D. Ratzsch, "On Reducing Nearly Everything to Reductionism," *PSCF* 58 (2006): 20–2.

[4]Roy Clouser, "Author's Reply to Two Letters Regarding 'Prospects for Theistic Science,'" *PSCF* 58, no. 4 (2006): 333–4.

[5]Ibid.

[6]Clouser, "Prospects for Theistic Science."

[7]R. A. Clouser, "On the General Relation of Religion, Metaphysics and Science," in *Facets of Faith and Science. Volume 2: The Role of Beliefs in Mathematics and the Natural Sciences: An Augustinian Perspective*, edited by J.M. van der Meer (Lanham: The Pascal Centre for Advanced Studies in Faith and Science/University Press of America, 1996).

[7]Moorad Alexanian, "Physical and Nonphysical Aspects of Nature," *PSCF* 54, no. 4 (2002): 287–8.

[9]Alexanian, *Set Theoretic Analysis of the Whole of Reality*, Footnote 14.

[10]"It does not follow, however, that in the order of knowing the ontological is constitutive as evidence for generalizations. To illustrate: From the truth that God created the world, and hence the actual order of nature from among possible orders, there is no enlightenment as to what that order is. The latter may be discovered whether or not one believes in God. This fact constitutes the element of truth in the statement attributed to Laplace, that experimental science has no need of God." William Oliver Martin, *The Order and Integration of Knowledge* (Ann Arbor, MI: The University of Michigan Press, 1957), 215.

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Clouser's Response to Alexanian

If I understand Alexanian's letter correctly, he agrees with me that the way belief in God should impact theories is neither the fundamentalist program of finding theory content in Scripture nor the idea that biblical teaching is largely walled off from theory-making. He says: "… I do not know how to use … revealed knowledge to do science except to require a metaphysics that is regulative of it that is consistent with … biblical verses [about creation *ex nihilo*]." That was precisely my proposal, so it is the outworking of such a metaphysics he objects to rather than the program itself.

The metaphysics I proposed as consonant with the doctrine of creation is a systematically non-reductionist one (in the senses of "reduction" I defined). I argued for a theory of reality that eschews the traditional approach to metaphysics, namely, positing something in creation as exclusively X, where X is a basic kind of properties-and-laws. Alexanian rejects my non-reductionist proposal but neither offers an argument for his rejection of my view nor a critique of the argument I gave for it. He merely says that physics studies the physical aspect of things, which is surely right. But from that it does not follow that things have *only* that aspect. Just as we abstract the physical properties of things for study, we may also abstract their quantitative, spatial, biotic, sensory, logical, etc., properties-and-laws. And I see no reason why the studies conducted of those aspects of things are any the less sciences than physics is.

The pluralistic ontology I advocate recognizes a distinction in the way a thing may possess its properties: actively or passively. A rock, e.g., possesses quantitative, spatial, and physical properties actively which means its having them does not depend on its relations to other things. But it does not actively possess biotic properties as it is not alive. It can, however, have passive biological properties in relation to things that are alive. For example, a small rock can be swallowed by a bird and take part in its digestive processes, or a larger rock may be the wall of an animal's den. Similarly, a rock does not perceive. It has no sensory capacities and no active sensory properties. But did it not have sensory properties passively, it could not be perceived in relation to creatures who do have active sensory functions. Just so, a rock does not think; it possesses no logical properties actively. But, once again, were the rock not subject to logical laws and in possession of passive logical properties, we could form no concept of it. In this sense, I contend, everything in creation has some properties of every basic kind and is subject to the laws of every kind. And as we cannot so much as frame the idea of any kind apart from the rest, none are plausible candidates for divine status.

The argument I gave for this view still stands: try to form an idea of anything with only X kind of properties and you will see that you cannot do it. Alexanian claims that a book has only physical properties but does not meet the challenge of that argument. What, pray tell, is the idea of a book that is *exclusively* physical? A book that has no quantity, has no shape and is not in space, has no sensory appearance and is not logically distinguishable from anything else, is no book.

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Are the Products of ANT and SCNT Equivalent? A Response to Peterson

Jim Peterson's article, "The Ethics of the ANT Proposal to Obtain Embryo-Type Stem Cells," (*PSCF* 58, no. 4 [2006]: 294–302), is misinformed about the biological equivalence between altered nuclear transfer (ANT) and cloning, and it fails to provide moral guidance on the ethics of ANT.

Peterson equates ANT and somatic cell nuclear transfer (SCNT, or cloning) on the biological level. According to Peterson, ANT produces an entity that would "function as an embryo except it would not be able to grow into a normal fetus" (p. 294), while SCNT (following McHugh) results in "an embryo-like entity that can form tissue but not organize a fetus …" (p. 302). Although he equates ANT and SCNT, Peterson prefers SCNT because "it may meet the same moral concerns [as ANT] with fewer technical challenges" (p. 302). Peterson's judgment represents a pragmatic preference based on false biological premises.

Equivalence between the products of ANT and SCNT obscures the biological distinction between transcription factors and coding genes. Transcription factors control the pattern of gene expression, while coding genes contain information necessary to the production of proteins required for cellular function. Transcription factors are ubiquitous, occurring both in the cytoplasm and the nucleus, whereas coding genes are found only in the