



Is anyone out there?

There has long been interest in the question whether we are alone in the universe or whether there is life, intelligent or not, anywhere other than on our planet. The Starship Enterprise's expeditions "to boldly go" and find other species and ET's visit to Earth are among many

contemporary media examples, but there are earlier well-known novels by H G Wells and Jules Verne, and ideas about extra-terrestrial life have been discussed for many centuries, stretching back at least to the time of Greek philosophers hundreds of years BC.

The modern scientific Search for Extra-Terrestrial Intelligence (SETI) began about 60 years ago and is largely based on looking for evidence of life on other planets and for possible attempts at communication by alien beings. It is costly and laborious, with no certainty of ever achieving any positive results, and has generated much more interest from the general public than from those who are called on to fund it. Not all SETI interest is science-based, of course; one famous physicist said that reports of UFOs are more a result of human non-intelligence than non-human intelligence!



Organic carbon-based life has rather strict requirements for its environment, especially regarding the atmosphere and temperature range of liquid water, and a planet capable of supporting life has to orbit its sun in a so-called "habitable zone" (or Goldilocks zone – "just right"). Until quite recently little was known about planets – even whether they existed – beyond our own solar system, but it is now reckoned, from increasingly sensitive scientific



observations, that planets are actually rather abundant in our galaxy (and presumably in others), and growing numbers are being detected that could, in principle, fulfil the necessary conditions for life. Some physicists and astronomers think, on this basis, that there are probably many, many potential places in the universe that could harbour life, so it's likely to be out there somewhere.

The trouble with this argument is that the probability of finding life elsewhere, in purely statistical terms, depends on two important factors multiplied together: the number of possible life-bearing planets, and the probability of life existing and developing on any one planet. The first of these may be huge, but the second, according to our understanding of the appearance and history of life on earth, is extremely tiny. Because of this, in contrast to the optimistic physicists, the general view of biologists is that extra-terrestrial life is unlikely. The result of multiplying a huge number by a tiny one, both of them very vague, is quite unknown. So the SETI people just keep on looking, and the film-makers continue to exercise their fantasy and imagination about "life, but not as we know it", unrestricted by the

problem of the vast distances involved and the consequent hugely long times required for conventional travel and even for communication.

What if we do ever find intelligent life elsewhere? It raises questions that are not only scientific, but also sociological, political, moral and religious. It is interesting that, according to surveys, the majority of people with no religious faith think that it would cause a crisis for world religions, while the vast majority of believers see no threat. We would all, undoubtedly, suffer a severe culture shock!



One of the biggest questions to arise from all this is what it really means to be human. The same question crops up out of other modern scientific pursuits, especially in psychology and in neuroscience, investigating the relationship between mind and brain. It is temptingly simple in these areas, as elsewhere in science, to move from an observed connection to an



assumption of explanation and to use words like “only” and “nothing but”. We’ve previously looked at issues and concerns raised by Artificial Intelligence (AI), and these include the same question of the nature of true humanity.

Announcing a recent award of £150million to Oxford University for research that will include exploring the ethics of AI, the donor Stephen Schwarzman said it was “important for people to remember what being human is”.

Part of the Christian answer to the question comes from the Biblical description “made in the image of God”. This has many applications; here they include characteristics of rationality, intelligence, creativity, morality, relationship, and responsibility. Many of the problems we face today come from a failure to respect and achieve these characteristics, falling short of true humanity, marring the image of God. Would we treat extra-terrestrial forms of life, whatever they may be, as badly as we do other life already known to us including other members of our own species? Sadly, experience suggests we would.

A 1989 Calvin and Hobbes cartoon said “Sometimes I think the surest sign that intelligent life exists elsewhere in the Universe is that none of it has tried to contact us”. What is intelligence anyway? The Bible prizes another God-given quality more highly: wisdom. We could do with more of it in our crazy world!

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