

Seeking a New Fulcrum

Parapsychology and the Need to Believe in a New Transcendence

D A V I D B R I N

LET ME ADMIT FROM THE START that I have a murky and conflicted relationship with the quaint concept of “psi”.

On the one hand, trained as a physical scientist, I find little to admire about a field that has almost nothing to show after a century and a half of strenuous and diligent effort. Every year, the claims that are made by proponents shrink as our horizons of measurement advance. A field that once purported to find treasures, cure illnesses, convey infinite energy, and speak with the dead now craves marginal evidence for a few statistical anomalies in some randomized card tricks. That’s pretty hard to respect.

On the other hand, I now make my living as a creator of futuristic worlds in literature, film, and other popular media where “what-if?” can be all the justification you need! And despite my reputation as a “hard” science fiction author—known for technically well-grounded extrapolation—I nevertheless have been known to write stories in which characters use telepathy, clairvoyance, telekinesis, and the like. I certainly treat psi with more respect than the silly notion of UFOs! (For more on *that* weird mania, see: <http://www.davidbrin.com/>)

Is it contradictory for me to portray our descendants using methods that I find implausible here and now? Why is it irresistible for a novelist to ponder future eras when people may communicate with each other without words and manipulate objects without tools? For the same reason that generations of true believers invested so much time, money and passion, chasing faint, tantalizing clues and self-deceptions in a fruitless search for manipulative powers of the mind. Because such powers go to the heart of what humans deeply *want!*

Take my own background. Surrounded at an early age by delusionally illogical adults, I recall

first hearing about telepathy and trying desperately to *use* it for months, in a futile attempt to comprehend or get through to the volatile, powerful and unpredictable beings around me. Oh, I don’t relate this anecdote in order to draw sobs; many people had similar experiences, and that’s the point. Most, perhaps all of us, have yearned at times for some shortcut to understanding our fellows. Trapped for an entire life inside one head, just one subjective reality, what human being hasn’t wondered—

“What makes *him* tick?”

“Does she like the things I like?”

“Does he experience the color *red* the same way that I do?”

“How can I persuade others to see the real me?”

Testimony for this yearning can be found in the extraordinary complexity of human language, so vastly more sophisticated than anything needed for simple hunting or gathering. It must have been advantageous for our ancestors who developed superiority in conversation, persuasion, and reciprocal understanding. Much of human progress has involved developing newer and better means of communication. Some invent telephones and internets. Others—especially in the long era before electricity—would take peyote and seek communion via a spirit world. Is that so surprising? Wouldn’t you have done the same thing?

Take another basic human imperative—our incessant drive to alter or control the environment around us. Is it “telekinesis” when we cause physical objects to move and react, far away, with a touch on a keypad or a word spoken over the phone? Of course not. And yet, an eighteenth century cosmopolitan like Descartes might draw no other conclusion, if he witnessed a modern person activating the houselights with a finger’s touch.

If I recall correctly, John Henry Newman claimed that human concepts of causation derive directly or indirectly from the experience of intending to do something physical, then seeing and feeling our body do it. If so, it’s easy to see how we might start hoping to see an intended effect just by *looking* at something—or someone. In fact, now that we spend hours with things like TV remotes and computer mouses, we have a visceral experience of causing effects in remote objects outside our body, without there being a physically obvious mechanical explanation.

Already there are devices that respond to crude aggregate brainwave patterns, in order to activate machines at the command of physically handicapped people. Is it a stretch to imagine more sophisticated versions that will focus on narrowly localized states within the frontal or temporal lobes, responding to specific volitional cues—in other words, *choices*? Might our descendants use such tools routinely, commanding advanced machines to perform intricate tasks simply by wishing it to happen?

If telekinesis and telepathy don't yet exist, they surely *will*, as technology enables us to get more of what we want, more quickly and with less expenditure of our precious attention or effort. (Isn't that what technology is for?) Our great-grandchildren will send messages by thinking them. What's to stop them? They will cause objects to move and the environment to change around them by the efficient means of *wanting* it to happen.

The first few generations will know about the machinery in the walls that executes these desires. Will later generations take it all for granted? Or even forget the machinery is there?

Perhaps parapsychology is something other than its enthusiasts imagine. Not a trail leading back to ancient wisdom, but a *prediction*. More an expression of human desire than an exploration of existing or ancient talents.

Well, that's one perspective. And I certainly do not expect psi enthusiasts to accept it! Because there are other forces than mere wishful thinking at work here—factors motivating some to look away from the future and fixate on the past. Nostalgia. Romanticism. Resentment of scientific authority—while yearning to *become* the authority on something wonderful. Something to compete with a scientific world that some outsiders malign as soulless.

At the lowest level, a hunger for publicity—or profit—can propel garish and often unscrupulous claims. It is a realm rife with charlatans, who make money by persuading others to hand over the contents of their wallets. (True psychics would make it off the stock market or by finding buried treasure, no?)

I'm not saying that all enthusiasts are like this. Many are sincere. A few even want to legitimize the field, to bring parapsychology in from the wilderness and make it part of the scientific process that has brought us so far in just a few hundred years.

Alas, the behavior of a more gaudy ele-

ment drives many scientists to over-react by spurning the entire conceptual realm of direct mental control—even mental control over our own bodies! Professionals who openly admit the necessity of using placebos in drug experiments will, perhaps in the same breath, deny any possibility that the patient's emotional self-image might directly affect the course of disease! It's an excessively narrowminded reaction that does them—and science—no credit.

Let me shift gears and talk briefly about the *Continuity Expression*. It's a simple trick of geometry and physics that we learned about early as undergrads at Caltech. You draw a box in space, perhaps containing some matter. To keep things interesting, let's say that the material is in motion, a fluid or gas. Maybe a river. Or light flowing from the sun.

First carefully measure what's inside the box. Also, keep an accurate accounting of anything that crosses all six faces of the box, entering or leaving through the boundary. Assuming that nothing is created or destroyed, the resulting expression must balance. If a net *outward* flow is seen, the total amount of stuff remaining inside should decrease by exactly the amount that departed. It's a simple, rather obvious concept that enables us to derive everything from gas dynamics to the transfer of photons in the solar interior. The Continuity Expression has been essential to developing an understanding of particle physics within the blazing targets of high-energy accelerators.

Now add in the notion of *information* in the formal sense, as both a thermodynamic and a mathematical property. Some physicists get all spooky about information, especially down at the level of the quantum. But on one thing they agree. It takes *energy* to convey information from one patch of space to another. And most of them feel that information must obey relativity—the speed of light limit. In fact, information is nearly always carried, across any appreciable distance, by some form of electromagnetic radiation. Combine these two notions and you quickly see another reason why scientists have trouble with parapsychology. Telepathy and other psi phenomena appear to involve transfers of information from one person or place to another. One individual's brain state gets partially transposed to another brain, far away. And so on. Neurons fire that might not otherwise have fired, as the recipient thinks some new thoughts that

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weren't generated from within or by normal sensory input. Something *entered* the second brain to stimulate these changes.

But what entered? If we carefully eliminate all the mundane stimuli of radio, sound, light, smell, what's left? Mystics claim *unknown channels beyond the ken of science*, but the Continuity Expression lets you check for unknown channels, indirectly! By measuring even minute changes within a given volume that cannot be explained in normal ways. It's how x-rays and radioactivity were discovered.

You want openmindedness? Physicists *have* looked for other, unknown channels. They've looked *hard*, with the incentive of a Nobel for anyone who finds one! The Continuity Expression lets them trawl for clues either *within* a box or crossing the *boundaries*. If it's strong enough to affect neurons in a systematic way, don't you think they would have found it by now?

Oh, that won't set back the enthusiasm of a true believer. For example, many still hold faith in the old mind-matter dualism of Descartes. Neurons react *to* the mind, not vice versa. And the mind operates on a plane of its own.

Sound silly and old-fashioned? I agree, sort of. And yet the contrarian in me has an answer. If you stretch your imagination, there could be some support for the dualist view!

Picture some future time when thinking beings occupy simulated software realms within some vast cybernetic space. Realms that emulate reality with fine attention to every detail. We don't yet know how far simulation can be extended, or whether there are inherent limits. Some very smart people believe there aren't, in which case there's no guarantee that *you*, reading this paragraph right now, aren't living in such a simulation.

What is reality? It's an old sophomoric conundrum, one that only gets more irritatingly relevant as time goes on. I fear it may become *the* cliché of the next century. Get used to it.

In a software world, brain-body dualism might easily be true! So could "hidden channels," especially if some denizens of the simulation occasionally gain access to bits of lower-level language code.

Again, we can't disprove any of this—and if it ain't true now, it could plausibly *become* true, tomorrow.

Want another reason for the ongoing fascination with psi? For some people it may have to

do with the disappointing state of our *fulcrums*.

A fulcrum is a pivot that enables a lever to work. Archimedes said, "Give me a fulcrum, a lever that is long enough, and a place to stand, I will move the world."

Today, even while trying to solve pressing contemporary problems, some of us also pause and dream even bigger dreams than Archimedes had. To visit faraway stars. To terraform planets. To commune with whales or aliens. To acquire infinite supplies of energy, resources, and an unlimited lifespan.

Back in the middle of the 20th century—a time of wretched despair on many levels—some of these dreams actually seemed within grasp. Proponents of atomic power claimed their *fulcrum* would eliminate poverty, reshape the City of Tomorrow and blast huge, Orion-Class spacecraft—bearing whole colonies—to Mars. Even Einstein's speed limit still had a provisional quality, sounding more like an advisory notice than The Law.

Today, physics still seems exciting in abstract. Finding the Higgs Boson is neat, all right. Black holes in the center of the galaxy? Terrific. I just love pictures from the Hubble Space Telescope and salivate over the idea of orbiting interferometers.

But none of those things offer any obvious new fulcrum—no apparent way to vastly expand the range of cool things we can *do!* Most of the assertive spirit of derring-do has already moved on to biology, a field that seems rife with new ways to alter human reality, both for good and ill. But 21st century biology is so large-scale, so expensive and massively *corporate*, that its new fulcra appear to come at the price of sacrificing all individualism or romance.

Wouldn't it be nice to have a shortcut? A way around all the committees and buildings and laboratories and budgets and accountability structures of Big Scale Science? How about a *personal-scale fulcrum*, that anybody with the right talents or connections might cobble together—or even create out of sheer will power, using the almost-infinite power of desire?

Oh, yes. I understand the wish. The need. The reason why science doesn't always satisfy. Sometimes mere pictures from space just don't seem enough. It would be thrilling to learn that some cheap and easy route had been found, to evade the prim rules of Einstein, Boltzmann and the daunting problem of cosmic scale.

Hey, where do I sign up?

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Oh, I could go on and on. There are so many implications of telepathy alone, not to mention all the other purported psychic marvels. Is it any wonder that I toy with them, now and then, in works of fiction? Even while I cast a skeptical eye toward them, in my other role as a licensed Doctor of Natural Philosophy?

In fact, I confess sharing some of my colleagues' hostility—at a mild level—toward the whole notion of parapsychology. Not because I think it's a Great Big Threat To Rational Thinking or that a few crackpot dreamers will bring the house of science crashing down. (What panicky silliness!) But for another reason altogether. When you get right down to it, I dislike psi because *I don't think it's anything real grownups should be bothering with, right now*. Even if the next wave of super-cautious parapsychology experiments does manage to replicate some statistical anomalies in a card trick, or reproduce vague drawings at a distance, or even find a treasure or two, I cannot respect a field that tries to resurrect the *elitism of magic*. The belief that some special sub-race of beings living among us has inherent powers that raises them high above the common herd—not just in the quantitative way that genius and hard work can lift you, but in the profoundly qualitative sort of way that a speaking man stands apart from a mute chimpanzee.

That is what the romantic impulse has always boiled down to, folks, ever since way back when Byron and Shelley rejected the egalitarianism of the Enlightenment. One branch of this tradition leads through Wagner's *Ring Cycle* directly to the mystics of the Nazi SS, extolling their vision of a master race. Another branch passes through the *Lord of the Rings* to the delusional transcendentalists of the suicidal Heaven's Gate cult. Altogether too much of the so-called New Age has a nauseatingly similar agenda—to flatter believers that they are special, loftier than others, because of some quality deep within that a very few possess.

Not something learned or earned or created through hard cooperative work, but a trait of specialness that smolders within, waiting for the right incantation to ignite it in full glory—or full fury.

Didn't we have enough of that during all the thousands of years that romanticism ruled the *zeitgeist* of every human culture? Doesn't that appalling history—in dismal, ignorant, hierarchical societies—tell us something important? History warns that romanticism, for all its obvi-

ous *artistic* appeal, can be utterly poisonous when it infects a society's political structure, or the halls where earnest people study the hard difference between *true* and *false*.

Romanticism does have a place. The music is great! And it can pack a wallop in a story. But when it comes to real life, science and the other fruits of the Enlightenment offer a much better way.

Oh but the temptation is so great! The sheer egotistical roar of romance can be alluring. Each of us, trapped forever in a single subjective theater, wants to believe we're special, the hero of the story. Some get to find a sense of importance from doing useful work. Many are lucky enough to participate in the adventure of science, or some other endeavor that contributes to a new kind of mature, shared adventure. Others can only yearn for something to raise them up out of the herd. Out of mundanity, to a realm of genuine specialness. Intervention by a power from the outside—or a power from within. What's the difference? Either way, the fantasy offers hope.

Parapsychology boils down to a whole bunch of metaphors. (Doesn't everything?)

To an angry or frustrated romantic, psi can seem a means of transcending dreary everyday life, leaving the mundane neighbors behind.

To those focused on the future, it suggests cool powers that our children may take for granted, mediated by loyal machines. Powers that will *democratize* and elevate everybody.

To those focused on the past, psi is yet another auspicious magic, a way of returning to Ancient Wisdom, snubbing the prim, or evading the bookkeeping tyranny of the Continuity Expression, and its coldly dispassionate ilk.

To a frightened little boy, and countless others like him, psi seemed to offer a way to communicate and understand. A way that failed.

On the other hand, to a science fiction author, psi can offer a neat way out of some awful chapter, when you've written the hero into a jam and there seems to be no other...

Well, never mind that last bit. In fact, forget I ever mentioned it. After all, we do love our charlatans and their tricks, don't we? Ahem.

Maybe that's the biggest reason why some myths keep on breathing, with a life all their own. You just can't bear to let them go.

So just ignore that man behind the curtain, pulling all the levers...

...and pay heed, instead, to the Great and Powerful Oz....t

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