Book Review

Review of Mike Gene's Book: The Design Matrix: A Consilience of Clues

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ABSTRACT

Is there a middle way between the design inference and natural causation? Between teleology and non-teleological evolution? Mike Gene's "The Design Matrix" gives an affirmative answer to these questions. Take design seriously, and new scientific insights and testable hypotheses become available - so says Mike Gene. Follow the Rabbit (Gene's proxy for the teleological agent), and we shall discover things beyond the reductionism offered by the Duck (Gene's proxy for the blind watchmaker). You can find this book at Amazon http://www.amazon.com/Design-Matrix-Consilience-Clues/dp/0978631404/ref=cm_cr-mr-title .

Key Words: design matrix, clues, design inference, natural causation, teleology, evolution.

Regarding the structure of the cell, Gene (page 16) writes: "Amorphous vessels and balloons filled with molasses would not arouse suspicions of design. But this is not what science has discovered. Modern science teaches us that `the cell is understood to be highly organized, with specialized areas for different functions and molecular motors shuttling components around.' Hume's objection to Paley's argument certainly has not been strengthened by scientific discovery." And Gene takes the question to higher resolution, to the level of molecules, and adds: "Here we find proteins organized into large complexes that are thought of as molecular machines because they actually look and work like machines. Other proteins form tracks to connect and shuttle the molecular machines via motor proteins. The proteins in the membranes work as selective gates, pumps, and sensors. The entire intricate organization of gadgets is due in large part to the encoded information stored by the molecule of DNA."

Gene (page 22) remarks: "The debate between teleology and non-teleology is at least 2500 years old and has involved some of history's greatest thinkers. The notion that current arguments about design are nothing more than a fundamentalist reaction to the painful truth of Darwinism is a notion divorced from historical context. If history stretches back no further than one hundred years or so, it is easy to get the impression that the non-teleological perspective has been vindicated and teleology has been refuted. But if history spans 2500 years or more, consider the possibility that the non-teleological view has just recently gained the upper hand with more sophisticated versions of the same arguments from old."

Gene (page 28) notes that the blind watchmaker is compatible with teleology, for the simple reason that the watchmaker is blind: "We know from artificial selection that such evolution can be and is guided by design, where human intelligence intervenes to manipulate matings, as well as the environmental conditions of the resulting offspring. For example, the gene frequencies of the world's dog population differ from that which existed in the ancestral populations of wild dogs and those which were first domesticated. But this change in gene frequency does not mean there was no design behind the process or behind the changes in gene frequencies of the current population of dogs today."

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Regarding the challenge scientists face, given the confusion of Ducks and Rabbits (i.e., between Darwin's view and teleology), Gene writes: "The investigator must have a certain level of sensitivity to detect the existence of clues, coupled with a tolerance for ambiguity.... Until the hypothesis reaches a state of high probability, the investigator must be psychologically prepared to abandon the hypothesis if the evidence mandates it." And so Gene endeavors to study the Rabbit, while not falling for its sublime beauty and while not abandoning the Duck. The two must somehow coexist.

Gene (page 45) writes about proteins, and their function: "It does not matter if biological molecules are not conscious. What matters is whether or not the biological molecules can be placed into the same class as mechanical components designed by humans." Gene gravitates to the machine metaphor that attaches to proteins, and their functions, and he does this by ignoring the issue of consciousness. Machines that hold only functionality are not conscious, otherwise a toaster would feel itself baking bread, and a computer would feel itself playing chess. Gene (page 57) runs with the machine metaphor: "Without these mechanical design functions, molecular biologists would have tremendous difficulty understanding what is happening inside the cell, planning experiments and interpreting the meaning of the results of experiments."

Gene (page 73) admits: "The fact that DNA contains encoded information in the form of a one-dimensional linear string of symbols is very suggestive positive evidence for Intelligent Design behind the fabric of life." Regarding proteins as machines (e.g., enzymes), Gene (page 90) writes: "The DNA information encodes the machines and the machines decode the DNA information. The code and the machine are partners in an elaborate dance we call life." Gene (page 100) writes: "The machine-like boundaries are imposed by a free and rational mind. Machines can thus be viewed as the physical actualization of the mind's conceptual world."

While noting that living organisms are not machines, Gene (page 102) writes: "Every feature that distinguishes a living organism from a machine fails to distinguish a molecular machine from other machines. Molecular machines do not build their own parts, do not truly `differentiate' simply as a function of time, do not undergo self-generation, and do not behave as organism; they fit in the same category as man-made machines." Nevertheless, the vital is close by given that the Duck and Rabbit are unified, and this vitality is beyond machine-like metaphors. Gene still finds a stronger analogy when nanotechnology is considered, and so the question of design goes very deep; even as the vital lurks behind the appearance of design. Gene (page 106) writes: "the consensus among the nanotechnologists is that nanotechnology can work because we already know it works inside our cells and we can learn from the cell's machines as we begin to design our own nanomachines."

Regarding the ineffable that is vital, Gene (page 122) writes: "we live in a reality where it is possible for Intelligent Design and evolution to co-exist, where evolved things can look like they were designed, and designed things could look like they evolved, it becomes clear that a design versus evolution dichotomy can be very misleading."

In treating Intelligent Design, Gene goes well beyond the machine metaphor (and my review is limited by space). The topic of front-loading comes up; an implication is given that the deck was stacked. Gene (page 147) writes: "Since evolution would proceed outward from the originally designed cells, evolution may have been endowed with various sequences and structures to increase the odds that certain future states would be found through a random search stemming outwards from this front loaded state." Gene (page 171) writes: "Cooption is clearly a mechanism that a front-loading designer would exploit." The design inference anticipated the extreme examples of cooption found in life. Darwin's theory did not predict cooption, rather cooption must be assumed to save

Darwin's theory from its own demise. Gene tells us that the question returns, with deeper issues that pertain to cooption by way of a blind watchmaker.

Gene treats Behe's concept of "irreducible complexity," Gene considers the concept of discontinuity as evidence for design. And Gene distills the design inference into four categories: analogy; discontinuity; rationality; and foresight. Gene makes a strong case by keeping the Duck and the Rabbit both alive and healthy, and Gene discovers remarkable insights by leaving the question open.

How would life recognize itself without its own contrivances that only look to be designed by an outside source? Life must be able to empathize with its self, despite the heated exchanges! The heated arguments indicate the truth of what is vital and what is felt. There is only one way to design a toaster that feels itself baking bread. That we also perceive design means only that we ourselves are part of the same vitality that permeates all life; a vitality that somehow escapes our toasters of today. And so it must be that evolution finds itself when Ducks and Rabbits coexist, but what is being described is an innate vitalism.

References

Mike Gene, 2007, *The Design Matrix: A Consilience of Clues.* Arbor Vitae Press.