



Kepler Space Institute

Meeting the needs for the future of humans on Earth, and in Space, with dreams and skills of global scholars

Press Release, September 24, 2013

Key to Intelligence Likely Universal

By Walter Putnam

Intelligent extraterrestrial life forms would most likely possess the same key to transforming sensory data into cognition as humans and other cognitive life here on Earth, a Dutch theorist writes in the next issue of *The Journal of Space Philosophy*.

The link lies in *recursive distinctioning*, a term applied to a “principle that underlies all perceptual and cognitive processes,” according to Dr. Marc van Duijn, a lecturer at the Faculty of Sciences at the Free University of Amsterdam.

In the third installment of Kepler Space Institute’s online philosophy journal, to appear October 1, van Duijn builds on the research and writing of Dr. Joel Isaacson, who wrote of recursive distinctioning as it applies to the concept of universal, or cosmic, intelligence in the first edition of *The Journal of Space Philosophy* in the Fall of 2012.

“What happens in RD is that an agent capable of spatial and/or temporal distinction-making makes local discriminations on raw proximal sensory inputs and subsequently uses this new pattern, made up of local distinctions, as an input for another round of distinction-making,” writes van Duijn, adding that the recursive process can be repeated indefinitely.

He notes that this and other principles of intelligence “can not only be used to come to a more coherent theoretical understanding of what natural cognition is as a biological phenomenon, but can also be used as biologically plausible constraints on thinking about the nature of extraterrestrial forms of intelligence.”

Van Duijn, who received his PhD in theoretical philosophy in 2012 at the University of Groningen, the Netherlands, concludes that more research is needed to prove that such principles are universal biological mechanisms.

But he writes that “the discovery of universal principles of biological cognition could help us go beyond mere speculation, so that we can come to a biologically plausible understanding of how intelligent life on other planets might have evolved.”

In another essay in the Fall 2013 *Journal*, Adriano Autino, co-founder and president of Space Renaissance International, argues that there is a moral imperative for humans to explore and develop extraterrestrial space.

Autino’s rationale, in an essay titled “The Expansion of Civilization Beyond Earth: A Moral Issue,” is that human civilization is so threatened that declining to advance as a species by expanding horizons beyond Earth would be tantamount to suicide.

Rejecting proponents of “de-growth” as a means of curbing human consumption and ravaging of the global environment, Autino writes that resources of space are “virtually endless and can cover human needs for several millennia to come.”

“Therefore, while the modern Savonarolas advocate a season of thrift and *wise administration of misery*, we should learn to handle the large abundance and freedom that we will find in space,” concludes Autino, an Italian entrepreneur in information technology and automation.

The essays by Autino and van Duijn are among the 10 articles in the fall issue of the *Journal*, the brainchild of KSI Provost Bob Krone.

“Our mission for both *The Journal of Space Philosophy* and Kepler Space Institute includes contributing to research holding potential for improving the capability, the affordability, the efficiency and the effectiveness of space exploration, development or human settlements,” Krone said. “In this issue we feature research into intelligence.”

Other articles in the upcoming *Journal* include “Utopia: Philosophy and Reality,” by Dr. Krone; “Deep Space III: The Human Space Program,” by Frank White; and “METALAW: From Speculation to HumanKind – Legal Posturing with Extraterrestrial Life,” by George S. Robinson.

Also presented are: “Asteroid Mining – The Low Hanging Fruit of Space Abundance,” by KSI President Robert Frantz and Michael Buet; “Space Business and Management,” by Thomas H. Olson; “Philosophy for Humans in Space” by Bob Krone; and “Bigger and Hotter Rockets and their Consequences,” by William Mook.

####