
The Ancestral Rediscovery Hypothesis: Galactic Speciation through Millennial Isolation

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Abstract

This paper introduces the Ancestral Rediscovery Hypothesis (ARH), which posits that upcoming interactions with extraterrestrial beings might include various human lineages instead of solely distinct alien origins. Applying the concept of allopatric speciation, the model suggests that isolation over light-year distances and delays in communication will lead human colonies to develop into separate species. This theory suggests that “aliens” found in deep space may be unrecognized relatives of humans, indicating that we should change our focus in the search for extraterrestrial intelligence to monitoring our own biological evolution.

I. Introduction

It is generally acknowledged that the universe is an enormous space filled with an almost limitless quantity of stars and planets. Considering this scale, the statistical likelihood that life has not developed in at least one other place is viewed as very low. This is the main reason for our ongoing worldwide quest to find life beyond Earth. Regrettably, as of now, no clear biosignatures have been identified. This 'Great Silence' is crucial to the Fermi Paradox: even though there is a strong mathematical likelihood of life existing, we have not yet made any contact with it [1].

As humans start to settle on the Moon and later on to Mars, we are triggering a biological chain reaction. In the centuries ahead, it is probable that humanity will spread across the solar system in search of resources and livable environments. Nevertheless, existing exploration models frequently neglect an essential aspect: the biological effects of severe isolation. As human populations move away from Earth and establish themselves in diverse environments, they will start to differ from their ancestral roots in ways that existing models have not completely considered.

II. The Proposed Theory: Biological Expansion as a Universal Pattern

According to scientific study, every form of life on our Earth began from a single-celled organism. That organism produced offspring, and over billions of generations, those cells developed and changed. They relocated to new settings, adjusted, and varied their activities. This "butterfly effect" resulted in the shift from life in water to life on land, ultimately leading to the development of conscious human beings.

This pattern is reflected in the course of human history. It is believed and demonstrated that modern humans first emerged in East Africa (specifically in The Rift Valley) and Morocco before spreading to other parts of the world [2]. This separation by geography resulted in the emergence of various skin tones, body shapes, and cultural practices, adjustments to the surrounding environments. Historically, these groups frequently "overlooked" their shared beginnings. A prominent illustration is the arrival of European explorers such as Columbus in the Americas; they met native populations with completely distinct cultures and physical characteristics, perceiving them as essentially "different" even though they shared a common ancestral background [5].

I suggest that the immense expanse of space represents the forthcoming "Ocean" in this ongoing cycle. If we send spacecraft to far-off star systems, the people there will develop in complete separation. Since communication can travel only at the speed of light, a colony situated 50 light-years away experiences a delay of one hundred years for just one message exchange. This results in a Causality Gap that sufficiently disconnects the colony from the genetic and cultural advancements of Earth.

III. Evolutionary Mechanisms: The "Alien" Transformation

In the emptiness of space and on various planets, the process of biological evolution will speed up. Three primary methods will facilitate this transformation:

1. **Adaptation to Low Gravity:** On planets such as Mars, which has 38% of Earth's gravity, the human spine will extend, and the density of bones will reduce. After many thousands of years, these "humans" will look completely different from those who live on Earth.
2. **The Founder Effect:** A group founded by 1,000 individuals consists solely of the genetic material from those persons. This restricted variety of genes will lead to particular characteristics becoming "established" rapidly, resulting in a new appearance for the whole planet.
3. **Speeded-Up Mutation:** In the absence of Earth's dense atmosphere that offers protection, colonists will face greater exposure to cosmic radiation, which greatly raises the frequency of DNA mutations [3], [4].

IV. Conclusion: The Grand Rediscovery

The Ancestral Rediscovery Hypothesis proposes that the "Aliens" we are looking for might not be an entirely different species, but rather our own future descendants. In the distant future, when Earth creates quicker means of transportation and returns to these ancient colonies, we will encounter beings that appear, communicate, and think in ways that are beyond our understanding [6].

We shall refer to them as extraterrestrials. They will refer to us as extraterrestrials. Both parties may not recognize that we originated from the same "cell" in the Rift Valley of Earth. We are not solely seeking existence; we are anticipating the opportunity to rediscover ourselves.

Declaration of Generative AI and AI-assisted technologies

During the preparation of this work, the author used Gemini (Google) for linguistic refinement, structural organization, and formatting to meet academic standards. After utilizing the tool, the author reviewed and edited the content as needed and takes full responsibility for the accuracy and originality of the final manuscript.

V. References

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