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Review of Fazale Rana, The Cell's Design

Review by Jeffrey Stueber

Before you begin reading this book, you ought to know that it is no light read. I took biology in high school in the early 1980s and am familiar with the essentials of the cell (the nucleus, DNA, mitochondria, and so forth) but this book goes well beyond a simple sketch of the cell. Nevertheless, it is well worth reading and, beyond the mere anatomy of the cell, one can glimpse a philosophy of religion which is very correct from a Christian understanding which supposes that God created life.

One aspect of supernatural design is what Rana calls the "watchmaker prediction." This idea is derived from 18th and 19th century theologian William Paley who argued that if you were to find a watch on the ground, you would not suppose that it came into existence merely by chance because of the numerous inner components which have to exist in order to make it work. Recently Richard Dawkins borrowed this same mythical watch analogy to argue that nature is a blind watchmaker (hence the title of one of his books). I Rana argues that many of the processes inside the cell could not have originated by chance, much as watch parts cannot originate by chance. These processes are similar to the contraptions we are creating now. As we discover more about the cell, we should expect to uncover more such processes. Hence, Rana concludes, the cell must have been designed by a Designer more creative and intelligent than we; and we are now, with our scientific technology, learning to mimic his creativity and intelligence. The following example should suffice.

1. Richard Dawkins, <i>The Blind Watchmaker</i> (New York: Norton, 1987), 80.	

Brownian motion is the random motion of particles suspended in a fluid. On the other hand, Brownian ratchets (conceptual machines with a gear on one end of an axel, which gear can move at will but in only one direction) are limited in their mobility, being restricted to moving only within certain physical limits. But before researchers developed this Brownian ratchet technology, it already existed inside cells. For example, the molecular motor kinesin, a protein which uses energy to create motion within a cell, resembles two golf clubs with intertwined shafts. Each "club" takes its turn detaching from the inside cell wall as the other stays attached and, as they work in unison to control its overall motion, it can transport cellular cargo.

Another aspect of intelligent design involves creating organs or processes which operate using precise timing. Messenger RNA are sequences of DNA that transfer information from the nucleus to amino acid sequences of proteins. If too many of these sequences are left around, they direct the creation of proteins beyond what is needed and impede cell function. Remarkably, only messenger RNA which is needed for short-lived cell processes have rapid decay rates while those needed for longer durations have shorter ones.

People who used computers during the computer bulletin board days remember uploading or downloading files using various error-checking protocols. Those protocols dealt with an odd or even number of computer bits which were turned either on or off. In even parity the number of "on" bits must be an even number, and in odd parity the number of "on" bits must be an odd number. Rana says the

bases adenine, guanine, thymine, and cytosine are unique in that when they alone are used to create DNA, they impart the genetic code with error checking capabilities. This is because in DNA molecules guanine only joins with cytosine and adenine only joins with thymine. If the hydrogen bonds between the bases are considered analogous to electrical signals which are either on or off (either "1" or "0"), then when the bases are paired correctly the number of "on" bits is always an even number. Incorrect arrangements yield incorrect parity. No other group of four bases can do this.

Rana summarizes his arguments and examples near the end of his book and reveals the personality of the Creator in whom he believes. This Creator is capable of fine tuning and quality control, is intelligent because he incorporates communication systems in each cell, uses the same processes in numerous animals much as we might use the wheel in bicycles and cars, and inspires his creation (us) to mimic him in our inventions. While such evidence may not be sufficient to conclude that Christianity is true, the Creator of the Bible certainly comes to mind as a prime candidate for the task of creating what Rana describes. *LSI*

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