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UFO UpDates Mailing List

Re: Occam's Razor and UFOs

From: Mendoza <101653.2205@compuserve.com> [Peter Brookesmith]
Date: Mon, 8 Jun 1998 00:06:27 -0400
Fwd Date: Mon, 08 Jun 1998 09:06:22 -0400
Subject: Re: Occam's Razor and UFOs

With the compliments of the Duke of Mendoza:

>From: "Greg Sandow" <gsandow@prodigy.net>
>To: "'UFO UpDates - Toronto'" <updates@globalserve.net>
>Subject: Occam's Razor and UFOs
>Date: Fri, 5 Jun 1998 10:24:55 -0400

It's no great secret that I am deeply fond of the principle enunciated by William of Occam that explanations (of anything) should rely on as few presumptions as possible. He put it slightly differently and more briefly: Entia non sunt multiplicanda. Occam clearly relished the way Latin encourages epigrams. Thinking in a language that can engage in economy as pithy as "Bonus imperator, nisi imperasset" may even have driven William toward his conclusion. Such speculation about the cultural roots of ways of seeing is not entirely without value. (He said ambiguously.)

Greg's post slightly misrepresented what I think Occam's razor can do for - or to - ufology, although that may well be my fault for not expressing my thinking more clearly on previous occasions. Rather more to the purpose, I think he caricatures the application of Occam's Razor to the case he quotes - the discovery that neutrinos have mass. And this caricature leads him into misunderstanding the significance of the discovery, and after that there occurs a little bit of a shambles. Let me first clarify what I think about Occam's Razor & ufology, then go on to the wider issue - that is, saving the best, as Mama always told me to, till last.

Greg wrote:

>Well, skeptics like to invoke Occam's Razor as one of
>their many reasons for concluding that all UFO sightings
>have -- or probably have -- conventional explanations.
Peter Brookesmith has made that argument here; my very
>smart composer friend Scott Johnson suggested it in a
>conversation we had not long ago. In effect, they're
>saying: "Here we have all these reports of strange lights,
>metallic disks, you name it. Which is more likely, that
>they're all misinterpretations of known phenomena (or of
>course lies), or that they're ET visitors? Occam's Razor
>forces us to assume the former."

Occam *forces* one to do no such thing (as Greg went on to say). He simply reminds us that, in considering "all these reports", we will present what mathematicians call a more elegant solution to the problem as presented, by

preferring the solution that depends upon fewer "givens" in the theorem. (I assume you did read your Euclid in the upper third/first form/sixth grade at school.) There is no question - you only have to count - that concluding UFO reports are reports of ET visitors requires many more "givens" than concluding they do not.

Let's assume for the sake of this argument that both the ETHers and the non-ETHers agree in a particular case on the following: the witnesses are truthful, accurate in their reporting and judgements, and that what they saw was a real "something". (I doubt many real cases get as far as that, but so what.) That something seems to defy explanation.

The non-ETHers - in this case - say: Sorry, can't explain it, but perhaps it was an aircraft on an illegal or unfiled flight path. The ETHers say: Can't explain it, so it must have been an alien spacecraft. The non-ETHers have no particular reason for offering their suggestion - let's say the sighting was near no national borders, military bases, cities with high immigrant populations, etc. But they *do* know (a) that aircraft exist (b) that aircraft do fly when and where they should not and (c) that under certain conditions aircraft can look very weird indeed. The suggested solution is just that: a provisional notion.

The ETHers, however, have to assume that the Green Bank so-Equation's probability can be shown to amount to 1 to make their solution work. That alone adds the seven hypotheses involved in the equation - and presumes they have been proven or solved - to the list. There are further factors that Frank Drake did not take into account, possibly because neither he nor any of his colleagues was a literary critic or a librarian or an historian or an anthropologist, but that demand consideration, too. Never mind; we are short of space; the point is already made. We don't know the answers to Drake's questions, whereas we do know that items (a), (b), and (c) above are true.

I do not conclude that UFOs are one thing or another as a consequence of applying Occam's Razor. Whatever I conclude, Occam does not force me there. I do however *prefer* any suggested solution, to any problem (whatever it may be in a particular case), that entails the fewest entities. All solutions in science are provisional - I assume you read your Popper in sixth form or freshman year - and they are even more provisional in fields - such as literary criticism - where experiment, repeatability, falsifiability &c &c &c are either not possible or exceedingly difficult. (Consider meteorology....)

The non-ETH solution or suggested solution to a UFO sighting will remain more elegant than the ETH-oriented one (or any that involve time travel, inter- or ultra-dimensional intrusions, or what have you) until it is known for sure that ETI, or IDI, or UTI, or King Ubu, actually exist. This doesn't mean the ETH is a load of codswallop or that every LITS is the planet Venus. It simply means that the ETH is, er, the weaker vessel, and until it gets some guts to its assumptions and presumptions, I'll leave it to one side and *prefer*, in this strictly intellectual sense - nothing to do with "what I like" - the prosaic alternatives. Even something as speculative as an "earthlight" - whatever that may or may not turn out to be or mean - is preferable to the ETH and its more nefarious relations, because it deals in things we know about and can test.

Which reminds me. As it's not pertinent to Occam's Razor I won't address the other essential difficulty with the ETH, its unfalsifiability, here, but it's a hare that's difficult to resist starting.

So that's What I Think. Greg continues:

>If it did [i.e if Occam's Razor forced us to think in a
>certain way], today's New York Times headline would be
>impossible. It would have to read: "Japanese-American
>Scientific Team Says Neutrino Has Mass; Scientific
>Community Rejects Findings, Saying Occam's Razor Makes
>Them Unlikely."

This is a red herring and a straw man. It reminds me of the Grand Fromage des OVNI's (not as far as I know a subscriber to this list) who remarked to me not long ago that left to the Razorites astronomy would have rejected Copernicus (or words to that effect).

But first, let me say, neutrinos had not previously been cast in mass-free concrete. Their mass was an open question, though it was regarded as certainly exceedingly titchy and *possibly* non-existent. (Scientists can tolerate ambiguity.) Greg's was the first news I'd had of this discovery. My first thought was not of ufology's righteousness, but: "There goes 'dark matter'." Obviously, if neutrinos have mass, the problem of "missing mass" (aka dark matter) in the Universe at large becomes rather less difficult. It was gratifying to read a day or so later when I had time to scan the public prints that cosmologists had reached the same conclusion. Self-congratulation is a forgivable vice occasionally but a deeply irritating one always, and my point here really is that Occam's Razor is a double-edged tool, unlike the flashy things some people carry one to a side in their weskit pockets.

Greg's mythical Occamist scientists would not reject the finding that neutrinos have mass - provided the alternatives had been thoroughly tested, and provided the work was repeatable and testable - on Occamist grounds, because massy neutrinos simplify the explanations (provide fewer entities to account for) for *other* things they know exist and occur but find problematic.

As it happens, Copernicus provides a very fine example of this process, and it's easier to understand than the twilight world of neutrinos, which hover between relativistic and quantum interpretations of physics, and cause all kinds of eyes to cross.

By proposing that the Earth was a planet circling a star, and not the center of the Universe, Copernicus provided an elegant explanation for why Venus & Mercury seemed to wander only a little across the sky (they were nearer the Sun), and why other planets seemed to behave rather strangely (they were further away) and in ways that the Ptolemaic system required many complications to explain. Copernicus also explained the precession of the equinoxes by proposing that the Earth's axis was tilted in relation to the plane of its orbit around the Sun. Taken together, these two ideas also accounted for the apparent motion of fixed stars across the sky. He didn't get everything right: he assumed the planets were in circular, not elliptical, orbits around the Sun, which called for all kinds of non-Occamist assumptions, but it was a damn' fine crack of the whip and the monk William would have been proud of him.

The real resistance to Copernicus came not from scientists who didn't understand Occam, but from the Roman Catholic Church, which had its own species of the ETH to promote, and kept Copernicus' work on its index of forbidden books from 1616 until 1835.

Greg comments on the injustice, as it seems, of the conservatism of science, by way of research on brain cells. Michael Polanyi has some interesting things to say about this (he suffered in a like manner, but didn't resent it) in "Knowing and Being". Scientists are necessarily cautious. [E-mail me off-list & I'll send you this stuff if you cannot get it, Greg.] It's a separate discussion really, one not involving Occam in my opinion (let alone "taking Occam's Razor too far"), but the nature of what Polanyi calls the "republic of science". There is no room in that world for a Pierre Boulez or an old fraud like Stravinsky (the Picasso of sound).

Finally (really!) just in case anyone thinks I think all problems of a vaguely scientific nature can be guided by the good William, here's a case in which he's no help. Anyone who's been around horses a bit has seen how foals and younger horses "mouth" at their elders as a sign of... respect (if you want to be anthropomorphic) or submission, or at least of inoffensiveness. One interpretation is that the young equine is mimicking eating grass, saying in sign

language: "My mouth's full, I'm a herbivore, no way would I or could I attack you." Another interpretation says this gesture is an offer to groom the older horse (engage in mutual and pleasurable nipping and nibbling - horses do this to people they trust, too, and if you don't understand it, it can be slightly unnerving). Both explanations seem to me to be equally simple and equally elegant, and equally plausible. For all I know both are true, tho' that would not be consistent with the strictest neo-Darwinism. But Occam doesn't help me, anyway, to make a choice of interpretation.

I hope this post approaches the spirit of enquiry that I think I detect in Greg's original. That isn't to say I disagree with Rob Irving (I rarely do, and I don't share Greg's apparent bemusement at Rob's comments). It's just an expression of optimism that Greg & I are disagreeing, here and there, but within the same language, or idiom. There has been a lot of waffle on this thread.

best wishes
Palestrina D. Moussorgsky
Modish Exhibition

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