A cosmic gorilla effect could blind the detection of aliens

April 11 2018

Aerial picture to which a small gorilla was incorporated (top left) for an experiment. The more intuitive observers identified it more times than the more rational and methodical ones. Credit: Modified photo of an original NASA picture

A well-known experiment with young people bouncing a ball showed

that observers focusing on counting the passes failed to detect a man in a gorilla suit crossing the screen. According to researchers at the University of Cádiz (Spain), something similar could be happening when astronomers seek intelligent, non-earthly radio signals, which perhaps manifest themselves in dimensions that escape our perception, perhaps through unknown dark matter or energy.

One of the problems that has preoccupied experts in cosmology is the detection of extraterrestrial signals. Are we really looking in the right direction? Maybe not, according to the study published in the journal *Acta Astronautica* by neuropsychologists Gabriel de la Torre and Manuel García from the University of Cádiz.

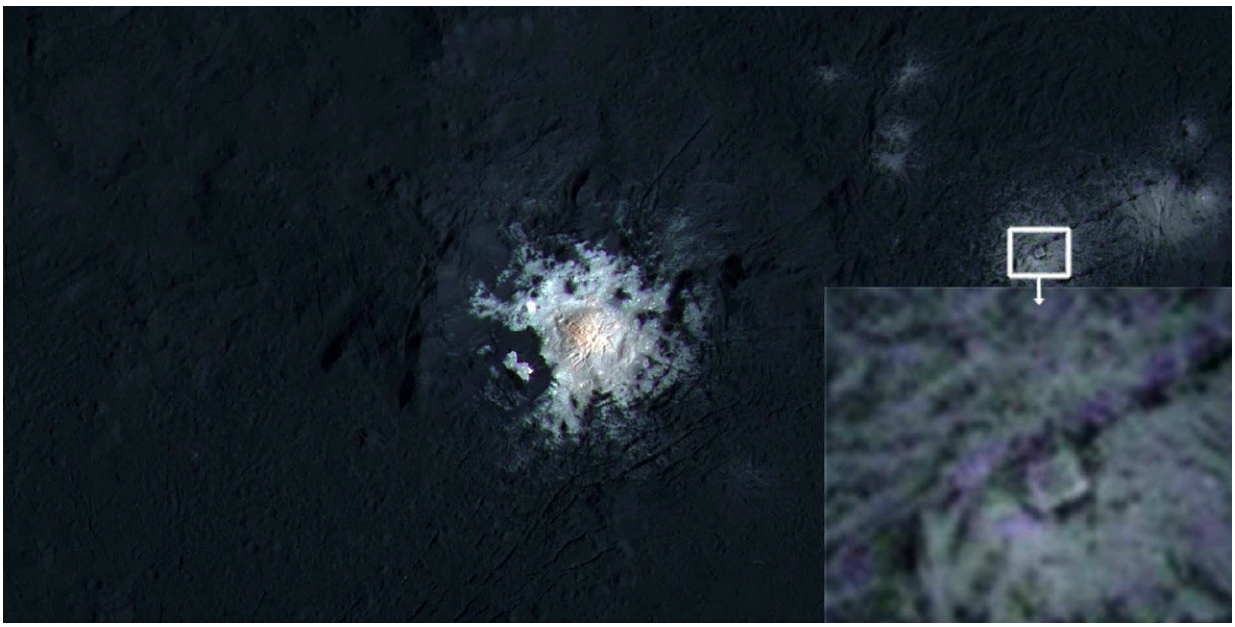
"When we think of other intelligent beings, we tend to see them from our perceptive and conscience sieve; however, we are limited by our sui generis vision of the world, and it's hard for us to admit it," says De la Torre. "What we are trying to do with this differentiation is to contemplate other possibilities—for example, beings of dimensions that our minds cannot grasp; or intelligences based on dark matter or energy, which make up almost 95 percent of the universe and which we are only beginning to glimpse. There is even the possibility that other universes exist, as the texts of Stephen Hawking and other scientists indicate."

The authors say that our own neurophysiology, psychology and consciousness can play an important role in the search for non-terrestrial civilizations, an aspect that they consider has been neglected until now. They conducted an experiment with 137 people who had to distinguish aerial photographs with artificial structures (buildings, roads) from photos with natural elements (mountains, rivers). In one of the images, the researchers inserted a character disguised as a gorilla to see if the participants noticed.

This test was inspired by the one carried out by the famous 1990s study

by researchers Christopher Chabris and Daniel Simons, who demonstrated the phenomenon of inattention blindness. A person in a gorilla costume could pass unnoticed in front of a scene gesticulating while the observers were busy counting the ball passes of players in white shirts. Half of subjects failed to notice the man in the costume.

"It is very striking, but very significant and representative of how our brain works," says De la Torre, who explains that the results were similar in the case of his experiment with the images. "In addition, our surprise was greater, since before doing the test to see the inattentional blindness, we assessed the participants with a series of questions to determine their cognitive style—whether they were more intuitive or rational—and it turned out that the intuitive individuals identified the gorilla in our photo more often than those more rational and methodical subjects."



Inside the Occator crater of the dwarf planet Ceres appears a strange structure, looking like a square inside a triangle. Credit: NASA / JPL-Caltech

"If we transfer this to the problem of searching for other non-terrestrial intelligences, the question arises about whether our current strategy may result in failing to perceive the gorilla," says the researcher. "Our traditional conception of space is limited by our brain, and we may have the signs above and be unable to see them. Maybe we're not looking in the right direction."

Another example presented in the article is an apparent geometric structure that can be seen in the images of Occator, a crater of the dwarf planet Ceres famous for its bright spots. "Our structured mind tells us that this structure looks like a triangle with a square inside, something that theoretically is not possible in Ceres," says De la Torre. "But we are seeing things where there are none, a phenomenon in psychology called pareidolia."

However, the neuropsychologist points out another possibility: "The opposite could also be true. We can have the signal in front of us and not perceive it or be unable to identify it. If this happened, it would be an example of the cosmic gorilla effect. In fact, it could have happened in the past, or it could be happening right now."

Three types of intelligent civilizations

In their study, the authors also discuss different possible classes of intelligent civilizations. They present a classification with three types based on five factors: biology, longevity, psychosocial aspects, technological progress and distribution in space.

An example of a Type 1 civilizations is our own, which could be ephemeral if it mishandles technology or planetary resources, or if it fails to survive a cataclysm. But it could eventually evolve into a Type 2 civilization, characterized by the longevity of its members, who control quantum and gravitational energy, manage space-time and are able to

explore galaxies.

"We were well aware that the existing classifications are too simplistic and are generally only based on the energy aspect. The fact that we use radio signals does not necessarily mean that other civilizations also use them, or that the use of energy resources and their dependence are the same as ours," the researchers point out, recalling the theoretical nature of their proposals.

The third type of intelligent civilization, the most advanced, would comprise exotic beings with an eternal life, capable of creating in multidimensional and multiverse spaces, and with an absolute dominion of dark energy and matter.

More information: Gabriel G. De la Torre et al. The cosmic gorilla effect or the problem of undetected non terrestrial intelligent signals, *Acta Astronautica* (2018). DOI: 10.1016/j.actaastro.2018.02.036

Provided by Spanish Foundation for Science and Technology (FECYT)