Tying Together the Gravity Principle of Life Formation to Dissipative Systems Concerning Life Formation in the General Theory

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Abstract: Some clarifying statements are made concerning the ability for a star to create life essentially from scratch. This paper is to set the stage for future statistical analysis of the probabilities involved, and only contains simple generalizations. This paper will need to be edited in the future, but that is because the idea of evolving stars being the location for the beginning of life is still new.

According to the general theory most stars evolve into life hosting planets, thus stellar evolution is planet formation. Some stars host life for longer periods of time with greater biological complexity than others and some never form life at all. The cutoff for such calculations will eventually be reviewed and worked out inside of the Taylor Threshold, in light of the mobility, gravity, container and time principles of life formation. To begin, what we have is a previously not considered mix of ideas that set the stage for the beginning of life.

- 1. Life is formed from the energy of a single star's evolution.
- 2. Life is extremely complex, many magnitudes greater than human imagination can really comprehend. (We cannot really comprehend our own stupendous complexity.)
- 3. Placing the probabilities of life forming from ionized, individual atoms all the way to extremely complex organisms such as a cat, tells us we are dealing with matter from a multi-faceted view. This means probability calculations will overlap on multiple avenues.
- 4. Pure randomness would never form life, there has to be a direction for all the chemicals to synthesize and replicate, meaning there has to be some over-reaching, stationary, extremely stable, long term force that can mix huge amounts of material together, constantly, for billions of years, which means...
- 5. Gravitation removes randomness during the formation of life, only, it is directed by the large scale dissipation of a single star's energy, meaning it is not pure randomness.

- 6. To form life requires there be a dissipative system greater than life itself, so that energy remains in boundless supply for billions of years.
- 7. Stars are the dissipative systems (open thermodynamic systems) that form life, but since life is quite complex, it is required that the dissipative system die down considerably on par with the amount of complexity that has arisen. In other words, the more energetic the system, the less complex the molecules will be found, and the more calm the system, the more complex molecules will be found. Turbulence and violence suit early dissipative systems, but the very turbulence and violence that was useful for the beginning changes and becomes more calm and flowing. This simple understanding also can be somewhat applied to the differences between Uranus and Neptune. Neptune having the strong violent winds would pale in comparison to the molecular complexity that currently exists inside of Uranus, due to its calm nature. It should also be noted that scientists have referred to Uranus as "boring", in fact, NOT seeing huge bands and clouds rushing about the surface is a good thing if you are interested in what is stirring about in its interior. It is unfortunate scientists would rather waste billions of dollars on detecting non-existent dark matter and gravitational waves than spend money on satellites to study the very next star in our system that will become Earth-like.

To discuss what is meant by directed probabilities we could take a penny and flip it so that it lands heads or tails on the ground. We say that the penny is nearly 50%/50% each time to land on heads or tails. What is forgotten is that there is a person doing the flipping. So sure, there is a probability there for the coin to land on heads or tails, but it is a directly probability. Someone is doing the coin toss. The coin does not toss itself.

The same argument is now being made for life formation on a single star. Sure, we could calculate probabilities for a star to combine elements into extremely complex molecules, but that is irrelevant. What needs to be taken into consideration is that the process is directed by a single force, and that is gravitation. A star gravitationally collapsing fuels the energy required to form life, even in the most unlikely event that life could form, it surely has, as we are here now. All the calculations for the beginning formation of life need to take this into account.

This paper is to expand on this one: http://vixra.org/pdf/1608.0115v1.pdf