
The Cultural Geography of Cloning

BY ALLEN VERHEY

As we gain knowledge of the human genome and the power to clone, do we have the wisdom to use this knowledge and power for human flourishing? That's the map we truly need, the map to wisdom. Without such a map we will simply take the course of least resistance, the course determined by the cultural geography, the social enthusiasms, of our time.

The story is a familiar one. It begins in a garden. Not the Garden of Eden, but an abbey garden in Austria where Gregor Mendel, an Augustinian monk, planted different kinds of pea plants. Brother Gregor was the son of a farmer and knew something about breeding, but in that garden he set out to understand the rules of inheritance more systematically and statistically. He wrote his observations down and published them. No one took any special notice. Indeed, the world yawned. That was 1865, but it was not the end of the story.

Maybe the world yawned because he was a monk. Or maybe the world yawned because the mathematics seemed tedious. Or maybe the world was simply distracted by the theory that Charles Darwin had recently advanced (1859). At any rate people began to wake up to the significance of Mendel's observations about inheritance as the twentieth century dawned. His work was rediscovered, republished, and independently confirmed. His hypotheses about inheritance came to be called genetics, and the rest, as they say, is history. It is not an altogether pleasant history, it must be said. It got mixed up in the story of eugenics pretty quickly. Science, ever

the servant of some larger vision, got co-opted by the social enthusiasms of the time.¹

In 1953 James Watson and Francis Crick discovered the structure of DNA. When they celebrated in a pub near their lab, Crick announced that they had just discovered “the secret of life.”² That sort of rhetoric, of course, was commonplace in pubs, but it was to grow commonplace also in the descriptions of the genome. It was the “Bible” for life, the “Book of Man,” “the Holy Grail.”³

The discovery and the rhetoric triggered—and governments and corporations financed—a massive investigation. The Human Genome Project (aka the Holy Grail Project) undertook to map the human genome. Knowledge of the human genome continues to grow, and along with that growing knowledge comes growing power over nature, including perhaps the power to clone. The old Baconian equation seems confirmed: knowledge is power. The question, of course, is whether the next part of Francis Bacon’s equation will be confirmed, whether, that is, knowledge as power over nature will bring human flourishing in its train. So, at this point in the story we have knowledge (or at least some have some knowledge), and we have power (or at least some have some power), but we also have questions. What should we do with this knowledge? What should we leave undone with such power? We have knowledge and we have power, but do we have wisdom? Does anyone? And where is wisdom to be found? That’s the map we truly need, the map to wisdom. Without such a map we will simply take the course of least resistance, the course determined by the cultural geography, the social enthusiasms, of our time.

In spite of the success of the Human Genome Project, and in spite of Crick’s rhetoric about “the secret of life,” genetics has not yet located the gene for wisdom. “But where can wisdom be found?” It’s an old question, of course, hardly asked for the first time in response our new genetic knowledge and power. Job asked it long ago (Job 28:12), and he had no easy answers. Some things are just inscrutable, he said, “hidden from [our] eyes” (Job 28:21). He knew, however, that what passed for pious wisdom in the mouths of his friends was really folly. And he knew something else. He knew, as he said, that God knows the way to it, that God “established it,” and that those ancient sages were right who said that faith in God [or “the fear of the LORD”] is the beginning of it (Job 28:23-28; cf. Proverbs 1:7; 9:10).

Christians look for wisdom in another story that begins in a garden. We need to ask what it might mean to map the human genome biblically, to locate our genetic powers and to orient ourselves to them biblically. I am confident that there is wisdom in Scripture, wisdom there to guide Christian discernment concerning what should be done and left undone with our genetic powers, including our powers to clone, so that we might “glorify God in our bodies” (1 Corinthians 6:20) and with the human ge-

nome.⁴ In this essay, however, I will neither survey Scripture nor try to apply its wisdom to cloning. Here the task is rather to survey the cultural geography, to consider what passes for wisdom in our culture, and to suggest that the current cultural enthusiasms may really be the paths of folly. We will consider some of the ways our culture maps the human genome, locating us and orienting us to this new knowledge and power.

GENETIC REDUCTIONISM

Consider the rhetoric that sometimes accompanies genetic investigation in our culture. It pretends to wisdom, as if the human genome were the “secret of life” or the “code of codes” or the “map of human life.” That invites us, of course, to read the map of the human genome as if it were necessary and sufficient for understanding human life. But we should reject this way of thinking about and talking about the Human Genome Project. We should reject genetic reductionism. It is the way of folly, not wisdom.

Walter Gilbert, a Nobel laureate in genetics, made the plausible prediction that we will each one day have a CD containing a map of our individual genetic code. But he went on to make the foolish suggestion that we could hold up that CD and say, “This is me.”⁵ Such a future (along with such rhetoric) we must resist. The human person may not be reduced to her genes. The ability to map and sequence the genes does not give us what Gilbert hoped for, “the ultimate answer to the [ancient] commandment ‘know thyself.’”⁶ Indeed, not even the body may be reduced to genes; a genotype is not to be confused with a phenotype.⁷ Persons and bodies have histories, not just genetic fates.

One need not read Scripture to recognize the folly of genetic reductionism—or the folly of the genetic determinism it sometimes generates. The folly is displayed in a contradiction: on the one hand, there is the denial of human freedom in the assumption that human beings are totally determined by their DNA; while, on the other hand, there is the claim that human beings are free, indeed free to control their DNA, their own nature, and their evolutionary future.⁸

When we reject genetic reductionism, we do not reject the study of genetics. We reject the arguments concerning cloning (on both sides of the dispute) that assume such reductionism. More important, we reject the claim that the map of the human genome is sufficient to locate its own significance. We acknowledge, that is, the necessity of some other map (or maps) of “the human” to locate and to orient ourselves with respect to our genetic knowledge and power. There is no great wisdom in rejecting genetic reductionism and determinism, but there is no hope for wisdom unless we do.

THE BACONIAN PROJECT

Consider also the map provided by what is aptly named “the Baconian project,” which locates genetic knowledge as a “practical” science and ori-

ents it toward “the relief of human subjection to fate or necessity.”⁹ That sounds commendable enough, and it is surely commonplace enough in the modern world. But it is the path of folly.

It is not folly to distinguish the “practical” from the “speculative” (or theoretical) sciences. Aquinas, too, had done that, but Aquinas affirmed that all knowledge is “good.” Bacon distinguished them in order to reject

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the “speculative” sciences as the mere “boyhood of knowledge” and as “barren of works.”¹⁰ Western culture has followed Bacon in exalting a particular form of knowledge, the knowledge for which it reserves the honorific term “science.” In the classical account, theory (or the speculative sciences) pro-

vided the wisdom to use the practical sciences appropriately. In Bacon’s account—and in a culture formed by Bacon’s account—where shall we look for wisdom?

The modern account may admit, as Bacon did, that for knowledge to be beneficial humanity must “perfect and govern it in charity,”¹¹ but science is “not self-sufficiently the source of that human quality that makes it beneficial.”¹² The compassion that responds viscerally to suffering will urge us *to do something* in response to suffering, but it will not tell us *what thing* to do. The Baconian confidence in technology tells us that the thing to do is to reach for the latest technique or the nearest tool in an effort to eliminate suffering. The Baconian project simply arms compassion with artifice, not with wisdom. For the wisdom to guide charity (or compassion), science must call upon something else. But upon what? And how, in Bacon’s account, can humanity have “knowledge” of it?

The “practical” knowledge Bacon celebrated was sought in the confidence that it would render humanity “capable of overcoming the difficulties and obscurities of nature,” able to subdue and overcome the vexations and miseries that nature brings, and “to endow the human family with new mercies.”¹³ The Baconian project sets humanity not only over nature but against it. The natural order and natural processes have no dignity of their own; their value is reduced to their utility to humanity. And nature does not serve humanity “naturally.” Nature threatens to rule and to ruin humanity. The fault that runs through our world and through our lives must finally be located in nature. Nature may be, and must be mastered.¹⁴ Technology becomes the faithful savior.

The confidence that technology inevitably brings human wellbeing in its train is a creed ripe for doubt. The Baconian project is a powerful, but foolish, map to locate genetic knowledge and powers and to orient us within them. We must look for wisdom elsewhere.¹⁵

THE PROJECT OF LIBERAL SOCIETY

In the midst of moral diversity, the project of liberal society is to keep the peace.¹⁶ That, too, sounds commendable enough, and it is surely commonplace enough in the modern (and post-modern) world. But this project, too, puts us on the path to folly.

Because people disagree widely and deeply about their moral convictions, a liberal society insists on respect for the autonomy of each person and attempts to guarantee a space for each one to act in ways that suit one's moral preferences as long as such actions do not violate the autonomy of another. It is not folly to attempt to keep the peace in the midst of diversity. It is not folly to insist on respect for the moral integrity of each member of a diverse society. But the weakness of the project of liberal society is precisely its minimalism, and its folly is its failure (or its refusal) to acknowledge this minimalism.

Its minimalism shows up in a variety of ways. The liberal project tells us nothing about what goods to seek, only something about the constraints to exercise in seeking them. Moreover, it is attentive to only one constraint, prohibiting any violation of another's freedom. Because it pretends that freedom is a sufficient moral principle, it reduces covenantal relationships (like the relationships of husband and wife, or parent and child) to matters of contract. By its emphasis on the procedural question—the question of “Who should decide?”—it pushes to the margins of public discourse the substantive moral questions of conduct and character—the questions of “What should be decided?” and “What virtues should mark the one who decides?”

Its minimalism does not make it wrong, but if its minimalism is not acknowledged, it can distort and subvert the moral life, and the moral begetting of life. It is true, for example, that “non-consensual sex” is wrong—but there is more to say about a good sexual life, and if we deny that there is more to say, then we distort and subvert a good sexual life.

When “reproductive liberty” is taken to be a sufficient principle, then we publicly reduce the self to capacities for agency and reduce acts of begetting to mere physiology and to matters of contract. Consider the folly of surrogate mothers, who are sometimes alienated from the embodied experience of pregnancy and birth by the contract and sometimes alienated from the contract by their embodied experience of begetting.

Or consider the folly, the apparent incoherence, of our public morality with regard to disabled persons. On the one hand, we support their full inclusion into society and their rights to an equal freedom. On the other

hand, we seem committed to a reproductive freedom that includes the freedom to prevent a child with a disability from being born. It is not easy to see how the negative judgment on the lives of disabled persons in such reproductive freedom can long sustain the social commitment to their full inclusion.¹⁷

Notice, also, the folly of the pretence that “maximizing freedom” is always morally innocent. “Maximizing freedom” ironically can increase our

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bondage. What is introduced as a way to increase our options can become socially enforced.¹⁸ The genetic technologies put forward as ways of increasing the options of parents, including pre-natal diagnosis, for example, may come to be socially enforced.

“What, you knew you were at risk for bearing a child with that disease, and you

did nothing about it? And now you expect help with this child?” Now it is possible, of course, to claim that pre-natal diagnosis is the path of progress, but then the argument has shifted from the celebration of options and the maximizing of freedom to something else, to the meaning of progress. And that argument, of course, requires more substantive moral convictions than the liberal project is prepared to invoke.

Moreover, note this irony: maximizing freedom, increasing options, can sometimes eliminate options. When, for example, under cover of maximizing freedom, we offer the option of physician-assisted suicide, we eliminate the option of staying alive without having to justify one’s existence to anyone. And when, under cover of reproductive liberty, we offer the option of preventing birth defects by preventing the births of defectives, we may eliminate the option of having and caring for a child without having to justify the child’s existence to anyone. Reproductive cloning, under cover of reproductive liberty, establishes a particular genetic identity for a child, a genetic identity that already has a history, a history against which the child will unavoidably be measured. The capacities for agency of such a child are unlikely to be “maximized” or even nurtured.

Maximizing freedom should not be regarded as a sufficient justification for a change in social practices, especially if the change leaves the weak still more vulnerable. The confidence that freedom is a sufficient principle and that maximizing freedom is always morally unobjectionable is a creed ripe for doubt. The project of liberal society is a powerful, but foolish, map to

locate our power over the human genome and to orient us within it. We must look for wisdom elsewhere.

THE PROJECT OF (RE)PRODUCING PERFECT CHILDREN

The Baconian project and the project of liberal society conspire to distort our relationship with our children. The suspicion of nature joined to confidence in technology and the celebration of options conspire to nurture a new “wisdom” about parenting, a new project of reproduction. We are tempted to view our children as human achievements rather than as gifts of God and as the basis of hope rather than as a gesture of our hope in God.

Few people think any more that children are the property of their parents, to be disposed of as parents choose. Today the confusion stems rather from the view that parents have the awesome responsibility of making perfect (or at least above average) children, and of making children perfect (or at least above average) in order to assure them a happy and successful life. But this account of parenting turns our children into products, into human and technological achievements. Such an account allows (and may finally require) the abortion of the unborn who do not meet our standards of quality control, the neglect of newborns with diminished capacities to achieve our ideal of the good life, and the pursuit of technical possibilities of genetically improving our children. Such a project may finally reduce our options to a “perfect child” or a dead child.

But children are begotten, not made; they are gifts, not achievements.¹⁹ The language of gift calls upon us to relate to our children as little ones who are related to God, to the God known in the Jesus who blesses little children, the God invoked as *Abba*. And the Father’s uncalculating nurturance is still the place to learn parenting, to learn to love the imperfect, the snotty-nosed, and the just plain snotty. Then it is not accidental that the language of gift involves acceptance of our children as given. We do not regard them as products, as achievements, and may not beget them as though they were. Children come to us as given—they are not of our choosing, not under our control, not necessarily the children we want or expect or would choose if we could. Children come to us as given, and therefore always have a measure of independence from us and from our rational choices. To regard children as gifts may be necessary if children are to be regarded as ends in themselves and not merely as instruments to achieve parental ends and projects.²⁰

The project of (re)producing perfect children is a powerful, but foolish, map to locate our genetic knowledge and to orient our reproduction within it. We must look for wisdom elsewhere.

THE PROJECT OF CAPITALISM

As the inquiry into genetics has developed, it has become increasingly clear that it cannot be viewed apart from the financial incentives that fuel

the project. The project of capitalism and the map it provides transform scientific knowledge into a marketable commodity.²¹ Those at the forefront of investment in genetics—the United States, the European nations, and Japan—expect lucrative returns from commercial applications by their biotechnology industries. At the beginning of the international research effort it was cost-effectiveness that was invoked to justify the coordinated

and collaborative effort.²²

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Subsequently, as particular diseases were identified with particular sequences, in order to assure investment in research and product development, the commercial interests of the biotechnology companies led to the patenting of gene sequences.²³ Collaboration and cooperation gave way

to competition and secrecy because the market demanded it.

The medical advances promised by genetic science are tied to successful (i.e., commercially successful) product development by biotechnology companies. Social benefits depend upon the market, and the medical goals are intimately related to commercial goals. The beneficiaries of genetic knowledge and power, both economically and medically, very likely will live in the developed nations and be among the relatively well off within those populations. It is hardly accidental that the most studied gene is the cystic fibrosis gene; 1 in 25 northern Europeans carry it.²⁴ It is hardly accidental that the most common worry is that companies that hire people or that provide health insurance will use this knowledge and power to serve their own financial interests rather than the interests of the sick poor.

Perhaps we are to believe that some “invisible hand” will guide the market toward not only efficiency but also toward global equity. Perhaps we are to believe that at least some benefits will “trickle down” to the poor and economically powerless. But this is a creed ripe for doubt. What we have seen so far does not bode well for justice, especially for global justice. The project of capitalism is a powerful, but foolish, map to locate the Human Genome Project and to orient us within it. We must look for wisdom, and for justice, elsewhere.

NOTES

1 See Arthur J. Dyck, “Eugenics in Historical and Ethical Perspective,” in John F. Kilner, Rebecca D. Pentz, and Frank E. Young, eds., *Genetic Ethics* (Grand Rapids, MI: Wm. B. Eerdmans, 1997), 25-39.

2 James D. Watson, *The Double Helix* (New York: Athenaeum, 1968), 126.

3 See Walter Gilbert, "A Vision of the Grail," in Daniel Kevles and Leroy Hood, eds., *The Code of Codes* (Cambridge, MA: Harvard University Press, 1992), 83-97.

4 See Allen Verhey, *Reading the Bible in the Strange World of Medicine* (Grand Rapids, MI: Wm. B. Eerdmans, 2003), 158-193. My reflections in this article are drawn from pp. 145-158.

5 Gilbert, "A Vision of the Grail," 96.

6 Jean Bethke Elshtain, *Who Are We?* (Grand Rapids, MI: Wm. B. Eerdmans, 2000), 90, citing Gilbert.

7 Consider this question: What is it that the Human Genome Project mapped? Not the human person. Not the human body. Not even that thing called "the human genome." There is no such thing as "the human genome." The Human Genome Project itself has reminded us that genes differ from person to person. The aim of the project is to publish the average or 'consensus' sequence of 200 different people. But that will provide a map neither of everyone nor of anyone. Does "the human genome" have blood group A? or B? or AB? or O? We know where to look on chromosome 9 for a marker for blood type, but if we look carefully, we will not see the blood type of "the human genome." We will see that "Variation is an inherent and integral part of the human—or indeed any—genome" (Matt Ridley, *Genome* (New York: HarperCollins, 1999), 145).

8 See Ted Peters, *Playing God? Genetic Determinism and Human Freedom* (New York: Routledge, 1997), xiii.

9 On the Baconian project and responses to it see Gerald McKenny, *To Relieve the Human Condition: Bioethics, Technology and the Body* (Albany, NY: State University of New York Press, 1997), 22.

10 Aquinas, *Commentary on Aristotle's ON THE SOUL* 1.3; Francis Bacon, *The New Organon and Related Writings*, ed., F. H. Anderson (Indianapolis, IN: The Liberal Arts Press, Bobbs-Merrill Co., 1960 [1620]), 8.

11 Bacon, 15.

12 Hans Jonas, *The Phenomenon of Life: Toward a Philosophical Biology* (New York: Dell, 1966), 195.

13 Bacon, 19, 29.

14 Jonas, 192. The Baconian project finds a natural expression in genetic enhancement. The nature we are is the nature we suffer from. The ambitions of the Baconian project extend to human finitude itself, to human nature. The Baconian project will find it increasingly difficult to think (or to make and preserve) a distinction between healing and enhancement. There is an irony here, of course. The very success of enhancement technologies, as Mark Hanson has observed, "serves to broaden the scope of conditions from which humans can be said to suffer." Mark J. Hanson, "Indulging Anxiety: Human Enhancement from a Protestant Perspective," *Christian Bioethics* 5:2 (August, 1999), 121-138, quoting from page 125.

15 Let it be acknowledged, however, that we will not find wisdom in any casually anti-technological spirit, in slogans about "playing God" when people intervene in natural processes, or in the cry "It's not nice to fool with Mother Nature" with its obsequious subservience to Nature. That, too, is folly. It is God who is God, not Nature.

16 See the treatment of "the liberal convention" in Hans Reinders, *The Future of the Disabled in Liberal Society: An Ethical Analysis* (Notre Dame, IN: University of Notre Dame Press, 2000), 22-35.

17 Reinders, 65; see also 77-78.

18 The technology that surrounds our dying, for example, was introduced to give doctors and patients options in the face of disease and death, but such "options" became socially enforced; at least one sometimes hears, "We have no choice!"

19 Oliver O'Donovan, *Begotten or Made?* (Oxford, UK: Oxford University Press, 1984).

20 On the relation of parents and children see Sondra Wheeler, "Contingency, Tragedy, and the Virtues of Parenting," in Ronald Cole-Turner, ed., *Beyond Cloning* (Harrisburg, PA: Trinity Press International, 2001), 111-123.

21 See Julie Clague, "Genetic Knowledge as a Commodity: The Human Genome Project, Markets and Consumers," in Maureen Junker-Kenny and Lisa Sowle Cahill, eds., *The Ethics of Genetic Engineering* issue of *Concilium*, 1998:2 (London: SCM Press, 1998), 3-12, quoting from page 6.

22 Robert Mullan Cook-Deegan, "Genome Mapping and Sequencing," in Warren Reich, ed., *Encyclopedia of Bioethics*, revised edition (New York: Macmillan, 1995), 1011-1020, especially 1014-15. See also Karen Lebacqz, "Fair Shares: Is the Genome Project Just?" in Ted Peters, ed., *Genetics: Issues of Social Justice* (Cleveland, OH: The Pilgrim Press, 1998), 82-107.

23 See Stephen Sherry, "The Incentive of Patents," in Kilner, et al., *Genetic Ethics*, 113-123.

24 There is an obvious connection between the liberal project and the project of capitalism. New technological developments are introduced as ways to increase choice for consumers.



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