

Book Review**Review of Stuart Kauffman's Book: Reinventing the Sacred: A New View of Science, Reason, and Religion**

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ABSTRACT

The pretense is that emergence provides an unambiguous account of evolution. I will argue that ambiguity remains, even after a close read of Kauffman's "Reinventing the Sacred." Kauffman lauds the "natural" God that is found associated with the apparent "ceaseless creativity," even while he rejects the "Creator God." I think the Creator God is Kauffman's abstraction that sees a God that is held separate from God's creation. However, it seems unreasonable to say that God is separate from God's creation, in my view. Christians pray to God, and live by the golden rule, and this can only imply that God is again united with God's creation. Moreover, mystics from all religions report being united with God and this is far from Kauffman's Creator God. The concept of "natural" in Kauffman's naturalistic God is equally ambiguous given that ambiguity cannot be removed from emergence. You can find this book at Amazon http://www.amazon.com/Reinventing-Sacred-Science-Reason-Religion/dp/0465003001/ref=cm_cr-mr-title .

Key Words: science, reason, religion, GOD, Creator, emergence.

First note that alone natural selection is found to be a fixture that operates on a space-time fabric that is impacted by emergence. Why do I write this? Well, because natural selection is context dependent; i.e., random mutations and the associated phenotypic bio-forms are represented by a presumed sample space; and because the success of natural selection depends on a fitness landscape. It is emergence that is found associated with "ceaseless creativity" that is closer to being context independent, but ambiguity betrays this interpretation. Nevertheless, natural selection is found beholdng to emergence and the unspecified context that lurks behind the ambiguity. Therefore, natural selection is provisional, and indeed, the space-time fabric can be coopted by an agency that turns natural selection into artificial selection. Gone now is the concept of the "blind watchmaker," invented by Richard Dawkins. And say hello to ambiguity again. Only a context independent natural selection would permit Dawkins's leap to an evolution that lacks foresight, otherwise Dawkins cannot speak for the context. Emergence provides a loop-hole that neither Darwin or Dawkins anticipated. This loop-hole is present because emergence carries its own ambiguity, as we will see.

Kauffman's struggles with this apparent tension. Kauffman (page 32) writes: "I have spent decades muttering at Darwin that there may be powerful principles of self-organization at work in evolution as well, principles that Darwin knew nothing about and might well have delighted in." Kauffman (page 33) then writes: "With one sweeping idea he [Darwin] made sense of the geological record of fossils, the similarity of organisms on islands to those on nearby major land masses, and many other facts. This is the hallmark of outstanding science. I say this because many who believe in the Abrahamic God still deny evolution and attempt to justify their denial on scientific grounds. This is a fruitless exercise." But the fact remains that natural selection is nothing without emergence and the unspecified context that Kauffman fails to represent completely.

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Kauffman lauds the "natural" God that is found associated with the apparent "ceaseless creativity," even while he rejects the "Creator God." I think the Creator God is Kauffman's abstraction that sees a God that is held separate from God's creation, perhaps like the presumed Abrahamic God that created the universe in six days and left us to our own devices. No doubt that some outspoken fundamentalists will see God this way. However, it seems unreasonable to say that God is separate from God's creation, in my view. Christians pray to God, and live by the golden rule, and this can only imply that God is again united with God's creation. Moreover, mystics from all religions report being united with God, and they report a non-dual awareness, and this is far from Kauffman's Creator God. The concept of "natural" in Kauffman's naturalistic God is equally ambiguous given that ambiguity cannot be removed from emergence. A good definition of "natural" depends on what is non-natural, and if "non-natural" is poorly defined then so is "natural" poorly defined.

Now Kauffman is a pretty smart fellow, and so it can't be that he is completely blind-sided by these issues. He is smart to point to L. Wittgenstein's "language game" and C.S. Peirce's "semiotics." Kauffman notes that teleological language (stated motivation) cannot be reduced to happenings (physical causal events); otherwise, we are left with a language game, like changing red to blue, and blue to red, and saying nothing useful. Kauffman notes that meaning cannot be removed from agency. He tells us that Darwin's theory cannot be reduced to physical laws that govern particles. Kauffman completely rejects reductionism, because things that come with meaning are found emerging in a way that cannot be denied. He writes that emergence must be "partially lawless," presumably coming from a criticality near chaos and order. But Kauffman only admits that this emergence is ambiguous enough to call intelligent design non-science, before stopping short.

Kauffman (page 146) writes: "Intelligent design is based on probability arguments. It says that the flagellar motor, for example, is too improbable to have arisen by chance. It is irreducibly complex and so improbable that there must be a designer. But we saw above that we cannot make probability statements about Darwinian preadaptations, for we do not know beforehand the full configuration space. ID simply cannot compute that a given irreducibly complex entity such as the flagellar motor could not have come about by a sequence of Darwinian preadaptations in reasonable time. Its probability calculations are entirely suspect. The sample space is, again, not known beforehand."

Darwin's theory did not anticipate life's extreme cooption of prior adaptations, a cooption that creates a novel function that is found emerging from the criticality. Darwin only predicted slow and gradual modifications of existing functionality, this is something Kauffman corrects. However, it is this cooption that is found necessary, otherwise Darwin's theory would have found its refutation in the face of extreme cooption. Nearly all our very few 25,000 genes have been coopted from far distant ancestors that were clueless of humanity! Why has this evidence of teleology been ignored? Because what emerges from the criticality is open to ambiguity: representing emergence by a series of Darwinian preadaptations (followed by mindless opportunism) is ambiguous as noting the irreducible complexity of the apparent cooption that points to recognition. The ambiguity is present because evidence for recognition gets reinterpreted as a representation. We could note that this ambiguity remains irreducibly complex within language use, and this is enough to save both intelligent design and Darwin's theory as two aspects of one evolution.

Cooption is the discovery of new meaning from prior functions, and therefore, it is cooption that is subjected to Wittgenstein's language game. Darwin's theory fails (or is saved) for the very same reason that intelligent design fails (or is saved), because what feeling emerges from the criticality is subject to ambiguity. This is the ramification of the context dependency of natural selection. Without something connecting natural selection to concrete reality, natural selection generates only a series of happenings and the question of agency slips quietly away.

Now if you think I am being overly critical of Kauffman's book, think again. It is worth five stars. Kauffman at least pointed to the criticality from which evolution and reality emerged, yet he has not publically admitted that Darwin's theory is found beholding to the same criticality. His mistake is small, even as he limits his treatment (of the evolution war) to representations (transitions in state space) and ignores recognition; note, however, that Kauffman correctly treats recognition in his treatment of mind (chapter 12). I only note that the same criticality relates to our words, their meaning, it relates to our motives and desires, and the criticality is the doorway from which tomorrow (Kauffman's "adjacent possible") will come; I think Kauffman agrees with this. Kant called the criticality the "third antinomy," the apparent conflict between natural law and freedom, and it signifies the subject-object unity given by Kant's "synthetic." We can only explore the antinomy by way of a transcendental idealism; a kind invented by Schelling, Hegel, Schopenhauer, or Husserl. The Chinese refer to the criticality as the Tao, and the early Greeks call it the Logos. The Christians call it the Holy Spirit. The criticality comes with a middle term, and it is strangely felt: so much so that Kauffman reinvents the sacred, and refers to a naturalistic God. Everything else is a language game, so pick your flavor.

References

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