## The Death of the Nebular Hypothesis and Replacement with Stellar Metamorphosis

Jeffrey J. Wolynski Jeffrey.wolynski@yahoo.com June 1, 2016 Cocoa, FL 32922

Abstract: It is referenced that the nebular hypothesis was never actually invented to explain planet formation. It was used to try and place entire galaxies as local phenomenon (birthing solar systems) and keep the Milky Way as the entire universe. In this paper it is shown that not only is that hypothesis incorrect, but that it is effectively replaced as a means of planet formation and stellar evolution by the general theory of stellar metamorphosis.

Italics copied from this page:

http://www.astronomy.ohio-state.edu/~thompson/1144/Lecture23.html

Island Universe Hypothesis

*Kant's idea (1755) revived by Alexander von Humboldt (1845):* 

- The Spiral Nebulae are other Milky Ways (or galaxies) made of stars.
- *Very distant and external to our Galaxy.*

Big Picture: The Milky Way is one of many galaxies in a vast Universe of Milky Ways

*Nebular Hypothesis* 

*Revival of a Solar System model of Pierre Simone Laplace (1796):* 

- •Spiral Nebulae are swirling gas clouds
- Nearby and internal to our Milky Way
- *Might be forming solar systems*

Big Picture: The Milky Way is the Universe.

*The Great Debate* 

The problem hinges on the finding cosmic distances:

- How big is the Milky Way?
- How distant are the Spiral Nebulae?

In the context of the two competing ideas, Island Universe Hypothesis: Spiral Nebulae are much more distant than the "edge" of our Galaxy, and so very large (as big as our Galaxy).

Nebular Hypothesis: The Spiral Nebulae are nearby, thus inside our Galaxy and and thus smaller than it.

The resolution of the debate was provided by the work of astronomer Edwin Powell Hubble in 1923:

- He was using the new 100-inch telescope on Mt. Wilson in California.
- Photographic study found Cepheid Variables in the Andromeda Nebula

Using Shapley's P-L relationship for Cepheids he got a luminosity distance of 300 kpc, far bigger than the Milky Way according to Shapley (or anybody else).

By 1925, Hubble had acquired more refined data:

- Got good observations of 10 Cepheid Variables in Andromeda
- *Estimated a Distance of* ~1000 *kpc.*

This showed that the Andromeda Nebula was not in our Galaxy, but was in fact about as big as the Milky Way! Hubble's observations conclusively ended the debate on the nature of the Spiral Nebulae.

This all means the nebular hypothesis was falsified by Hubble  $\sim$ 1925 conclusively. This means that there was never a method for forming planets all throughout the 20th and early 21st century, because the scientists were using falsified theory. They simply had nothing. Now we know better. A star is big and hot when it is young and cools down and loses mass and size over billions of years becoming the planet in the general theory of stellar metamorphosis. Meaning the old paradigm of them being mutually exclusive is incorrect. They are the same things, just in different stages of evolution. Many new principles are being drawn up currently to explain the theory in depth.

http://rationalwiki.org/wiki/Stellar\_metamorphosis#Determining\_the\_ages\_of\_stars http://rationalwiki.org/wiki/Stellar\_metamorphosis#Additional\_principles