


 Letters

This book is organized into chapters with notes, an index, and a further reading list. Vining begins by introducing the reader to totalitarian thought and the pinnacle of its achievement in twentieth century ideology, particularly Fascism and Communism. He shows how each system of totalitarian thought, while distinct, has at its root the desire to explain everything. The danger, he warns, is that such systems also extend to explanations of the humans who developed them. Thus, the Nazis and the Communists both immunized themselves against critique by encompassing the critique in prior explanation. Vining's concern is that he detects similar strains of thought in modern science, a desire to explain everything, even the scientist, as being subject to the explanatory power of the Total Theory. Sociobiology would be a good example of this "scientific" thought. "The new totalitarianism in the second half of the twentieth century is in cosmological vision rather than in social or political theory."

But in the process of explaining the human, the Total Theorist has taken away any qualitative distinction between the human and such beings as song sparrows. And here's the rub: we conduct experiments on song sparrows to see how their ability to sing is impacted by deafening them at birth so they could never hear their mothers sing. "What is the answer to the proposal that a child be treated like a young song sparrow? One or more deafened, one or more kept in silence, one or more sacrificed from time to time and its brain sliced and stained? Humans are continuous with the rest of nature, and nature can be nothing more than a system."

Vining proposes a meeting place for scientific and other forms of thought in law, "for the distinctive feature of life and the human (in its recognition by us) is that it is not entirely subject to our purposes." The law gives us the space to evaluate the claims of science and total theory from other important areas of being: love, loyalty, truth.

In all, Vining has brought up an excellent point in tying cosmological Total Theory with previous social and political totalitarian systems. The inevitable logic of such thinking leads to lack of concern for individual worth and focuses on species and systems. The main problem with his book is that it is written in a musing style that often leaves one confused about what he is really trying to say. It is like reading his diary rather than a case about why we should be careful about Total Theory. In fairness to him, he knew that and explicitly wrote that the book is primarily a conversation or meditation rather than an argument. Still, from such a lawyer with such a good point to make, I would have preferred a solid argument I could follow and present.

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Energy Conservation: Reflections on the Pitts/Gentry Dialogue

I found the duel between Brian Pitts and Robert Gentry (*PSCF* 56, no. 4 [Dec. 2004]: 260-84) interesting but tortuous. With energy conservation at issue, Pitts writes: "While it is true that the photons lose energy, the energy is transferred to the gravitational field" (p. 260). In response to which Gentry fires off salvos to prove that there is no exchange of photon energy with the gravitational field. Haven't these folks ever heard of Occam's Razor? "Terms, concepts and assumptions must not be multiplied beyond necessity." Or to quote another version: "All things being equal, the simplest explanation tends to be the right one." Pitts and Gentry are wrestling with the same question, "Where has all the energy gone?" Let's see if we can find a simple explanation that Sir William of Ockham would approve of.

Set up a simple experiment in a closed system containing a battery connected to a bulb with a switch. Measure the energy in the system—let's say X joules. Turn on the switch, come back in two months when the battery is dead, and ask yourself the question: "Where has all the energy gone?" The answer of course is that it hasn't gone anywhere. The closed system still contains X joules of energy, only it is no longer available to perform the work of lighting the bulb.

Starting with the classic definition, "Entropy is the energy within a closed system that is no longer available to perform work," we can infer a dichotomy between graded and degraded energy, where graded energy (sometimes referred to as Gibbs free energy) would be available to perform work, while degraded energy (entropy) would not. Granted, Gibbs free is measured in joules, whereas entropy is (ordinarily) measured in joules/Kelvin. However, entropy (degraded energy) may also be represented as a ratio of joules of degraded energy to the total joules of energy in a system.

Avoiding infinity issues, and assuming a sample size of one closed universe, we are asking the same basic question, "Where did all the red-shifted energy go?" And the answer is, of course, the same: "It hasn't gone anywhere!" The universe still contains the same quantity of energy that it started out with. It's just that the quantity of degraded energy (entropy) is always increasing, and the quantity of graded energy (Gibbs free) is always decreasing. From which we can infer an inverse relationship between graded and degraded energy which we can state in simple English:

The sum of graded and degraded energy in the universe is always constant.

Graded energy is the backbone of structure in physical theory. A system with a highly specific arrangement (complex structure) is associated with a higher level of graded energy (Gibbs free) than one that can be arranged in a more random way. From this we may in turn infer a relationship between the increase of universal entropy and the

decrease (de-gradation) of universal structure, including the structure of light. This would suggest a more holistic explanation for the so-called “cosmological” red shift. Go back to our battery/bulb in a closed system analogy. In the beginning the bulb was emitting a bright bluish-white light, but as the battery ran down (as entropy increased) the light became more and more reddish. If we are dealing with a sample size of one closed universe, one in which entropy is increasing, the same principle applies.

No doubt some of the red shifts observed in the universe are caused by a divergence mechanism. But the magnitude of the red shifts associated with some far-away objects suggests a more holistic—systemic—mechanism. Are we missing something here? Is the “runaway universe” really expanding in the manner described by BBC, or is the tail of the “cosmological” red shift wagging the dog of BBC, as Gentry suggests? The fact is that anything that would cause the waveform of light to lose energy would produce a red shift, fooling us into believing that some objects are moving away at incredible speeds, giving us false readings about the rate of expansion, the age of the universe, etc.

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Three Dialogues: A Gentle Connecting Rejoinder

In the spirit of Wittgenstein, if excessive verbiage masks incommensurability, appropriate clarity may be sought by delving right to the heart of the matter. In dialogue #2, Robert Gentry defends an alternative model of the universe alleged to possess “spherical symmetry” with a Cosmic Center which he deems appropriate for fixing “the throne of God ... in the heavenly Sanctuary.”¹ Whatever scientific merits this thesis may have, virtually *banishing* God in this way to a remote location within the universe of his own creation hardly comports with the eternal and *omnipresent* God of Scripture who is in no wise confined by any space time constraints.

As Creator of all that is seen and unseen, God need not even *tip his hand* as to how he created or still creates, which is the central issue behind dialogue #3.² Human limitations simply preclude any *objective* decision as to the possibility of God’s kenotic “hand” operating within *material nature*. But then, perhaps there is no such “hand” to be sought. Following Howard Van Till, the perceived absence of any such “hand” would be fully expected if his handiwork imbues the entire created universe. Denial of Christ is another “belief” position equally consistent with the perceived absence of any “hand” or even handiwork. Nevertheless, believers and “unbelievers” alike must always enter by the same “gate” where available evidence remains underdetermined. Divergent belief expectations notwithstanding, each will find their particular “belief” position to have been validated in accordance with their own expectations.

Therefore dwelling upon “defeating” naturalism or materialism seems an inadequate approach that is inherently limited in virtue of not calculating the function of deep “conversion” into the larger picture. An appreciation of the deep structure of naturalism³ might help to clarify this multi-leveled issue. Beyond this, however, far more than a merely esoteric interaction between theology and science is at stake.

In dialogue #1, Ross McKenzie delves to the required depth by identifying the sort of eye-opening knowledge, even authentic enlightenment, which is available in principle to *anyone* who is sufficiently docile. Unfortunately this is “only accessible to those who already know God through revelation and redemption.”⁴ If docility and enlightenment through Christ truly function as enabling imperatives, as *sine qua non* preconditions for true understanding, presumably the pursuit of prayer for conversion would integrally bind these three dialogues together in a crucial way. Therefore a plea for persistent and genuine prayer on behalf of all unbelievers, wisely including ourselves, seems to be the very heart of this deeply compelling and convoluted matter.

Notes

¹Robert V. Gentry, “Collapse of Big Bang Cosmology and the Emergence of the New Cosmic Center Model of the Universe,” *Perspectives on Science and Christian Faith (PSCF)* 56, no. 4 (2004): 275.

²James Madden and Mark Discher, “What Intelligent Design Does and Does Not Imply,” *PSCF* 56, no. 4 (2004): 286–91; Howard J. Van Till, “Is the ID Movement Capable of Defeating Naturalism? A Response to Madden and Discher,” *PSCF* 56, no. 4 (2004): 292–5; and Madden and Discher, “What Would Count as Defeating Naturalism? A Reply to Van Till,” *PSCF* 56, no. 4 (2004): 296–8.

³T. J. Trenn “What is the Deep Structure of ‘Naturalism?’” *PSCF* 54, no. 1 (2002): 39–40.

⁴Ross H. McKenzie, “Foundations of the Dialogue between the Physical Sciences and Theology,” *PSCF* 56, no. 4 (2004): 252.

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Natural History in Seventy Words: A Contribution to the Cosmology Dialogue

In the beginning, the Spirit of God stirred absolute nothingness. The stirring generated waves that turned into physical matter with relative space-time and the other laws of nature. Then God dispersed the matter that eventually formed into galaxies. Roughly ten billion years later, God intervened to bring forth the first cellular life, and God continued to orchestrate mutations and natural selection that culminated with the formation of anatomically modern humans.

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