Letters

A Tale of Two Randomnesses

Craig Story's "The God of Christianity and the G.O.D. of Immunology" (*PSCF* 61, no. 4 [2009]: 221–32) states that ID proponents such as Lee Strobel and William Dembski categorically reject the possibility of randomness being involved in the ordering of the universe (producing "fine tuning" and "information"), while Story demonstrates "randomness with a purpose" in the human immune system. Story asserts that, "People whose conception of God allows for *no such randomness*" are forced into the horns of a dilemma where ID proponents must "either reject their God or … ignore these observations of the natural world."

Story's point is a valid one if, first, the construction of his argument is sound and, second, his use of terms is unequivocal—but, in my opinion, he fails to meet the second criterion, particularly with his use of "randomness." Consider how he uses this term in the following segments from the article (italics are mine).

Story asserts that his goal is "to clearly demonstrate that a specific type of randomness *is an essential component* of some biological systems." At the conclusion of his article he adds, "… that from randomness in the world of biology *arise* the many good things we enjoy."

Closely scrutinizing the use of the term "randomness" in these two sentences above reveal a clear equivocation in the consequent meaning that is not made explicit by Story. These two uses can be understood thusly:

1. Randomness that *is generated within* an organized system that serves a purpose for that system (randomness as an *effect*).

2. Randomness that *gives rise to* purposeful systems (randomness as a *cause*).

In his explication of the G.O.D.'s function within the immune system, Story rightfully utilizes the first definition—randomness as an important component of a biological system that is an *effect* of a random generating machine within the immune factory for an ultimate purpose. Where he makes his error is in making the non sequitur that since randomness can be utilized as an *effect* to meet a goal, that randomness, *per se*, can therefore act as a *cause* and give rise to purposeful systems independent of any causal entity (i.e., standard evolutionary origins theory). Nowhere in his article does Story build a case for unguided randomness (randomness outside the governance of a demonstrable controlling entity) giving rise to anything purposeful—this is simply assumed.

It is my guess that most ID proponents would have no problem conceding Story's assertion that "specific types of randomness" are "essential components of some biological systems," in line with the first meaning of randomness, but would, correctly in my view, object to Story's imputation of causal ability to randomness, the second meaning used.

Story creates a false dilemma as his argument contains equivocal terms, and hence ID proponents can both keep their God and their affirmation of reality—intelligent agents can utilize randomness to serve a purpose, but randomness itself has never been seen to give rise to intelligent agency nor is there any good *nonmetaphysical* reason to think that it can.

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How Far Can Science Take Us?

I found Craig M. Story's article on "The God of Christianity and the G.O.D. of Immunology: Chance, Complexity, and God's Action in Nature" (*PSCF* 61, no. 4 [2009]: 221–32) to be very controversial. I will briefly focus on only three points of philosophical interest.

Central to Story's article is the notion of randomness. He lists various distinct senses by which the notion of randomness is understood. But he defines his version of randomness as "biological randomness," that is to say, "extreme unpredictability." Story then attempts to show how an instance of biological randomness can be justified in immunology, which also underlies the very process of the rearrangement of antibody gene segments which form functional genes. In light of this, once the existence of randomness is accepted, Story thinks that we can show how the sovereign, all-knowing, and all-powerful God can exercise control over pure randomness. In fact, solving the problem of how God exercises complete sovereignty over pure randomness is what Story hopes his article succeeds in showing. Throughout his article, Story appeals to science to make his case. Here follow my objections.

First, Story conflated first-order discipline with second-order discipline. For instance, biology is a first-order discipline that studies living organisms. Put another way, biology does not take itself as an object of its own study. Such is the task of a second-order discipline, that is, philosophy. Taken in this sense, it is philosophy that studies biology, and the converse is not true. Thus, contrary to Story's claim, to say that God exercises control over randomness is not an empirical claim at all, and thus it can hardly be established on the basis of science. Rather, such a claim is strictly a philosophical thesis that requires a philosophical justification as opposed to a scientific one. If I am right here, then Story's attempt to resolve the problem of how God maintains sovereignty over randomness on a scientific basis remains a non sequitur. In my view, science is inherently unable to resolve such issues. We will do fine in leaving such issues to philosophy/theology. Yet I am not denying here that some sort of integrative approach can be taken between science and philosophy/theology. But that is another matter.

Second, Story mistakenly assumes that because x is random from the point of view of humans, therefore x is equally random from God's perspective. But such is unwarranted extrapolation which amounts to a fallacious argument: because I cannot see it, therefore it must be the case that God also cannot see it. Even if it may be true that for all that scientists know, that there is such a thing called biological randomness, such an account is only part

of the story. In other words, it remains entirely unclear what to say with respect to God's knowledge of the nature of what is deemed by humans as randomness. It may very well be the case that randomness does not exist for God. We just do not know. Certainly, Story has not shown us in his article that what appears to be random for humans is true of God. Of course, he makes a number of assertions about randomness and God's sovereign control over it. But I have not seen for myself where he has shown this to be the case.

Third, Story claims that any discussion of how God works in the world must be seen in the light of scientific progress. But this begs the question, in that the claim assumes that genuine knowledge is the kind that is supported by science. We all know that every form of knowledge does not need science. For example, we do not need scientific support to know whether torturing innocent children is morally wrong, science has nothing to do whatsoever with whether salvation is possible through Christ, 2 + 2 = 4, etc. Worse, the very claim that any discussion of God's action in the world requires scientific support, is itself not a scientific claim. Thus, it is self-defeating to assume that it is, in that the very claim per se cannot be subjected to empirical or experimental testing. So, in light of the above three objections, Story fails to show us how randomness and divine sovereignty can coexist.

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Story Responds to Parsons and Guta

Parsons, in his critique of my article, states that I have equivocated in my definition or understanding of the term "randomness," something I took great pains to avoid doing. In his critique, he objects most strongly to a view of randomness as "a cause." This is a curious near-personification of the term, as if randomness becomes the creator rather than God, and I can see how this view would be unsettling. I argued in the article that randomness is an essential characteristic of the kinds of systems we see in nature, and that from these systems arise purposeful things, such as antibody molecules. Where we disagree, I think, is whether the final result (useful antibody proteins, for example) actually can come about through an "unguided" process. Here is where Parsons and others who argue against the processes of evolution more generally, go wrong. The cellular events that lead to genetic variation quite clearly are the result of highly unpredictable processes (I refer to these as random, you may call it "unguided"). This is not merely an assumption of randomness; this is the heart of the argument I am making in my article. So how does something useful arise from an unguided process? Here is the answer: Subsequent to these random events, the system (antibody-secreting cell, or entire organism) is put through a very nonrandom selection filter. In my example, cells producing detrimental (anti-self) antibodies are deleted, while cells that produce useful antibodies continue to grow and persist. It may be that Parsons objects to the idea that the *antibody generating system itself* could have come about through any sort of random process.

Here is a stronger argument. I do not see why, in principle, the very same processes of variation and selection would not operate on whole organisms whose genomes are known to have mixed and mingled in complex ways over planetary time scales. I do believe it is misguided to think of God as not being involved in these processes at a very fundamental level, as I argue in the article. But I also think there are good reasons to think that God does not micromanage the minute details. I recommend a paper by Oxford University physicist Paul Ewart (*Science and Christian Belief* 21, no. 2 [2009]: 111–31), in which he argues that God can still be sovereign in a world with true randomness, if one considers God's ultimate purposes unfolding on a grander time scale.

Guta suggests in his letter that I am arguing for certain ideas that I personally do not support. For example, I do leave open the possibility (likelihood) that what might appear random to us may not be random to God (p. 230). I may legitimately be critiqued for not more explicitly stating the point that I am speaking outside my field. Yet I do not believe that being a scientist disqualifies one from discussing philosophical ideas, as long as one acknowledges this openly. I understand the difference between a scientific and a philosophical argument, and I find fault with those such as Dennett and Dawkins for failing to clearly make this distinction. Nor would I agree that because biology as a field does not study itself, biology cannot have anything to add to a philosophical discussion. I think it is important that observations about the natural world be consistent with our philosophical understandings. I would never argue, as Guta suggests, that "God's action in the world requires scientific support." In fact, I am not sure what he actually means by this. I am suggesting that it is important to attempt to fit our theological and philosophical beliefs, and our biblical interpretations, together with the principles of the natural world that are learned by careful scientific observation. Perhaps Guta is making a stronger claim, that the observations of science are unreliable at a fundamental level. This is his right to do so. However, I would hold that argument as weak, one that certainly will not agree with most people's personal observations. While my article may be viewed as "very controversial" to some, I remain hopeful that it may be enlightening and thought-provoking at the same time.

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A Good Revelation about Revelation

Mary VandenBerg's fine article on the "Two Books" concept ("What General Revelation Does [and Does Not] Tell Us," *PSCF* 62, no.1 [2010]: 16–24) is an important contribution. I hope it will be widely read, especially by those who expect Scripture to give us scientific truth.

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