



How do they think?
The likely psychology of extraterrestrial intelligence

Part 2: It's the Great Hurdle, not the Great Filter

The Fermi Paradox asks the question “Where is everybody?” If such a huge number of exoplanets exists, including many within a habitable zone, both in our galaxy and beyond, then where are the visiting extraterrestrials? In an attempt to answer this, many possible explanations have been suggested in the past 70 years since physicist Enrico Fermi asked the question.

The most cautious suggestion is that life exists only on planet Earth and nowhere else in the galaxy or universe. Yes, this is a serious explanation - although one that we find hard to swallow. Or, if life isn't exclusively found here, then it is very, very, very rare in the universe - whether just having reached the microbial level or at an evolved stage of intelligent beings. Alternatively, if life did once exist in greater frequency, then it has since died out - after all it's dangerous “out there” (remember the dinosaurs?). Or, if life gets that far, perhaps ETIs annihilate themselves by becoming too technologically clever but not wise enough to avert global disaster? Whereas none of these possibilities can be excluded without evidence to the contrary - and, in the Part 3 essay, we'll see that there perhaps is now such evidence - they all reflect an intellectually-smart-but-overly-cautious defensive psychology that's not uncommon in those with academic careers to protect.

Before going further, what does the basic lesson of life on Earth show? There's a simple conclusion that's hard to deny: life keeps surging forward, in countless forms, exploiting all kinds of ecological niches, even in places and under extreme circumstances that were once considered “impossible” for anything living to exist within. We see this, again and again and again, even after mass extinction periods (once more, think dinosaurs).

To bolster the above possible explanations for the Fermi Paradox, a clever idea has been postulated. It's called the Great Filter. It's alleged that at some point - from the early pre-life stage to when ETIs have evolved - there's a barrier that all, or almost all, life fails to get beyond. It gets stuck, or else ceases to be. Of course, this Great Filter concept is just an idea thought up to explain “Where are they?” There's then a burning question: is this Great Filter behind us or still ahead? If it's behind us, then we're super-special; (yes, this supports the suggestion that Earth is more or less unique in hosting life within an otherwise barren universe). But if it's ahead of us, then we're in trouble because annihilation is probably imminent. Whereas all of the detailed thinking that has gone on to expand the possibilities of this Great Filter explanation is undoubtedly intellectually clever, it's probably just wrong. We'll return to this in the third essay.

There's a second group of possible explanations for the Fermi Paradox which all dismiss the notion that we're special or alone in the universe. They assume that there is an abundance of life in the universe, including ETIs, many of which could be far more advanced than human beings. Different suggestions then stem from this starting point. Some argue that our planet has been visited, but way back before recorded history. Others speculate that the Milky Way has been long-since colonised, but we've been ignored because Earth is located on the outskirts of the galaxy. Then there's the idea that a super-scary predatory species exists, deterring too much space exploration.

Yet another suggestion is the Zoo Hypothesis. Advanced ETIs have mutually agreed to observe but not interfere with us because we're still an emerging intelligent species, only semi-civilised. (Think *Star Trek's* Prime Directive.) We might be unaware or incapable of seeing their presence as we're being watched, visited, or whatever - being treated as animals in a planetary national park. A counter-argument to the Zoo Hypothesis is that it would only take one maverick ETI species to disagree with the embargo or Prime Directive, choosing instead to land on the proverbial White House lawn.....and this doesn't seem to have happened. Still others suggest that we've misunderstood the nature of reality and we're part of some complex hologram or simulation. And so on.

A quick word or two about space travel. The Wright brothers made their historic breakthrough in air flight on 17th December 1903, not long ago. Yuri Gagarin was the first person into space on 12th April 1961, again not long ago. Twelve people then walked on the Moon between July 1969 and December 1972. We're beginners. It's commonly believed that space travel will be limited by the speed of light. If this belief is correct, there's still been enough time for ETIs to colonise the galaxy - and I'm resisting the temptation to get into any discussion about the pros, cons, or likelihood of colonisation. However, in the past 25 years or so, physicists have theoretically worked out a couple of ways to bypass any limits for space travel imposed by the speed of light without breaking Einstein's general theory of relativity; we just can't do it technologically, yet. But, again, we're just beginners with a lot more to learn.

Let's get back to the all-important topic of psychology which is so often overlooked, conveniently. (Avoidance is massively underestimated, even though Sigmund Freud did a good job of listing the various forms well over a hundred years ago.) And, here, we're going to cheekily adapt wording from above. Whereas I'm extremely sceptical about the actual existence of the Great Filter, we can be 100% sure that there's a Great Hurdle. It's real - and, furthermore, it's probably extremely relevant to answering the Fermi Paradox.

The Great Hurdle is the task of educationally changing from one psychology to the other: shifting from selfishness to non-selfishness. And this is where millions of believers, dependent upon "faith" and "hope", are going to disagree (or conveniently sidestep the issue by evoking an "afterlife"). Over the past three and a half thousand years or so, there have been many written accounts of people experiencing glimpses of the oneness and greater understanding of non-selfishness in many different cultures. Yet, despite this, the much healthier and vastly more beneficial alternative psychology has never been successfully taught or learnt. Selfishness persists. It's a history of failure.

I know from over 40 years of effort how difficult it is to bring about real and significant change in others. (I've written elsewhere about this, including what happened to me, so I won't repeat it here. See our website <https://www.thehumanpotentialtrust.org/education.html>) And that's having personally benefitted from early training in the scientific method, which probably assisted in my being able to reverse engineer the non-selfish psychology into its exact "nuts and bolts" components - in addition to facing the full harsh reality of how psychological avoidance is a huge obstacle to anyone interested in changing themselves. And, although we know our brains are hard-wired, we also know that neural plasticity allows change provided sufficient effort and practice is applied. I have previously written that bringing about the fundamental shift in psychology from selfishness to non-selfishness for the whole human race is "an almost impossible task". But it can be done.

Exact knowledge is essential, which we have. And we've repeatedly tested it in two difficult areas of practical application (humanitarian aid work and nature conservation) over the past 40 years. It works. But role models are needed, of a sufficiently high standard. I coined "the Roger Bannister effect" term many years ago to help explain this. The experts all said that no human being would ever run a mile in under four minutes. Then, on 6th May 1954, Roger Bannister did the "impossible". John Landy, an Australian, had previously failed in a number of serious attempts; he doubted anyone would run faster in the next ten years. Yet just 46 days after Bannister's famous success, John Landy ran quicker to set a new world record. Several dozen other runners also ran quicker than four minutes in the first year after Roger Bannister had demonstrated it was achievable. Many more did so the following year and the world record was quickly broken again and again. The perception of what was "impossible" and "achievable" was pivotal. After Roger Bannister's breakthrough, the floodgates opened. Our work is currently at this pivotal stage - and any success of achieving a global change through education is still hundreds of years away, or more. This process of change is a conscious evolutionary step forward.

Avoidance doesn't work, but billions of people have been psychologically or sociologically conditioned into believing that it does help. Whereas there's a short-term argument for employing avoidance to minimise emotional pain and disappointment, it's nevertheless counter-productive in the longer term (and that's hugely understating its widespread negative effects). Again, superficially, distractions work - but usually with the major consequence of preventing the individual from being able to make any bigger dream become a reality. The obstacles and minefields cannot be underestimated. The Great Hurdle is a real phenomenon with massive implications for human beings - individually, socially, globally, and evolutionarily.

We have several large troops of baboons at our own Komsberg Wilderness Nature Reserve in South Africa. They're a fascinating species that is gregarious, playful, and inquisitive. But they're also destructive when they visit our homestead and garden. It's one thing watching baboons from a distance, but you wouldn't invite them for lunch or supper. Human beings can be loving, kind and generous, imaginative, clever, adventurous, inventive, and much more. We make music, play sport, appreciate great natural landscapes, write and read great books, produce stirring films, manufacture all kinds of technological items to make life better and easier, and so on. But humans also behave badly. The list is long but includes the hurtfulness of bitching and gossip, bullying, greed, hatred, prejudice, comfort eating and obesity, anorexia and bulimia, depression, self-harm and self-loathing, alcohol abuse and alcoholism, plus drug abuse. There's murder, rape, child abuse, robbery and theft, fraud, kidnapping, arson, drink driving, vandalism, assault, human trafficking, blackmail, domestic violence, etc etc. Plus war, other armed conflicts, overpopulation, habitat destruction, extinction of species, climate change, pollution, absolute poverty, terrorism, cruelty to animals, torture, genocide, and more.

It's not difficult to imagine how we might be viewed by advanced ETIs. They'd have to be as stupid and contradictory as humans to land on the White House lawn or anywhere similar. And how would we respond? Some would react with fear, suspicion, or excessive caution - displacing their own emotional inadequacies. Certain groups might try to convert them to their own religious beliefs or perhaps demonise the visitors. Others might view them as gods. Governments would likely jostle for position, favour, or influence. There would certainly be considerable disruption to financial markets, research and development, and other sectors. Then there'd be the queues of people wanting selfies of themselves standing next to one of the visitors, plus the disappointment and jealousy when some didn't get what they wanted. Do they share knowledge with us to avert disaster and to speed up our development? But, if so, how much? Would this all result in laziness, resentment, misunderstanding, etc?

I strongly suggest that the Zoo Hypothesis has merit. And, to repeat, there may not be an actual Great Filter - nor, indeed, a Fermi Paradox as such. But the Great Hurdle *is* real (although this is the first time I have written using such a term, merely in response to the Great Filter). If I am correct, then the Zoo Hypothesis and the Great Hurdle need to be linked. This takes us to the third and final essay.

Iain Scott, November 2020

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