

## Inference to the best explanation handout

One morning you enter the kitchen to find a plate and cup on the table, with breadcrumbs and a pat of butter on it, and surrounded by a jar of jam, a pack of sugar, and an empty carton of milk. You conclude that one of your housemates got up at night to make him- or herself a midnight snack and was too tired to clear the table. This, you think, best explains the scene you are facing. To be sure, it might be that someone burgled the house and took the time to have a bite while on the job, or a housemate might have arranged the things on the table without having a midnight snack but just to make you believe that someone had a midnight snack. But these hypotheses strike you as providing much more contrived explanations of the data than the one to which you have inferred.

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A YouTube user has announced that he has proof that NASA is attempting to cover up evidence of alien spacecrafts after he found what he claims is a “UFO hovering near the sun.” According to the YouTube user, NASA is covering up evidence of aliens because the agency’s spacecraft that monitors the sun suddenly went offline after he directed public attention to a UFO in the agency’s video feed.

*Daily Mail* reported that on May 5 YouTube user rob19791 posted a YouTube video showing a mysterious object hovering very close to the sun. According to *Digital Journal*, NASA’s Solar Heliospheric Observatory captured the image that looked like a spacecraft. UFO enthusiasts proclaimed the photo proof of an alien spacecraft equipped with technology that can withstand the sun’s heat. A blogger described the alleged alien spacecraft as a “metallic, jointed spaceship with a gigantic extension, perhaps a boom arm, anchored off its lower end.” UFO seekers freely speculated that the alien craft parked near the sun was probably harvesting solar energy.

But *Digital Journal* reported that scientists at the Naval Research Laboratory said the image is probably a collection of streaks created by cosmic rays impacting the camera’s CCD sensor. Nathan Rich, of the NRL’s solar physics branch, explained, “The streaks in question are consistent with energetic particle (proton) impacts on the CCD, something which is apparent in just about every image. These artifacts do not persist from image to image.”

But according to rob19791—who is accusing NASA of a cover-up—one day after UFO forums picked the message that a UFO was hovering close to the sun, NASA shut down the video feed claiming that it had gone into “emergency sun reacquisition mode.”

YouTube user rob19791 has issued a protest in response, saying: “This is a cover up to prevent us from seeing these things again. NASA must have seen this video and started making plans to change the way you and I are allowed to view it.” He added: “I think this is proof that NASA are covering this up. NASA are clearly trying to stop us looking at the sun.”

(1) from Douven, "Abduction," *The Stanford Encyclopedia of Philosophy*.

(2) from Didymus, J.T. (May 11, 2012). "YouTube user claims proof NASA is concealing evidence of aliens." *Digital Journal* (<http://www.digitaljournal.com/article/324689>).

**P<sub>1</sub>, d<sub>1</sub>**, NASA's Solar Heliospheric Observatory has an image containing something object-like close to the sun.

**P<sub>2</sub>, h<sub>1</sub>**, The image shows an alien spaceship close to the sun, which may be harvesting solar energy.

**P<sub>3</sub>, h<sub>2</sub>**, The object-like thing in the image is an effect created by protons impacting the camera's CCD sensor.

**C**, Therefore, the object-like thing in the image is an effect created by protons impacting the camera's CCD sensor.

The second hypothesis is preferable for at least a couple of reasons. One, we are weighing the word of NASA against the word of an unknown YouTube user, and presumably NASA is more trustworthy and better informed about the relevant science. Two, it is unlikely that an alien spacecraft could (and would) travel into our solar system, have the technology to get very close to our sun, but (a) only be detected by one video feed from NASA's Solar Heliospheric Observatory and (b) not want to make any contact with earth.

Third, if part of the support for the first hypothesis comes from NASA's alleged cover-up, then we can also note that such a cover-up seems unlikely insofar as it would mean that (1) NASA did not detect the spacecraft on its own and (2) NASA is monitoring UFO forums and acting in response to what is posted on those forums.

In addition to the above argument, this is also an inference to the best explanation.

**P<sub>1</sub>, d<sub>1</sub>**, The image showing something object-like close to the sun was taken, and then "NASA shut down the video feed claiming that it had gone into 'emergency sun reacquisition mode.'"

**P<sub>2</sub>, h<sub>1</sub>**, NASA is covering up the existence of an alien spacecraft that is or was near our sun.

**P<sub>3</sub>, h<sub>2</sub>**, NASA is not covering anything up, and the video feed was shut down because of an ordinary technical failure.

**C**, Therefore, NASA is not covering anything up, and the video feed was shut down because of an ordinary technical failure.