

## Shapiro Article – responses.

---

*Source:* <http://sci.tech–archive.net/Archive/sci.bio.evolution/2007–02/msg00230.html>

---

- *From:* [TomHendricks474@xxxxxx](mailto:TomHendricks474@xxxxxx)
  - *Date:* Fri, 16 Feb 2007 17:21:18 –0500 (EST)
- 

Here's some responses to the Robert Shapiro article in Sci.Am.

Shapiro:

In a form of

molecular vitalism, some scientists have presumed that nature has an innate tendency to produce life's building blocks preferentially, rather than the hordes of other molecules that can also be derived from the rules of organic chemistry.

Hendricks

NO – life process have the tendency to adapt to nature or be destroyed. None of these hordes of other molecules are still around. They were not stable. All life processes are still around – they were most stable in that environment. Maybe its time to talk – not about selfish genes – but selfish nucleotides, proteins, and ATP!

Shapiro

There is no reason to presume than an indifferent nature would not combine units at random, producing an immense variety of hybrid short, terminated chains, rather than the much longer one of uniform backbone geometry needed to support replicator and catalytic functions.

Hendricks

Yes of course, but every natural response that continues to exist in that 'indifferent nature' will be one more likely to be stable than one that is more likely to be destroyed. Thus every 'life' step is one that better fits 'indifferent nature'. Life is not some origin pop! outside the environment. It is the long string of chemical adaptations to the environment.

Shapiro:

The chances for the spontaneous

## Shapiro Article – responses.

assembly of a replicator in the pool I described above can be compared to those of the gorilla composing, in English, a coherent recipe for the preparation of chili con carne. With similar considerations in mind Gerald F. Joyce of the Scripps Research Institute and Leslie Orgel of the Salk Institute concluded that the spontaneous appearance of RNA chains on the lifeless Earth "would have been a near miracle." I would extend this conclusion to all of the proposed RNA substitutes that I mentioned above.

Nobel Laureate Christian de Duve has called for "a rejection of improbabilities so incommensurably high that they can only be called miracles, phenomena that fall outside the scope of scientific inquiry."

Hendricks:

Yes of course. And I'm glad you see the obvious. Thus a pop and adapt origin event is out. Yet if we see life as those chemical responses that continued to exist because they are more stable. Then it isn't a fluke event, it is an inevitability in that environment, an environment that apparently we had on earth. (This is the real question of how life processes were a response to the environment. What was the environment? How hot? What was the temperature range, how much uv, the atmosphere, etc.)

Shapiro doesn't see life as I do, as the most stable reaction to the environment (thus every step toward complexity would NOT be a struggle but a selection process that with each step makes it a BETTER, more stable fit – thus 'life processes' are ALWAYS SELECTED FOR. That resolves most of the stated problems.

The research community seems to be looking for a pop and adapt scenario where either metabolism and/or replication pops up through some creation moment–event–origin, and then life leisurely adapts in an environment it just popped up in!?

Shapiro lists his 5 requirements the origin event.  
I follow each with my comments.

1) A boundary is needed to separate life from non–life.

Why – for more stability of course! The non–boundary ways were less stable and didn't last in that environment.

2) An energy source is needed to drive the organization process.

Backwards – the energy source, the sun/uv heat cycle, drove the chemicals to respond to the environment in ways that either made them more stable or destroyed them. Chemicals never want energy. They , over time, can set up systems that use forced energy as novel ways to continue to exist in a forced energy environment.

(3) A coupling mechanism must link the release of energy to the organization process that produces and sustains life.

Like chemicals need energy, or want to live, or want to get to us? Take the anthropomorphic "I" out of evolution and see that every step is either more stable or destroyed, and stability is selected for.

(4) A chemical network must be formed, to permit adaptation and evolution.

Why – to fit your definition of life? No the only reason any of this would happen is if forced energy demanded a response to that energy that would lead to more stability in that environment.

(5) The network must grow and reproduce.

Why? To fit Darwins descent with modification. But descent to do what if not to better fit the environment. There is no evolved step that leads to less stability. Descent with modification is the supreme example of force energy on chemicals that react in the most stable way.

Comment?

Tom Hendricks

[http://en.wikipedia.org/wiki/Tom\\_Hendricks](http://en.wikipedia.org/wiki/Tom_Hendricks)

.