



William A. Dembski

## Essay Review

# God's Use of Chance

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**GOD, CHANCE AND PURPOSE: Can God Have It Both Ways?** by David J. Bartholomew. Cambridge: Cambridge University Press, 2008. 272 pages. Paperback; \$19.99. ISBN: 9780521707084.

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In *God, Chance and Purpose*, statistician David Bartholomew chides Christians who cling to, in his words, a “naive orthodoxy.” Such Christians view God as exhibiting a set of perfections (especially omniscience and omnipotence) and as satisfying a set of propositions (a creed). Such a view is, according to Bartholomew, unworthy of God. In place of a “naive orthodoxy,” he therefore proposes a “critical orthodoxy.” At the center of his “critical orthodoxy” is the skeptical claim that “all knowledge is uncertain, in varying degrees” (p. 232). Question: To what degree is that claim uncertain? Bartholomew’s claim does not pass its own test.

As a statistician, Bartholomew is right to be concerned with uncertainty. Where he goes wrong is in elevating uncertainty to a feature of the world that even God cannot master. God, according to Bartholomew, creates a world in which chance operates and produces ineradicable uncertainty—not even God can accurately predict what chance will do. Although he never cites openness theology, Bartholomew embraces its truncated view of divine knowledge.

How does Bartholomew justify ascribing uncertainty to God? He offers two arguments, both of which fail. One argument is aesthetic: it seems to him more worthy for God to create a world in which God does not need to keep track of all details but instead delegates details to natural (and especially chance-driven) processes. Bartholomew rejects the picture of God as sovereign. This picture, to him, bespeaks a micro-manager who obsessively controls all aspects of an organization. Working with an organizational picture of creation, Bartholomew prefers a laid-back manager who provides creation with general guidelines rather than tight controls.

Whatever the appeal of this organizational metaphor, the underlying argument is fallacious: it reduces to “my view of the God-world relation is just too beautiful to be false.” If beauty (or worthiness or fittingness ...) is a criterion for theological truth, then special revelation is in trouble. The cross of Christ breaks all humanly constructed aesthetic criteria. Christ died on an instrument of torture—neither the Jews nor the Greeks who rejected Christ found any appeal in it. And yet the cross is the instrument of salvation—on it Christ gave himself for the life of the world.

Bartholomew’s other argument to justify ascribing uncertainty to God focuses on a fundamental fact of statistics, namely, that chance events, when considered jointly, can exhibit order. Thus, even though the outcome of a

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single coin toss may be totally uncertain, multiple coin tosses can yield stable patterns. For instance, as a coin is tossed repeatedly, the proportion of heads will tend to  $\frac{1}{2}$ . Bartholomew takes such patternedness arising from chance as the key to linking chance and purpose. God, he stresses repeatedly, uses chance to accomplish his purposes. Yes, individual chance events may indicate no purpose. But when aggregated, they can.

God's use of chance to realize purposes is the central idea in Bartholomew's book. By itself, this idea is unexceptional. Scripture contains plenty of instances where chance events (e.g., the casting of lots) are said to accomplish divine purposes. For instance, in Acts 1 the selection of Matthias to replace Judas as the twelfth apostle results from casting a lot. Proverbs 16:33 reads, "The lot is cast into the lap; but the whole disposing thereof is of the LORD." Such passages of Scripture, however, suggest that God sovereignly controls chance events or, as Bartholomew puts it, "furtively" manipulates them—an option Bartholomew rejects out of hand.

So why does Bartholomew's God-uses-chance-to-accomplish-purposes argument fail? Theologically it fails for the same reason that openness theology fails, namely, Christianity's clear teaching throughout the ages has been that God fully knows the future. Yes, this teaching is under dispute, and there is a growing literature disputing it. But the heterodoxy of openness theology becomes evident on reflection. In particular, strict uncertainty about the future means that God cannot guarantee his promises because the autonomy of the world can then always overrule God. Of course, to say that God can always step in when things get too out of hand defeats the whole point of openness theology.

Bartholomew's God-uses-chance-to-accomplish-purposes argument fails not only on theological grounds but also on its own terms. His analysis of chance is surprisingly shallow. He never tells his readers what chance is. He merely describes what it supposedly does, which is to produce events that are inherently unpredictable. But how does he know that they are inherently unpredictable?

Even if we accept that quantum mechanics, for instance, produces events that we humans cannot in principle predict, why should that mean that God cannot predict them? Are not God's ways higher

than ours? Why, then, should not God be able to predict them? Does Bartholomew not engage in shameless anthropomorphism in requiring that God be subject to the same epistemic constraints that we are? What relevance does our inability to predict certain events have to God's knowledge of them? In any worthy conception of God, do not God's abilities radically transcend our own?

The underlying problem here, however, runs deeper. Bartholomew marvels at the ability of chance events, when viewed aggregately, to exhibit remarkable patterns. But the fact is that chance, as characterized statistically (and Bartholomew is a statistician), can and will violate all expected patterns. Flip a fair coin, and in the long run, the proportion of heads will tend to  $\frac{1}{2}$ . True enough. But we do not live in the long run—our entire lives and even the life of the universe occurs in the short run. Flip a coin in the long run; then in the short run you will witness any finite sequence of coin tosses whatsoever. Thus, if you flip a coin long enough, you will see a sequence of coin tosses that, if interpreted as ASCII text (0 for tails, 1 for heads), will spell out the entire works of Shakespeare. There will also come an occasion when you witness a trillion trillion heads in a row (would such a coin, in the short run, appear fair?).

So how do you know that with the chance events we are witnessing in this life, we are not coming in, as it were, on coin tosses that are completely uncharacteristic of their "normal" chance behavior? When we look at nature, how do we know we are not seeing a trillion trillion trillion heads in a row when chance would "ordinarily" present a roughly equal proportion of heads and tails? To say that an equal proportion is "expected" or will happen "normally" or is "likely on average" begs the question, for why should chance behave that way?

In my book *No Free Lunch*, I provide a non-question-begging approach to this problem. There I suggest that because God has given creation a determinate character, when God acts in creation, his actions have statistical side-effects. I employ the following analogy: the English language has a determinate character; thus when we write, we find that thirteen percent of the time the words we use employ the letter "e." Such percentages are, of course, statistical. But they are completely reliable.

# Essay Book Review

## *God's Use of Chance*

Any deviation from them constitutes an intentional act (as when Ernest Vincent Wright wrote the 50,000-word novel *Gadsby*, which completely omitted the letter “e”). I am not saying that this approach to chance as an epiphenomenon of design is necessarily correct. But it shows that chance is deeply mysterious. Thus, for Bartholomew to characterize chance solely in terms of unpredictability cannot be the whole story.

Bartholomew is an ardent Darwinist: “The combination of chance variation and natural selection has been a powerful creative force, fashioning the world as we know it” (p. 170). Consequently, he critiques intelligent design (ID) and my work in particular. His critique disappointed me because back in 1998 Bartholomew reviewed my book *The Design Inference* for the Templeton Foundation (it was an in-house review commissioned by Charles Harper at a time when ID still had some respectability with Templeton). Back in 1998, Bartholomew liked the book, though he indicated that portions went beyond his understanding. That lack of understanding has, unfortunately, persisted.

Bartholomew argues that my method of design detection as outlined in *The Design Inference* is fatally

flawed because it presupposes design to identify the rejection regions I use to eliminate chance and infer design. Thus my method of design detection is supposed to constitute circular reasoning. But Bartholomew never engages my key notion of specification, which extends and enriches the traditional statistical understanding of a rejection region (indeed, the word “specification” appears only in the footnote on page 113, and the concept itself remains unanalyzed throughout the book). Specifications, as I define them, do not presuppose design but are characterized independently in terms of an extension of Kolmogorov complexity. Bartholomew fails to acknowledge this crucial point, much less to engage it. Similar misunderstandings and misrepresentations pervade his other criticisms of ID.

Albert Einstein, in criticizing the apparent incompleteness of quantum mechanics, remarked, “God does not play dice with the universe.” To this Niels Bohr replied, “Albert, stop telling God what to do.” Bartholomew, by contrast, tells us that God *does* play dice with the universe. Bohr’s reply applies equally to Bartholomew. \*

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