

HUMAN LIFE IS NOT SHEEP: AN ETHICAL PERSPECTIVE ON CLONING

GLEN G. SCORGIE AND CLAIRE F. EVANS JONES*

On February 22, 1997, the media were abuzz with the announcement that Scottish geneticists had—eight months earlier—successfully cloned (copied) a sheep named Dolly.¹ Quite understandably the Scottish achievement of sheep-cloning was treated as a newsworthy milestone in the smoothly speeding advance of modern biotechnology. Not since the advent in the late 1970s of Louise Brown, the celebrated first test-tube baby, has public attention been so focused on the biological revolution under way in our time.²

The thing that made Dolly loom so large, of course, was that she signaled the imminent feasibility of applying comparable procedures and technology to the cloning of human beings. And this prospect has sent everyone scrambling. Arthur L. Caplan admits that unfortunately “we don’t have the legal and ethical basis to handle [these rapid developments] yet.”³

Prudence urges that we ought to proceed slowly on a matter of such potentially great import. Consequently the United Nations, Bill Clinton and others have issued cautious statements that are essentially designed to buy some time and carve out some breathing space to weigh the implications of

* Glen Scorgie is professor of theology at Bethel Seminary San Diego, 6116 Arosa Street, San Diego, CA 92115. Claire Evans Jones is assistant professor of neuropharmacology at the Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA 92037.

¹ In recent years sheep, cows and rabbits have been cloned using genetic information from embryonic cells. A major question in science has been whether cells (other than eggs or sperm) from adult animals still contain genetic instructions able to guide the growth and development of a new animal. Dolly’s birth and development were remarkable since she was made using genetic information from mammary gland cells of a six-year-old ewe. This finding indicates that it may be possible to make clones (copies) of adults from other species (I. Wilmu, A. E. Schnieke, J. McWhir, A. J. Kind and K. H. S. Campbell, “Viable Offspring Derived From Fetal and Adult Mammalian Cells,” *Nature* 385 [1997] 810–813).

² The prudent *Businessweek* magazine describes the coming new century as the biotech century and predicts that “cloning animals is just the beginning. Thanks to fundamental advances in genetics, biology will define scientific progress in the 21st century. It’s all happening faster than anyone expected.” Even Nobel-prizewinning chemist Robert F. Curl concurs: “This [the twentieth century] was the century of physics and chemistry, but it is clear that the next century will be the century of biology” (“Special Report: The Biotech Century,” *Businessweek* [March 10, 1997] 79).

³ *Ibid.* 80. The prospect of human cloning has been a matter of intermittent ethical reflection since the 1960s when J. Lederberg began his flamboyant advocacy of it. Still, as recently as 1993 ethicists John and Paul Feinberg were assuring readers that “at current levels of knowledge and experiment, chances of successfully cloning a human being are indeed remote” (J. S. Feinberg and P. D. Feinberg, *Ethics for a Brave New World* [Wheaton: Crossway, 1993] 251).

this new capability for shaping humanity. This article is an attempt to take advantage of this breathing space to reflect on the ethical aspects of cloning from a Christian perspective.

Admittedly there is a cozy, parochial flavor to the topic, for cloning has emerged as an issue for serious consideration only in the relatively affluent and technologically advanced nations of the world. From a global perspective there is something embarrassing about dealing with something so unreal to the great majority of human beings in their gritty struggle merely to survive. A sense of moral proportion would suggest that other less esoteric issues have a greater claim upon our attention. In our own proscribed context, however, we must reluctantly acknowledge that the issue of cloning has surfaced and therefore cannot safely be ignored.

By the nature of its discussion this article belongs to the sprawling field of bioethics and, more precisely, to its subdivision of genetic ethics. Even so it will not address genetic therapies or touch on the ominous issues associated with recombinant DNA (fusing genetic material into new combinations). Indeed it considers just one, and that a relatively small, aspect of genetic engineering—namely, the cloning of human beings.

Our thesis is that Christian concern regarding human cloning need not be rooted in doubts about whether cloned persons will be fully human. Neither should Christians argue that such an arena of genetic engineering ought to be permanently and artificially cordoned off from human initiative on the grounds that any such human interventions would amount to playing God. Rather, Christians ought to encourage a moratorium on human cloning because there do not appear to be, at least at present, any motives or reasons for cloning that accord well with the divine design for human existence.⁴

I. THE NUTS AND BOLTS OF CLONING

Biomedical research is perhaps the most dynamic and strategic sphere of scientific advance today. It explores a pulsating microuniverse no less wondrous than the macrouniverse of space and astronomy, and from it are issuing new and unprecedented capabilities to inaugurate human life, to affect its quality and alter its contours, and then, as each life draws inexorably to a close, to determine its duration and set the moment of its termination. The whole intent of such research applications is to become more involved and benevolently intentional in matters of creating and sustaining life and thus not to leave so much to chance.

Bioethics, or medical ethics, is a burgeoning field. Ethicists who hope to stay abreast of the myriad of new issues and dilemmas raised by these developments are, among other things, obliged to familiarize themselves with an ever-expanding glossary of strange new terms. Among these is “genetic engineering” (the 1965 coinage of the term indicates the relative novelty of

⁴ Our judgment, though essentially a negative verdict, is tentative because we think it wisest at this stage to abstain from a categorical denunciation of human cloning. We must, after all, never forget the Galileo debacle.

this field).⁵ It refers to human interventions to manipulate or alter the internal design-patterns, the architecture, of living cells. All organisms (including plants and animals as well as humans) are comprised of cells that have an amazing power to grow rapidly through division and multiplication. Every cell so generated contains the same comprehensive and determinative genetic code as the one from which it originated. Genetic engineering has advanced very rapidly due to technological discoveries that have allowed scientists to manipulate the genetic information carried inside cells. These discoveries led to the advent of cloning: the ability to make identical copies of genetic material.

The genetic configuration of human beings consists of approximately 100,000 genes, each shaped like a long swirling ladder in the now-famous double-helix pattern and built of a chemical material known most commonly now by its simple acronym DNA. This human gene configuration (or genome) has a total of about three billion distinct variables within its code. The differences, for example, between liver and skin cells are differences determined simply by which ones of this vast number of variables are, so to speak, switched on and which are left off and inoperative.

At the same time even the slightest gap or anomaly in the code can result in a debilitating disease or disfigurement. To refine our ability to identify such flaws will be a quantum leap forward in medical diagnostics; to begin to be able to correct them is an incredibly promising new frontier in health science. To this end the Human Genome Project, sustained by substantial American government funding, began in 1989 with the goal of comprehensively mapping the human gene configuration. The project still has a way to go, but the prospects are realistic now for literally uncovering the full blueprint to human life.⁶

Human procreation, like the reproduction of most other life forms, occurs through the fusion of male (sperm) and female (egg) cells. These reproductive cells are unique among cells inasmuch as they each contain only one precise and symmetrical half (rather than the whole) of the genetic code necessary for the creation of a unique new cell, which will be capable in its turn of rapid growth—of cell reproduction after its kind. Each new life form (in this instance, human cell), then, is a synthetic product of the matched contributions of the two originating biological organisms.

Cloning is made possible by altering this normal process in such a way that the genetic make-up of the newly-created life form is not unique but instead is the exact replica of an already-existing cell. By one laboratory technique or another, the existing genetic material in the nucleus (or core) of an egg cell (amounting to exactly half of the total code necessary) is eliminated and destroyed. In its place the complete genetic code from another cell is fused into the now empty or enucleated egg cell. This egg cell is then activated or stimulated into beginning to reproduce itself and grow. An organism

⁵ R. Cole-Turner, *The New Genesis: Theology and the Genetic Revolution* (Louisville: Westminster/John Knox, 1993) 27.

⁶ F. S. Collins, "The Human Genome Project," *Genetic Ethics: Do the Ends Justify the Genes?* (ed. J. F. Kilner, R. D. Pentz and F. E. Young; Grand Rapids: Eerdmans, 1997) 95–103.

so engineered will be the perfect genetic match to the organism from which the original code-bearing cell was taken.

Clearly the human product of such a procedure—a cloned person—would not constitute a being entirely foreign or monstrous to nature. Nature already produces, albeit relatively infrequently, an analogous phenomenon in identical twins. Such twins are products of a *sui generis* and perfectly symmetrical splitting of a cell after its fertilization and after the genetic alignments that created its unique genetic code were settled. Consequently both twins acquire the identical genetic coding. Cloning, therefore, is simply the numerical extension of a natural phenomenon achieved through intentional human intervention rather than passive openness to random natural factors. In noting this qualified analogy, however, we certainly do not wish to minimize either the great remaining differences between cloning and natural twinning or the magnitude of this innovation and its potential social consequences.

II. SOME GENUINE RISKS

Shortly after the initial announcement of the Scottish sheep as a *cause célèbre*, Gilbert Meilaender correctly observed before the United States National Bioethics Advisory Commission that unease about human cloning is widespread.⁷ Such unease is of course particularly intense among those who view technology's track record in influencing the human condition with disappointment and its prospects with suspicion. While some such feelings may eventually prove unwarranted, there are nonetheless some rational bases for this anxiety too. Here then, in sketch form, are some frequently-cited risks thought to be inherent in the practice of human cloning.

1. *Experimental casualties.* First, there is the disturbing problem of experimental casualties associated with cloning procedures. The success of Scottish geneticists with Dolly, for example, was achieved in the context of literally hundreds of failed attempts to produce a viable cloned embryo. Until cloning procedures are perfected, there will be countless "bench embryos" discarded and casually tossed away. Those who are convinced that human life begins at the moment of conception—that is, of the fertilization of an egg and the creation of a viable zygote—and prior to the successful implantation of the zygote will be unable to endorse any such cloning experimentation on this ground alone except, perhaps, by arguing in utilitarian fashion that a greater good may be achieved through these means.

Even those who do not hold to such a strict interpretation of the inception of human life, however, must still be concerned that human life is inevitably cheapened in our collective consciousness by such casual laboratory manipulations. Given the estimates of prenatal human life that predominate in evangelical circles, it follows logically that most evangelicals will oppose clon-

⁷ G. Meilaender, "Begetting and Cloning," *First Things* 74 (June-July 1997) 41. D. Heimbach finds the potential for abuse "absolutely frightening" (B. Jones IV, "Double Double Helix," *World* [March 8, 1997] 18).

ing experimentation until at least such time as cloning procedures can guarantee embryo survival rates equal to or exceeding those characteristic of natural procreation. But given the possibility that such a time may well come, it would seem prudent for even the most conservative Christians to consider other factors germane to a decision concerning whether to clone humans.

2. *Unforeseen genetic effects.* Closely related is a second concern—namely, that in the techniques of cell fusion and stimulation that are the heart of cloning there lies a real risk of unforeseen and undesirable genetic effects. Cloning involves such delicate procedures that there is always the chance of inadvertent patching together of DNA or mutations arising spontaneously during the process. The consequences could easily become hideous. If such errors were detected early, it would force a decision between two options: to abort the embryo or fetus, or to brace the responsible parties involved for the birth of an abnormal life. If the blunder remained undetected—hidden or buried—in the vast genetic code, it might well function as a biological time bomb that would not manifest itself for years to come.

3. *Reduction in biodiversity.* There is also a concern rooted in the need for the human species to maintain a level of genetic diversity necessary to its ongoing health. For example, in instances where a considerable portion of a population were cloned from a few master gene codes, a disease that normally kills only a small percent of a heterogeneous population might entirely wipe out the homogeneous cloned population. Additionally, for the same reason that close relatives are discouraged from mating it could be potentially dangerous to reduce a population's gene pool. In instances where a considerable portion of a population were cloned from a few master gene codes, it would become increasingly difficult for each subsequent generation to find genetically-safe partners of their own. Once a population was built up through cloning, normal procreation (through the fusion of two half-sets of genes) would no longer be a safe means for partners to generate offspring. In other words, as cloning became socially pervasive a society would in effect become hooked on cloning, since it would constitute the only remaining safe and viable way of carrying on. Viewing the issue from a higher vantage point, we can also see that cloning on any scale would move humanity in an increasingly monolithic direction. In a manner analogous to the reduction of living species in our world today, which we mourn, the human race would begin to lose some of the diversity that has been such a cause for celebration and its resilient adaptability. Technological humans simply cannot compete with nature when it comes to the generation of imaginative diversity.

4. *Social control by the few.* Years ago C. S. Lewis pointed out that the general population has little to no control over the emerging technologies that shape our modern human experience. It is the gatekeepers, the technological elite, who understand and control these new forms of power and exercise them with only minimal accountability to the general populace. It is

not difficult to see this as a plausible scenario in the case of cloning as well. Lewis correctly argued that science is valueless, and brilliant scientists are not always ethically developed. In the end it is their desires (the voice of raw nature speaking) that will dictate what they will do and why.⁸ The concern is that the power to make decisions such as who is worthy to be cloned and what kind of people ought to be produced exceeds what it is safe to confer on any subgroup of human society. At the very least, structures of public accountability are essential prerequisites to any further developments along the cloning track.

5. *The end of humanism: people reduced to commodities.* Finally, there is the specter that cloning would both reflect and foster a view of persons as commodities. Functionalism (an orientation to evaluate the worth of persons and things purely in terms of their capacity for useful achievement) is obviously antithetical to humanistic values. Some of the motives that make cloning appealing implicitly view cloned persons as useful objects. And while we take to heart the caution that we should restrain our imaginations from running wild with mad-scientist scenarios, it is not entirely beyond the conceivable that clones could become marketed by cloning services, function as organ warehouses or a new slave class, or almost certainly become vulnerable to an insidious strategy of quality control. Decades ago Paul Ramsey discerned that the real watershed in such matters of genetic engineering was going to be whether human life would be viewed fundamentally as a gift or as a human fabrication.⁹ It is far from clear whether or how much longer the transcendent dimension of human beings—the fact that we are not determined entirely by time-space realities—will continue to be recognized. What does seem clear is that the future of humanness and humaneness lies in the balance. This is a very important consideration to which we intend to return shortly.

III. UNWARRANTED ANXIETIES

Before we do so, however, and rather by way of prelude to such a discussion, it will be useful to eliminate from our consideration a number of pseudo-concerns popularly raised by the prospect of human cloning.

1. *The humanity of clones: never beyond dignity.* There is a popular fear that clones might somehow be less than human, that they might not, as

⁸ C. S. Lewis, *The Abolition of Man* (New York: Macmillan, 1947). This concern is reaffirmed by J. Kilner, "Stop Cloning Around," *Christianity Today* (April 28, 1997) 11. The sinister possibilities of such power were imaginatively explored some years ago in Ira Levin's book (and, later, movie) entitled *The Boys from Brazil*, based on the idea of a crazed Nazi scientist secretly nurturing a cohort of Hitler-cloned boys in selected family situations sociologically comparable to Hitler's own upbringing.

⁹ P. Ramsey, *Fabricated Man: The Ethics of Genetic Control* (New Haven: Yale University, 1970).

some people put it, have souls. There is an extensive history of anxiety that

fabricated beings might lack an essential ingredient that only God can provide. It is the gist of Mary Shelley's nineteenth-century horror story about Frankenstein's monster and the heart of the cybernetics dilemma in the early-1980s movie *Bladerunner*. Similar anxieties were felt by some during an earlier debate over whether test-tube babies (those conceived in an artificial *in vitro* environment separate from a natural womb and without the aid of a sexual act between parental partners) were fully human.

Gradually we are discovering that nature is very generous and remarkably accommodating. Evidently the forces toward life are powerful indeed. Human life is legitimately human regardless of how conventional or innovative the procedure was by which the embryo was formed and began its own process of cellular development and growth.¹⁰ There would probably be less anxiety on the part of Christians if they were more consistently traducian in their understanding of the unity of the material and immaterial aspects of human nature. It would then be clearer that artificial means of conception are not spiritually destructive.

One also encounters concern that there is only one soul for each unique genetic configuration, so that either there is no more soul available for a person cloned or in some freakish way a single soul is distributed between the original individual and each of the derivative clones. These are bizarre speculations and unworthy of serious ethical treatment. A moment's reflection on the personal integrity of identical twins, despite their having an identical genetic code, ought to be enough to settle the matter, but it keeps surfacing in grass-roots reactions. Concerns of this sort issue from a flawed understanding of the soul as some sort of distinct and quantifiable essence—an invisible thing—mysteriously doled out by God to the more fortunate and in other cases catastrophically withheld from the permanently deficient. This sort of thinking would go away if people came to understand the soul correctly as the animating life principle that is the very essence of every living person.

More is at stake on this point than might at first appear. There is probably nothing potentially more crucial by way of a humanizing contribution from the Church than that it bear unequivocal testimony to the full humanity of every cloned person and to each cloned person's natural entitlement to all the rights and privileges accorded other citizens. Unless this testimony is sustained there is every possibility that the dynamics of control implicit in cloning could issue in all manner of subhuman treatment, exploitation and abuse, use as living warehouses of perfectly-compatible spare parts and organs, proprietary claims upon others, scientific experimentation, and indemnified or essentially slave relationships. The best way to curb the dehumanizing potential of cloning, and to dissuade those with sinister motivations,

¹⁰ There is agreement on this point from D. T. Gish and C. A. Wilson, *Manipulating Life: Where Does It Stop?* (San Diego: Master, 1981) xiii, 173–174, and from L. P. Lester and J. C. Hefley, *Cloning: Miracle or Menace* (Wheaton: Tyndale, 1980) 35–43.

is to establish the full humanity of clones from the very outset of this potential development.

2. *Cloned persons still choice-makers: never beyond freedom.* One frequently hears or reads of a concern that clones would not be able to function as truly free moral agents, which was God's design for human beings, because everything they would ever do or say would have been completely predetermined by the genetic code that was engineered into them by someone else at the time of their conception. Unlike "real" human beings, the argument goes, clones would be automatons—mere preprogrammed inventions.

This objection is built on transparently behaviorist assumptions. Why would a clone's behavior be any more predetermined by his or her genes than a normal person's behavior would be preset by theirs? Ted Peters has recently published *Playing God? Genetic Determinism and Human Freedom* (1997), a forceful attack on what he calls the myth of genetic determinism. He points out that human behavior actually issues from three sources, not one. Genetic factors are admittedly significant, but equally decisive is an individual's subsequent nurture and life experiences. And there is always a third determinant: free will. Human consciousness attests to the fact that humans, with our autonomous volition, are ultimately also capable of transcendence over the very powerful influences of our own nature and nurture. Cloning, then, does not raise the specter of a dehumanizing determinism, even though it does lay out the prospect of one or more persons exercising a profoundly shaping influence on others. The issue is not whether a clone would be free but whether any other human ought to be able to exercise such a huge amount of influence over the shape of another's personhood.

3. *The specter of playing God.* Contrary to popular assumptions, the Christian tradition does not always draw a clear line of demarcation between divine prerogatives and human privileges.¹¹ In the grand creation account of the earliest chapters of Genesis, God the Creator and Sovereign elects to fashion a creature like God and then (contrary to all the rules of power) voluntarily shares and delegates God's own creative and supervisory prerogatives to this being. Within the locus of God's overarching dominion they are to exercise dominion too. Endowed with godlike powers, humanity—male and female alike—are mandated to use these powers as privileged assistants to the sovereign Creator. From a Christian perspective, science and technology obtain their legitimacy from this paradigmatic Biblical authorization. From the beginning of time, and by design, we have been participants in the work of God. Humans are actually partners in creation. We are "created

¹¹ For an insightful clarification of the sense in which it is right and proper to play God see A. D. Verhey, "Playing God," *Genetic Ethics* (ed. Kilner) 60–73.

co-creators,"¹² and the only real question is whether we will work with God or against him.

The distinctive of the Christian view lies not in the scope of operation it marks out in chalk on the ground but in the spirit and manner in which this human operation, sometimes referred to as the cultural mandate, is pursued. As Douglas Webster puts it simply: "Sometimes the line between playing God and serving humanity can be in the heart and in the motive."¹³ The human mandate is to be pursued in the presence of God, in relationship to God, and with an intent to see God's will and ways fleshed out in human structures and experience. All the pathological manifestations of human attempts to express their godlike powers issue from the human inclination to proceed autonomously from God—to do it our way. Many commentators on the Genesis account of the fall detect the essence of this original sin to be a passion for knowledge (and the power that knowledge brings) separate from the presence, and in rebellion against the will, of God the Creator.

The traditional understanding of the devil's origins is that of a supreme angel who succumbed to envy and hubris, leading him to launch an unsuccessful (and ongoing) mutiny against God. His twisted initiatives since then are doomed ultimately to failure, judgment and everlasting destruction. While the Biblical grounds for this speculation may be inconclusive, the theory offers a telling metaphor for the essential dynamics of human sin. God-like humanity, endowed with unbelievable potential, flounders by its choice to proceed autonomously and in defiance of God. The consistent testimony of all the Biblical writers is that the human enterprise, pursued on such an autonomous basis, is doomed to failure. The inevitable outcome of such wrong-headed efforts is dehumanized experience and, ultimately, death.

It is naive to assume that this delegated sovereignty that humans are entitled to exercise must never encroach on the sphere of humanity's own life and existence. If this were so, for example, there could be no divine permission for life-support systems. In fact there would be no profession of medicine and no skilled hands of healing. There would be only a dull submission to the brutal and painful tendencies of nature gone awry. Certainly there would be no aids to fertility, no forms of birth but natural, no reproductive technologies—nothing but fatalism.

There is a hyperconservative mindset that thinks: "If we were meant to fly, God would have given us wings."¹⁴ Such a view appears to have more in keeping with Jean-Jacques Rousseau's romantic vision of a sin-free Nature than with a realistic Biblical view of our sin-debilitated world. The natural way may be neither the only way nor even the best—we simply cannot

¹² P. Hefner is credited with coining this term (T. Peters, *Playing God? Genetic Determinism and Human Freedom* [New York: Routledge, 1997] 33). The concept it represents is of course venerable.

¹³ Quoted in S. Dolbie, "Cloning of Dolly Poses Challenge for Local Religious, Ethics Leaders," *San Diego Union-Tribune* (February 27, 1997).

¹⁴ It is in this spirit that Gish chooses, in what must be regarded as a homiletical flourish, to interpret the Genesis tree of life as symbolic of divine prohibition against going too far in human biological experimentation (*Manipulating* 163, 214).

equate the primitive with the right. We are to be cocreators with God. The growing awkwardness of our situation lies in the fact that our sphere of influence seems to be ever-expanding.

Clearly our God-given prerogatives entitle us to be engaged in matters of human life and death. The challenge, however, is to proceed in these privileges and responsibilities in a manner resonant with God's estimation of and intent for humanity. We need to discern the deeper design for humanity that could guide those laboring to have dominion over nature, to bring order to chaos, to counter sin's effects, to domesticate wild animals, and to carve a garden out of the wilderness.

IV. DISCERNING GOD'S DESIGN FOR HUMANITY

As with so many areas of expanding human control over human life itself, so with cloning the real issue shakes down (for secularists) to what kind of humanity we want to become and (for Christians) to what kind of humanity we ought to become. Obviously there is an essentially physical and material dimension to being human. But equally so there is a less frequently acknowledged ideal pattern or vision of human behaving and relating that helps to define what it is to be truly human. In this sense humanness is also an idea and a social construct. C. S. Lewis has spoken derisively of those blinkered savants who ignore this dimension of being human and thus become themselves, in his vivid phrases, "trousered apes" and "men without chests." There is no heart left, he feels—only brain and biological functioning. The tragic result is that they are reduced to functioning at a level less than fully human.

Not the least of the gifts of revelation is the template it provides concerning what it means to live humanly. *Homo sapiens* is constantly deciding about the degree to which he will be human. The divine pattern for human existence is branded into universal human consciousness and more clearly proclaimed in Scripture, but it remains nonetheless an option for self-determining *Homo sapiens*. The challenge before us as created cocreators is to stay synchronized with the Creator's design and to help bring reality into ever closer accord with it. The Biblically revealed template for living humanly involves certain profoundly important (and overlapping) elements that, we will endeavor to show, do not appear compatible with cloning as we presently understand it.

1. *Premised on humanity's value.* True humanness builds on a recognition of the sanctity, the sacredness, of human life in all its forms and stages. It goes beyond a commendable reverence for life forms generally by insisting on a distinct and superior classification—actual godlikeness—for human life. As contemporary culture reacts and the pendulum swings against the historically destructive consequences of humanity acting as nature's irresponsible and hostile adversary, there is a powerful appeal to a newer emphasis on our deeply enmeshed and interdependent place in the seamless web of the biosphere. While supportive of dimensions of this shift, Christians

must nonetheless resist every tendency to thereby diminish by leveling the unique status and worth of humanity in the cosmos.

A Christian perspective involves an acknowledgment that no manipulative technology can ultimately throw a ring around a human being, since humans possess authentic volition and are also capable of access to a transcendent and autonomous dimension of the spirit. We are cosmic amphibians, so to speak, who defy definition or explanation according to chemical and biological facts alone. While we are part of nature, we also transcend it. Moreover, that which evokes reverence for human life and an abhorrence of its destruction is not conditional upon relative individual capacity to function usefully or impressively. It inheres in every person merely by reason of their claim to humanness. It demands a fittingly reverential treatment.

2. *Human life as nurtured life.* Human offspring do not hit the deck running. They are not up on their feet in a few hours. It is essential to the revealed design for human life that persons be nurtured physically and emotionally from birth to maturity, and by other means even after that as well. It is, in other words, dehumanizing not to be loved. And as Jon Sobrino has pointed out in the context of two-thirds-world suffering and first-world indifference, to fail to love the poor not only demeans and dehumanizes them but also has dehumanizing effects on those who refuse to love and nurture.¹⁵ If *Homo sapiens* is to live by the divine template for humanness, we must work to ensure that all human beings have secure and nurturing familial experiences. Such conditions appear essential and foundational to personal wholeness and strength. Science must cooperate with the requirements of healthy human sociology. The human tradition demands that there be a human care envelope for each human life and that this be treated as a basic right and its absence as an outrage.

3. *Human fulfillment in the absence of control.* Inasmuch as humanity possesses a likeness to a God who is triune, being human involves an essential capacity for relationship. That which lies at the heart of being human is a capacity for fully interpersonal interdependence. The experience of such authentic unity in relationship is never at the expense of personal identity.

The main point here is that acts of control are hostile to authentic relationships, which have an essentially symbiotic character. The driving passion of technological man and the society he is constructing is the power to control. But as James Houston and others have observed, the relinquishing of control is an essential precondition to any authentic relationship. Relationships of this sort elude the domineering personality.¹⁶ It involves, as Richard Foster puts it, speaking in the middle voice—neither imposing nor

¹⁵ J. Sobrino, *The Principle of Mercy: Taking the Crucified People From the Cross* (Maryknoll: Orbis, 1994) 3–10.

¹⁶ This is a central theme in J. Houston's understanding of the prerequisites for both divine and human relationships (*The Transforming Power of Prayer* [Colorado Springs: NavPress, 1996]).

quietist, but always alert and open to the other.¹⁷ A passion for control produces a culture of loneliness, unrestrained self-interest, and isolation. It is ultimately dehumanizing.

This positive requirement of all truly human relationships is implicitly present when a child is sexually procreated within a marriage relationship. In such a context the child is always a derivative gift and consequence of love, never a primary project.¹⁸ The burden of proof is necessarily then with any alternative technology and sociology of reproduction (including cloning) to show that it can replicate such an essential ethos.

4. *Uniqueness and belonging.* While there is a powerful social dimension to the Christian vision for human existence, great significance continues to be ascribed to the singular life and unmerged identity of the individual person. Reincarnation, for example, is held to be a false description of the real pattern of human existence, and contrary to the musings of pantheists and philosophical monists it is emphatically denied that there is any real continuation of self-conscious personal existence in the lives of one's offspring and descendants. No one can be the perfect replacement for another, and Christians take as confirmation of this view that every human spirit cries out against expectations and pressures to be someone else.

As a counterweight to this affirmation of individual identity, the Christian vision acknowledges humans' felt need also to belong to a tradition larger than our individual selves and to know and feel part of a story that transcends our personal autobiography. In one of the earliest thoughtful responses to the breaking story of Dolly and cloning, George Will pointed out that "connections with parents, siblings and ancestors are integral to being human." It is in the balanced blending of these two themes of uniqueness and belonging that personal wholeness lies.

Meilaender offers some compelling suggestions on how the dynamics of natural human procreation are particularly compatible with and supportive of this classic balance. He asserts that the procreation (or, in Biblical language, the begetting) of a child so blends the respective biological contributions of both parents that their offspring is simultaneously a unique and separate individual and yet one profoundly and indissolubly connected to their deepest selves. As Meilaender explains:

Our children begin with a kind of genetic independence of us, their parents. They replicate neither their father nor their mother. That is a reminder of the independence that we must eventually grant to them and for which it is our duty to prepare them.¹⁹

¹⁷ R. Foster, *Prayer* (San Francisco: Harper, 1992) 96–98.

¹⁸ Meilaender, "Begetting" 42. Family relations get off to a bad start through depersonalized and disembodied acts of begetting—tempting us to view children as technical achievements rather than gifts from God; cf. A. Verhey, "Theology After Dolly," *Christian Century* (March 19–26, 1997) 286.

¹⁹ Meilaender, "Begetting" 42.

There is an awesome sense of the otherness of the child, and yet also such a profound experience of empathy and identification that a commitment to life-long nurture and unconditional love is the most natural response possible.

There is another important nuance to this matter. It has been said (in an obvious allusion to Nicene Christology) that intergenerationally we also must be begotten, not made. Following Oliver O'Donovan's line of theological reflection, Meilaender argues that just as Johannine language of begottenness was used to protect Christ against the inferior status imposed upon him by the Arians and was employed to affirm that he was of the same substance as God the Father (C. S. Lewis' explanation that "beavers beget beavers" and "God begat God" also comes to mind), so the language of begetting understands the child as our equal.²⁰

In summary, the divine template for living humanly consists of an attitude of reverence toward humanity and a commitment to the nurturing of human relationships of intimacy and unconditional commitment. It assumes that human life is essentially social and that we find our fulfillment in relationships that are necessarily characterized by respectful mutuality rather than by external control. To live humanly is to sense and celebrate one's uniqueness in the context of a family, community and tradition that provide an experience of belonging and a sense of identity. It is with this template in mind that we turn to consider the possible motives behind cloning scenarios.

V. THE APPEAL OF HUMAN CLONING

There is a strong human fascination with the notion of cloning ourselves. The prospect of such a radical change to something as basic and hitherto fixed as the manner of human reproduction is enormously stimulating to the imagination. Perhaps too there is also a perverse attraction to the idea precisely because it is so commonly depicted as a dangerous and forbidden fruit. An even stronger stimulus comes from the axioms of pure science, which will not allow scientists to rest content until that which is possible is made actual. It is alien to the juggernaut advance of science, and the restless curiosity of the human spirit, to permanently abort such a fertile line of experimentation and remain forever ignorant about what might be. Like the mountain climbers who determine, regardless of cost, to ascend Mount Everest simply "because it is there," there will be scientists who will experiment in human cloning because they have the techniques to do so.²¹

There will need to be additional reasons for cloning beyond this principal drive of pure science, however, before cloning will ever become a legitimized procedure and flourishing industry in the societal mainstream. Products and

²⁰ Ibid. 41–42; cf. O. O'Donovan, *Begotten or Made?* (Oxford: Oxford University, 1984).

²¹ Human scientists are also intrigued by the possibility of deploying clone cohorts in a vast array of significant research projects utilizing experimental methodologies that require strictly-defined control groups and control variables.

services that survive in our market-driven economy must do so by meeting perceived needs. If human cloning is ever going to be domesticated in technologically-advanced societies like our own, there will have to be motives for cloning that are adequate to sustain the practice.²²

We read, for example, of individuals who are attracted to cloning by a yearning for immortality. Feeling anxiety over the brevity of life, they view it hopefully as a way to achieve a degree of personal immortality by perpetuating something of themselves beyond their own personal death.²³ Perhaps a faintly similar sentiment has been present in the historic instinct of married persons to have children in order to carry on the family name. But we already have more than enough clinical proof that relational tension and family dysfunction will occur whenever this inclination to view offspring as extensions of one's personal ego takes precedence over the need to respect children as separate, autonomous and self-directed persons.

Rooted deeply in Judeo-Christian concepts is the western conviction that individuals, though designed to find fulfillment in relationships, are not designed ultimately to merge either their identities or their consciousness into those of others. It is true that certain maudlin sentiments to the contrary still circulate at funerals (e.g. "Princess Diana is still with us—just look at Prince William's face and posture"). But only to the degree that monistic eastern thought supplants our western intellectual heritage will such aspirations for a kind of transpersonal immortality fuel cloning on any scale whatever. Christians should offer no support for what is so patently a quest for immortality in all the wrong places.

Other individuals may be attracted to cloning offspring because for a variety of reasons it appears to hold promise of providing them with the children they most want. Clones could, for example, be consoling substitutes for dying or life-threatened offspring. Parents might opt for cloning because they cannot imagine loving any other child as much as they love the one they are about to lose. But of course there is, in light of the Christian template for humanness, an obvious problem here too. A sense of personal uniqueness, implicitly reinforced and affirmed by others, is essential to living as we were designed to experience life. To clone a second child with this motive would be to demean it before it is born. Its personal value in the parents' eyes would always be secondhand and derivative at best. In such a scenario the parents' love for the former child would constitute an unwitting cruelty to the surrogate.

Cloning is also touted as a way for parents to leave nothing to chance and to ensure desired features in a child. It is true that parents have always sought to influence positively the form of their children, first by seeking a suitable mate (and their genetic contribution) and then by requiring the

²² Popular motives for cloning are summarized by G. Jones, *Brave New People: Ethical Issues at the Commencement of Life* (rev. ed.; Grand Rapids: Eerdmans, 1985) 92–95; Feinberg and Feinberg, *Ethics* 249–250; Ramsey, *Fabricated* 69–72; Lester and Hefley, *Cloning* 46–56.

²³ This motive, mixed with considerable hubris, is explored in D. Rorvick's provocative pseudo-novel, *In His Image: The Cloning of a Man* (Philadelphia: Lippincott, 1978) e.g. 33–34.

pregnant mother to eat well, exercise, abstain from smoking, and do whatever else might be calculated to encourage optimal prenatal development. Today through techniques of ultrasound and amniocentesis prospective parents may preview their gestating offspring and, on the basis of this available information, make choices about whether to carry them to full term. Cloning holds the promise of taking such expanding influence over reproduction to the highest level of control by virtually eliminating residual elements of unpredictability and risk altogether.

Our imaginations involuntarily leap to even more radical and spectacular scenarios. For example, one might move beyond the parenting relationship to purchase the cells of someone else's child (or a current celebrity or historic personage, for that matter) who was greatly admired. We might expect that a cloned replica of oneself might well appeal to certain persons as the ultimate vanity toy. It would not then seem too farfetched to imagine the possibilities for entrepreneurial business types (e.g. cloning laboratories could issue annual catalogues of options for marketing purposes). Speculative possibilities are endless.

The alternative to exercising such reproductive control can easily be disparaged as "a surrender to the mystery of the genetic lottery,"²⁴ but the fact remains that by some means or another there must be sufficient acquiescence of parental control over reproduction that the child born can be embraced as gift rather than fabrication. This is the only perspective on a child that can resonate with the human values of personal uniqueness, genuinely free volition and the right to self-determination. Just as humanely letting a loved one die must be the Christian alternative to the control-oriented practice of euthanasia at the end of life, so the essential elements of freedom, indeterminacy and givenness must be present at the beginning in the conception of persons. Things may be manufactured, but never persons.²⁵

Our considerations now move from the personal quest for immortality and the desire for ideal offspring to the public square, which has been the main preoccupation of futurists. Social planners are intrigued with the possibilities of cloning for an enhanced citizenry and workforce. It is desirable for the welfare of society at large that it be populated by more of the best and less of the worst kinds of persons. This is the vision of eugenics, with its ultimate goal of a super-race.²⁶ People have also noted the desirability of a functional and efficient workforce. Individuals with recognizable aptitudes for particular kinds of work could be cloned to produce a cohort of workers who would be not only more effective and efficient but also content with the

²⁴ Meilaender, "Begetting" 43.

²⁵ We may perhaps be sympathetic to couples at risk of procreating children with genetic disease, and most sympathetic to infertile couples who are tempted to opt for cloning one or the other of themselves so that there is at least some natural genetic connection to their offspring. "If cloning is at all moral," suggest Feinberg and Feinberg, "the only moral use of it would be to give infertile heterosexual married couples children" (*Ethics* 252). Even facing such dilemmas, it would seem most fair toward the child for the parents to pursue alternatives that would ensure greater personal differentiation from themselves.

²⁶ See "Eugenics in Historical and Ethical Perspective," *Genetic Ethics* (ed. Kilner) 25–39.

performance of their appropriate duties. It is assumed that evolutionary processes ensure such adaptations normally but over the course of intolerably extended periods of time. Cloning would be a convenient means of accelerating the proliferation of optimally adapted persons. Obviously everything would depend on the competence, values and discernment of the social planners themselves.

The desires for an enhanced citizenry and a synergistic workforce are certainly legitimate enough, but the danger lies in pursuing these collective ideals by a means that puts in jeopardy the freedom and happiness of the individuals involved. We have two concerns, the first of which lies in the human nurturing deficiencies (very possibly in an institutional context) we anticipate would characterize such an agenda. While reproductive technologies may provide legitimate alternative means of procreating life, that which natural procreation symbolizes (“we procreate new beings like ourselves in the midst of our love for one another”²⁷) must be present in the conception and nurture of all children. Lane Lester and James Hefley put it succinctly: “Whatever cloning scenarios develop, love, relationship and procreation must be held together.”²⁸

Our second concern is an historical observation: Similar caste, class and apartheid systems have been designed with macrosocietal efficiency in view but invariably at tremendous cost to the human spirit at ground level. All efforts in social management ought to be subordinated to the goal of nurturing persons capable of free association and godlike self-determination. In the scenarios being contemplated, cloned persons would be defined primarily by their intended function, which flagrantly contradicts the fact that humans are meant ultimately to be rather than to do.²⁹ Only a forgetful and ahistorical culture could ever be duped into reverting to notions so patently prescriptive for Balkanizing society, human tragedy and oppression.

In summary, it seems clear that none of the currently envisioned reasons or motives for human cloning accord well at all with the divine template for living in the human way. From an ethical perspective this issue is less about how much leash we ought to allow biomedical scientists (and the autonomous citizens who may decide to hire their services) and more about what kind of humanity we intend collectively to become. The larger question is whether our society will be one in which individual worth, nurturing, respectful (as opposed to controlling) relationships, and a healthy symbiosis of differentiated identity in a larger pattern of belonging will remain core and defining values of our society.

VI. SUMMARY AND CONCLUSION

Cloned persons (should such emerge in time) will certainly be fully human and in possession of authentic powers of self-determination and entitled there-

²⁷ Ramsey, *Fabricated* 88.

²⁸ Lester and Hefley, *Cloning* 63.

²⁹ Jones, *Brave* 139–143.

fore to equal status and rights alongside all other members of the human race. While divine and human responsibilities cannot be so strictly compartmentalized that cloning can be preemptively dismissed as playing God, it is imperative that a reproductive technology like cloning be assessed with a view to discerning its compatibility with God's design for living humanly.

There are a number of genuine risks involved in cloning, and at this early stage of relatively primitive experimental technique the prospect of embryo casualties ought to be enough to warrant a moratorium on such experimentation with human life. Among the other risks are unforeseen genetic effects, reduced biodiversity and excessive social control by a biotechnical elite. The latter of these will at the very least demand carefully designed structures of public accountability. Perhaps the most subtle but sobering risk, however, lies in the social dynamic surrounding cloning—namely, that people may be reduced even further in the cultural consciousness to the level of mere manufactured commodities.

Obviously a utilitarian orientation toward other human beings is already rampant in our culture, with seriously deleterious and dehumanizing consequences wherever it manifests itself. But this situation will only be exacerbated by any future legitimization of cloning. Christianity insists that humans are unique in nature, unique by reason of our authentic freedom, transcendence and singular godlikeness. It then offers a pattern of reverent and respectful human treatment consistent with this. The Church testifies that such a template constitutes the true and only humanism and must in its own community life seek to model this pattern of humanity. Christians who hold this vision have every right to express and promote our convictions in the increasingly pluralist public square. Indeed there is an urgency to do so, for it is rare for human values to endure long without Christian buttressing. This testimony should always be given, however, with what Richard Mouw has called "uncommon decency"³⁰ and also with a sensitivity to the fact that our most persuasive witness will be through the compelling way of living humanly that we model in our alternative communities as the

³⁰ R. Mouw, *Uncommon Decency: Christian Civility in an Uncivil World* (Downers Grove: InterVarsity, 1992).

Church.³¹ In conclusion, for now Christians ought to oppose and discourage human cloning because there do not appear to be, at least at present, any motives or reasons for cloning that accord well with the divine design for human existence.

³¹ L. Newbigin, *The Gospel in a Pluralist Society* (Grand Rapids: Eerdmans, 1989).