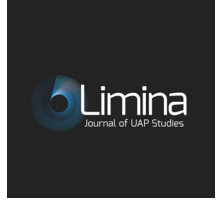




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## One Science for both UFOlogists and Astrobiologists?

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### ABSTRACT

Increasingly, scientists among UFO investigators outside the mainstream seek to explain UAP (Unidentified Aerospace Phenomena) with the extraterrestrial hypothesis. Within the lab walls of safe science, astrobiologists believe extraterrestrial life exists on exoplanets but deny that aliens are visiting earth. Both work with a scientific mindset. Both believe in the “ETI myth.” But astrobiologists shun ufologists. Can we invite both ufologists and astrobiologists to enjoy each other’s company in the same laboratory?

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“Understanding of UAP must come from the scientific community,” avers chemist Robert Powell at the Scientific Coalition for UAP Studies (Powell, *UFOs: A Scientist Explains What we Know and Don’t Know* 2024, 169). If this is the case, why don’t all interested scientists share the same image of science? Why do astrobiologists and ufologists shy away from mutual affirmation?

Chris Impey, astrobiologist at the University of Arizona, has the answer: ufologists are not allowed into the club of real scientists because ufologists do not pass the smell test.

“Why am I a UFO agnostic? ... I think it

likely that there is advanced life with technological capabilities somewhere in the universe, and maybe in our galaxy. But the way UFOs present themselves doesn’t pass the smell test” (Impey 2022, 27).<sup>1</sup>

Ufology’s smell test failure leads to the giggle factor. In their tome, *Life in the Cosmos*, Manasi Lingam and Avi Loeb cock their ears to the “giggle factor” when considering UFOs (SETI too). Lingam and Loeb protest, saying the giggle factor exacerbates a “jejune portrayal of ETIs in the media” (Lingam and Loeb 2021, Kindle 196).

I protest as well. The scholarly strain within ufology is

<sup>1</sup> The standard position of astrobiologists and astrophysicists is that it is highly probable that intelligent civilizations exist on exoplanets, but they are not coming here to Earth. Here is Adam Frank, astrophysicist at University of Rochester: “What’s most frustrating about the U.F.O.s story is that it obscures the fact that scientists like me and my colleagues are on the threshold of gathering data that may be relevant to the existence of intelligent extraterrestrial life. But this evidence involves subtle findings about phenomena far away in the galaxy—not sensational findings just a few miles away in our own atmosphere” (Frank 2021).

committed to rigorous scientific standards. I could imagine a coffee break where astrobiologists and ufologists enjoy the same brewed aromas of aerospace investigation.

In addition to sharing the single smell of sound science, astrobiologists and ufologists share something extra-scientific. Tacitly, scientists in both fields sense that something of special importance is inherent in their subject matter. The near infinity of space combined with the prospect that we share our vast universe with nonhuman intelligence plucks the strings of our terrestrial psyche with tunes of awe, majesty, magnificence.<sup>2</sup> Just imagining the extraterrestrial hypothesis strikes up a contrapuntal melody of cosmos and soul, infinity and depth, origin and destiny.

The worldview presupposed by scientific method is disenchanted. What the scientist hopes to find is an explanation that is physical and causal. No appeal to spirits, fairies, or supernatural agency counts as a scientific explanation. This goes for both astrobiologists and ufologists. But is that all we need to consider?

Many who sip on the brew of both astrobiology and ufology tacitly construct an additional worldview, a myth, an extra-scientific set of specious assumptions. I call this set of assumptions the *ETI myth* (Peters, UFOs—God’s Chariots? 2014). According to this scientized myth, evolution occurs on exoplanets just as it does on Earth. The built-in entelechy or goal of biological evolution, according to this myth, is increased complexity that takes the form of increased intelligence. The greater the time to evolve, the higher the level of intelligence.

There is more to this myth. The chief marks of more highly evolved intelligence are alleged to be science and technology. Some extraterrestrial societies may have evolved longer than we earthlings have. It follows, therefore, that some extraterrestrial civilizations will be more advanced than we on earth in science, technology, longevity, morality, and even multi-species harmony. It follows further that contact with more advanced ETI would greatly benefit earth, perhaps even redeeming earth from the threat of nuclear war or from ecological self-destruction.

This is a myth. It is a supra-scientific myth even if it is a disenchanted myth. Like sugar plums, this myth dances in the dreams of many of our space scientists. For our scientists to

pass the smell test, should we demand that they bracket out this myth and stick to empirical research?

In no way do I wish to discourage pursuit of the extraterrestrial hypothesis. Yet, I recommend that both astrobiologists and ufologists think of the ETI myth strictly as a research hypothesis and avoid cultivating a belief that we earthlings can find salvation in science and technology.

## 1. What is astrobiology?

Astrobiology provides a progressive research program in that it collects data and expands human knowledge about our universe. Therefore, we must consider astrobiology to be reputable science (Octavio Chon-Torres, Ted Peters, Richard Seckbach, and Russell Gordon, eds 2021). Yet, there is more. Astrobiology is a scientific field that plucks the strings of religious sensibility (Peters 2022).

“Astrobiology is the study of the origin, evolution, and distribution of life in the universe,” is NASA’s definition (NASA 2022). Lucas John Mix elaborates. Astrobiology “happens when you put together what astronomy, physics, planetary science, geology, chemistry, biology, and a host of other disciplines have to say about life and try to make a single narrative” (Mix 2009, 4).

This term, *astrobiology*, replaced the term, *exobiology*, in the 1990s. *Exobiology* was the term previously employed by Carl Sagan, Frank Drake, SETI, NASA, and others. Jill Tarter, former SETI director, adds the “future” to NASA’s otherwise acceptable definition. “Astrobiology is the science that deals with the origin, evolution, distribution, and future of life in the Universe” (Tarter 2006, 20). Astrobiology is also the science on which terrestrial civilization will rely when we make extraterrestrial contact.<sup>3</sup>

NASA’s Mars expert, Christopher McKay, alerts us to the fact that the science of astrobiology ineluctably raises philosophical questions. “Astrobiology has within it three broad questions that have deep philosophical as well as scientific import. These are the origin of life, the search for a second genesis of life, and the expansion of life beyond Earth” (McKay 2000, 45). Note that this science as science already has “deep philosophical” import built in.

This philosophical import has religious import too. Not

2 The term “non-human intelligence” or NHI means any sentient intelligent non-human lifeform regardless of nature or ultimate origin that may be presumed responsible for unidentified anomalous phenomena or of which the Federal Government has become aware (Congressional\_Record 7/13/2023, S2953).

3 SETI and METI may hasten contact. Earth should prepare. In a recent article in the International Journal of Astrobiology, Ilan Fischer and Shacked Avrashi employ a method they call “theory of subjective expected relative similarity” or SERS. Such a method spawns constructive forecasting of ETI behavior based on “similarity-indicating signals.” Such speculative research is needed for preparation before contact. “Scientists and policymakers should not only prepare for a first encounter, but continually monitor new evidence, plan ahead and update various applicable policies” (Fischer and Avrashi 2024, 8).

necessarily formal or institutional religion is at stake here. Rather, it is religion understood as the depth of culture. “Culture is the form of religion, and religion is the substance of culture,” wrote theologian Paul Tillich (Tillich 1951-1963, 3:158). Religious sensibilities become engaged when the depths of consciousness are brought to the surface. NASA astronomer and former science-and-religion officer at AAAS Jennifer Wiseman makes a religious forecast. “The detection of even simple life beyond Earth would be profound for humanity, indicating life has sprung up through *multiple Genesis events* throughout the universe” (Wiseman 2018, 131). Astrobiology, curiously, is an already *religious* science (Peters, Astrobiology: The Almost Religious Science 2022).

## 2. What is ufology?

For decades *ufology* has been the familiar term to describe those who investigate UFO reports, consolidate data, tender hypotheses, and publish results (Hoffman 2024) (Ammon 2024) (Powell, Hancock, et al. 2023). Recently, *ufology* has been renamed *UAP Studies*. This is due to the replacement of UFO (Unidentified Flying Object) with ‘UAP’. Now, what does UAP stand for? It depends on what you designate with the ‘A’. It could refer to aerial, aerospace, anomalous, or anything else. The Scientific Coalition for UAP Studies along with the Society for UAP Studies prefer Unidentified *Aerospace* Phenomena.

MUFON (Mutual UFO Network) provides us with an etymological definition of the field, a field honored since the early 1970s.

UFOlogy is the array of subject matter and activities associated with an interest in unidentified flying objects (UFOs). UFOs have been subject to various investigations over the years by governments, independent groups, and scientists. The term derives from UFO, which is pronounced as an acronym, and the suffix -logy, which comes from the Ancient Greek

λογία (*logiā*) (MUFON 2020).<sup>4</sup>

The first thing a scientist does is establish classifications or categories of material to be researched. MUFON incorporates the five categories of a famed UFO researcher, Jacques Vallée.

1. Sighting
2. Physical effects: for example, radar sighting
3. Life form or living entity
4. Reality transformation: witnesses experienced a transformation of their sense of reality (often corresponding to the popular characterization of the incident as an abduction)
5. Physiological impact: Such as death or serious injury<sup>5</sup>

This is the subject matter to be studied scientifically with what is frequently dubbed the “nuts ‘n’ bolts” method.

The nuts ‘n’ bolts branch of ufology is developing methods of instrumentation for data assemblage. “Instrumented field research has played a crucial role in establishing the scientific study of UAP, providing much needed legitimacy to the field” says Phillip Ailleris (Ailleris 2024, 28). Data. More data. That is the current objective of nuts ‘n’ bolts ufology.

Note that the existence or non-existence of extraterrestrial or non-human intelligence does not appear on the above list.<sup>6</sup> Even so, ufologists consider the extraterrestrial hypothesis (ETH) as one promising explanation for this subject matter.<sup>7</sup> To consider let alone confront nonhuman intelligence, we may forecast, would have a major impact on terrestrial human consciousness.

There is indeed a genuine UFO phenomenon and it constitutes one of the many mysteries that nature offers us. In my view it represents an opportunity to practice some good science and to become aware of levels of consciousness we had not

4 In launching the new journal, *Limina: The Journal of UAP Studies*, editor-in-chief Michael Cifone limits ufology to science while expanding UAP Studies to include the humanities in addition to the sciences. UAP Studies includes ufology but adds more. “Using this broader term ‘UAP Studies’ we consciously step away from classical ‘ufology’ *per se* and allow our inquiry to proceed afresh – to find its own way, even while it draws significantly from existing sciences, from the humanities, and from other more mature scholarly fields” (Cifone, Editorial 2024, 3). In short, it is the subject matter—UFOs or UAP—that will guide or determine the methods employed.

5 MUFON, “UFO Categorization—Vallée System: <https://mufon.com/what-is-ufology/>.”

6 According to scientists working on Avi Loeb’s Galileo Project at Harvard, “UAP are almost automatically associated in the public imagination with an extraterrestrial origin.” Despite this, Galileo scientists—now ufologists—turn their attention to more prosaic and local anomalies. “The goal of the Galileo Project’s UAP investigation is initially broader in scope and more foundational: it is to determine whether there are measurable phenomena in or near earth’s atmosphere which can be confidently classified as *scientific anomalies*” (Watters, Loeb and Laukien, *et al.* 2023, 6).

7 One task before today’s ufologist is careful categorization of hypotheses. “Careful thinking about UFOs over this last three-quarters of a century has produced a number of options for understanding the phenomena other than the ETH.... We may be dealing with more than one phenomenon but are lumping them together as ‘UAPs’ or ‘UFOs’ because we lack the perceptual, technological, and/or cognitive sophistication to discriminate between them. The new openness toward study of the topic presents us with reason to hope that this question can be explored and engaged with more fully going forward,” avers Brenda Denzler (Denzler 2024).

previously recognized (Vallée 2008, Kindle 100).

Like astrobiologists, ufologists anticipate questions of profound philosophical if not religious import. This requires more than nuts-and-bolts science. It requires the methods of cultural studies.

Despite the scientific data gathering used in investigating UAP reports, ufologists don't receive coffee klatch invitations from astrobiologists. James Moore explains.

The science of UFOs is minuscule and deeply marginalized. Although many scientists think privately that UFOs deserve study, there are no opportunities or incentives to do it....For both science and the state, it seems, the UFO is not an 'object' at all, but a *non*-object, something not just unidentified but unseen and thus ignored (Moore 1993, 57).

Astrobiologists seem to assume ufologists tracking anomalous phenomena in Earth's skies have nothing to tell us about civilizations on exoplanets.

### 3. Why don't ufologists pass the smell test?

From the perspective of the astrobiologist, ufologists do not pass the smell test.<sup>8</sup> That is, they do not measure up to the criteria of relevant or rigorous science.

Most likely this is due to mixed smells. The scent of flying saucer sightings comes mixed with the odors of fantastic abduction reports, suspicious paranormal claims, pseudo-scientific Ancient Alien television shows, and UFO religious cults. In short, UAP sounds like a return to premodern enchantment. "Saucer culture is a deeply interrelated web of claims and beliefs, with strands of that web reaching far

beyond UFO culture into the nooks and crannies of popular culture and popular religion," is the observation of Gregory Reece (Reece 2007, 3). For the field of UAP Studies to pass today's smell test, will it have to isolate its subject matter and circumscribe it with publicly confirmable empirical data? Might this require letting go of paranormal claims and perhaps even abduction reports, at least for the time being?

History of Religions scholar Diana Pasulka seems confused about this. She notices how the recent wave of scientists fascinated with UAP Studies gives attention to measurable data while ignoring the paranormal.

They focused on hard science and assumed they were dealing with crafts that worked within the frameworks of traditional physics. The supernatural and paranormal aspects of the phenomenon were and are still largely ignored (Pasulka 2023, 98).<sup>9</sup>

This is descriptively accurate, in my judgment. Yet, more should be said. One might suggest to Doctor Pasulka that today's scientists are well equipped to deal with traditional physics. But they are not equipped to explain the supernatural or paranormal, let alone the ETI myth. Should we ask our scientists to investigate UFO-related paranormal claims? This would be like asking a weather reporter with a yardstick to measure the water content of the fog.

The paranormal stigmatizes ufology.<sup>10</sup> Harvard's Tim Lomas at the T.H. Chan School of Public Health reminds us that ufology has been stigmatized by its association with the paranormal. Ufology "retains the stigma of the paranormal and remains outside the boundaries of serious inquiry ... given recent [post 2017] developments regarding UAP, the topic now surely warrants at least serious engagement from the scientific community" (Lomas 2024, 104).<sup>11</sup>

This strongly suggests that, at least for the time being,

8 A brief scorecard of recently spawned scientific UFO organizations ready to pass the smell test would include the Galileo Project, SCU (Scientific Coalition for UAP Studies), SUAPS (Society for UAP Studies), and, most recently, UAPx. "UAPx is a (501c3) non-profit organization co-founded by Naval veterans Gary Voorhis and Kevin Day, who were involved in the (2004) Nimitz carrier strike group UAP encounter .... UAPx is devoted to identification and classification of the initially unidentified and unclassified" (Szydagis, *et al.* 2023, 3,4).

9 "I was surprised by the caliber of scientists and researchers who believed they were in contact with nonhuman intelligence...I was also shocked by the level of commitment to spirituality and esoteric practices that I found among them" (Pasulka 2023, 172). Now, Dr. Pasulka, which is it: scientific research or personal experience?

10 Michael Zimmerman offers an enlightening analysis of the non-acceptance by establishment scientists of the UFO abduction phenomenon. Zimmerman proffers the hypothesis that established scientists constitute the elite in charge of the dominant "social ontology" of modern society. Accounts of UFO abductions, in contrast, belong in the category of "forbidden knowledge." Astrobiologists along with other established scientists decree "someone else ought neither to investigate nor to affirm nonconformist concepts that threaten the social ontology" (Zimmerman 1997, 236). Today's renaissance of scientific interest in UAP focuses on anomalous aerial phenomena, but tends to place paranormal claims on the back shelf.

11 To proceed within the restrictions of scientific method with its materialist assumptions may shut the door on dealing with the larger reality possibly revealed in the paranormal dimension of the UFO phenomenon. "The difficult truth," according to Jeffrey Kripal at Rice University, "is that the UFO phenomenon has both an objective 'hard' aspect (think fighter-jet videos, photographs, alleged metamaterials, apparent advanced propulsion methods, missile silo shutdown, and landing marks) and a subjective 'soft' or 'human' aspect (think close encounters, multiple and coordinated visual sightings, altered states of consciousness, subsequent paranormal powers, visionary displays, and experienced traumatic or transcendent abductions) (Kripal 2024, 57-58). Even though we ask our scientists to investigate UAP, we do not expect the conclusions drawn by science to be the final word on the nature of reality. We can imagine astrobiologists hosting a picnic and inviting only those ufologists who take a scientific approach that avoids investigating paranormal claims.

scientists engaged in UAP studies should immunize their empirical methods from paranormal and abduction claims.<sup>12</sup> Yet, even with this dietary constriction, there is still room for tasting ETH.<sup>13</sup>

This constriction of the UAP Studies menu might persuade at least one renowned astrobiologist to share a coffee klatch with a ufologist. After delineating a list of scientific reasons for remaining skeptical about the extraterrestrial hypothesis to explain UFOs, SETI astronomer Seth Shostak still grants that “the question of whether UFOs are truly interstellar spacecraft needs to be addressed by careful examination of the claims” (Shostak 2020, 14).

At this point I trust we have established that our scientists engaged in UAP studies at SCU and SUAPS along with MUFON are cognizant of the criteria that measure sound science and are committed to meeting those criteria. They are capable of passing the smell test. They deserve invitations to the next astrobiologist conference.

What about the unavoidable giggle factor prompted by the paranormal? Please do not misunderstand me. I recognize that claims of the paranormal along with abduction narratives belong to the phenomenon. And they warrant study. But a strict science that passes Chris Impey’s smell test may not be ready to conduct the aspects of UAP that hint at enchantment. Along with the science, we will need to draw from other disciplines such as philosophy, history, social science, and theology.

Now I wish to turn to something extra-scientific that both astrobiologists and ufologists share, namely, a taste for the ETI myth.

#### 4. The ETI myth

“Religion, geopolitics, and the ETI/UAP topic are all converging,” observes ufologist Jensine Andresen (Andresen 2023, 17). Can we give fitting attention to this convergence?

Some scholars should be called upon to examine both astrobiology and ufology within the wider cultural context.

12 Should ufology include investigation of UFO abduction cases? Yes, claims Kimberly Engels, who relies on phenomenological method—a method which includes both subjective experiences along with phenomenal objects as they appear to subjectivity. “It is true that ufology and discussion of eyewitness accounts has long suffered from lack of scholarly rigor and methodological soundness, which has overall lent to the discrediting of UAP studies as a serious academic pursuit. The conversations I am hosting are part of an effort to change that and take these experiences seriously while at the same time keeping our critical thinking skills engaged” (Engels 2024). I appreciate Engels’ phenomenological approach and say so (Peters 2024). Yet, until the scientific reformation Engels prescribes is complete, I suggest ufologists stick to publicly confirmable data if they want an invitation to an astrobiologist’s picnic. To talk about the paranormal dimension of UAP, ufologists may still have to schedule their own picnics.

13 ETH need not be the sole or even primary focus of ufology. Beginning in 1947, observes Larry Hancock of SCU, UFOs “focused reconnaissance targeting both strategic military bases and key atomic warfare facilities” (Hancock 2017, 381). One practical value of continued scientific ufology will be its contribution to national security.

14 What I call the ‘ETI myth’, Keith Cooper calls the ‘altruism assumption’ (Cooper 2020, 27). “The problem is, evolution is not necessarily about altruism, just as it is also not necessarily about intelligence” (Cooper 2020, 32). In short, the theory of evolution does not support the idea that over time biology will become increasingly intelligent let alone altruistic.

When we do, I think we will unbosom a subtle belief system that I call the *UFO Myth*. This myth belongs to the frame surrounding the pictures drawn for us by both astrobiologists and ufologists.

As mentioned above, simply studying outer space inspires. The mysteries of near infinite space along with speculations about extraterrestrial intelligence shock our religious sensibilities. Space consciousness elicits a sense of awe, magnificence, and transcendence. Do such sensibilities influence the assumptions and speculations of scientific researchers? Yes, of course.

Our scientists know well the theory of evolution. They also have witnessed four centuries of scientific and technological progress. With a mere slip of the magician’s hand, technological progress slips into the theory of biological evolution. Presto. We now have a telic and hopeful story about extraterrestrial life that goes like this: a more highly evolved nonhuman intelligence is more advanced in science and technology and perhaps other virtues as well.

Arizona State University astrobiologist, Paul Davies, employs the term, “biological determinism,” to introduce the ETI myth.

Given the right conditions, life inevitably will form after a sufficiently long time, and once life gets started, it will very probably progress toward intelligence.... Biological determinism is the prevailing philosophy at NASA, among SETI researcher, school children, journalists, and even the rich and famous (Davies 2000, 15).

Contact with more highly advanced ETIs will transform life on earth, the myth then tells us. In fact, earth will be rescued from self-destructive scenarios. Exobiologist Carl Sagan and SETI leader Frank Drake, for example, speculate that contact with extraterrestrials “would inevitably enrich mankind beyond measure” (Sagan 1975, 89).<sup>14</sup> Heaven in the form of extraterrestrial intelligence is coming to earth to

“enrich” us “beyond measure.”<sup>15</sup>

Boston University theologian John Hart elevates advanced science to the status of earth’s savior. “In the vastness of space and over its eons of time, life on other worlds, too, might have evolved to be intelligent life. Extraterrestrial intelligent life (ETI) might be billions of years older than terrestrial intelligent life (TI)—and considerably more advanced biologically, intellectually, socially, and spiritually” (Hart 2014, 20).

According to the ETI myth, science saves. And if terrestrial science fails to save, then a more advanced extraterrestrial science will make salvation happen.

Here is a summary of ETI myth presupposed dogmas.

- Evolution is progressive.
- Evolution progresses from the simple to the complex.
- Complex life evolves into intelligence over time.
- Intelligence leads to science and technology.
- Evolving life on exoplanets has progressed longer than it has on earth.
- ETI is more advanced than we are on earth.
- Therefore, advanced ETI has the capacity to redeem earth from self-destruction.

Science saves. And if terrestrial science fails us, then a more highly advanced extraterrestrial science can do it for us.

## 5. The myth makes the scientist into both priest and king.

Like archaic myths of kingship in ancient Egypt or Babylonia which crowned the king with heavenly blessing, this myth crowns today’s scientist as king of today’s knowledge. It will be earth’s expert in science and technology who marks the connection between terrestrials and extraterrestrials. Presto.

A priesthood is born that connects earth with heaven and, thankfully, prophesies imminent salvation for earth. In short, the ETI myth represents scientists doing theology without a license.

Specifically, let’s ask: from what will our extraterrestrial scientists save us? From the 1950s through the 1980s, contactees claimed that benevolent ETIs would save earth from self-destruction by nuclear war. Science journalist Keith Cooper reports how in 1982 exobiologist Carl Sagen told U.S. Senator William Proxmire that “finding ET could help us avoid nuking ourselves back to the Stone Age” (Cooper 2020, 24). One ETI myth for both ufology and astrobiology.

From the late 1980s to the present, the earth’s threat of self-destruction has changed from nuclear war to environmental devastation. Harvard’s John Mack reports how in this period “abductees are being told over and over that this phenomenon is occurring in the context of the threat to the Earth as a living system, a response to the ecological devastation” (Mack 2021, 149).<sup>16</sup> Whether from nuclear destruction or ecological destruction, our angels in outer space can provide the science and accompanying technology for us to save ourselves.

But, unfortunately, this hope-inspiring myth fails to pass the smell test. The very idea of progressive evolution is a supra-scientific insertion. It is not sound science. Why? Because Darwinian evolutionary theory routinely if not universally excludes teleology at the level of assumption. The world’s leading evolutionary biologists decry any overall direction to evolutionary development. But ETI myth advocates still try to sneak it in under the tent flap.<sup>17</sup>

If we summarize the soteriology of the ETI myth it looks like this: from the heavens alien saviors will come to earth with a more advanced science that will rescue us from self-destruction through thermonuclear war or through demolition of our environment. If terrestrial scientists have

15 Dystopian as well as utopian scenarios are sometimes deemed plausible. “Human self-worth and self-regard, including the (apparently delusional) sense of human control over human destiny” is under threat, warns Michael Zimmerman of the Society for UAP Studies. “First, there is the prospect of high-level disclosure that UAP are both objectively real and utterly mysterious. Second, there is the impending creation of ASI, a ‘singularity’ that would allow humankind *rapidly* to be eclipsed by a far greater and to us incomprehensible ‘intelligence’. Particularly disturbing would be near-simultaneous disclosure of non-human UFOs and attainment of ASI (Zimmerman 2024). But utopians are not discouraged. At least not Jensine Andresen. “Extraterrestrial UAP must, by necessity, be kind and benevolent—because otherwise, it already would have obliterated itself by means of its access to the immense amounts of energy necessary to travel interstellar and/or intergalactic distances” (Andresen 2023, 15).

16 As mentioned above, Zimmerman distinguishes between the dominant social ontology and its trickster opponent, forbidden knowledge. He places the UFO abduction phenomenon in the latter category. But does this placement exempt abductees from sharing the UFO myth? I don’t think so. In Zimmerman’s own account of two women abducted by aliens and physically examined, the abducted women report something remarkable. The aliens tell the women about their concern for “genetic coding” and “mutual advancement” (Zimmerman 1997, 241). This means both the aliens and the abducted earthlings frame their knowledge in terms of evolutionary science, and even include the advance of the species. This testimony belongs to the dominant social ontology, not to forbidden knowledge.

17 Philosopher of science Daniel Dennet articulates the problem. “Global, long-term progress, amounting to the view that things in the biosphere are, in general, getting better and better and better, was denied by Darwin, and although it is often imagined by onlookers to be an implication of evolution, it is simply a mistake — a mistake no orthodox Darwinians fall for” (Dennett 1995, 299).

not yet been able to save us from ourselves, then in the future extraterrestrial scientists will save us. So goes the ETI myth.<sup>18</sup>

What should be obvious is that this myth has stolen Christian soteriology and tacked it on to both astrobiology and ufology. “Our efforts to discover real E.T.s may have more to do with promoting a vision of salvation than with pursuing scientific investigation,” is the judgment of evangelical theologian, James Herrick (Herrick 2008, 72).

## 6. Conclusion

We’ve been asking why astrobiologists and ufologists don’t enjoy one another’s company during coffee break. We found the answer: astrobiologists don’t think ufology passes the smell test—that is, ufology is insufficiently relevant or rigorous.

This is a mistake. In recent decades scientists engaged in UAP Studies have demonstrated rigorous scientific methodological reflection, created new technologies for data gathering, stringent standards for data assessment, and sober hypothesizing (Powell, UFOs: A Scientist Explains What we Know and Don’t Know 2024). These ufologists themselves are credentialed scientists who transfer their already honed research skills to investigating as-yet-unidentified aerospace phenomena. “The gold standard of scientific work is to make quantitative measurements using well-calibrated instruments under well-understood conditions,” write Wesley Watters and Avi Loeb at Harvard’s Galileo Project; “and this is the approach taken in this work” (Watters, Loeb and *et.al.*, The Scientific Investigation of Unidentified Aerial Phenomena (UAP) Using Multimodal Ground-Based Observatories 2023, 39).

This means ufologists do not need collegial invitations from astrobiologists to establish their credibility. Intellectual integrity among today’s UFO scientists is obvious, public, and respectable. Ufologists pass the smell test.

Because of their common interest in ETH, it seems to me that astrobiologists and ufologists could enjoy shared conversation while sipping their Starbucks. Nevertheless, those ufologists who would also like to investigate abduction reports and other claims of the paranormal may need to go it alone.

My added caution to both astrobiologists and ufologists is to bracket out (*epoché*) the ontology of the ETI myth. For the

most part, the ETI myth is harmless. Believing this myth may even inspire one’s motive to pursue the ETH, to be sure. But commitment to scientific rigor should keep the myth in the category of a hypothesis still needing confirmation.

Personally, I hope the ETI myth turns out to be true. But this should remain in the category of hope rather than sober science. So, my final advice to both astrobiologists and ufologists is twofold. First, *stick to sober science and share an occasional coffee klatch*. Second, *add into ufology multi-disciplinary research of paranormal claims and abduction narratives*.

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18 For good or ill, modern science has elected to collect knowledge without meaning. For knowledge to be meaningful, it must be meaningful to somebody. Meaning belongs to subjectivity. But modern science brackets out subjectivity in favor of an exclusive objectivity. Michael Cifone applies the term, *nihilism*, to scientific methodology (Cifone 2014). Whether we like it or not, we must admit that the function of the ETI myth is to smuggle meaning back into science. But this does not pass the smell test. Now, I am very happy to proffer a theology of salvation. But to do so I would rely specifically on theological resources. I would not ask science to perform a theological task without a license.

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