genetics. Out of the considerable literature about what is sometimes referred to as the “specificity” of Christian ethics, or what makes Christian ethics specifically different from other types of ethics, it is possible to conclude that most Catholic moralists today take the view that the context and the motivation of Christian ethics can differ from the context and motivation of secular ethics, yet the content of Christian ethics—the practical positions it will reach on various ethical issues—is basically the same as the conclusions that can be arrived at by the best of human rational ethics. This is the basis of the strong Catholic tradition of appealing to human reasoning and to natural law and human rights in so many ethical issues, including the whole field of bioethics, as providing a shared ethical platform and common moral ground to appeal for ethical agreement from others who are not Christians.⁸⁴

For the Catholic this is not an inconsistent approach, since, as I have argued, God’s work in creation and Incarnation is continuous, even cumulative, rather than discontinuous; and the Word who was in all that is created is also the Word who was made flesh (John 1). Yet such a purely rational rather than religious approach constitutes an impoverishment for the Catholic, who is unable in dialogue with non-Christians to share the Christian world view that can provide a rich accumulation of considerations for the Christian ethical stand, of which only one or two may be held in common with others who are not Christian. For instance, from the viewpoint of unaided reason, the wrongness of murder can be found in its being the unjustifiable killing of a fellow human being; for those who hold a belief in a divine creator, murder can also be judged wrong because it is the killing of a fellow creature of God; and, for those who accept the Christian approach to reality murder is additionally wrong because it is the killing, as Paul observes, of a brother or sister for whom Christ suffered and died (see 1 Corinthians 8:11).

It could be the third, the specifically Christian motivation, which gives to believers (a) a particular intensity, (b) a particular urgency, and (c) a particular priority in their approach to various moral issues compared with other people’s. For intensity of moral awareness, nothing can compare, as I suggested earlier, to the moral imperative contained in John’s statement “If God so loved us, we also ought to love one another” (1 John 4:11), or in Jesus’ own words, “Just as I have loved you, you also should love one another” (John 13:34). It can be this specifically Christian argument to respect and protect the lives of all human individuals without exception that carries much more weight for Christians than arguments leading to the same conclusion that are derived from a shared humanity or from belief in

⁸⁴ Mahoney, *The Making of Moral Theology* 337–41; see also 103–15.

a common Creator. Convinced as they are on Christian grounds, however, they could in a dialogue with unbelievers be led to attribute more compelling force to the other arguments than these may be able actually to carry with unbelievers. It would not be altogether surprising, although it might explain occasional Christian frustration, if non-believers are not as convinced by these arguments as is hoped, especially given the fact that they may not be the actual, or main, reasons why Christians themselves hold that ethical position.

Again, Christian considerations may give not only a particular intensity to certain ethical positions, but also a particular urgency to certain moral human values in some areas of behavior. When Christians and others disagree on a particular ethical issue it may not be because they differ in the human moral values to which they subscribe. It may be more because within the list of values that they may hold in common they differ in the priority that they give to one value over others if and when different values happen to be in conflict. In the field of human rights, the jurist Richard Dworkin is rightly noted for his comment that human rights are trumps, since they always morally prevail over any purely utilitarian considerations.⁸⁵ But, of course, it is possible to have a conflict between rights, and, as every bridge player knows, it is always possible to overtrump. So appeal to human rights in any area may not be conclusive because there can well be a conflict of rights, such as between one person's right to privacy of information and another person's right to know about them, and this conflict of rights may stem, as I argued earlier, from an underlying competition between moral values.

I am inclined to think that when Catholics and other parties, including other Christians, are at odds on some practical ethical issue it is not because one side espouses a value or values that the other side denies. It is because each side prioritizes the same set of values in different ways, and in certain circumstances differs in highlighting the significance or the priority of one particular value over others, whether that value be life, or freedom of choice, or scientific advance or concern for the poor. As I noted earlier, John Paul II at the United Nations recognized in the moral issue of nuclear deterrence that a number of values come into play and different views are possible. Garth Hallett has brought out in an excellent study of *Christian Moral Reasoning* the significance in all our moral choices of a process of what he describes as "value-balancing."⁸⁶ And my further suggestion is that the various doctrines that I have been considering, especially that of In-

⁸⁵ See Richard Dworkin, "Rights as Trumps," in *Theories of Rights*, ed. Jeremy Waldron (New York: Oxford University, 1984) 153–67.

⁸⁶ Garth L. Hallett, *Christian Moral Reasoning: An Analytical Guide* (Notre Dame: University of Notre Dame, 1983).

carnation and salvation, could lead Christians in some situations to give a particular urgency or a particular priority to some human moral values over others.

Thus, although it can be argued that the two values of consideration for others and proper regard for oneself will appear in most thoughtful people's lists of ethical values, yet when concern for another is at odds with regard for oneself, Christianity will be disposed at times, although not necessarily always, to sacrifice one's own interests for those of another. Likewise, when the values of justice and mercy are at odds, the Christian predisposition will be for mercy rather than justice. And what else can be implied by the increasing Catholic message of a so-called "preferential option for the poor" than giving priority to whatever actions improve the economic and social lot of the world's poor? Chapman comments that Christian religious writings on genetics, as in the work of Lisa Sowle Cahill and others, "tend to have some distinctive themes" that include the social as well as individual character of human beings, the claims of justice, the sacredness and value of the human person, and the interests of the poorest and most vulnerable in society.⁸⁷ Again, in their study aimed at giving a more biblical base to the Christian voice in bioethics, Rae and Cox summarize the ministry of Catholic health care as rooted in "the commitment to promote human dignity, care for the poor, and contributing to the common good."⁸⁸ And it is interesting that the set of values offered by McCormick as genetic moral criteria is quite similar.⁸⁹ It should be noted that these reflections on how Christian considerations can influence the intensity and the urgency of the Christian approach to particular moral issues cannot just be viewed as resulting from the Christian having stronger motives. The motives themselves are born of the belief in the Christian doctrine of salvation in Christ, and of the deepened appreciation of the richness of reality and of the importance of what is at stake in all our moral choices to which that doctrine gives expression.

GENETIC IMPLICATIONS OF THE DOCTRINE OF FULFILLMENT

Finally, the fourth Christian doctrine whose implication for genetic medicine I want to explore is that of fulfillment. As I explained already, it is part of modern eschatological belief that God is here and now at work in human history, bringing it to completion, and that the vocation of humans

⁸⁷ Chapman, *Unprecedented Choices* 61, 119–20.

⁸⁸ Rae and Cox, *Bioethics* 12.

⁸⁹ McCormick, *The Critical Calling* 267–71.

is to collaborate actively in this, by striving energetically to create more just economic and social conditions that will enable all the peoples of God's earth to live even now lives worthy of their eternal destiny.

With this new view of eschatology, a new understanding has also developed in the Christian appreciation of hope. The hope in question is not the traditional idea of tolerating the disappointing present as a condition of enjoying a better life to come, but more the active theology of hope that became powerful in Christian thinking last century under the influence of Jürgen Moltmann, and that figured as a prelude to the development of political and then liberation theology.⁹⁰ Seen in this perspective, hope is not a matter of patiently awaiting the future so much as acting to bring the future forward into the present, in the lives of individuals, and where possible, in the institutions and structures of society. Thus a hope-filled religion is not restricted to, nor imprisoned by, the present state of affairs. It aims to inject values into transforming modern society in all its components, including, within our present context, the component of genetic medicine.

One feature of human life which the doctrine of the fulfillment of God's plan of creation and salvation brings to the fore is the value of human solidarity. It was this which John Paul II stressed when he expressed the hope to the Pontifical Academy for Life in 1998, "that the conquest of this new continent of knowledge, the human genome, will mean the discovery of new possibilities for victory over disease and will never encourage a selective attitude towards human beings." As he went on to observe, "in this regard it would be very helpful if international scientific organizations would make sure that the desired benefits of genetic research are also made available to developing nations," that would "prevent a further source of inequality between nations. . . ." And he concluded, "future society will conform to the dignity of the human person and to equality between nations, if scientific discoveries are directed to the common good, which is always achieved through the good of each individual and requires everyone's cooperation, especially that of today's scientists."⁹¹

Cahill importantly points out the business as well as political implications of this social dimension of genetic medicine when she observes that "equitable access to genetic services, especially for those whose needs are greatest, face new and daunting challenges in a global market economy."⁹² And this desire to make genetic health as widespread as possible may

⁹⁰ Jürgen Moltmann, *Theology of Hope* (New York: Harper & Row, 1967). See Alistair Kee, *A Reader in Political Theology* (Philadelphia: Westminster, 1974).

⁹¹ John Paul II, Address to the Members of the Pontifical Academy for Life, February 24, 1998, section 7 (see n. 59 above).

⁹² Lisa Sowle Cahill, "The New Biotech World Order," *The Hastings Center Report* 29 (March-April 1999) 45-46.

throw some light on the question of whether only somatic therapy should be encouraged, or whether germ-line therapy might be in principle morally acceptable. If we pride ourselves on eliminating smallpox or malaria or other widespread ailments from the environment, then how is it threatening to human dignity to dispel genetic harmful predispositions from the human race by germ-line treatments, rather than by piecemeal selective somatic treatment? For, if it is the case that germ-line therapy can result in future generations being protected or saved from serious inherited genetic disorders and in the incidence of genetic ailments being decreased, and with considerably less economic costs than large scale somatic gene therapy, then, provided that all likely risks of mistakes and mishaps are controlled, such wide-ranging treatment appears in principle to be not only morally tolerable, but even to be commended for what the pope calls the common good. After all, the medical option in such cases may come down not simply to the question of whether to cure or not; it may be the question of deciding between the choice to heal some and the choice to leave others unhealed.

The possible divisive effect on society of selective individual treatment is foreseen by Galton in his observation that “introducing a powerful new eugenic technology affecting future generations that is only accessible to the wealthy or powerful may, in the long run, lead to further social divisiveness and instability.”⁹³ In its report on genetic intervention on human subjects, the Working Party of the [British] Catholic Bishops’ Joint Committee on Bioethical Issues observed on the morality of germ-line therapy, apart from the serious issues of complexity and risk, “granted that people should not be deprived *without good reason* of the genes they would otherwise have inherited from their parents and passed on to their children, the real possibility of eliminating from a family some serious disease—for example, Huntington’s Chorea—would appear to be good enough reason to improve on a person’s genetic makeup and reproductive potential.”⁹⁴

Yet at the same time the doctrine of God’s final fulfillment also prompts a further reflection, insofar as it provides a cosmic context against which all human choices, including genetic choices, have to be made by Christians. Put very simply, this means that we are expected to maintain a sense of proportion in the steps we take to improve our human lot, even our collective human lot. The Christian perspective of a life that extends beyond our present earthly existence de-absolutizes all our mundane considerations and indeed does put them into perspective. It follows that earthly well being or even earthly survival are not absolutely essential, nor do they

⁹³ Galton, *In Our Own Image* xviii.

⁹⁴ *Genetic Intervention on Human Subjects* 32–33 (emphasis in original).

justify the choice of absolutely any means, for those who believe in God's eternal destiny. Here is where Ramsey has wise and sobering words to offer, about "the outlook of anyone who is oriented upon the Christian *eschaton* and not upon the genetic cul-de-sac alone. Anyone who intends the world as a Christian or as a Jew knows along his pulses that he is not bound *to succeed* in preventing genetic deterioration, any more than he would be bound to retard entropy, or prevent planets from colliding with this earth or the sun from cooling. . . . This does not mean that he will do nothing. But it does mean that as he goes about the urgent business of doing his duty in regard to future generations" he is not bound "to succeed in achieving the *absolutely imperative* end of genetic control or improvement."⁹⁵

For, as our doctrine of fulfillment teaches us, ultimately God is in charge. Moses' final blessing to his people as they are about to enter the Promised Land contains the assurance that even beyond that earthly paradise, "the eternal God is your dwelling place, and beneath are the everlasting arms" (Deuteronomy 33:27 RSV). The message for all of us is that the eternal God shall be our shared final dwelling place, and that we are invited to trust our lives even now to God and to the belief that beneath us are God's everlasting arms.

CONCLUSION

These, then, are some reflections concerning ethical issues within the field of genetics that appear to me to be implied by the four major Christian doctrines of creation, sin, salvation, and fulfillment, and the ethical values to which they give rise. Creation impresses upon us the inherent value and irreplaceable dignity of every human person, as well as the creative significance of exercising our human intelligent initiative. The doctrine of sin warns us of our capacity to harm individuals and to act from purely selfish motives. Salvation impels us toward the generous loving and preferential service of others, especially in their weakness; and fulfillment holds out a vision of all-embracing concern for the future of the whole human family, as well as trust in the loving God who is ultimately our common origin and our shared destiny.

It can be argued, of course, that human beings are capable of reaching all these values by way of human reason without recourse to religious considerations, as I noted above in exploring the "specificity" of Christian ethics. I suggest again, however, that it is precisely by reaching these values by way of the Christian doctrines that I have identified that Christians can recognize in such values an increased intensity and a special urgency in particular

⁹⁵ Paul Ramsey, *Fabricated Man* 29–30 (emphasis in original).

cases, and even a moral priority when they may come into conflict with other values, precisely because they emerge from the richness of the Christian understanding of reality.

However, in trying to communicate something of the ethical implications of that Christian understanding to our pluralist society, as we must continually strive to do, we are driven to seek common ethical ground and shared moral attitudes through appealing to our common humanity and its expression in natural law and fundamental human rights, or through what Beauchamp and Childress call a “common morality,”⁹⁶ since we are aware that such a pluralist public forum inevitably requires what Rae and Cox describe as “publicly accessible reasons.”⁹⁷ Yet, this attempt at public service inevitably involves a setting aside of what for believing Christians is the ultimate basis for all human moral behavior, our religious faith. As Vatican II expressed it: “faith shows everything in a new light and clarifies God’s purpose in his complete calling of the human race, thus pointing the mind towards solutions which are fully human.”⁹⁸ So, whatever our strategy has to be when collaborating with others in the public forum, the controlling attitude of Christians toward ethical issues in their own personal and professional lives seems to be best grounded in our belief in Christian doctrines, and is well expressed in the conclusion that Paul delivered to the Christian community in Galatia, that “what ultimately counts is faith working through love” (Galatians 5:4).

⁹⁶ Tom L. Beauchamp and James E. Childress, *Principles of Biomedical Ethics*, 5th ed. (New York: Oxford University, 2001).

⁹⁷ Rae and Cox, *Bioethics* 283.

⁹⁸ *Gaudium et spes* no. 11.