TECHNO-SECULARISM, RELIGION, AND THE CREATED CO-CREATOR

by Ted Peters

Abstract.   I take up the challenge posed by John Caiazza (2005) to face down the religiously vacuous ethics of techno-secularism. Techno-secularism is not enough for human fulfillment let alone human flowering. Yet, communities of faith based on the Bible have a positive responsibility to employ science and technology toward divinely appointed ends. We should study God's world through science and press technology into the service of transforming our world and our selves in light of our vision of God's promised new creation. This warrants invocation of the concept of the human being as the created co-creator developed in the theology of Philip Hefner.

Keywords: John Caiazza; created co-creator; Langdon Gilkey; Philip Hefner; Leon Kass; Robert John Russell; science; secularism; Paul Tillich.

In this essay I take up the challenge posed by John Caiazza (2005) to face down the religiously vacuous ethics of techno-secularism. A theological analysis of culture shows that the attempt to interpret human life solely on secular and technological terms is superficial and lacking in depth, meaning, and genuine ethical orientation. A prophetic voice of judgment needs to be raised: techno-secularism is not enough for human fulfillment let alone human flowering. That should be the message of today's biblical prophet directed toward the wider culture.

Yet, this is not all. The prophet also has a message for our own covenant community. This prophetic message takes the form of an admonition: *Study God's world through science, and press technology into the service of*

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transforming our world and our selves in light of our vision of God's promised new creation. In taking up Caiazza's challenge to face down techno-secularism, committed Christians and other faith partners who live out of a biblical understanding of God dare not surrender all of science and technology to secular culture. Rather, science and technology should be viewed as expressions of our authentic humanity, as constituent to our existence as *imago Dei*, as God's image within creation.

Here we call upon theologians such as Paul Tillich and Langdon Gilkey to provide a "hermeneutic of secular experience" that will uncover the religious depths to culture and to show the folly of trying to guide society solely by techno-secular values. We then turn to the concept of the *created co-creator* in the anthropology of Philip Hefner to establish a healthy understanding of science and technology in light of a theologically grounded ethic. This ethic begins with a vision of God's promised transformation of the present creation into the new creation and inspires a morally directed employment of technological innovation.

CAIAZZA'S THESIS

Caiazza proffers the thesis that "technology-based secularism threatens to displace religion entirely from the national consensus. The success of secularism is based on the effects of technological advance rather than on the victory of scientific ideas in the conflict with religious beliefs" (2005, 17). Borrowing a phrase from William James, Caiazza says it is the "cash value" of technology that has the greatest impact on our daily lives, and this redounds to cultural hegemony by the secular and scientific mindset. Religious sensibilities and truth claims are in retreat.

So is a religiously grounded ethic. "The implicit ethical theory of techno-secularism is instrumental, accepting that what technology can provide should be used for the betterment of the human condition without consideration of prescriptive ethical rules and humane traditions. It is utilitarian, opting for the greatest good for the greatest number, with the 'good' being understood in relentlessly material terms—that is, terms amenable to technological control" (p. 19). The loss of a religiously grounded ethic leads to shallowness of life. "The techno-secular ethic is diet conscious, encourages the drinking of light wines rather than beer or whiskey, is anti-smoking, promotes safe sex practices, and is mightily concerned with attaining a long, fulfilled, healthful life" that is in denial about death (p. 19).

I both agree and disagree with Caiazza's thesis. I agree that technology more than science has the cash-value impact on our daily lives. This impact is felt the world over on religious and nonreligious persons alike. Technology, like science, is ruthless. Its instrumentalism and materialism take no prisoners. Techno-secularism is insensitive to religion, culture, and tradition, and it destroys or at least modifies everything sacred without

conscience. No one escapes the bulldozing effects of technology. No place remains within the techno-secular mind for pondering let alone comprehending the mystery of death.

I disagree at another point. I doubt the accuracy of Caiazza's forecast that technology-based secularism is about to displace religion entirely. I challenge this thesis for two reasons. First, religion even in its institutional form is by no means in retreat. If anything, it is becoming even more virulent and more aggressive. We are witnessing both evolution and revolution in religion. In some instances, religion is mutating and evolving so as to adapt to its new technological and secular environment. North American evangelicalism is a good example of evolutionary adaptation. In other instances, something revolutionary is happening. Religion is taking a defensive stand against modernity and against secularism, at least secularism in politics. Wahabism and Islam's global jihad against the modern West are examples.

I have just said that, institutionally, I do not believe religion is on the brink of being displaced. I have an additional reason for disagreeing, and it has to do with the definition of *religion*. One need not limit the concept of religion to its institutionalized form. Phenomenologists and neoorthodox theologians (by neoorthodox I mean the mid-twentieth century heirs to liberal Protestantism) have been accustomed to seeing religion much more broadly—as the fabric or depth of culture. This applies even to secular culture. Tillich, for example, is remembered for having said: "Culture is the form of religion and religion the substance of culture" (Tillich 1963, 158). That is, religion does not go away when technology or secular thinking comes to dominate. It may go underground and manifest itself in disguised ways, but it remains as the underlying glue that holds culture together. When a culture disintegrates or self-destructs, this indicates that the religious glue has dried up and dissipated. By no means does this describe modern techno-secular culture. Religion still holds it together, and the task of the scholar is to discern just how.

In what follows I do not want to deal directly with either my agreement or my disagreements with Caiazza's central thesis. Rather, I take up a question elicited by Caiazza's reminder of the ancient contrast between Athens and Jerusalem: How should the Christian theologian speak prophetically to techno-secular culture? If Athens represents the history of reason, and if Jerusalem represents the history of prophecy, what might Jerusalem say to Athens? Jerusalem would say the following: In the depths of your reasoning about reality you should expect to find traces and hints of the Creator of all reality. What we can know by reason is qualified and complemented by its transcendent ground, God. The prophetic voice needs to say that scientific understanding and technological advance by themselves are superficial; by themselves they are not enough to understand ourselves fully as God's creatures with an appointed destiny.

The Jerusalem prophet would say more, perhaps addressing Jerusalem as well as Athens. The message would take the form of an admonition: Study God's world through science, and press technology into the service of transforming the world and our selves in light of our vision of God's promised new creation. As we face down the challenge of techno-secular society, we dare not shrink back and abandon all science and all technology to the secular sector or run like frightened dogs with our religious tails between our legs. Rather, we need to lift up the fact that scientific study and technological innovation belong to our human nature, a human nature created and inspired by God. It would be a denial of our humanness to retrieve our religious grounding only to close our scientific eyes and cripple our technological hands in the name of preserving a natural realm unaltered by human artifice. Christian ethics is born out of the Bible's promise of the new that is to come, not out of protecting or preserving the old in its inherited and unredeemed state.

How will such a prophetic word become heard and understood? What is the language of techno-secularism and its big brother, natural science? Certainly Jerusalem has something to say to Athens. To be listened to, however, the voice must be spoken from within Athens and not from many miles away.

From Jerusalem to Athens and Back

The language of Athens at the time of Plato and Aristotle was Attic Greek. The language of Jerusalem in the time of Isaiah and Jeremiah was Hebrew. Had Jerusalem spoken to Athens, it would not have been understood. Prophetic speaking would have been useless. The language of faith had to learn the language of reason not only to communicate but also to understand itself.

In the institutions of contemporary techno-secular culture we speak and listen to at least two languages daily, figuratively speaking: the language of science and the language of faith. Although the two are distinguishable, the overlaps and the cognates are many. Our task is not to translate from faith to science but the much more difficult task of overlapping the two languages so as to enhance both while violating neither.

One Book? or Two?   A biblically based faith needs science for its own sake. Faith affirms, among other things, that God is the creator of the world. The natural sciences study the world. What faith says about creation should at some point become consonant with what science says about creation. Does examining the creation tell us anything about the creator? Tertullian would answer "No." Of course, what Tertullian had in mind in the early third century was philosophical reason, not science as we know it today. If Tertullian had his way, we Christians would find all the knowledge we need in only one book, the Bible. The sophisticated writings of

ancient philosophers and perhaps modern scientists would be considered off limits.

> What indeed has Athens to do with Jerusalem? [*Quid ergo Athenis et Hierosolymis?*] What concord is there between the Academy and the Church? What between heretics and Christians? Our instruction comes from the porch of Solomon (Acts 3:5), who had himself taught that the Lord should be sought in simplicity of heart (Wisdom of Solomon 1:1). Away with all attempts to produce a mottled Christianity of Stoic, Platonic, and dialectic composition! We want no curious disputation after possessing Christ Jesus, no inquisition after enjoying the gospel! With our faith, we desire no further belief. For this is our palmary faith, that there is nothing which we ought to believe besides. (Tertullian [1885] 1982, 246)

Now, "if Tertullian were alive today," writes Greg Peterson (2003, 6), "he might not contrast Jerusalem with Athens as much as, say, with Los Alamos or Fermilabs." Whether the contrast is Athens or modern science, Tertullian was satisfied with one source of knowledge, the Bible.

Can we today be satisfied with Jerusalem alone? No. Even if our historical experience with the God of the Bible begins in Israel, as we explicate our understanding of God we have found it necessary to speak Greek with the Athenians. Athenian philosophy provided our ancient Jewish and Christian apologists with the language and conceptuality for making explicit what was implicit in the Bible, namely: The God of Moses is the God of all peoples. The God of the Bible might look like merely the tribal God of Israel, but this God is universal. The God of the Bible is the God of the philosophers, even if the philosophers had not recognized this. The language of universal reason spoken by the Hellenistic philosophers made it possible for biblically based theologians to say what they needed to say. The necessity for speaking within the medium of the Athenians is "grounded in the biblical witness to God as the universal God, pertinent not only in Israel but to all peoples" (Pannenberg 1971, 134).

Eventually the reasoning of philosophy yielded a new form of reasoning, natural science. Science, like philosophy, is universal. What science says about nature applies to nature everywhere. Once again theologians needed to ask: Is the God of ancient Israel also the God of nature? They answered: Yes.

Can we think of the natural world, then, as a source for knowledge of God? Is there a supplement to scripture for revelation? Yes has become the accepted answer. Nature too speaks of God, and we are enjoined to listen to scientists who explicate nature. Nature provides us with a second book. In his *Advancement of Learning* Francis Bacon admonished us to read both books: we cannot "search too far or be too well-studied in the book of God's word, or in the book of God's works, divinity or philosophy; but rather let men endeavor an endless progress or proficiency in both" (quoted in Hess 2003, 131–32).

Reformer Martin Luther would agree. "All of creation is a most beautiful book or Bible [*liber seu biblia*] in which God describes and depicts

himself, if you would only understand and observe the works which exist. Even Pythagoras acknowledged that the most lively celestial orbs proclaim [God]" (Luther 1883ff. [WA], 48.269).

Science and Theology: Two Languages?   Key here is that both books, nature and the Bible, speak to us of God. This ought not be confused with the modern secular division between science and religion. When Stephen J. Gould offers us his principle of NOMA, Non-Overlapping Magisteria, he distinguishes and separates their domains of knowledge. "Science tries to document the factual character of the natural world, and to develop theories that coordinate and explain these facts. Religion, on the other hand, operates in the equally important, but utterly different realm of human purposes, meanings, and values" (Gould 1999, 4). I refer to this as the two-language model, not the two-books model, for relating science to religion, and Ian Barbour refers to it as the independence model (Peters 2002, 18–19; 1998, 17–18; Barbour 1997, 84–89). Science speaks of fact. Religion speaks of value. As two independent languages, they speak of different and nonoverlapping realities. Science no longer speaks of the God who is revealed by nature.

In our modern and emerging postmodern era, the two-language model has permitted peaceful coexistence between scientists and theologians. Even if it is intellectually unsatisfying to some theologians who miss the days of the two books, still the two-language view predominates. Jürgen Moltmann acknowledges this while wistfully regretting the split.

Today the dilemma between theology and science is no longer that they represent conflicting statements. It is rather the lack of conflict between statements which stand side by side without any relation to one another, and which no longer have anything to say to each other at all. Faith and knowledge of the world are no longer licked in a conflict about the truth. They are resting side by side in a vacant coexistence. (Moltmann 2003, 2)

When it comes to knowledge of things divine, maybe we find ourselves back where Tertullian wanted to place us, reading only one book, the Bible. This limit is not self-imposed, however; it has been forced upon the modern theologian by the advancing hegemony of secularism.

LANGDON GILKEY AND THE "HERMENEUTIC OF SECULAR EXPERIENCE"

If former University of Chicago professor Langdon Gilkey were still alive today, he would likely agree with Caiazza that the heavy influence of technosecularism has precipitated a crisis for theological speech about God. And he would likely agree with Gould that a NOMA principle is called for. The language of faith that speaks of transcendent reality loses its credibility in a materialistic and naturalistic worldview. "In the present situation the question has arisen in connection with that of the possibility or the

intelligibility of religious or theological language" (Gilkey 1969, 11). In order to renew the intelligibility and meaningfulness of the language of faith, Gilkey set out to develop a "secular theology" (1969, 24). His method would become a "hermeneutic of secular experience," according to which he would dig beneath the surface of secular culture to find its underlying religious depths, and this underlying religious substrate would become the shared human experience he would address with theological speech. "We are trying to conduct a *hermeneutic of secular experience* to see what religious dimensions there may be there, and so what usage and meaningfulness religious discourse has in ordinary life" (1969, 234).[1] Gilkey is an example of someone who recognizes the cultural challenge described by Caiazza but faces it head-on with an aggressive theological program.

Gilkey saw himself as drawing out the implications of Tillich's formulation, "culture is the form of religion and religion the substance of culture." Gilkey put it this way:

The economic, political, social, and individual life of our culture is, for example, permeated by a matrix of crucial symbols drawn from the hopes and aims of science, technology, democracy, and capitalism, which together make up what we call the "American way of life" in all of its facets. This religious substance is a legitimate and crucial object of the theologian's concern. . . . To this "secular mythology," if I may so term it, theological self-understanding must continually relate itself. (Gilkey 1991, 47)

At this point we can introduce the role of natural science, because in Western culture the foundation for the establishment and maintenance of modern secularism is natural science. The secular mythology and its accompanying naturalism or humanism and definitely its materialism is rooted in what most call *scientism*. Scientism is more than mere science. Scientism is science plus ideology. Natural science is a form of knowing about the finite world. We all applaud this. But scientism is an ideology that tries in vain to answer all life's questions of meaning. It is a form of hubris, pride.

When we place techno-secular culture under a magnifying glass to see its dependence on a science-based ideology, what we find is that a myth—a secular myth—is developing. The key feature of this myth, says Gilkey, is that it purports to answer questions of ultimacy. When science tries to establish a comprehensive worldview, it has exceeded its limit. Scientists become dangerous when they try to "explicate a vision of the ultimate nature of reality or of process as a whole, and seek to understand man's nature, obligations, and destiny in the light of that total cosmic vision" (Gilkey 1970, 73). When this happens theologians need to become prophets and render judgment against the scientific usurpation of culture.

Where this leads is to support for the two-language model for relating science and faith. Gilkey argued in the 1960s as Gould did in the 1990s that science speaks one language, and religion or faith speaks another. Science speaks of fact, whereas religion speaks of meaning. Science provides

information, whereas religion nourishes faith. Science may speak strictly of what is penultimate. Only faith can speak of what is ultimate. Neither language is translatable into the other. Theologians should become bilingual, so to speak.

Gilkey asserts that science should limit itself to handling only what is objective or factual about finite existence. Religion should tackle the infinite. Religion in its theological articulation deals with existential meaning in the depths of human personhood. Science asks "How?" Religion asks "Why?" When it comes to questions about the origin of the universe, science asks about *proximate* origins, whereas theologians ask about *ultimate* origins. By speaking two languages, these need not get confused. We encounter problems only when scientists try to answer questions of human meaning or when theologians try to assert facts. If each would recognize its own domain of speech, we would have peace rather than warfare between science and religion.

By relying so strongly on the two-language model, we might ask, did Gilkey inadvertently silence his own prophetic voice? If the Jerusalem prophet speaks Hebrew and the Athens scientists and technologists and secularists speak Greek, how can Athens listen to Jerusalem? If Gilkey wants to render judgment against techno-secularism for its superficiality and for the anomic loss of ethical orientation, how will secular ears listen to a religious message? Despite Gilkey's call for a prophetic voice, has he limited its listeners to those who speak the language of faith? Despite this possible weakness in the Gilkey position, he still offers a valuable inspiration for meeting Caiazza's challenge.

The two-language position arose during the transitional period when neoorthodox theology could live with splits between faith and history, revelation and reason, meaning and fact, and such. However, since the 1960s, neoorthodoxy has given way to a new generation of theological scholars. In the decades that have followed, the field of science and religion has moved on toward more substantive interaction. Barbour refers to this as the effort to achieve "integration" (1997, 98–104). Those who were seeking greater integration pressed for living *dialogue* between scientists and theologians, and some, such as Robert John Russell, have even proposed *creative mutual interaction* (Peters and Bennett 2003, 19–20; Russell and Wegter-McNelly 2003, 19–34).[2] Eventually Gilkey became exposed to the dialogue and creative-mutual-interaction models for relating science and theology. In more recent years he began to take short steps in this direction. "Science and religion are mutually interdependent," he wrote; "the issues of the truth of science and the truth of religion and of the relations between these sorts of truth represent fundamental concerns for each" (Gilkey 1993, 11).

Gilkey saw the need for greater interaction because of the question of truth claims. Yet, he feared that too much coziness between theologians

and scientists might silence the prophetic voice the theologian must raise when science usurps culture.

TILLICH AND THE END OF TECHNICAL REASON

The secular age began with the eighteenth-century Enlightenment in Europe. What today we know as the secular mind saw itself as a liberation movement, liberating humanity from the tyranny of the king telling us how to live and the tyranny of the church telling us how to think. Democracy would replace the king, and religious freedom would replace the church.

Riding the horses of liberation from political tyranny and ecclesial oppression was a third: liberation from the vicissitudes of nature. Science and its partner, technology, could free the human race from some of nature's threats such as disease, starvation, and limited mobility.

According to Tillich, the central liberating force of the Enlightenment was the appeal to reason. Every human person has the power to reason within. No government or ecclesial authority can remove our innate and inner ability to think. In addition, such reason was thought to be universal. It belonged to every human being. Reason became the ground for establishing human dignity. "Reason was the very principle of humanity which gives man dignity and liberates him from the slaveries of religious and political absolutisms" (Tillich 1989b, 166).

To acknowledge that each person is capable of reasoning under his or her own power led to confidence in human autonomy and to further confidence that when groups of individuals reason together, insights could lead to a common perception of truth. Assuming that the natural world is put together rationally, scientists reasoning together would find themselves approaching truth. Perhaps the same could apply to the historical world and to the political world. Perhaps we could discover through the reasoning process a principle for unifying the human race. "It was the belief that the liberation of reason in every person would lead to the realization of a universal humanity and to a system of harmony between individuals and society. Reason in each individual would be discovered to be in harmony with reason in every other individual" (Tillich 1989b, 166). Enlightenment reason became the avenue to truth and justice. It was secular in that it broke from established religion, yet it maintained a transcendent dimension that could become the principle of human unity.

With the nineteenth-century triumph of bourgeois society and the establishment of a global market accompanied by the industrial and technological revolutions, the character of reason changed. What we have today, said Tillich, is "technical reason." The capacity to reason is pressed into the service of discovery for the purpose of manufacturing, and manufacturing is pressed into the service of the market. The system of production and exchange now dominates the world situation.

Curiously, and tragically, the global system of production and exchange has gained such momentum and force that it has virtually taken over human nature. The creature has become the ruler. The modern world government by technical reason is a form of Frankenstein.

Man became increasingly able to control physical nature. Through the tools placed at his disposal by technical reason, he created a world-wide mechanism of large-scale production and competitive economy which began to take shape as a kind of "second nature," a Frankenstein, above physical nature and subjecting man to itself. While he was increasingly able to control and manipulate physical nature, man became less and less able to control this "second nature." He was swallowed up by his own creation. (Tillich 1989b, 168)

Technical reason gave way to a third phase, planning reason, according to Tillich. Planning reason is exemplified by the Soviet economy and fascism, where the state provides arbitrary ends to the technological means. The central point here is that technical reason provides means but is unable to provide an end.

The element of technical reason that deserves attention in this symposium is the loss of an end, the loss of an inherent goal or orientation to the reasoning process. Technical reason seems to simply proceed on its own, designing and devising new things, but without a purpose. Its values are not its own. Nor can it lead to noble values. "Technical reason provides means for ends, but offers no guidance in the determination of ends" (Tillich 1989b, 168).

Techno-reason is devoid of an inner teleology. It cannot on its own produce an ethic that orients civilization toward a transcendent good.

The production of tools serves man's happiness: it glorifies man's infinite possibilities, it liberates him increasingly from merely mechanical functions, avoidable evils, the power of nature over him, it makes life easier and longer for the masses of people. All this is true. But happiness. . . . Happiness may accompany the fulfillment of a *telos*, but it does not constitute it. . . . The dominant view of man in the present period is characterized by the inner contradiction of an end which is the endless production of means without an end. (Tillich 1989a, 375)

In the generation of scholars that succeeded Tillich's, the postmodern critique of techno-secular society extended this analysis. The subordination of science to technology and both to the capitalist system has undermined the very liberating foundation with which the Enlightenment began. Jean-François Lyotard, for example, writes that

the victory of capitalist technoscience over the other candidates for the universal finality of human history is another means of destroying the project of modernity while giving the impression of completing it. The subject's mastery over the objects generated by contemporary science and technology does not bring greater freedom, more public education, or greater wealth more evenly distributed. (Lyotard 1992, 18)

When technoscience is guided only by values external to it, such as totalitarian values, nothing can resist the arbitrariness of capitalism's underside.

The result is Auschwitz, says Lyotard, and Auschwitz symbolizes the dead end of technical reason.

Our hermeneutic of secular experience reveals that techno-secularism cannot see itself for what it is. It cannot see its own lack of depth. "A post-industrial society cannot provide a transcendent ethic," writes Daniel Bell. "A technocratic society is not ennobling. Material goods provide only transient satisfaction or an invidious superiority over those with less. Yet one of the deepest human impulses is to *sanctify* their institutions and beliefs in order to find a meaningful purpose in their lives and to deny the meaninglessness of death" (Bell 1973, 477).

In the face of a techno-secular challenge, the task of the modern theologian is to uncover the shallowness of technical reason and point to our human need to recognize the depth that is needed to undergird it. A hermeneutic of secular experience, to employ Gilkey's term, would lead to a prophetic word that asks for more than what techno-secularism on its own can deliver. It would seek to liberate the inner life of the human soul from reason without end, knowledge without understanding, production without goal, consumption without purpose. Tillich's mandate looks like this. "Christianity should reveal and destroy the vicious circle of production of means as ends which in turn become means without any ultimate end. It must liberate man from bondage to an incalculable and inhuman system of production which absorbs the creative powers of his soul by ruthless competition, fear, despair, and the sense of utter meaninglessness" (Tillich 1989b, 180).

LEON KASS ON THE DEEPER DIMENSION OF OUR HUMAN NATURE

University of Chicago bioethicist Leon Kass prophesies against techno-secular society in a manner quite similar to that of Caiazza and not unlike Gilkey and Tillich. Modern science and technology, he rails, tempt us to live a life of superficial values—to voice shallow needs and meet them with shallow pleasures. Worse, they risk establishing a social ideology that hides the true depths of human meaning, that disguises the existential questions. His prophetic denunciation alludes to the hubris of the Greek Titan Prometheus in its modern scientific incarnation, Frankenstein. He calls placing our hope for human betterment in biotechnologies such as cloning "the Frankenstein hubris to create a human life and increasingly to control its destiny, men playing at being God" (Kass 2002, 149).

Like drilling beneath Earth's crust for black gold, Kass drills beneath the techno-secular crust to find the existential concerns left untouched by technological advancements, especially medical advancement. We must "begin with the concrete existential questions surrounding birth and death, sickness and health, suffering and flourishing. [We must reach down] to

the central concerns of human life: identity and individuality, freedom and finitude, embodiment and selfhood, sexuality and procreation, and the deeply mysterious longings of the human soul" (Kass 2002, 75).

Once we have reached the existential depths, we will begin to appreciate our natural condition, says Kass. But then what? This appears to be enough. What our soul needs is to realize the profundity of our finitude, and our finitude includes death and suffering within this life. One implication is that we have a moral imperative to hold back on some aspects of technological advance. The very press to advance stirs up the dust that blinds us to these deeper dimensions of human existence.

The problem here, I think, is that Kass' neonaturalism cannot help but lead to techno-quietism, to withdrawal or nonaction. It comes close to sponsoring an ethic of doing nothing to overcome human suffering or promote human flourishing on the grounds that such advances risk blinding us to the meaning of our limitations and sufferings. It comes close to celebrating nature as we have inherited it, complete with its genetic predispositions to disease and, in some cases, condemnation to a short and brutal life.

The existential questions the prophetic Kass wants to remind us to ask belong to any complete theological anthropology, to be sure. Yet, so does the stirring of curiosity within the human soul that leads to growth in scientific knowledge and the ingenuity within the human mind to invent new technologies and new ways to relate us to the world around us. An adequate anthropology must take this creative dimension into account. This path leads us to the gate of systematic theologian Philip Hefner and the concept of the created co-creator.

PHILIP HEFNER AND THE CREATED CO-CREATOR

Once the Jerusalem prophets have judged that ideologies based on the science and technology of Athens overstep their limits and, like Prometheus, play God when Athens should restrict itself to playing human, what should the Jerusalemites do? Stay home? Keep Athens off its list of summer vacation tours? Build a high wall of separation?

No. Biblical isolationism is not what I recommend. Internal to Jerusalem's understanding of the human being is a compass that leads toward Athens. The theological anthropology that emerges from the biblical account of God's interaction with the covenant people of ancient Israel includes two very important elements. First, we are creatures, created by God. Second, we have been enjoined by God to live lives of ongoing creativity. One of the most insightful of the recent theological interpretations of the image of God within the human race as depicted by Genesis 1:26–29 is the suggestion that human beings have a responsibility to be creative. Alluding to Vatican II, a recent document by the Congregation

for the Doctrine of the Faith in Rome teaches "that human activity reflects the divine creativity which is its model" (Vatican 2005, ¶22).

The world we know of as God's creation is dynamic, not static. It moves. As the world moves, new things come into existence. Newness is inherent to creativity, both human and divine. The God of the Bible celebrated in Jerusalem is constantly promising new things, even a "new creation" (Isaiah 65:17). Those who live in the divine image anticipate the promised new creation and thereby come to be designated *created co-creators*.

The science of Athens invites the anthropology of Jerusalem to investigate the present creation, to understand more fully what God has created thus far. What Athens' heir—the technology of modernity—provides for the children of Jerusalem's covenant is the means for pursuing creativity. Technology provides the tools for world betterment, even self-improvement. Technology opens the possibilities of guided newness within the present creation, a newness that anticipates the still future creativity promised by Jerusalem's God.

Philip Hefner has painted a most vivid picture of the human being as the created co-creator.

Human beings are God's created co-creators whose purpose is to be the agency, acting in freedom, to birth the future that is most wholesome for the nature that has birthed us—the nature that is not only our own genetic heritage, but also the entire human community and the evolutionary and ecological reality in which and to which we belong. Exercising this agency is said to be God's will for humans. (Hefner 1993, 264)

The term *created co-creator* reminds us of a number of important things. First, we are dependent creatures. We depend for our very existence on our cosmic and biological prehistory, and we depend on a still prior desire on God's part to create a world and place us within it. Second, we are creators. We use our cultural freedom and power to alter the course of historical events, and we use our scientific and technological freedom to alter natural events. Third, human beings have a destiny. We have a future toward which we are being drawn by God's will. This makes the concept of the created co-creator an ethical concept—that is, human creative activity is oriented toward our vision of God's will for a renewed creation. Our capacity for creativity is not only a blessing; it is also a moral imperative. "We humans created in the image of God are participants and co-creators in the ongoing work of God's creative activity" (Hefner 1989, 232).

One of the distinct values of Hefner's rendering of the created co-creator is that it makes sense for both secular humanists and for Jewish or Christian followers of the Bible. The first part—to see that the created human being is dependent—can be understood either naturalistically or theologically with the same result. Naturalistically, where we find ourselves today as a human race is dependent on a previous evolutionary history over which we had no control. We were created by evolution, so to

speak. Or, theologically, we might say that God has created us as an act of divine grace; and, though we are free now, we had no say in this earlier divine act. The result of both of these is that we are created; we are not responsible for placing ourselves in this world. For Hefner, even if the Athenians and Jerusalemites inherited different languages, they are ready to talk with one another.

Ethnocentric Athenians as well as myopic Jerusalemites may overlook the value of this formulation, fears Hefner.

Secular and naturalistic thinkers may choose to interpret "created" as the work of evolutionary processes. Theologically we may consider those processes to be efficient causes, whereas a naturalistic view considers them to be primary. Whichever of these obtains, the corresponding world of meanings is laid upon the idea of the creator co-creator.

He continues, alerting us to the dissonance as well as the consonance between the two languages:

That the respective worlds of meaning frequently do not adjust easily to the idea of the created co-creator is the source of the idea's fruitfulness. It is a mistake to overlook this theological/secular possibility, since this possibility accounts for the incendiary and ironic character of the idea. The idea of the created co-creator is both theological and secular simultaneously; it is not at any moment exclusively one or the other—even though thinkers from either of these perspectives lay their own respective world of meanings upon the idea. The idea cannot be brought fully into play if its double character is ignored, as it almost always is, since theologians are seldom secular-naturalist in their outlook, and conversely secular thinkers are seldom theological in their perspective. The two elements are considered to be alternatives when in fact they ought to understood stereoscopically—two perspectives brought together as one vision. (Hefner 2005, 186)

That the shared understanding between the two languages of Athens and Jerusalem is made possible by the concept of the created co-creator has an advantage that is relevant to the topic at hand. However, this is not the point to which I draw attention here. Rather, what is important, I think, is that built right into this theological anthropology is the connection between human nature and technological reason. As participants in the ongoing creative activity of God in the world, the capacity to create technology in order to create still other alterations of our environment and of ourselves is a divine mandate. It is a moral call. It is our vocation, or at least part of our vocation.

RUSSELL ON THE ESCHATOLOGY OF TECHNOLOGY

Russell celebrates Hefner's work on the concept of the created co-creator; then he adds emphasis to the eschatological dimension. Whereas the Hefner model draws heavily on the evolutionary picture of dynamic change, Russell turns our attention to the radical newness of what we have witnessed in the resurrection of Jesus. Yesterday's Easter resurrection and tomorrow's new creation are transformations that require an action by God, some-

thing we cannot imagine as a natural evolutionary development or as the product of human creativity alone. Human creativity is not alone, however; it is accompanied by God's ongoing creativity.

To make this move, Russell cannot leave the language surrounding the created co-creator in an ambiguous state between secular and religious understandings. He needs to draw upon distinctively Christian symbols and concepts. "It is this eschatological future—no matter how dim, how inconceivable it is in light of science, no matter how unlikely it is in light of evil and suffering in human society and in nature—to which we must orient all our ultimate plans and ideals and convictions if we are to live as Christians today in the Easter dawning of a new age" (Russell 2003, 157). This vision of the ultimate newness becomes the plumbline and litmus test for all our values. The correlate ethic would then be a proleptic ethic, one that inspires the transformatory work of the created co-creator in light of God's eschatological vision.

Russell draws out the implications for technology:

Finally, then, in such a vision, the ultimate purpose of technology lies far beyond the horizon of what we have imagined so far. Instead, from an eschatological perspective—no matter how far off such a truly redeemed future might be or how slow and fragile is its dawning in our ordinary world—technology must ultimately serve as a means to express and help achieve this future, even if in a very rudimentary way. (Russell 2003, 157)

Small rudimentary advances in technology that improve planetary well-being today are, according to proleptic ethics, authentic anticipations of the eschatological transformation promised in scripture.

CONCLUSION: A CAUTION YET A CALL

This created co-creator call comes with a caution deriving from our awareness of the temptation toward utopian hubris that risks the tragedy of unattainable expectations. Part of Tillich's prophetic reminder is to avoid utopian idealism. "The Christian message cannot anticipate a future situation devoid of tragedy even if the demonic forces in the present situation be conquered. The authentic Christian message is never utopian, whether through belief in progress or through faith in revolution" (Tillich 1989b, 190). Like other neoorthodox theologians such as Gilkey, Tillich reminds us to distinguish sharply between God's eschatological fulfillment and what transformations we can realistically accomplish prior to the eschatological new creation. The new things we create anticipate God's new creation, but these two should not be confused. When the two get confused, we contribute to life's tragedy rather than overcome it. Yet, despite this risk, Tillich would not have us revert to quietism or escapism. Tillich "repudiates a tendency among many people, Christians and humanists, to withdraw from the struggles of our time. Christianity faces the future unafraid" (Tillich 1989b, 196).

Jerusalem's prophets bring both judgment and promise. "Wash your-selves, make yourselves clean; remove the evil of your doings from before my eyes," admonishes Isaiah to the people of Judah (Isaiah 1:16 NRSV). This is judgment. Yet, later comes the eschatological promise of a new creation: "I am about to create new heavens and a new earth. . . . I am about to create Jerusalem as a joy and its people as a delight. . . . No more shall there be in it an infant that lives but a few days, or an old person who does not live out a lifetime. . . . The wolf and the lamb shall feed together, the lion shall eat straw like the ox. . . . They shall not hurt or destroy (Isaiah 65:17, 18, 20, 25 NRSV). In the promised New Jerusalem, writes John of Patmos, "death will be no more; mourning and crying and pain will be no more" (Revelation 21:4). Such a message could come only from Jerusa-lem, not Athens. Creativity belongs to God's future.

The God of the Bible is one who makes things new. Recognizing that the human race has been blessed with a portion of the divine image, we need to ask: Could the capacity for creative and transformative activity count as an expression of this divine image? Could we interpret it as our destiny, even as a moral imperative?

When Jesus told the parable of the Good Samaritan (Luke 10:29–37), the characters who "passed by on the other side" and did nothing came out looking immoral. Only the Samaritan who identified a problem—in this case a problem of injustice and human suffering—took creative action. At that time no "Good Samaritan" hospitals existed, so he created his own form of therapy, paying an innkeeper to provide care for the convalescent. Wolfhart Pannenberg calls this an act of "the creative imagination of love" (1981, 65). Through this creative action of love, the Samaritan became the hero of this story, and for centuries since hospitals have been named in his honor. Decisive for my point here is that the Samaritan, knowingly or spontaneously, acted creatively in such way as to anticipate the divine vi-sion of a new Jerusalem in which there will be no more crying or pain.

Technology as a rapidly moving frontier of growth has gained its present momentum from previous generations of creative human beings, and it provides our generation with the resources for further creative acts of love. When today's prophets speak of the limits and risks of technological rea-son, we dare not interpret this as justification for passing by on the other side. We dare not abandon science and technology to the secular sector. We need to recognize that transformation through technology is inher-ently human, and, further, that people of faith need to employ such tech-nology as means toward a divinely envisioned end, a new creation in which crying and pain, among other things, will be no more.

The value of the prophetic warnings raised by Tillich and Gilkey is that in reminding us of our finitude, our limits, we can retreat from superficial-ity and seek once again the deeper meaning of our own existence. Proph-ecy reminds us that we did not create ourselves; we are not divine. We are

God's creatures, and our capacity for creativity is both a gift from God and also a moral responsibility pressed on us by God.

Our technological skills do not belong to us alone; they are not merely instruments or tools for our own profit or pleasure. Our technological capacity is a divine gift with strings attached, strings that pull us toward a vision of a transformed and redeemed world. Redemptive creativity expressed in healing technologies are human means to a divine end; in small and fragmentary ways they anticipate God's promised new creation. The prophet has an admonition for us, namely, to invest our creativity in making actual today our vision of God's prophesied tomorrow where there will be no more war, no more crying or pain (Revelation 21:1–4).

NOTES

1.   *Hermeneutics* refers to the theory of interpretation applied to texts, here applied broadly to human experience as articulated in culture. To overcome the gulf between the two languages, a hermeneutic of human experience might include both scripture and science. Dirk Evers writes, "Scripture and faith refer to science and its progress by making the hermeneutical process explicit, linking it to the human quest for a significant understanding of ourselves and of nature and creation in relation to God" (Evers 2005, 342).

2.   Dialogue would be considered stage one in bridging science and religion. Dialogue is founded on the anticipation of consonance—that is, it assumes that with sufficient conversation areas of common understanding will be uncovered or developed. "Creative Mutual Interaction" asks more; it asks that science influence theology and vice versa. Antje Jackelén adds a different step beyond dialogue, namely, "dia-praxis." She writes, "*dia-logue* needs to be supplemented by *dia-praxis*" or shared "problem solving" (Jackelén 2005, 52). Dia-praxis would appropriately augment the concept of the created co-creator as we apply it to the employment of science and technology.

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