RESPONSE TO STUART KURTZ AND ANN PEDERSON

by James E. Huchingson

Abstract. I respond herein to reviews of my recent book by Ann Pederson and Stuart Kurtz. With respect to Pederson's concerns, a constructive theology formulated from the ideas of communication theory need not necessarily neglect pressing historical issues of the poor and powerless. The potential for such relevance remains strong. This is true as well for the application of the system to particular myths and rituals. Also, while I speak positively of computers as instruments of disclosure and the theories upon with they are based as resources for theological construction, this should not be construed as an endorsement of just any application of information technology in a world that tends to distort all good things. With respect to Kurtz's concerns, while thermodynamics plays a role in discussions of the primordial chaos, notions from communication theory are far more central. Also, the use of the language of the theory for theology does not necessarily require theological relevance for all of Claude Shannon's technical conclusions. My uses of infinity are taken from traditional theology and analytic geometry rather than from pure mathematics, although fruitful development along those lines is entirely possible. Pederson and Kurtz are generous with both their praise and concerns. The praise will encourage me to further this project along lines provided by the concerns.

Keywords: chaos; communication theory; cosmology; *creatio ex nihilo*; infinity; Liberation theology; Maxwell's demon; metaphysics; Claude Shannon; thermodynamics.

In their sustained scrutiny of my ideas, Ann Pederson and Stuart Kurtz provide me with the gift of a hone with which to sharpen and smooth a number of claims. I respond to each commentator in turn.

Pederson's remarks go well beyond the incisive and insightful to reveal specific concerns about the system. They include an apparent lack of

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[*Zygon*, vol. 37, no. 2 (June 2002).]
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relevance for the oppressed and marginalized—those who are vulnerable to victimization by social, technological, economic, and even philosophical and theological systems. They also include theological disparities, such as a rejection of the traditional doctrine of *creatio ex nihilo* (creation from nothing) and inadequate specificity, that is, correlation with particular traditions along with their stories and rituals. In addition, Pederson suspects that a deity modeled on the computer might encourage those who would use information technology for oppressive ends and that the model is suggestive of a God who is "the great orchestra conductor"—also an image of control and dominance.

The criterion that Pederson uses to take the measure of my ideas is the principle that no theology is complete or, for that matter, truly relevant unless it includes a central discussion of justice for "the wretched of the earth" and continued vigilance with respect to the potential for abuse that any system of abstract claims contains. This call to honor what liberation theologians often refer to as the preferential option of the poor in the collective theological project of our time requires serious attention along several fronts. In the first place, *Pandemonium Tremendum* is radically theocentric. God is the one with whom we have decisively to do. Theology is, to some real extent, thought about God for God's sake carried out in the spirit of Anselm's syllogistic prayer that is at once an argument for God's necessary existence and an act of adoration.

Second, while it is rich in detail, *Pandemonium Tremendum* is a schematic, an outline. Abstraction is unavoidable (although the accounts of the primordial chaos and God are as concrete as metaphysics allows). It is therefore primarily descriptive. It seems to me that constructive theology, in its investigation of the Creator and the creation, tends to be inherently general, thereby ignoring or at least treating inadequately the particular realities of history. There is no intentional neglect here. It is just that inquiry into the source and ground of all things and ultimate origins leads methodologically to the broadest possible vantage. It is not that theologians are unaware of this problem but that they seek to be true to one of the major responsibilities of their vocation—to make creedal affirmations of the believing community as clear and intelligible as possible. And these affirmations include accounts of an originator and an origination. Once this task is concluded, the historical experience and existential requirements of particular voices may conceivably be empowered by these novel insights and resources.

All too often theologies have (con)descended from the high reaches of doctrinal and philosophical authority to dictate unilaterally to the particulars of the historical situation. Given our awareness of the potential for abuse and misuse of theology, such arrogant monologue is no longer readily accepted. We should not conclude, however, that the application of disciplined theological imagination to cosmic themes is dismissive of human

suffering and social justice and, consequently, has little relevance to the contemporary theological agenda. There may be many starting points from which any flight into the "thin air of speculative imagination" (Pederson 2002, 425) may be launched. This particular venture begins not with the historical realities of the cacophony of the multitudinous voices of the oppressed and powerless but with insights derived from contemporary communication and systems theory. Any other trajectory would have resulted in a different account. In any case, the resulting system serves as another voice to be valued pragmatically for any guidance, direction, or counsel it might provide for religious communities. Thus, a central test of the legitimacy of any particular theology is primarily a posteriori and depends not only on where it begins but also on where it ends.

This does not mean, however, that the starting place for theology is selected arbitrarily. The historical situation suggests an assortment of important themes. It seems to me that ours is an age that places great emphasis on ecological integrity and relationality as well as historical process and the desperate plight of the poor and powerless. Some very creative minds, including John Cobb, Thomas Berry, Philip Hefner, and John Haught (to mention only a few), have made impressive efforts to interpret the Christian message with these additional themes clearly in mind. The employment of communication theory and the systems approach to speak about God and world is consistent with their work. *Pandemonium Tremendum* is, fittingly, a child of its age.

Finally, with respect to Pederson's emphasis—or my lack thereof—on the voiceless and victimized of the world, it is important to note that no theology is without remainder, and, ironically, the more complete it claims to be the greater is its unaddressed remainder. That is, a theology is judged to be complete only with respect to its basic axioms or foundational claims, which, of course, omit completion with respect to alternative sets of axioms, and this is the unaddressed remainder. This is not necessarily a deficiency. In constructive theology one cannot simultaneously set out in two directions. The first task is to complete the system; the second is to apply its conclusions to concrete historical situations. Success in constructing a coherent and vigorous system will prompt sustained consideration of specific issues.

I turn now to the mythic and metaphysical notion of creation out of nothing, which has many good things to offer. It seems to me that without further development the concept ends in unintelligibility or euphemistically in paradox or mystery. While I posit a primordial chaos accompanying the Creator for all eternity (or, more accurately, embraced by God's self), careful inquiry into the idea of such a state allows for *creatio ex nihilo* to reappear, given the grounding of the primordial chaos in the abyss, in nothingness or nonbeing.

Pederson is further concerned that abstract theological accounts are far too broad and general to speak to specific traditions, myths, and rituals. I followed the suggestiveness of communication and information theory for theism by asking what sense can be made of God, world, and humankind by employing the rubric of this perspective. The project is thus self-consciously theistic. It might have been otherwise. Rather than God and creation, the target of interest might have been Brahma and maya or some other religious cosmology (although, for reasons expressed in the book, I doubt that a purely naturalistic account would make sense). I think that the myths and liturgy of a particular tradition should not be irrevocably tied to any particular metaphysical system but be open to various interpretations, tested for their integrity by the criteria of living faith and the historical situation. Although myths or stories of origin and salvation are certainly not reducible, finally, to any particular scientific or philosophical position, they carry a certain logic, a mytho-logic, reflecting an unspoken worldview or framework of beliefs about how things are. These metaphysical assumptions should be made explicit—a function of theology—and reconciled or interpreted anew in terms appropriate to the times. For example, chapter 7 (on creation) and chapter 10 (on providence, judgment, and revelation) are exercises of this sort.

Next, there is the question of the unhealthy conjunction of theology and technology. The historian of technology Melvin Kranzberg once said that technology is neither good nor bad, nor is it neutral. Kranzberg's puzzling Delphic aphorism is true. Computer technology is not inherently destructive, but, as a powerful instrument for the achievement of human purposes, it may be applied effectively for many intentions, good or evil. Information technology is not only a tool for the "haves" but also a potential instrument to oppress the "have-nots." One cannot be sanguine about some easy faculty of good will and charity innate in human nature that would result in some powerful elite's sharing this technology voluntarily. The human predisposition to sin disallows such humanistic optimism. It is not that power, technological or otherwise, corrupts, but rather that such power amplifies corruption already present. Vigilance is always warranted, and a commandment is required. Love of neighbor in need dictates that the power of the information age be made available to the developing world right along with education and medicine.

But computer technology lacks neutrality in another important way that concerns Pederson. She warns that we must be careful not to once again construct a model of God that is "not only irrelevant to most of the world but dangerous to their well-being" (p. 427). No doubt, prevailing forms of technology shape our minds, alter our social and personal behavior, and transform our values. They even recommend worldviews. The computer is no different. Information technology can certainly reinforce established

perspectives, but it can also contribute to new ones in revolutionary ways. Given our ambiguous experience with optimistic claims for other technologies—nuclear energy or genetic engineering, for example—we should be very reluctant to sound the trumpets to the salvific potential of the computer. Nonetheless, this machine is a powerful instrument of disclosure with respect to ontological realities. Failing to explore these possibilities because of a disabling apprehension about the potential for abuse would be a mistake.

Pederson questions the advisability of naming the computer "as a living, open system" and "a model . . . for God and world." We must be careful, she continues, lest "many people will conjure up their personal computer at home as the image of God" (p. 428). I confess that, if I fail to make daily puja (offering) at my workstation configured as a house shrine complete with candles and incense, my divine personal computer will spew forth its jealous wrath in the form of that dreaded message, "This program has performed an illegal operation and will be shut down." This attempt at humor is intended to disarm such comments while at the same time recognizing the concerns behind them. Two points of clarification: I do not regard the computer as a living system. It remains a machine, albeit a unique and powerful machine whose capabilities make their way toward organic life but are still very, very far from joining it. Next, I certainly do not propose the computer as a model of divinity. Computers compute; deities do far more. As I note in the preface of *Pandemonium Tremendum*, it is not my intention to construct some sort of digital divinity. Rather, I hope to show that these devices are metaphorically and metaphysically suggestive of the nature of reality because they operate upon information technology, itself based on communication theory first formulated by Claude Shannon. The adventure is then to explore this suggestiveness by taking Shannon's theory as far as possible in theological construction.

I concur with Pederson's reluctance to celebrate the computer and to bless any attempt to incorporate the invention into theological discourse. Theologians are stewards of a powerful language. Despite the attempts of some academic theologians and philosophers to construct experimental systems that include God as a functioning component (a charge to which I plead guilty with extenuating circumstances), the word *God* is never spoken in a spirit of pure neutrality. Even when that is the naive intention, the word will still travel forth with great amplifying power. This is one meaning of the commandment to never take the divine name in vain. *God* is a dangerous word, especially if employed as ideological leverage in a technology that could be used in the domination of some people by others. My association of computer science with larger religious topics is in no way intended as a theological endorsement of the "wired" information subculture.

Moving to another point, the metaphor of the musical performance plays a major role in the explication of communication theory and its theological correlates (or "isomorphy"). While I occasionally use the image of God as a conductor orchestrating the grand symphony of creation, the similarity is limited to showing God as the power who works to coordinate many diverse and finite creatures of the pluriform world—a point Alfred North Whitehead frequently makes. Otherwise, from my point of view, God functions to provide the rich variety (the range of notes, so to speak) from which creatures may freely choose in their own life compositions that are harmonized in the continuing process of evolutionary "interexistence." I enthusiastically agree with Pederson's observation that the metaphor of jazz improvisation works wonderfully well with the communication model. Although I develop this image in chapter 4 by way of illustrating the emergence of constraint in an interactive context, it warrants even greater attention.

Finally, I can appreciate Pederson's discomfort with my description, found in chapter 10, of divine judgment and retribution ("wrath") employing the medium of chaotic variety. This is strong, even extreme, language found most often in the pronouncements of fundamentalists and addressed to perceived enemies or infidels. One must always be careful to distinguish the use of such terms in prophetic proclamation (where they serve God) from their use in ideological proclamations (where they serve the proclaimer). I am a bit perplexed, however, by the reference to Auschwitz. The Holocaust was the horrific project of a demonic order. The utter chaos experienced by its victims (*holocaust* is closely akin to a fiery calamity or conflagration) was generated systematically with great technological skill and efficiency. Perhaps Pederson misreads the quotation as suggesting that God works through demonic systems rather than against them. This understanding is the very opposite of my intention, as the larger context of the chapter shows.

Little is said about the loving will of God because divine intentions are to be found in the interpretation of divine-human encounters as they occurred in the particular events of history, were recorded in the tradition, and were lived out in a contemporary community of faith. While the operational account carries some implicit normative content (as Pederson notes, "the God of Huchingson revels in [creatures'] individuality and particularity," p. 429), the communication and systems model of God has more to do with the how of divine action than with the why.

In his remarks Stuart Kurtz not only displays an exceptional grasp of my basic ideas, he also sums them up simply and beautifully and goes on to make recommendations I would be wise to follow. We do, however, have different readings on several points. Kurtz begins with the observation that my basic framework for God, chaos, and creation is not really communication theory but thermodynamics. He demonstrates his claim by

sketching an analogy that likens James Clerk Maxwell's famous "demon," who allegedly eludes the laws of thermodynamics, to my version of deity. True, I describe God as the waist in the hourglass between the primordial chaos and the creation who manages the infinite field of variety for the protection and enhancement of the world. And, just like Maxwell's demon, this God manages the flow logistically to separate and make distinctions that lead to constraint and eventually to order. Notions of entropy also play a major role in the discussion. Nonetheless, major references to communication theory are not, as Kurtz suggests, "misleading" (Kurtz 2002, 415). Chapter 4 includes an extended discussion supporting and illustrating the similarities between Shannon's version of informational entropy and that found in thermodynamics. The emphasis throughout is heavily upon concepts such as decision or selection and constraint that are central to information theory. The Maxwellian demon and my deity both make decisions out of which constraint on a field of possibilities arises. It is difficult to see how the system would work without these ideas and others derived from communication theory.

Kurtz is bothered by my selective use of Shannon's theory in that I expropriate the terminology but neglect "the actual content of the theory," perhaps because it is "theologically inconvenient" (p. 418). Although, as Kurtz says, Shannon defined his terms (the ones I use extensively) "in order to state and prove a couple of very specific theorems" (p. 418), it does not necessarily follow that these terms are limited in their application to just those theorems or that they require the theorems to be intelligible. Every metaphorical similarity or isomorphic correspondence between very dissimilar realities succeeds or fails according to criteria found in common in science and theology, including internal coherence and fertility. I have found terms such as *variety*, *noise*, *constraint*, *information*, and *decision* to be powerful tools when applied consistently to the theological system. The application of the vocabulary of communication theory to theology is a risky yet rewarding adventure precisely because it escapes the actual technical content of the theory it was originally intended to serve. Nonetheless, the neologistic adventure is indeed risky. It may turn out, upon further thought, that Shannon's theorems about bandwidth are logically and inescapably implied by the very terminology he created to establish them, in which case I would face the additional decision, perhaps daunting, of accommodating them to my metaphysical framework or abandoning the framework altogether because its conclusions would be inconsistent with theistic doctrines and traditions.

Kurtz points out the conspicuous absence of the mathematical understanding of infinity in my discussion. I use *infinity* in two very specific ways, one theological or philosophical and the other primarily from analytic geometry. In theism God is ineffable—that is, beyond any descriptive account or characterization—because, being infinite, God is beyond

any conceivable limits. Assigning any characteristic to God, no matter how maximal, flattering, or auspicious, would logically eliminate possibilities for God. Any feature thus ascribed to God is limiting and hence violates the inherent divine boundlessness. The boundlessness of God is also another way of emphasizing divine majesty with respect to the lesser condition of created things. Finite creatures, that is, all things that are not God, are mortal and subject to corruption and death. God, a deity without limits, has no such constraints and is thus vulnerable to nothing.

The second use of infinity, discussed in chapter 5, relies on the notion of limits approached asymptotically and achieved only at infinity. This use of the term is of the sort found in the paradoxes of the Greek philosopher Zeno and with many equations described in analytic geometry as they approach but never (except at infinity) intersect an axis. Reference to this second kind of infinity provides a means for describing the primordial chaos as containing both relative nonbeing (pure potential) and absolute nonbeing, Paul Tillich's *me-on* and *ouk-on*, in a descent toward an absolute limit—the abyss.

These two accounts of infinity serve my purposes well but neglect Kurtz's mathematical infinities. Considerable potential may reside in these ideas, especially as they apply to an understanding of the primordial chaos as a field of infinite variety. Mathematical infinities could provide a way to express this admittedly very difficult concept more intelligibly.

Kurtz further bemoans the limited attention I give to algorithmic information theory. My use of it was to make a single, very specific point—namely, that any biographical account of a person's life is incompressible, that is, impossible to reduce to a short, repetitive program. Gregory Chaitin's account, as described by Paul Chillers and found in chapter 9 of the book, serves this purpose well. I have no reason to carry the discussion further. However, algorithmic information theory, like mathematical infinities, may harbor considerable potential for further exploration in the fruitfulness of the system for a theory of human nature.

I am deeply appreciative of the serious attention my book received from these reviewers. I am pleased especially that Pederson recognizes the spirit of the project, characterizing it as an "artistic improvisation" having to do with "provisionality" and "play" (pp. 421, 422). There is real joy to be found in linking disparate ideas or systems of ideas metaphorically and metaphysically and then marveling at the resulting novel disclosures. This kind of theological alchemy is true adventure, and, to the extent that I engage in it, my project may be accurately described as "postmodern." Still, as she lucidly observes, "This composition is suspended somewhere between the harmonies of the Enlightenment and the new postmodern notations" (p. 423). That is, I mean to compose more than lyrics, since the intention is also to address the question of how things go, really, as a legitimate and traditional question in philosophical theology. *Pandemo-*

nium Tremendum is as much a research program as a poem, and to this extent it is both speculative and compositional.

And I am pleased that Kurtz is delighted with "the creative surprise" of the model (p. 417). Recognition of originality is, I confess, as rewarding as appreciation of logical acumen or analytical precision. No project this ambitious goes off without a hitch. Even now, when I revisit the book's arguments, I raise additional questions of my own. Progress never occurs without questions. This is why I am so appreciative of the profoundly gracious criticisms raised by the commentators, for their astute analyses will enable me to make significant progress in my further work on this project.

References

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