

Appreciating Imagination

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I can't imagine a domain of human endeavour that isn't impacted by the imagination. I mean, teasing the imagination apart from the talking monkey is not an easy thing to do. Imagining ourselves without imagination is itself a paradox. And yet, what is it? And why is it? If you take the view that biology does nothing in vain and evolutionary economics are incredibly spare, then why have this faculty that allows one to command and manipulate realities which do not exist? That's, to my mind, the basic function of the imagination. Some people might argue and say, "The imagination is the coordination of mundane data," in other words, "If I work this hard and earn this much money, can I afford that car?" To my mind, this is not putting great pressure on the human imagination.

The human imagination as I suppose it is almost an extension of the visual faculty. Imagination is something that one beholds, something that takes place; people speak of castles in the air, or something like that. One idea that is worth entertaining, because it is entertaining, not necessarily because it's the truth, is that the imagination is a kind of window onto realities not present. In other words, it's very clear from an evolutionary point of view that our body and our sensory receptors are organized in such a way as to protect us: to warn of danger, to give you the muscles to respond to that danger when it comes. The imagination doesn't seem to work like that. If the imagination runs riot in the dimension of the mundane, it's paranoia. If you believe that every cop on the corner is looking at you, every chance-heard comment is about you, the imagination is in that situation pathological. It is taking the raw data of experience and giving it a maladaptive spin.

So, then where is the imagination appropriate? It seems that it is most appropriate in the domain of human creativity, that in fact what separates art from imagination is simply the exercise of separating cause from effect. Art, sculpture, poetry, painting, dance are like the footprint of where the imagination has been. The abstract expressionists, Pollock particularly, always insisted that a painting is not what the process is about: the process is about making a Pollock, being Pollock, the act of creation. What the rest of us are then left

with is a husk, a tracing, something left behind which says, "Imagination was here, imagination acted in this place," and this is what it left.

I've spent a lot of time talking to people and thinking about the origins of consciousness, and in one sense asking the question, "What is the imagination?" is a different way of asking the question, "What is the origin of consciousness?" As some of you know to distraction, I believe that psilocybin mushrooms played a role in kickstarting human evolution. I don't want to repeat all that here, it's been stated many times, but what I want to point out is that we can see in nature the declension from the full-blown human imaginative capacity back into the organization of the animal mind. We can see the stages through which this must have unfolded.

The interesting animals to look at in all of this are the top carnivores. This is not PC in a vegan environment, but thought just has to lead you wherever it leads you. It's very clear to me that top carnivores coordinate data in the environment very judiciously. Cows have very little to say about grass, but hunting cats have a great deal to say about their diet, because a successful top carnivore must, in a certain sense, think like its prey. So at the very point of emergence of these coordination strategies held in the mind there's a paradox: the earliest consciousness is consciousness which apes other-consciousness. In other words, the top carnivore that is most successful is the carnivore that can think most like a weasel, or a groundhog or a rabbit, because the ability to think like the prey gives you a leg up on the prey. If you've ever seen, not domestic cats, but small jungle hunting cats or jaguars or something like that, in the sudden presence of a chicken a hundred feet away they fall into a fit of imagining because they can almost taste it, and they fall into a strategic mode that is clearly an intense state of imagining that is triggered by the presence of the prey.

What is interesting about human beings is that we went one step beyond that, we acquired the ability to strategically suppose, not in the presence of the stimulus, but in fact back in the cave around the fire with our bellies full, telling tall tales. It's interesting that the imagination is the land of "what if." "What if" is almost like a statement in a computer language, "if" is a Boolean operator. "If" breaks the flow of reality into two possibilities, "If A or B," or more. This ability to contemplate worlds which are only *in potentia* is the basis of the imagination. I would submit to you, since we are all sitting here in monkey bodies, that it's pretty clear that the stimulus for all this if-thinking comes in two forms: food and sex. In other words, when we think about what we are going to eat, we construct our behavior along an "if" tree. "If" I go to the water hole, "if" I take my sharpened arrows, "if" I lie in wait, "if" the Gods favor me, I will bring down dinner.

The sexual game is played the same way: "if" I approach the desirable female with the correct offerings, "if" her mood is correct, "if" my gifts are found pleasing, then some wonderful thing will follow from all of this. Animals don't think like this. They may think, but they don't think like this; it seems to be a unique human ability that probably has to do with many different factors. For example, we became the top carnivore on the planet, but who

would have placed their bet on a monkey to be the top carnivore on the planet when there were saber-toothed cats walking around that weighed 1,100 pounds? How were we able to insinuate ourselves into a more powerful position than these enormously powerful animals that we once shared the earth with, and that in fact we hunted to extinction? It's our destiny and our fate to have removed the so-called megafauna from this planet. It's now generally agreed by paleontologists that the disappearance of the megafauna and the appearance of human beings are linked in time.

Well, we did this by imitating these carnivores, and imitation is an act of the imagination. We like to think of ourselves as bold hunters, but the evolutionary truth of the matter is probably that as the first wave of primate radiation into the grassland occurred, as the diet was in transition, we were scavengers of carrion, we were not noble hunters bringing down mighty animals. We followed along behind lions, lion kills. There is one school of evolutionary theory that believes that this is why our olfactory senses are so diminished: because, quite frankly, we had our face in rotten meat for a million years, and if that doesn't dull your appetite for keen smells, nothing will. Lest you despair, I'll tell you that there's a counter theory that says, "No, we lost our sense of smell when we stood upright because we lifted our faces off the ground." In either case, there seems to be the idea that when you get away from the olfactory action, the energy to support the maintenance of that sense collapses. For whatever reason, we made our way to the brink of the imagination. In other words, I don't think we require a *deus ex machina* to take ourselves to the position of being top carnivore on the planet.

We have a mean throwing arm; you may notice that no animal throws things the way we do. Other primates hurl excrement down on agonized explorers, but fortunately not with great accuracy, and anyway, that particular material is rarely deadly, but a human being, for example a big league baseball pitcher, can at 125 miles/hour put a baseball across a 17" plate over and over again. One theory of the origin of consciousness wants to say that throwing something is an interesting activity because, though it may appear to be the same activity as digging grubs or scratching your ass, in fact it requires coordination toward a future outcome that is highly mathematical. In other words, you may not think in numbers but you must somehow sense the concept of trajectory, coordination of target and intent, and when you get all this up and running, according to some people you have enough brain power left over to write the Fifth Symphony, invent quantum physics and paint *The Last Supper*.

This seems preposterous to me. I think that how the imagination got such a hold on us was that we accepted into our diet catalysts that we were unaware of which pushed our mental state around, specifically psychedelics of various sorts. A reasonable working definition of psychedelics, what they do, whether you're for or against it, whether you think it triggers paranoia or ataxia, is that they are catalysts for the imagination. They catalyze thought; thought becomes more baroque, it reaches deeper into reality for data, it sees forms of connectivity that previously escaped it. It makes leaps of assumption which are not always correct, but sometimes correct. So what it does is that it transfers chaos into

the mental world, it creates a much richer dynamic. Thought processes become more complicated, and in a sense then language becomes the behavior which expresses the imagination. It can be expressed in a limited form through dance, through gesture, and of course it can be expressed very well through painting if you've reached the stage where you have painting and are not chipping rock or drawing in blood in the sand, if you have a really rich technology behind your artistic intent; but that rich technology would never have arisen without the intercession of language.

These two things which make us unique among nature's productions on this planet, imagination and language, seem to be almost the exterior and interior manifestations of the same phenomenon. It's a facility with data, an ability to connect it in novel ways, for one's own entertainment and amusement, if nothing else. Storytelling is obviously this kind of activity where modules — a ghost, a princess, a lost kingdom, a disturbed father-son relationship — are manipulated to entertain people. It's a cliché that there are only five stories, and I think Robert Graves in *The White Goddess* argued that there's only one story, and we keep telling variants of this story over and over again.

Culture is then the phenomenon that attends the rise and spread of the imagination in the human species, but because the imagination works on this "what if" model, it always tends toward idealism. In other words, it is not simply a networked process, it's a networked process with a vector field. It's going somewhere, it's not just a random walk. If you're going to play the game "what if," most people who are psychologically healthy don't sit around entertaining dire possibilities: "What if I get a disease?" "What if I'm run over by a truck?" No, people say, "What if I make a lot of money?" or, "What if I meet someone who gives me a lot of money?" and it begins to tend toward idealism. We are obviously ruled by ideals and ideas. We haven't found a good one yet, but we certainly have sacrificed a lot of blood and time in the process of discovering a whole bunch of bad ideas, and we haven't lost our faith in ideas, even though human history is the record. Not one idea has survived from the distant past in its original form, and some of the most persistent ideas are some of the most pernicious ideas. The idea of man's inherent flaw, that's an old, old idea, and how much suffering has existed because of it.

So, culture is the record of the human imagination. Well, that's fine. That is of interest to anthropologists and who knows who else. What gives the whole thing a lot of bite is that, more and more, the imagination is where we spend our time. There's a lot of talk these days about virtual reality, an immersive state-of-the-art technology in which you put on goggles and special clothing or enter special environments and then you are in artificial worlds created by computers. This is thought to be very woo-woo and far out, but in fact, if you're paying attention, we've been living inside virtual realities for about 10,000 years. I mean, what is a city but a complete denial of nature? Not trees, mud holes, waterfalls and all that, but straight lines, laid-out roads, class hierarchies reflected in local geography. Urbanization is essentially the first of these impulses where society leaves nature and enters into its own private Idaho. The growth of cities and the growth of the immediacy of the urban experience has been a constant of

human evolution since urbanization began.

The only difference that the new technologies offer is that we are going to do this with light, not mortar, brick, steel, aluminum and titanium, which are incredibly intractable materials. We started with the toughest stuff, and of course it cost enormous amounts of human blood and treasure to work with such intractable materials. It's always been amazing to me that the largest buildings human beings ever built are in a sense the first buildings human beings ever built, because the pyramids of Egypt are enormous, even by modern scale, and yet they were among the earliest buildings ever built. In virtual reality, the difference between a hundred story building and a ten story building is one zero in a line of code, that's all. What this should tell us is that in the domain of light the intractability of matter is overcome. We are on the brink of time, we are at the time when the human imagination now need meet no barrier to its intent, and so we are going to find out who we are. We are going to discover what it means to be human when there is no resistance to human will. I suppose this is a litmus test for paranoia. Is this going to be a nightmare of 24-hour a day sadomasochistic pornography or will we literally build heaven on earth? Knowing what we know about the human animal, I suspect it will be both/and, because we're not going to get everybody marching in the same direction on this. One person's hell is another person's heaven. The imagination, which up to this point has been a human faculty and the consolation of artists, is about to turn into real estate, as real as any real estate there is.

In a way, the shamans leapt over the material phase of imagination engineering and went to nanotechnology 30,000 years ago. By nanotechnology I mean reliance on machines to achieve your goal, machines that are under one nanometer in size, smaller than a billionth of an inch. We don't think of drug molecules as machines, but in fact they are machines, they perform work in the synapses like machines. Shamanism didn't use matter to build its realities; it was more sophisticated than that. It directly addressed the capacity of the human mind in the presence of unusual neurochemicals to produce unusual phenomena and sensoria of experience. Now what's happening is that these two strains of development, the pharmacological, nanotechnological, low-tech, natural, shamanic path and the high-tech, material-manipulating, macrophysical technologies are encountering each other and meeting in the domain of the modern computer, and this is fascinating. The world is becoming more and more defined by the imagination, and those of us who are involved in creating this have the feeling that it has a kind of built-in dynamic toward finality. In other words, this is not a process that can go on for hundreds of thousands or even hundreds of years. Because the human imagination is so endlessly self-transcending, whatever its most advanced creation of the moment is, it's in the process of obviating and denying it and seeking to go beyond it.

Voltaire said, "If God did not exist, it would be necessary to invent him." I think the truth is that they're not even going to wait to find out, it's easier to cut to the technical solution and sort the whole thing out later. If the God we make and the God we find are in conflict with each other they'll just have to duke it out. Maybe they'll Marduk it out, I'm not sure. There's a wonderful phrase

in *Myths, Dreams and Mysteries*, a wonderful book by Mircea Eliade, where he's talking about powered flight, of all things, the Wright brothers. He said, "Whatever we make of this as an engineering feat, it speaks volumes about the human psyche's desire to transcend itself infinitely." In a sense, powered flight is a psychological breakthrough, because man flies. Then spacecraft: we break beyond the embrace of gravity; and these technological breakthroughs are always presented in terms of overcoming some set of boundary constraints imposed by nature. In virtual reality, all boundary constraints are overcome by nature just as in the imagination, but the imagination is metabolically sustained; in other words, you eat well, then you smoke a lot of hash and you enter into an imaginative reality, but as metabolism ebbs and flows, as your food digests, as the drugs leave your system, this reality, whatever it is, falls to pieces and is washed away.

The virtual realities created in code are more enduring, they are in fact as enduring as the code maker, and so we're beginning to talk in terms of dreams which don't go away, worlds of the imagination which one can work on for months and then lead one's critics through and collect their critiques and make the corrections and dot the *Is* and cross the *Ts* according to the way one's critics and friends think it should be done. What this means is that somehow the imagination, always among the most private of domains, is, like everything else under the impact of the new technologies, being redefined so that there is no private/public distinction anymore. So we are on the brink of losing, in a sense, a part of our individuality. We are going to be able to show each other what we mean; we are going to be able to build hallucinations and walk through them, and discuss them, and edit and re-edit them.

Up to this point we've been doing psychology sort of like a blind man polishing a Cadillac in total darkness. If you keep excellent notes and don't lose your place you form a kind of notion of what a Cadillac must be, but we're about to turn on the fluorescent lighting and look at the thing, and I don't know what this will bring. I think it will redefine us. We are a great mystery to ourselves and each other, but not in principle, only through limitations imposed by the physical body and the limitations of technology. I think our yearning for community, for collectivity, for telepathy, for universal human understanding is, in a sense, going to be self-fulfilled by simply opening up the imagination, not as a private dimension, but as a public and shared dimension. This will be incredibly enriching and surprising. We are going to find out what the human critter really is and what we are really capable of, and I'm not afraid of this at all because I am basically a Platonist, and Plato identified the Good, the True and the Beautiful as the same thing. Notice that it's very hard to know what is good, and it's even more difficult to know what is true, but it is intuitively understood what is beautiful, so beauty is the easy way in. Beauty leads to the Good and the True.

We are on the brink of taking a stride toward beauty that is the greatest stride in that direction since the emergence of language in the human species. The emergence of language was the first shoe dropped in this enterprise, and the building of virtual realities that can be shared and critiqued and under-

stood is the dropping of the second shoe. A true civilization lives in its own imagination and lives through its imagination, and when this is an accessible possibility to most people I think a great deal of our inhumanity will simply fall away from us, because it is not inherent. It is the product of misapprehension: misapprehension of each other's goals and intent and aesthetic.

History feels very risky to a lot of people. I think that it is risky, but it is because the stakes are so high. We really have an opportunity to transcend ourselves and to fulfill the human enterprise on this planet. I'm just so aware of the limitations of the people of the past: their agonies, their concerns. I mean, how many children died, were born stillborn, how many women died in childbirth? Nine times in the last five million years the glaciers have ground south from the poles, pushing everything in their path. Those people didn't drop the ball. The amount of human suffering and agony that has gone into carrying us to this moment of privilege and opportunity is incalculable, and can only be redeemed if we bring this inherent human beauty into the world as spiritual food for ourselves and for the human community.

I'm working on a book now, and a lot of it is about the subject of language. It's a little hard to talk about it in English, because in English the word "language" means both the general linguistic faculty and it is also heard as meaning "speech." As I looked into language and studied it and what other people had said about it, there were some surprises. The first surprise is that what is taught in the academy is that language is no more than 35,000 years old. This was astonishing to me. For some reason, my own intellectual biases assumed that the conservative academic position would be that spoken language is old, because it seems so basically a part of us. How can it have arrived 35,000 years ago? That makes it something as artificial as a bicycle pump or a transistor radio.

Well, the problem here is that this word "language" is misheard in English, so in writing this new book I had to make a very clear distinction: language is old. Honeybees do it, dolphins do it. It's even possible, when you think of chemical communication, that flowers and ants do it. Nature is knit together by communication which has rules, has syntax, and so is language. If you've ever stood in a rainforest or any species-dense environment, it's alive with signals, with sounds, with odors, that are carrying messages. These things are not just produced for aesthetic effect, they have intended hearers and so forth and so on. Language in human beings is old because we know that we evolved from pack hunting primates, socialized primates that had, as we observe in the behavior of primates alive in the world today, very complex repertoires of signals. Signals which mean, "Dive for cover, an eagle is cruising the area," or, "Here is food, enough for a dozen of us," and so forth, complex pack signalling.

What happened was the greatest technological leap we've ever made, and in some ways the cleanest and most astonishing. Remember I mentioned last night how strange it was that the largest buildings people ever built were the first buildings they ever built? Well, the greatest technological revolution ever launched by human beings so far was, in a sense, this early one. I won't call it the first because there was tool-making before that, there was fire before that, but somewhere in Africa, no less than 40,000 years ago. This means a time

when human beings who looked like you and I, maybe a little pigmentation differential, but basically people exactly like you and I had already radiated all over the planet. I mean, by 40,000 years ago, nobody argues that people weren't everywhere. Recent finds in Australia have pushed back the date of aboriginal penetration into Australia into 120,000 years, and that's not woo-woo, that's Wollongong University Department of Archeology's stuff. So, people were all over the world. Well, did they communicate? They certainly did communicate. They communicated with dance, with gesture and with music. They communicated in all kinds of ways, but we now know from the study of the introduction of media that if a medium of sufficient power and bandwidth is introduced into a population, it will abandon all previous forms of media in favor of this. We saw this in America after World War II, when a print-literate society within a decade became a television society. We are seeing it now, where in the space of five years the internet goes from being, "Say what?" to indispensable for huge numbers of people.

What happened was that someone in Africa, probably loaded, experimenting with singing and chanting and sound, was lifted out of their plane. In other words, they actually had a breakthrough in the imagination and they said, "How would it be *if*?" This amazing word, the power of "if": "How would it be if we decided that a certain sound is associated with a certain thing?" and, "Let's play a little game: every time I make this sound, you think of this thing, and let's make a little list. Let's take five sounds and assign them to five common things, and now I'll make the sound and you think the thing." Well, behind all this is the organizational architecture of the human organism, which onto a game such as that will effortlessly lay what is called syntax. Chomsky and others have shown that what is called the rules of transformational grammar or the deep structures of language are genetic. All languages, in order to be intelligible, have to obey these rules. A language which does not obey these rules is not a language, it is not intelligible.

So through a breakthrough in imagination, a kind of stepping sideways from the by then old enterprise of entertaining each other with funny mouth noises, language was produced, literally at a definable moment in space and time. A person, the mother or father of all media, discovered utterance, and it was like an intellectual virus spreading through the population, moving as quickly as human beings could carry it, because it was a superior form of media. Before communication had been, I imagine, highly slanted toward emotional states and time-bounded states: you go up to somebody, you take hold of them, you look at them and they understand that we're either going to go hunting or we're going to have sex, and it will be spelled out in just the next little while. This kind of communication was the sufficiently viscous social glue to hold small hunting-gathering groups together. As society complexifies and spreads out through space and time, it either loses its coherency or it evolves methods of communication to keep it in touch with itself. I am not a linguist, I read a lot of this linguistic literature without really understanding it, but I know that the people who give their lives to this believe that they can extrapolate the rules of spoken language of modern European languages to reason backwards toward a

language that was spoken ten to twelve thousand years ago called Indo-European or Proto-Indo-European. This was thought to be the great achievement of linguistics as of fifteen or twenty years ago. Now a new generation has pushed it further back. There is a language called Nostratic, which is a language that was spoken on the Anatolian Plateau and across Europe 15,000-25,000 years ago.

Now, people like Shevoroshkin at Stanford — this was all done by Russians, by the way. The Russians hold the high ground in linguistics. It was Russian insights that cracked the Mayan language, too. But Shevoroshkin and his people are now talking about a language called Proto-World, and Proto-World is the first language ever spoken on this planet by higher primates. Beyond Proto-World there is inarticulate silence, and Proto-World is a 35,000-year-old language. How can we know such things? We have to push into the linguistic literature. There are websites you can go to where people speak in Proto-World and you can hear what it sounded like. It sounds like a bunch of really primitive people!

Audience: Terence, how do we know that we really evolved this language?

This is a really interesting area. As you know, one of my sub-themes is novelty and that supposedly reality becomes more novel as we approach the present. This is certainly true of biology and many, many phenomena, but there is an important exception, so I'm told. I'm not yet entirely convinced of this yet, but convinced enough to pass it on, and that is, though this obviously contains a paradox, that language is seen to be more complicated as you go back in time. Structurally and in number of words, Old English is considerably richer in certain areas than modern English. Now, I say that probably what's happening is that technical vocabularies are keeping the boat roughly at equilibrium, but for every widget word, a word describing some subset of our technology, if we're losing words that indicate emotional nuances or nuances of rapport and understanding, then the language is being impoverished. Most scholars of English believe that Shakespeare caught the wave; Shakespeare is not only a phenomenon of immersive human genius focused in one person but also a moment of incredible linguistic richness and opportunity that didn't exist 200 years before and didn't survive 200 years after. There are what I guess you would call locally-indexed vocabularies, but we have non-local vocabularies which are the important ones, the ones where we address our humanness. To suggest that one group of people have more words for sex or for affection than another people, that's a tremendous knock on the second group. In a sense we are saying that they are less human.

Language is a double-edged sword because it liberates as it enslaves. All clarity is achieved by a sacrifice of true identity. The world is a messy and difficult to articulate place, and if you can make it all seem very simple and smooth-running then you're a con artist of some sort. One group of linguists suggest that probably the big impulse producing language originally was the wish to lie. They said, "If only I could deceive people more..." Along these lines, the wonderful thing which Winston Churchill said at the height of World

War II, he said, "Truth is so precious that she must always be accompanied by a bodyguard of lies." That's an interesting point of view, that truth is not something that you trot out and show everybody, that you surround truth with lies so that only the discerning can understand. We simple, straightforward, plain dealers don't think like that, but believe me, when you get with an Amazonian shaman or someone like that, he is not operating under a strong moral obligation to tell you the truth, the whole truth and nothing but the truth as quickly as he possibly can. No, it's all about leading you this way and then dropping you and watching you wiggle, then leading you another way, because truth is guarded. In our society the commodification of information has made it something that you want to deliver with maximum punch to its target audience as fast as possible and cash the check and get out, but that is not traditionally how it's done.

It divides the seamlessness of reality into the articulated and the unarticulated. Trumbull Stickney, who's not exactly a household name, was one of those poets who died in the trenches of World War I, the golden generation, and he wrote a poem called "The Soul of Time," and he said in that poem, "I cannot understand you / 'Tis because I lean over your meaning's edge and feel / A dizziness of the things I have not said." The dizziness of things unsaid always surrounds the enterprise of communication, especially spoken language. Now, to go back to this thing about the evolution of language and technology, and whether we are getting better or worse at communication; I discern, if you look at the evolution of media the way you would look at the evolution of a species or a group of genera in an organic situation, a very pronounced preference for the visual. The idea of colorful and rich speech, which was all we had for a long time, gives way in the early 19th century to photography, and it's still and it's black and white but immediately the people who invent it can think of nothing but color and motion. By 1900 they've got that under control, and there's stuff like stereophonic sound, and on and on. Clearly, we view the language-forming enterprise as a task not yet brought to completion.

One of the things that seems to always come up in these things is the fact that so-called primitive, or aboriginal or preliterate people using psychedelic plants that melt local cultural conditioning seem to access a place where language is much more a visual enterprise. Ayahuasca circles sing, but the singing is critiqued as though it were pictorial activity. In other words, after the shamans stop singing, you hear people say, "I liked the part with the orange spots but I thought the olive drab magenta section was self-indulgent," something like that, and you think, "This is the critique of a song?" No, the sound is the carrier, the acoustical wave is no longer in the foreground of the experience of appreciating the performance. It has become the carrier of something visible.

A lot of people think that somewhere in the human future lies telepathy, and it's usually imagined as "you hear what I think," a kind of extension of what we have. I think it's more likely to develop along the lines of, "you see what I mean," in other words, we add dimensionality to language and we then can walk around in it. Virtual reality, in the service of the ideals that I'm interested in, would become a technology for showing each other the contents of our imagination with

less ambiguity than we have ever had before. I suppose every technology has created more opportunity for deception. You can't have complex, illusionistic realities unless you work in pictorial space. I don't think these technologies will reform the human character. Subterfuge is a major part of art, it certainly is a major part of legerdemain. Every sentence is essentially a conjuration; the rabbit of meaning is pulled out of the hat of constructive syntax, so you cannot have truth unless you have the possibility of error. This is the point that illuminates why predestination is a waste of time. Predestination is the idea that the universe is a kind of film that's running, and it's all determined how it's going to come out and there's nothing anybody or anything can do to affect it. God created it and it's unfolding. Well, the thing that makes predestination theory worthless in my estimation is: notice that if that's true, then you think what you think because you can't think anything else, and that puts the enterprise of seeking truth in a preposterous position. In order to seek truth one must have the option of screwing up, and it's the dichotomy between screwing up and finding truth that creates the sense of dynamic existential completion.

Once you have the concept of nanotechnology you see that drugs and prosthesis, or computers or tools are categorically migrating toward each other. The only difference between computers and drugs is that one is too large to swallow — and our best people are working on that very problem. There's a wonderful New Yorker cartoon of a bunch of guys in suits sitting around a corporate boardroom, and in the background there's a profit and loss chart and it's clearly headed into hell, and the chairman of the board is saying to a small, smiling man sitting on the other side of the table, "You're right, Higgins — a deliberate disordering of the senses worked for Rimbaud, but would it work for us?" So this is a reference to a symbolist poet of the 19th century and the belief that we need to erase the boundaries of the senses and create a synesthesiac, a hallucinogenic, a psychedelic, if you will, reality.

The trick if we're going to design our own states of mind is to make sure that we don't dump the baby out with the bathwater. We want the Net to be as haunted as possible, we don't want to lose its atavistic connections back into the darker recesses and resources of the unconscious. That's why William Gibson's *Neuromancer* is so prescient, because here is this super-technological fantasy, but at the center of the Net the gods of voodoo are reappearing. I came to the realization, thinking about the internet, that the Other is within us. If it finally, if ever, comes into full manifestation, it won't come in mile-wide ships of titanium that position themselves over the secretariat building of the U.N. It won't come like that. It will come out of human hands and human dreams. It will be fully other. I am not coping out here, it will be fully other, but it can only be built through us. The alien is real, but the alien is not "here" in the stupid sense. The alien can only manifest itself through us, but this probably means that, given a sufficiently resilient technology, it can manifest completely through us; so, in a sense, the internet is a kind of landing pad. There has always been in our fantasies of extraterrestrial contact the notion of the pad which has to be built for them. People claim it's the Nazca Lines and so on.

It's an archetype, it's the idea of a prepared space that awaits the arrival of the Other, but now, because of the nature of the internet, because you can't see who's coding, you can almost imagine that we're calling the thing forth. I think it will probably appear as a website, and when it's sorted out, you'll realize, "My God, zetareticuli.org is really coming from Zeta Reticuli!" but through virtual, nonlocal Bohmian space.

It's totally separate in the sense that it is somewhere else in the universe and evolving completely along its own lines, and not in any way under our control, but then you turn the coin over and the division between it and us is completely seamless because of the nonlocal nature of information. This is an incredibly empowering idea, if true. I mean, it will make a revolution in psychology that few people have yet even sensed coming. What we're talking about here is expanding the Jungian collective unconscious to the size of the cosmos, and then showing with physics exactly how the trick is done. So, we are not separate from any place. Obviously, when you evolve inside an animal body localized in space and time, you get a hellacious set of reflexes and muscles designed to deal with immediate threat in the environment. At the core of the oyster is the portal into universalism which we have denigrated to what we call the imagination. The third eye exists, but it doesn't look out at this world. You've got two perfectly good eyes for doing that. The third eye looks out at the holographic matrix of informational totality, and then the problem for that form of perception is filtering.

What we have been calling "human consciousness" is the only consciousness there is. It's something that you tap into, not something that you evolve out of yourself. You require a local language to create a local model of this universal input. If your local language is insufficient then you abide in a domain of intuition and what I would call animal consciousness. It's a domain of intuition of being. Animals intuit being, but, given a more advanced nervous system and a more advanced cultural toolkit, the intuition changes into a direct perception and you begin to make poetry and experience loss and feel love, and you begin to feel the emotional outlines of the enterprise of being and how far one can go into that. I assume it's infinite, or at least appears infinite from our limited position.