

Chapter Two—Theology for the Age of Biological Control

“You have great knowledge, Dr. Carter, [said Ezekiel] some say genius. But it takes more than knowledge to be God. You need wisdom. . . . [Just think about a] world in which anybody could heal everybody, and no one ever died of natural diseases. Imagine a world where there would be no consequences for any actions we took. A world with such an enormous population that instead of a heaven on earth we would create a living hell. No space. No food. No respect for life—or death—and certainly not God. Just a crowded desert of lost souls assured of only one certainty—a long life. . . .”

“Tell me, Dr. Carter,” continued Ezekiel, “does wanting to save your daughter, one insignificant human in a sea of humanity give you the right to play God? Does it give you the right to risk creating a hell on earth? . . . You had no right to use your intelligence and resources to change that. And that applies to the others you have saved with your meddling genetics. . . .”

(From a conversation between the leader of a religious sect [Ezekiel] and a geneticist [Dr. Carter] in the novel *The Miracle Strain* by Michael Cordy)¹

“In many ways Michael West is the shadow impresario of the field. As founder of Geron Corporation, one of this decade’s most closely watched biotechnology companies, and now as president and CEO of Advanced Cell Technology, West has achieved remarkable success as a kind of merchant of immortality, selling the idea that stem cells and related technologies might someday completely revise the tables of average human life span. . . . Thus, in November 1990, he founded a company dedicated to the molecular causes of aging. He named it Geron—Greek for ‘old person.’ He eventually captured the interest of the most prestigious venture-capital firm on the West Coast, Kleiner Perkins, Caufield & Byers, which along with other firms invested \$7.6 million in Geron in 1992. . . . In both technical articles and news releases, it has retailed a scientific vision (and vocabulary) that clearly push the right zetgeist buttons. West and Geron spoke tirelessly of ‘immortalizing enzymes’ and the ‘life extension’ of cells. . . .”

(From “The Recycled Generation” by Stephan S. Hall, *New York Times Magazine*)²

Introduction

The quotes above point toward two very different views on the genetic developments that are moving us into what may be called the *age of biological control*. The first view, sometimes summed up by the phrase “playing God,” fears the outcome of tampering with genetic nature. It expresses great doubts about human ability to use this new knowledge in a humane fashion. The second view confidently celebrates a vision of how genetic developments will aid the human race. This vision includes vastly improved health care, greater control of human destiny, and economic benefit. It may be that both of these opposing statements contain important insights, but clearly, people of faith are called to the task of thinking beyond any immediate reaction to genetics, whether pro or con. Such careful and critical thinking that begins in faith and uses the resources of a faith tradition is called theology. Theology is, after all, sustained and orderly thought about life under God from the standpoint of faith. In this sense, this study guide invites every reader to be a theologian.

This chapter’s purpose is to provide material for theological thinking that can respond constructively to issues raised by genetic developments. Two questions and two types of reflections will drive this task. The first question is about the kind of society in which we live and invites a theologically based analysis of our culture. Such thinking raises additional quandaries to those already posed in chapter one about the potential impact of genetics on personal lives and the social order. For instance, could the kind of society itself in which we live lead to the misuse of genetic knowledge despite good intentions on the part of science and medicine? In probing these ideas, the important concept of “mindset” (the intellectual assumptions a person brings to any topic) is developed. We will also recall how our society in the past attempted to

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“improve” the human gene pool. We will probe such issues as American individualism and *genetic essentialism* because they are part of the cultural context in which genetic knowledge and power are being developed.

The second question asks, What are the theological resources that Christians might specifically call upon to aid their thought and action in an age of biological control? The broad ideas offered are not definitive blueprints for response, but they do suggest key Christian themes that are developed with genetic challenges in mind. They are what might be called the “base points” from which to engage genetic questions; these fundamental ideas can form a valuable framework for thinking about the subsequent chapters.

Personal Experience and Values

Each person approaches genetics—or any topic—with a broad and pervasive set of beliefs, knowledge, experiences, commitments, emotions, and judgments. These can be called *pre-understandings* and they form the context that a person brings to what they learn, and do. Each person’s pre-understandings are influenced by, among other forces, the broad intellectual ideas of culture. We shall call these broad ideas *mindsets*. Indeed, there are several different social mindsets contending for allegiance in our society, and each person may experience conflict among them. Because these mindsets are so important, it helps to explore some key beliefs in one’s mindset even before we reach the subject matter.

One aspect worth thinking about is the role that religious ideas should play in matters like business and medicine. For some individuals, there is an unbridgeable chasm between Sunday worship and Monday workday thinking. Some of these individuals see this as acceptable and fortunate, while others see it as unavoidable and unfortunate. A different view is that the gap is bridgeable and that religious ideas can help bring great clarity to decisions in business or politics. *What is your view about the relationship?*

A second consideration is one’s perspective on *individualism*. Some argue that individualism has run rampant in United States culture, while others believe that the more individualism we encourage, the better. One way to gauge one’s view on this is to reflect on which slogan seems more appropriate in motivating service in the armed forces: “Be all that you can be” or “Do your duty to your country.” *What perspective do you have on individualism in the United States?*

Gathering Insight

Theological Social Analysis

There are many reasons why people are concerned about the misuse of genetic knowledge and power. Some of the challenges and the related concerns were highlighted in the first chapter. Additional concerns appear when we think about genetic developments and culture. This section will focus specifically on the mindsets of progress, individualism, and *biological essentialism*.

One reason for concern today is the track record of genetics in the recent past. Nearly a century ago, a previous wave of genetic advancement brought with it a frightening social movement called *eugenics*. Eugenics literally means *good genes*, and it was based on the genetic theory of that time with the stated intent to improve the health, fitness, and intelligence of the human race. Eugenics is usually associated with German Nazism, but it developed first in England and was widely influential in the U.S. until the late 1930s.

“ . . . this new scientific knowledge alone will not answer the deeper, philosophical questions that have plagued humankind for centuries. What does it mean to be ‘created in the image of God?’ What is the relationship of humankind to the rest of creation? Pondering the worthiness of humankind, the psalmist rhetorically asked God, ‘What are human beings that you are mindful of them?’ (Psalms 8:4). The answer to these questions does not lie in our genetic sequence. But unveiling the sequence may profoundly impact our understanding of those questions.”³

Kevin Powell, pediatrician
From *Genetic Testing and Screening*



The movement was carried forward in the name of progress and was composed largely of people from the white middle and upper middle classes. Its practices were endorsed at the highest levels of society, including state legislatures and the Supreme Court.⁴

The goal of this eugenics movement was the prevention of social degeneration through both “positive” manipulation of human heredity and “negative” elimination of the inferior. Widespread positive eugenic practices included “fitter family” contests at many state fairs to encourage people to breed wisely. Negative eugenics included forced sterilization, a practice legalized in more than 20 states and used on thousands of prison inmates, the “feeble minded,” and poverty-stricken women of selected ethnic groups.⁵ Opinion in the U.S. turned against eugenics in the 1930s because of its growing association with Nazism and because its genetic theory proved faulty. When it became clear that the mentally retarded could have children of normal intelligence, the eugenic movement’s assumptions were disproved. Few social analysts today forecast a return to such eugenics, but many raise concerns about new forms of eugenics driven by the free market economy in tandem with parental choice. In particular, many worry that extreme forms of American individualism offer the perfect environment for fostering a new eugenics. The idea of this individualism is characterized by the claim to personal autonomy and control, and is supported by the notions of self-reliance and privacy. This individualism sees community as secondary, as a necessary convenience created by a *social contract*. In this view, the individual comes first. An illustration of an opposite point of view is the Bible’s perspective in which the community comes first. It is from community that individuals emerge. Thus, one’s first loyalty is to God’s community.

“Yet I forecast that a new form of eugenics may eventually come upon us at gale speed. Like moving air that is invisible to the eye, at first we will feel but not see eugenic winds blowing from two directions: first, discrimination in health insurance and employment; then, secondly, personal tastes for designer children accompanied by the rise of the *perfect child syndrome*. I forecast that these winds will advance to gale or hurricane force, and future children will walk in the debris of the coming storm over selective abortion.”⁶

Ted Peters, theologian
From *Genetic Testing and Screening*

Ethicist Hans Tiefel has pointed out that individualism has brought many gifts to Western society, including the central insistence on dignity and worth of the individual. But he also notes its many dangers in the extreme form he calls “American Individualism.”⁷

This extreme individualism looks to the self for the meaning of life and for moral virtues, thus stressing sheer self-realization, self-reliance, and so forth. It is exemplified in the growing insistence on private choice and can lead to the belief that moral decisions should be made only in terms of self-satisfaction. It is captured by the phrase, “Do your own thing.” The notion that aging parents or an ailing child *impose* on one’s freedom illustrates this mindset. Such extreme individualism, Tiefel believes, contradicts biblical notions which stress the good of human community as primary and fundamental.

Tiefel is concerned that in debates about reproductive choices, the individualistic notion of privacy has

become absolute. This can lead to a situation in which the only criterion for such choices is whatever the “market will bear.” In other words, if a reproductive technology can be successfully marketed, then it will be. The result may lead parents, who want only the latest and best for themselves, to engage in genetic selection and the practice of *designer babies*—a new eugenics.

A related cultural mindset worries ethicist Elizabeth Bettenhausen, the view she calls “biological essentialism.”⁸ This is the idea that DNA defines the essence of the human being. For example, some scientific studies have blamed poverty or criminality on genes. Others have blamed low intelligence on the genetics of race. These kinds of claims are dangerous because they allow racial and sexual categories or social problems to be blamed on genetic sources. In other words, categories or problems that are actually social in character are now passed off as the work of nature, about which little can be done.

Bettenhausen also sees the same essentialism at work in the way some geneticists or the media use highly religious language to spiritualize the human genome. DNA is described as the location of the true self or talked about as the soul of the individual. Some scientists talk about the effort behind the Human Genome Project (HGP) as the search for the “Holy Grail,” or as the decoding of the “Book of Man,” or as the knowledge of the “Second Adam.” This, she warns, leads to human arrogance and the reduction of the complexity of a human being.

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Elements for a Theological Framework

How should Christians respond to these and any other mindsets that encourage the misuse of genetic power and knowledge? Clearly, the dangers as well as the promises of genetic developments require thoughtful responses.

Critical Engagement

The Evangelical Lutheran Church in America (ELCA) has not established an official position about any genetic issues as of this writing.¹⁰ However, a book (titled *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*), commissioned by the ELCA's Division of Church in Society, suggests that an appropriate response to genetics is the stance called *critical engagement*. The book is devoted to genetic testing and screening issues, but the ideas may be generalized.

The designation *critical engagement* means, first of all, that the only satisfactory way to approach genetics is by openly engaging the scientific, medical, and economic knowledge involved. This view assumes that legitimate and important two-way connections exist between Monday morning talk and Sunday morning language. Further, it entails the conviction that Christians must intentionally think through genetic issues. An uninformed rejection or complacent acceptance is not an adequate response. Critical engagement further signifies that the emerging genetic knowledge and its application are to be affirmed in principle as means to aid human endeavors for healing, etc. At the same time, it holds that people of faith must *critically* consider each specific use according to judgments informed by faith and Christian sources. This will mean that Christians sometimes resist a particular use of genetic technology while encouraging its use in other ways.

This view depends on several commitments. The first is that genetic developments are understood as occasions in which God as creator is at work. Thus, gratitude and religious concern are appropriate responses. However, it recognizes that sin is just as assuredly present in this human enterprise. Therefore, overblown pride in these abilities is not appropriate. Mindful of both beliefs, and because God encounters us precisely in such ambiguous situations, we are called to be attentive to God's presence and will as they develop.

Six Theological Convictions

Theological ideas that undergird such convictions are fleshed out by Philip Hefner as elements in a theological framework for the ELCA's book mentioned above. They are delineated below to help suggest how Christian faith offers simultaneously both a resource and a challenge for a critical engagement of genetics.¹²

- 1) Hefner suggests that Christian faith should see *genetic developments as a kind of sacred space*, a place in life in which to meet God and discover the meaning of Christian faith. This is because God comes to human beings only in such real-world places. The *challenge is to avoid idolizing genetics* while recognizing that God dwells with us in such ordinary places as the medical office or the biotech board room.
- 2) Christian *faith provides an umbrella story* under which all of human experience unfolds. The narrative of God's creation, redemption, and intended fulfillment of the universe provides the means to integrate the experiences we bring to the issues of everyday life, including those of genetics. The *center of the story is Jesus Christ* who is, on the one hand, the one in whom all alienation and guilt is reconciled, but on the other, who is also the model of the form that human nature should take. This story places human beings firmly as *natural creatures who yet have accountability for their actions in relation to all of nature*.

"If the church chooses to be present to people struggling with genetic choices, it must become genetically literate in order to understand and respond. Science and technology have brought us into an era which requires profound responsibility. For Christians, this is not an affliction but a gift from God. This gift offers opportunities for great good or for radical abuse. God has given us the freedom and responsibility to make such decisions. Christians are called to participate in genetic decision-making, both in personal and societal realms. As servants of Christ and stewards of the mysteries of God, (1 Corinthians 4:1), this responsibility requires preparation."¹¹

Kirstin Finn Schwandt, genetic counselor
From *Genetic Testing and Screening*



3) Christian faith speaks of the *goodness of creation in the highest terms*. It does so because God creates the universe, affirms it mightily through the incarnation of Christ in creation, and promises to bring it to fulfillment. Thus, humans can celebrate being part of the creation into which genetic knowledge gives us insights and over which it gives us power. The challenge is that Christian *faith will not tolerate any intervention into nature that looks upon it as a personal belonging* or believes we may do whatever we want with it. Rather, nature belongs to something greater than our design and we are accountable to this greatness that we call God. To know that the infinite God is present in finite nature is, therefore, to have a resource for critique of arrogant pride with respect to any use of nature.

4) Christian faith *perceives humans as shapers of nature*. Genetics continually raise the question: “What is the purpose of our activities to intervene in nature or to shape it in a particular direction?” “Why should we do this or that?” Christians have no blueprint answer, but the Christian story does insist that humans are on earth in order to glorify God, the Creator. It further holds that the thrust of any action, including genetic developments, *should look something like that of Jesus Christ*. This includes the *centrality of self-giving* for the benefit of creation and its people. Thus, Christian faith will question any genetic intervention that is an end in itself or whose priorities are not the common good of society or of nature itself.

“God has endowed us with the freedom and power to make decisions, but has not endowed us with the wisdom to see all of the possible contingencies in the future, nor the power to guarantee the outcomes we intend. And, as we know from personal experience, every decision has an infinite array of potential outcomes that we humans can never fully know or anticipate. That is part of the agony of decision making: to have responsibility without full knowledge and empowerment.”¹³

Larry Holst, chaplain
From *Genetic Testing and Screening*

5) Christian faith *acknowledges finitude, ambiguity, and failure*. Christian faith insists that sin or finitude do not negate the worth of human effort. No matter how full of sin and vulnerability, human efforts do make a difference. They are part of God’s work, even if we cannot be sure how God will use them. Further, Christian faith will not avoid the prospect of death and its meaning. The *challenge here is that all efforts, including medical intervention, are tainted by sin*. However, even as Christian faith subjects human pride to critique, it equally motivates Christians to lives that go beyond inaction to attempts at healing and care.

6) Finally, Christian faith proclaims that in Christ, we as his people are not only anguished, bewildered, limited decision makers; we are *also redeemed decision-makers*. In the final analysis, this is Christian confidence. Decisions may never

be free of sin, but as Christian decision-makers, we need not fear that only righteous deeds will somehow make us right with God.

Chaplain Larry Holst, writing near the end of this same book, summarizes well this critical point. Our redemption, he writes, “does not lessen moral accountability to choose as wisely as possible and work as hard as possible. Luther once advised Christians “to sin boldly.” But he added: “Rejoice in Christ even more boldly for He is victorious over sin, death and the world.” Luther here is advising us to discern carefully our moral situations, then decide and act with boldness. This boldness is rooted not in the infallibility of our moral discernment but in God’s sustained forgiveness. Because of this, we Christians must always co-mingle human responsibility with God’s mercy. That call to responsibility linked to that mercy is the greatest resource Christians have to pick up the burden of critically engaging the unprecedented decisions and powers that genetic developments place before our society.”¹⁴

Further Reflection

The following is a list of major issues presented by genetic developments to society.¹⁵ (Many of these will be addressed in later chapters in much greater detail.) As a person of faith, consider which ideas from the theological analysis above would bear on these challenges. Remember that these ideas will not provide immediate solutions, but they will help provide general base points from which to consider these challenges. These ideas may also aid in sorting out mindsets unacceptable to a faith-based perspective.



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- *Genetic discrimination*: Should a person's genetic information be available to insurance companies or to employers, or others? Could genetic information become the next form of discrimination?
- *The abortion controversy*: This divisive issue becomes more complex and extensive with genetic knowledge involved. (Chapter 3)
- *Patenting creation*: Which genetic information should be patented? Human genes? Plant genes? Genetic processes? (Chapter 5)
- *Genetic determinism and human freedom*: Is DNA a puppeteer who determines who we are? Does a genetic disposition to something like alcoholism remove responsibility? (Chapter 4)
- *Germ-line intervention*: Should humans repair or "enhance" genetic material that will be passed on to offspring? Should they do this in food? In human beings? (Chapter 6)
- *The church's role*: What should the church's public stance and contribution be in these matters? What role should individual Christians and congregations seek to play? (Chapter 7)
- *Cloning*: Should we clone human beings? Should we clone animals and plants?

For Further Investigation

Burgess, John P. In *Whose Image? Faith, Science, and the New Genetics* (Geneva Press for the Office of Theology and Worship, Presbyterian Church—U.S.A., Louisville, 1998). This text represents the fine effort of another national denomination to address several broad theological issues raised by genetic science and technology.

Jersild, Paul. *Spirit Ethics: Scripture and the Moral Life* (Fortress Press, Minneapolis, 2000). Jersild's book focuses on the relation of scripture and ethics as he attempts to work out an ethics of the Spirit. His inclusion of a thoughtful chapter dedicated to genetics illustrates the effort to consider it from an explicit framework of theological ethics, rather than as a specialized topic.

Peters, Ted, *Playing God?: Genetic Determinism and Human Freedom* (Routledge, New York, 1997). This text examines the cultural construct of genetic determinism from several perspectives while building a theology of freedom and moral responsibility that is fully conversant with the science of genetics.

Willer, Roger A., *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science* (Kirk House Publishers, Minneapolis, 1998). Elaboration of the ideas above will be found especially in the chapters written by Roger Willer, Philip Hefner, Elizabeth Bettenhausen and Hans Tiefel.

Citations

1. Michael Cordy, *The Miracle Strain: A Genetic Thriller*. (New York: William Morrow & Co., Inc., 1997), 348.
2. Stephan S. Hall, "The Recycled Generation." *New York Times Magazine*. (January 30, 2000), 1, 25-45.
3. Kevin Powell, "A Basic Guide: Facts and Issues." *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer. (Minneapolis: Kirk House Publishers, 1998), 17.
4. Dorothy Nelkin and M. Susan Lindee, *The DNA Mystique: The Gene As a Cultural Icon*. (New York: W.H. Freeman & Co., 1995), 2.
5. Daniel Kevles, "Out of Eugenics: The Historical Politics of the Human Genome." *The Code of Codes: Scientific & Social Issues in the Human Genome Project*, eds. Daniel Kevles and Leroy Hood. (Cambridge, Mass.: Harvard University Press, 1992), 9-11.
6. Ted Peters, "Love and Dignity: Against Children Becoming Commodities." *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer. (Minneapolis: Kirk House Publishers, 1998), 117.
7. Hans O. Tiefel, "Individualism Vs. Faith: Genetic Ethics in Contrasting Perspectives." *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer. (Minneapolis: Kirk House Publishers, 1998), 131.



8. Elizabeth Bettenhausen, "Genes in Society: Whose Body?" *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer (Minneapolis: Kirk House Publishers, 1998), 104.

9. *Ibid.*, 113.

10. A social statement on health and health care issues is in preparation as of this writing. The current timetable calls for the ELCA Churchwide Assembly of 2003 to receive that statement for adoption. Several issues in that statement may well impinge on concerns related to genetics.

11. Kirstin Finn Schwandt, "Personal Stories: Cases From Genetic Counseling." *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer. (Minneapolis: Kirk House Publishers, 1998), 56.

12. Philip Hefner, "The Genetic "Fix": Challenge to Christian Faith and Community." *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer. (Minneapolis: Kirk House Publishers, 1998), 84f.

13. Lawrence E. Holst, "A Pastoral Perspective: Companionship Beyond Innocence." *Genetic Testing & Screening: Critical Engagement at the Intersection of Faith and Science*, ed. Roger A. Willer. (Minneapolis: Kirk House Publishers, 1998), 186.

14. *Ibid.*, 187.

15. Ted Peters, "Genes, Theology, and Social Ethics: Are We Playing God?" *Genetics: Issues of Social Justice*, ed. Ted Peters. (Cleveland: Pilgrim Press, 1998), 3f.