

# Why is Anomalous Evidence So Unpopular?

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By Avi Loeb on June 28, 2021

*I*gnorance is like the number zero. Its product with any topic leads to no new content. As a result, ignorance allows people to maintain prior convictions. This benefit was embraced by philosophers who refused to look through the telescope of [Galileo Galilei](#) - the pioneer of evidence-based science, because they “knew” that the Sun moves around the Earth. Strangely enough, the same theme of “no need for new data” is currently advocated by scientists with prejudice. They maintain a self-fulfilling prophecy of “knowing” the answer in advance, and bring the risk of maintaining our comfort zone of ignorance while affirming Ecclesiastes’ observation that “[there is nothing new under the Sun](#)”.

The Pentagon [report](#) delivered to Congress on June 25<sup>th</sup> is intriguing enough to motivate scientific inquiry towards the goal of identifying the [Unidentified Aerial Phenomena](#) (UAP). Some of the UAP discovered since March 2019 - when a new reporting mechanism was established by the US Navy, are likely real objects whose nature is unknown. The report states: “a majority of UAP were registered across multiple sensors, to include radar, infrared, electro-optical, weapon seekers, and visual observation”. UAP could be human-made (in which case, they would imply a national intelligence shortcoming), natural atmospheric phenomena or extraterrestrial in origin. All possibilities imply something new and interesting that we did not know about before. Hence, it would be exciting to gain insight into the nature of UAP by assembling fresh scientific data in the coming years. Most UAP might have mundane explanations, but even if only one object is of extraterrestrial origin - it would have a huge impact on society. This is why I dedicated an entire book titled “[Extraterrestrial](#)”, to one anomalous interstellar object [‘Oumuamua](#), that did not resemble any comet or asteroid observed before. As we have learned from the discovery of [quantum mechanics](#) a century ago, experimental anomalies are the precursor for progress in our scientific knowledge.

The Pentagon report admits: “Sociocultural stigmas and sensor limitations remain obstacles to collecting data on UAP... reputational risk may keep many observers silent, complicating scientific pursuit of the topic”. It importantly adds: “The sensors mounted on U.S. military platforms are typically designed to fulfill specific missions. As a result, those sensors are not generally suited for identifying UAP”. The report avoids any scientific discussion of the possibility that the unexplained phenomena are extraterrestrial in origin, since this goes beyond the charter assigned to the government’s task force.

Given these limiting factors, the study of UAP should now shift from the talking points of national security administrators and politicians to the mainstream of science, where it would be studied by scientists rather than government or military personnel that were not trained as scientists and that did not have access to the best scientific instrumentation for

collecting the Pentagon's data. New scientific data can clear up the fog in interpreting the nature of UAP.

It is therefore surprising that the Pentagon report was followed by pushback from some scientists, [including](#) astrophysicists and [SETI](#) advocates, who dismissed the need for a follow-up study of UAP. Just as in Galileo's days, they prefer not to look through telescopes and argue that they need "extraordinary evidence" before contemplating the possibility that any anomalous object might be the product of extraterrestrial technology.

Our Galactic neighbors could be out there irrespective of whether we look for them through our open windows, in the same way that the Earth continued to move around the Sun even when Galileo was put in house arrest. Ignorance can be maintained forever if we refuse to look for evidence that may prove our convictions wrong. Pretending that we have no neighbors will only make us unprepared for the day when they will knock on our front door. Opening that door would indeed provide the extraordinary evidence that some scientists require, but it will arrive too late for contemplating a proper response.

Science must echo the public's interest in UAP. The Pentagon's report should therefore trigger a scientific research program that will monitor the sky with wide-field telescopes connected to state-of-the-art cameras and computer systems, in search for unusual phenomena. In particular, the open data stream from the upcoming [Vera C. Rubin Observatory](#) could be mined for UAP with a dedicated computer software. The telescope's *Legacy Survey of Space and Time (LSST)* [is expected](#) to be [sensitive](#) to sunlight reflected from [Starlink](#) communication satellites and could therefore discover any UAP of [meter size](#) that enter its field of view.

Federal agencies, guided by committees led by mainstream scientists, will naturally be slow to adapt to these new challenges. But my tour through the landscape of philanthropy implies that the private sector is more open-minded to fund a proper response. To figure out the nature of UAP might require less funding than was already spent in the search for the elusive nature of [dark matter](#), a subject with much less impact on society. It is the duty of scientists to explain the unexplained in the Pentagon's data, rather than focus on hypothetical questions that encourage intellectual gymnastics within academia but are less relevant to explaining reality, as in "[how many angels can dance on the head of a pin?](#)"

If academia would respect the public's interest in UAP, a new normal may be established in which much more funding and talent will be drawn to the pursuit of evidence-based knowledge in the way that Galileo envisioned it. There is nothing more exciting than a paradigm shift in the way we perceive our place in the universe. Just as my daughters benefitted greatly from being exposed to smarter kids in kindergarten, Silicon Valley entrepreneurs might acquire new aspirations from alien technological equipment.

## ABOUT THE AUTHOR



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Avi Loeb is the founding director of Harvard University's Black Hole Initiative, director of the Institute for Theory and Computation at the Harvard-Smithsonian Center for Astrophysics, and the former chair of the astronomy department at Harvard University (2011-2020). He chairs the advisory board for the Breakthrough Starshot project, and is a former member of the President's Council of Advisors on Science and Technology and a former chair of the Board on Physics and Astronomy of the National Academies. He is the bestselling author of "[\*Extraterrestrial: The First Sign of Intelligent Life Beyond Earth\*](#)" and a co-author of the textbook "[\*Life in the Cosmos\*](#)".