

CHAPTER 2

WORLDVIEWS AND SCIENCE

GOD'S GOVERNANCE: TWO VIEWS

Does God directly control each random event, or does God let his created systems explore options within bounds that he sets? A number of Christian scientists have written books explaining how they understand God's providential governance. They all agree that God is sovereign over natural laws and over events that are scientifically random. But they don't all agree on how best to describe this sovereignty.

According to one view, God determines the activity of all material objects from moment to moment. Natural laws are merely mathematical descriptions of the regularity with which God normally acts. God can and does determine the outcome of each event that appears scientifically random. Fundamentally, miracles are not a different type of God's action; they are merely instances when God, for some important reason, chose to determine the activity of some material objects in ways that are contrary to, or at least extremely improbable, from the standpoint of God's regular patterns of governance.

A second view is that God gives material objects the freedom to explore a range of possibilities allowed by the laws of nature that God maintains. God does not determine the outcome of every scientifically random event, but instead controls randomness by setting boundaries, such as the range of possible outcomes of a random event and the probability of each outcome. God then allows particles, systems, and organisms to interact according to natural laws within these boundaries, producing a wide range of beautiful and complex results.

As an analogy, consider how certain mathematical equations, when displayed on a computer screen, can generate beautiful pictures. (A web search on the words *fractal* and *image* will show some examples.) An artist could write a computer program to allow the program to randomly change one variable and then another and another. As the program explores a wide range of possibilities, it generates a whole series of beautiful and unique pictures. The artist did not directly determine each color and line on each picture, but instead designed a system to produce a wealth of pictures. In a similar way, God uses randomness as a key element in his design. Although God gives material objects some freedom, they are still dependent on God for their design and their continued existence. In addition to God's usual governance using natural laws with random elements, God can still choose to perform miracles outside of those natural laws. Because God designed randomness into the system, he also has the option of determining the outcome of a particular random event without it being scientifically detectable, or to interact with the material world in other subtle ways through the flexibility and uncertainty of the complex random systems.

Both of these views of God's governance fall within the bounds of most Christian traditions. For more details on these views, check these additional resources:

- ▶ MacKay, Donald. *Science, Chance and Providence*. Oxford: Oxford University Press, 1978.
- ▶ Polkinghorne, John. *The Faith of a Physicist*. Princeton, New Jersey: Princeton University, 1994.
- ▶ Polkinghorne, John. *Science and Providence*. Boston: Shambhala Publications, 1989.