

***The Writing on the Wall #3:
“How Do You Know
That You Know
What You Know?”***

J. Harmon Grahn

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1 Recapitulation

How do you know that you know what you know? This is a question that has come up before. I first discussed it explicitly in my 22 August 1998 essay, “Knowledge.”¹ It was discussed more recently in *The Writing on the Wall #1: “Nothing Can Possibly Go Wrong, Everything is Out of Control!”*² And it was taken up again in *The Writing on the Wall #2: “Who Do You Think You Are? Anyhow?”*³

The reason this matter keeps rising to the surface seems to have to do with how easy it is for practically everyone to assume by default that we *do* know many things that are obvious and apparently self-evidently true, upon which we rely in making choices in our daily lives; and extend that assumption to include *all of our beliefs* about “how things are.” However, the essays cited above all draw attention to items that were at one time or another believed to be so by “practically everyone,” or at least by “many,” and were subsequently demonstrated not to be so, or to require more penetrating understanding.

Although we all have beliefs about “how things are,” we also share the common experience of discovering some of our beliefs to have been *mistaken*, which have motivated us to change some of our beliefs, and replace them with different beliefs. It is not uncommon even to discover that the changed beliefs we have adopted in replacement of prior misunderstandings have turned out to be mistaken in turn, and require replacement by yet other beliefs.

Since this is a common human experience, and we have all been surprised by disclosures of our own misunderstandings, the question of how we *know* when we have finally “got it right,” and are mistaken no longer, is not at all a trivial question, or an idle pastime.

For one thing, we have all learned that there are penalties for our errors. When the purpose of an action is to achieve some objective, and the action is informed by an erroneous belief, the intended objective is often not achieved; and so our intentions are disappointed. Such penalties motivate the prudent to seek, find, and correct the errors among our beliefs. But how can we be sure we have not corrected one erroneous belief with another, instead of with a true understanding? In brief, it is often not as easy as it looks; and may lead to a laborious process of “trial and error”—which may be an apt description of human history.

¹harmonhouse.net/archive/fdl/np31.htm

²Grahn, 24 September 2010, § 3 Myths and Superstitions, and § 4 Four Useful Myths. wellspringpublishinggroup.com/wl/wow01.pdf

³Grahn, 11 June 2011, § 1 How Do You Know? wellspringpublishinggroup.com/wl/meditation02.pdf

2 Perception and “Reality”

I have been considering for some time a thought, or a way of thinking about, how we beings (including but not limited to the human kind), perceive and navigate the “reality” that constantly surrounds us, and in which we are perpetually immersed. There seems to be little doubt that there is an awful lot of it (“reality”) “out there,” and that we probably miss most of it. That is, only a small fraction of “total reality” registers upon each of our conscious awarenesses; yet we seem to function as what passes for “normal,” on the basis of the small fraction of “All That” that gets through to us.

On the other hand, there have emerged numerous voices fairly recently—and maybe not so recently—who tell us that we are the makers of our own realities, and that what one experiences of the world “out there” is a reflection of conditions “in here,” within the person, or entity experiencing so-called “reality.” This thought seems to deny “for all practical purposes,” that there really is such a thing as an “objective reality,” or a “reality” that is entirely independent of its observers and experiencers.

This idea, upon reflection, has some persuasive appeal; yet it is not without difficulties. If I inadvertently walk into a lamp post, because I am not paying attention to where I’m going, any observer will probably conclude that I must have been “lost in thought,” or something less charitable. For the lamp post was surely “objectively” in my path, visible and solid for anyone, including myself, to behold. And sure enough, having bumped into it, I too will most probably recognize its immovable presence in “my reality,” pick myself up, and walk around it.

So a quite persuasive case may be made for the presence of an “objective reality” that is prior to, and independent of, anyone’s observation of it. The lamp post was “objectively there,” all the time, whether I wanted it to be there, or was aware of its presence, or believed it was there, or not. It was always an “objective fact,” regardless of my beliefs or perceptions, or those of anybody else.

Yet this too is a view of things that is not without difficulties. For the “reality” that each of us experiences, “in 3-D, Surround-Sound, and Living Technicolor,” is surely but a “pale shadow” of the “real reality” that is presumed “objectively to exist,” “out there;” yet is never more than fractionally beheld by anybody, or anything. Each of us experiences only the small fraction of “All That” to which our senses are attuned; and of that, only as much as we give our conscious attention.

A dog, for instance, is equipped with a sense of hearing that includes a range of frequencies beyond those to which the human ear is attuned; and consequently, a dog hears ambient sounds, in its world, to which a normal human is “deaf as a post,” and of which we are never aware. Such sounds are demonstrable parts of the “real reality,” because, among other rea-

sons, we can observe a dog responding to them; but we do not register them through our own organs of sensation. Similarly, cats and owls may be visually sensitive to light frequencies in the infrared, to which humans are blind; and consequently are able to navigate with agility in pitch-dark forests, in which humans, being blind, are helpless.

These observations do not in themselves contradict the concept of “objective reality,” for unsensed frequencies of sound and light are no less “real” for being inaudible, or invisible to humans. However, being absent from our perceptions, the “reality” in which we believe we navigate is evidently different, in small, and perhaps in large ways, from the “real reality” that lies beyond our senses, and possibly beyond our imaginations. Humans have learned how to augment our senses, for instance into hypersonic and transluminary frequencies, and how to verify their normally unsensed presence within the matrix of “objective reality.” We have the ability to expand our sensory awareness into domains beyond those disclosed to us by our native sensory awareness provided by nature at birth, and to duplicate, and improve upon, the sense awareness of non-human species.

Some among us—perhaps even many—have demonstrated the ability to extend awareness into “extra-sensory” domains, and extract information about “reality” that cannot be accounted for by any known sensory means, human or non-human, natural or artificial. Many such demonstrations have been attended by controversy and doubt; yet there exists an enormous body of literature describing them, not all of which may easily be dismissed as bogus, or explained in “conventionally understood” terms.

The verified presence of phenomena occurring at (formerly) unsensed frequencies, and/or possibly accessible only by “extra-sensory” means, implies the possibility of other “quasi-phenomena” within the matrix of “reality” that have neither been sensed nor imagined by humans. If so, there is a plausible possibility that the “real reality” is actually slightly, or enormously different from the *imagined reality* experienced either by the average “man on the street,” or under exploration by our most advanced pioneers. Such a possibility potentially transforms the entire fabric of human understandings of “reality” into a shifting tapestry of human imagination and myth, whose relationship to the “real reality” is essentially unknown, and unknowable.

Accordingly, I have imagined a figurative description of the relationship between “reality” and the beings who dwell within it, which does not claim to describe “how things really are;” yet may be a useful image for *thinking about* “how things really are.”

3 “Virtual Reality”

Imagine that each being who navigates “reality” is enclosed within a flexible, weightless, invisible sphere, or hemisphere, that glides along the ground wherever the enclosed being walks or moves. Or, if it is more easily imagined this way, perhaps the sphere encloses only the being’s head, locus of most, but not all of its organs of sensation. In either case, this enclosing sphere is invisible to all who are not enclosed by it, and is the *only thing* visible to the consciousness within it. It is transparent to sensations originating without, which are received by the being’s organs of sense (or “extra-sense”); are processed by the being’s central nervous system; and are projected upon the inner surface of the enclosing sphere, producing a “3-D, Surround-Sound, Living Technicolor, virtual reality,” or dynamic map of *local perceptions* of the “real reality,” *as imagined* by the subject being.

If the being inadvertently walks into an overlooked lamp post that had not had a representation on the opaque inner surface of its enclosing sphere, the feature is instantly “painted onto” the being’s “virtual reality,” so it may be avoided, or dealt with more gracefully in future encounters.

And so it may be said in this sense, if in no other, that each of us is indeed “the creator of our own reality,” on the basis of the sensations we are equipped to receive (and imagine), and particularly those to which we give our attention. Objects “out there,” such as overlooked lamp posts, to which we had given no prior attention, draw our attention when we bump into them, and are given a place in our “virtual reality” thereafter. This is called “learning from experience.”

This externally invisible, internally opaque sphere upon which each of us paints his interpretation “in here,” of the sensations he receives from “out there,” is not only an audio/visual medium of interpretive representation. It is richly endowed as well with imaginary content, which is often emotionally charged to varying degrees. It may be no exaggeration to say that most of its content is imaginary, only a relatively small portion of which is produced by responses to actual sensation; and that even that portion is richly embroidered by creative imagination, intellect, intuition, and emotion.

The “virtual reality” each of us experiences, in other words, is almost entirely of our own making, salted here and there by “dots” of actual sensation originating outside the opaque sphere that constantly encloses us. And so, most of our experiences are of how we creatively and imaginatively “connect the dots” provided by our organs of sensation, and “extra-sensation.” This “flight of fancy” describing our relationship with “reality” implies that our contact with “reality” via actual sensations as highly fragmentary and schematic. It appears “seamless” to us, and without gaps, almost entirely by virtue of the extraordinary way we are imaginatively able to “fill in the gaps,” and “paint over the seams.”

There are naturally innumerable unique ways of “connecting the dots;” which give rise to an effectively limitless variety of “virtual realities,” even among people occupying more or less the same locality, and witnessing in common the same events. Each of us receives “signals” of sensation from “out there”—including even “extra-sensation,” or “extrasensory,” or “paranormal” stimuli of unknown origin, including but not necessarily limited to our own imaginations—and each of us interprets these often, but not always, commonly received “signals” in his or her own way. It is this *interpretation* with which we paint the screens upon which we project, each our own “virtual reality”—whose relationship with the “real reality” is anybody’s guess, and can never be ascertained with anything approaching decisive “authority.”

4 Consensus Realities

Interactions among people in relatively close, and/or relatively long association with one another are to varying degrees influential upon our interpretations of sensations, and “extra-sensations.” Thus *consensus realities* spontaneously emerge in which the “virtual realities” of individual associates become increasingly similar over time, creating the *illusion* that they are “objectively true,” and correspond closely, or are functionally indistinguishable from the “real reality” that (if it exists at all) is at best only fractionally and fleetingly glimpsed by anybody. Such consensus realities may be said to constitute distinguishable *cultures*, or *subcultures* of people who associate primarily or exclusively among themselves, and generally agree with one another about “how things really are.”

There are innumerable such cultures and subcultures around the world, of widely varying sizes and forms, in which this process of developing and maintaining correspondingly diverse consensus realities has been active, in some cases stretching back for thousands of years. Such cultures condense around commonly believed *mythologies*—which themselves may be described as “stories about reality.” The relationship of the consensus reality to the “real reality” (if there is such a thing) is never *known*, but is universally *believed*—within any particular culture—to be very close, if not perfectly congruent with the consensus myth; and to be self-evidently obvious to anyone.

One such culture, among a great many others, is the culture, and related subcultures found among academic communities throughout the “civilized world.” Like members of all cultures sharing a consensus reality, members of the “academic culture” naturally believe their own myths, or stories about reality, and might be reasonably expected to exclude themselves from the idea that *all cultures* are based upon myths, each of which bears an unknown relationship with the “real reality.” Their argument might run something like, “But we can *prove* that what we believe is true, and bears a verifiable correspondence with ‘how

things really are.’ *Other* cultures, yes, are obviously based upon myths and superstitions. But our culture is ‘the real deal,’ and we can prove it.”

This naturally echoes the reflexive response, in sentiment, if not in literal words, of a member of *any* culture, or subculture, whose mythology is placed in doubt by a claim from outside the culture in question: because a culture is by definition an association of people who firmly *believe* their common myths—which for them, are really “how things are,” and are not subject to negotiation with “outsiders.” Therefore, it is not at all radical to include the “academic culture” within this description of human cultures in general. *Everybody* has what they consider to be “sound reasons” for believing their particular myths, whatever they may be; which are so richly diverse and various that their relationship to the “real reality” is, finally, a matter only to be guessed.

The fact that there are so many different cultures and subcultures, each sharing a corresponding myth of apparently limitless diversity and variety, demonstrates that no myth is really self-evidently true, or obvious to anybody outside the culture that believes it; and opens the possibility that the entire fabric of the so-called “real reality” may “for all practical purposes” be entirely woven of little more than the sum of all our myths about it. In this sense, it may be said that *whatever anybody believes* about “reality” is surely a myth—which is not to say that it is “untrue,” but only that it is a story about reality woven almost, but not quite, entirely of the stuff of human imagination.

This view of things, to some, may be unwelcome, or even angering, or terrifying. To others, it may be ecstatically liberating; and in any case, it may be regarded, like all human beliefs about “reality,” as a myth, subject to belief, or disbelief, as influenced by the culture with which one is most comfortable.

For those who are finding it increasingly difficult to be comfortable within any existing human culture, it may be a liberating exercise to explore the possibility that all cultures are based upon myths woven mostly of human imagination, and that the smörgåsbord of existing and imaginable human cultures is limited only by the scope of human imagination. “If you don’t see what you’re looking for, ask, and we’ll order it for you.” Better yet, you can just make it up yourself—provided only that you can actually *believe* it.

Aye, and there’s the rub. What we can, and cannot believe, is heavily conditioned by what we already believe—that is, by our myths. Because we really do *believe* our myths, whatever they may be, it is not a casual matter to stop believing them, and start believing a different myth instead. In order to make such a transition, we have to have “good reasons” for it; and our sense of “good reason” is intimately tied in with our existing myths. Never mind that for someone else, an entirely different myth is “self-evidently obvious.” To the extent it seems to contradict your myth, or mine, it may not be self-evidently obvious at all, to us.

However, the transition from one mythology to another is not impossible, and in fact, “happens all the time.” Every time someone becomes a Christian, or a Buddhist, or an atheist, or a materialist, or a spiritualist, or a capitalist, or a socialist, or anything else along these or other lines he deems he had not been before, he makes such a transition between one mythology and another. Such transitions are perhaps surprisingly common; but for those making them, they are not casual, and they are not trivial.

In a broader sense, such transitions are so common that they do almost seem trivial, or at most, quite unremarkable. Every time you learn something you did not “know” before, like bumping into an overlooked lamp post, you make an incremental shift in your mythology: the combined body of content you *believe* to be true. Considered individually, such incremental shifts may not seem very spectacular; but in their aggregate—and even individually—they are anything but trivial.

It may even be said with considerable justification that the frequency of such shifts are an indication of one’s “aliveness.” That is, those with “inquiring minds,” who frequently discover and consider new possibilities, and who often change their minds, or shift their opinions, may be viewed as significantly more “alive” than those who never change their minds about anything. Accordingly, there may be some appeal in achieving and maintaining such a “fluid” state, in preference to one “crystallized” into a state of unchanging rigidity.

5 A Fluid State of Consciousness

If “a fluid state of consciousness” is preferable to “a crystallized state of consciousness,” how might such a state be cultivated, and nurtured?

There are probably any number of different ways of approaching this, and there may be more than a few individuals available to help push the process along. However, it may be worth observing that everyone is the locus of a unique “mini-culture” condensed around the complex of myths that each individual believes. So there may be a delicate balance to be achieved between, on the one hand, applying the insights of one’s teacher to one’s own unfolding; and, on the other, becoming entangled in someone else’s mythology. Not that there is anything fundamentally “wrong” with imbibing someone else’s mythology. For purposes of cultivating a fluid state of consciousness, however, it is probably advantageous to be aware of when, and why, we do so.

From the perspective of this writer’s personal mythology, perhaps the single most valuable “lever” for achieving a fluid state of consciousness is the realization that all human beliefs are myths, not “facts graven in stone;” and are therefore available for acceptance,

rejection, and/or modification, to any extent deemed useful in nurturing a fluid state of consciousness. The approval or disapproval of others, who believe their own myths, are immaterial to one's own explorations—unless one attaches voluntary weight to them.

It appears to me that if any of us are naturally "entitled" to anything at all, we must surely be entitled to navigate our own lives in accordance with our own lights, and to conduct "experiments upon ourselves," at least to the extent that they do not obstruct the parallel entitlements of others to conduct their lives in similar fashion.

If so, this "entitlement" must also be attended by a crucial caveat: although each of us may view ourselves, and view one another as unique and distinguishable entities, we are also discovering ourselves to be vital parts of a larger "reality" that is unavoidably affected, as we are, by our "experiments upon ourselves." There is no way to "quarantine" the consequences of our experiments, even if intended to involve no one beyond ourselves.

As discussed in my essay, *A Discussion of Sacred Economics*,⁴ and at much greater length in the work to which it refers, we human residents of planet Earth are now finding ourselves in the midst of a monumental and necessary transition *from* mythologies that have emphasized *separation*—of self from others; of substance from essence; of matter from spirit; of human from non-human; of heaven from hell—to fresh new mythologies with ancient roots, of the *integration* and *connectedness* of every *thing*, with everything else.

This monumental transition is being pressed upon us by the circumstance that our widely and historically shared mythologies of separation have at this time run their course, and have arrived at a "dead-end" beyond which they can carry us no further. For those who are rigidly attached to mythologies of separation, this is a period of catastrophic upheaval on a global scale, beyond the experience of anyone now alive on this planet. However, for those who achieve *a fluid state of consciousness*, and are able to "go with the flow" of unfolding human, global, and Cosmic events, the transition to mythologies of integration may be negotiated with minimal disturbance to our personal and shared equilibrium. This is perhaps a prototypical instance of the idea that *we are the makers of our own realities*.

Corollary to the realization that all human beliefs are myths, not "facts graven in stone," is the realization that *my myths* are of no less validity than those of anybody else—including those of the so-called "experts," or "authorities." In the domain of human myths, *there are no "authorities!"*

This is grandly liberating, because it releases me from the self-imposed obligation to keep my beliefs at all times tethered to the "authoritative" beliefs of others. It is a well established historical pattern that the orthodox mythologies of the "authorities" have repeatedly been

⁴Grahn, *A Discussion of Sacred Economics: Money, Gift & Society in the Age of Transition* by Charles Eisenstein, The Wellspring Publishing Group, 28 January 2012. wellspringpublishinggroup.com/wl/sacred.pdf

overturned in all times and places by heterodox mythologies that simply make better sense, in light of the ever-expanding front of human exploration and discovery. Historically, it has been the heterodox and the heretics who have pioneered the advance of human understanding; not those who have adhered rigidly to orthodox myths. This implies that we may expect *never* to arrive at an understanding of “how things are,” that can legitimately claim to be the “final word,” about anything.

A fluid state of consciousness may thus be nurtured by recognizing, and exercising the limitless liberty native to each and all of us, to carry our explorations into any domain that excites our interest, regardless of their alleged status along the orthodox/heterodox divide. Indeed, the emerging mythologies of *integration* and *connectedness* of every thing with everything else indicate a healing as well of the rupture between the orthodox and the heterodox; and give plausibility to a vision of a not-distant future in which people have not arrived at definitive “answers” to the timeless “mysteries of existence;” but have arrived instead at a mature sense of *comfort* with the fathomless mysteries that forever beckon us onward.

6 The “Real Reality”

In § 4 Consensus Realities, I mentioned “the ‘real reality’ that (if it exists at all) is at best only fractionally and fleetingly glimpsed by anybody.” Which might prompt the question, “What do you mean, ‘if it exists at all’?”

This concept takes its cue from the idea that “the reality out there” is a reflection of conditions “in here;” and so, what goes on “in here” is the “reality” immediately accessible to each of us—*through which* we have access to “the reality out there.” From the perspective of *separation mythologies*, this makes no sense at all; because “in here” and “out there” are “self-evidently” two entirely different things. Yet viewed with the *integration* and *connectedness* in mind of every thing, with everything else, the “in here,” and the “out there” merge into a single, seamless *whole*; to which every being has direct access through the conditions we create “in here,” within ourselves.

This understanding may be approached through The Myth of Complementarity discussed briefly in *The Writing on the Wall #1*, § 4.1. In this view, the complementary relationship between, for instance, the particle and wave properties of light, first observed in the 1920s by the pioneer quantum physicists, is applicable everywhere, at all scales throughout Cosmos. In the first instance, the quantum physicists noticed that light has unambiguously observable *quantum properties*, or the properties exhibited by particles; and also has unambiguously observable *wave properties*. But there seemed to be a paradox here, because these two “self-evidently” different properties of light could never be observed together.

An investigator could create a rigorous demonstration of the wave properties of light; or he could create a rigorous demonstration of the quantum properties of light. But there was *no way* he could *simultaneously* demonstrate the wave *and* the quantum properties of light; and it was eventually settled that such a demonstration is fundamentally impossible.

For another example [I wrote], at the human scale, everyone “knows” himself in intimate detail; and everyone “knows” others with whom he shares close personal relationships. However, just as the complementary quantum and wave properties of light cannot be simultaneously observed, or described, just as rigorously, no one can “know” himself as another “knows” him; and no one can “know” another as he “knows” himself. All such “knowledge” consists of *partial descriptions* of individuals who cannot possibly be *fully* described, either by themselves, or by anybody else. The Myth of Complementarity provides the basis for the statement that all human beliefs are myths.⁵

Upon further consideration, from the view of the *integration* and *connectedness* of all things, it becomes clear that the Myth of Complementarity is applicable everywhere, and that the best we can achieve by observation are only *partial views* of anything we are able to observe at all. Every particular thing may be observed as only one complementary aspect of what it “really is.” The missing complement, along one axis of view, of any particular thing, is the totality of *everything*. As the mystics have said, “Thou art *That*.”

This view of things is really not as arcane and inscrutable as it may at first appear. You might begin by considering what *you* necessarily are. In order for you bodily to exist, you must have been born; so you must have had a mother, and a father; and they must have cared for you, fed you, clothed you, sheltered you, etc.; for none of these things were at the time even remotely within your capabilities. So you must have lived somewhere, and that requires that, in addition to your infant self, and your parents, there must also have existed planet Earth. And in order for Earth to have been habitable, there must have existed the Sun, and the Solar System. And in order for the Solar System to have existed, there must have existed the Galaxy, which we have named the Milky Way. And in order for the Galaxy to exist, there must have existed Cosmos, with its unnumbered billions of galaxies so far observed through instruments created by other humans on Earth. Without any and all of these things—and innumerable others we have not named, nor can even imagine—you could not exist. *Ergo*, “Thou art *That*.” All of It, “omitting no detail, however slight.”

So this, in a manner of speaking, is the “real reality” of what *you* are; and it is accessible to you only through the conditions you create “in here,” within yourself: the local complementary part of the *whole you*, that includes everything, and excludes nothing. And the

⁵Grahn, 24 September 2010, pp. 10-11. wellspringpublishinggroup.com/wl/wow01.pdf

same applies to me, and to he, and to she, and to them, and to us, and to every thing that exists anywhere, in time and space.

However, to somewhat “round out” the discussion in light of the Myth of Complementarity, we must also give consideration to the matter of *consciousness*: because whatever you are, you are not only a physical body. You are a conscious, intelligent, creative entity—which also are properties complementary to your physical presence in Cosmos.

7 Consciousness, and Metaconsciousness

Your *consciousness*, *intelligence*, and *creativity*, and mine, and of many other beings we know personally, and by reputation, are necessary properties also of Cosmos at large. Otherwise, they could not possibly be properties of ourselves. This is a decisively *heterodox* view, particularly in relation to the prevailing consensus among the “academic community” mentioned in § 4 Consensus Realities; or the “scientific community,” for whom it is *anathema*.

In the opinion of this writer, perhaps the most grievous error firmly embedded within “scientific orthodoxy” is the doctrine of rigid exclusion of *intention*, *purpose*, and *design* among the “causal agents” operative anywhere in Cosmos—excluding only the designs of humans resident upon planet Earth. It is a doctrine as crippling to contemporary science as were the fanatical dogmas of medieval Christianity to the peoples of Europe during the Dark Ages.

I mention this by way of “full disclosure” of the bias of the personal mythology that informs what I write, and seems “self-evidently obvious” to me; but may not be at all self-evident to those who believe myths different from mine.

The palpable fact of *consciousness*—in you, in me, in innumerable beings, large and small, subject to our observation—is, to me, a jaw-dropping mystery of seemingly bottomless depth. How is it that you, or I, or a bear, or a bee, can live, and move, and exercise *volition* within the tapestry of innumerable other beings resident upon this planet? This question, expressed in various ways, is a source of endless fascination and speculation for me; but I have no clear “answer” to it. In pondering it, however, I have formed in my mind a concept to which I have given the name, *metaconsciousness*.

Metaconsciousness [I have written] is the overarching phenomenon which is analogous to, yet less or greater than, what we humans experience as *consciousness*, *intelligence*, and *creativity*. It is an *emergent behavior*, and exhibits itself in complex information-sharing systems of all kinds, and at all scales, un-

der conditions of sufficient *richness, diversity, variety, complexity, and liberty*, as a capacity for *learning from experience*, or its functional equivalent.⁶

Metaconsciousness, in this view, is the “superset” of the phenomena we humans experience as *consciousness, intelligence, and creativity*: as a “subset” peculiar to ourselves. As I imagine it—and this pretends to be no more than my own speculation—all beings and things within the scope of human observation share relationships of *exchange*. Protons, neutrons, and electrons exchange something, in the formation of atoms. Atoms exchange something, in the formation of molecules. Molecules exchange something, in the formation of cells. Cells carry on exchanges of rich complexity, in the formation and function of organs. . . . And so on, for all I know, *ad infinitum*.

Along the spectrum of exchange relationships, from the subatomic to the supergalactic, many different kinds of elements are exchanged; yet one element common to all exchanges is the element of *information*. Astronomers on Earth, by examining the light spectra of distant galaxies, extract information disclosing the relative abundance of the materials of which the galaxies are composed. Before reaching Earth, this information may have been in transit for hundreds of millions of years; and it is complex, and intelligible. A skilled tracker is able to “read the signs” among the footprints in the mud by the water hole, and tell the story of something that happened there some hours, or days before.

In general, all exchanges include the exchange of information; which may be said to be the basis of relationships of all kinds, and at all dimensions. At the subatomic scale, the constituents of atoms exchange information that enables them to have mutually responsive relationships, which take the form of the different kinds of atoms charted on the Periodic Table of Elements. At the planetary scale, the relationship between Earth and the Moon involves the exchange of dynamic gravitational influences that for example govern the rhythm of the tides on Earth; and synchronize with the menstrual flows of women. The planets influence one another’s interactions in complex, subtle, and sometimes in not-so-subtle ways, involving such factors as relative mass, velocity, and distance between them—all of which may be interpreted as exchanges of information of various kinds.

Generalizing more broadly, it may be said that every interaction between *entities, or things*, involves an exchange of information of some kind: because that is what *interaction* means. One entity influences, and is influenced by, another; and vice versa. Their behaviors are altered from what they would have been in the absence of the interaction. They influence each other, and respond to each other in some way. They exchange information.

The *consciousness, intelligence, and creativity* exercised and experienced by humans seems to have something to do with the exchanges among neurons in our central and pe-

⁶*Ibid.*, § 4.3 The Myth of Metaconsciousness, p. 11.

ripheral nervous systems. This network of neural exchanges has been studied in considerable depth during recent years, and with considerable subtlety; yet its full depth and subtlety has yet to be fathomed. The number of neurons in a healthy human brain and nervous system dwarfs by several orders of magnitude the number of humans resident at this time upon planet Earth; and each neuron may have synaptic connections with thousands of others, producing a network of almost unimaginable complexity. Each neuron transacts electro-chemical exchanges with the neurons with which it is synaptically connected—yet how these exchanges are translated into the creation of Johan Sebastian Bach's *St Matthew Passion* (1729), or of his *B Minor Mass* (1733), or of Michelangelo's ceiling of the Sistine Chapel (1508-1512)—or for that matter, even of this humble piece of writing—still surpasses human understanding.

Nevertheless, *intention, purpose, design, consciousness, intelligence, and creativity* do exist among humans on Earth; and by the Myth of Repeating Patterns, virtually *must* be manifest elsewhere in Cosmos:

Looking around the sliver of Cosmos available to our close examination [I have written], it is difficult to bring to mind an example of a *completely unique* specimen, or phenomenon. Even in instances of discovery of something no one had ever seen before, it seems virtually certain that other examples of the same kind eventually make their appearance. Are there any exceptions? For awhile, perhaps; but sooner or later, it may be relied upon that other examples of the same kind are bound to join the "unique" specimen.

One such unique specimen—so far—is our planet Earth: the only planet in all of Cosmos known (by us) to harbor biological life (and incidentally, humans). As far as we know, neither we nor our planet have any peer—but although we may have flattered ourselves for thousands of years that this is so, our vanity ignores the certainty that *as far as we know* has never after all been very far.⁷

The chain of intuitive speculation here is essentially simple, and not difficult to grasp:

1. Large populations of networked neurons exchange large numbers of small packets of information by electro-chemical means—and Bach's *St Matthew Passion* is produced.

⁷*Ibid.*, § 4.2 The Myth of Repeating Patterns, p. 11. Note that since this was written, *as far as we know* has been somewhat extended; and a short but growing list of Earth-sized planets orbiting Sun-like stars have been identified. For elaboration, see *Kepler Discovers Earth-size Exoplanets*.
science.nasa.gov/science-news/science-at-nasa/2011/20dec_earthsized/

2. Vast numbers of entities, varying in scale from the subatomic to the supergalactic, exchange large numbers of small packets of information in the course of their multiform interactions. This is the essential mechanism of what I call *metaconsciousness*.
3. It seems not to be a radical leap to speculate that the *intention, purpose, design, consciousness, intelligence, and creativity* displayed in Bach's *St Matthew Passion* might be duplicated—somehow—in *any* system in which sufficient numbers of entities exchange sufficient numbers of small packets of information, in any environment, at any scale.
4. This speculation implies the possibility that the intention, purposefulness, and design potential native to the human nervous system, may be duplicated anywhere, and everywhere in Cosmos, and that planet Earth (for example) may be at least as alive, volitional, and aware, as are you, or I.

As mentioned above, the categorical exclusion by “scientific orthodoxy” of this vast domain of intriguing possibilities is as crippling to contemporary science as were the fanatical dogmas of medieval Christianity to the peoples of Europe during the Dark Ages.

So: the “answer” to the original question here, *How do you know that you know what you know?* seems simply to be: *You don't*. Which may be a disappointment for those in perpetual search for “The Ultimate Answer.”

However, for those able to cultivate a fluid state of consciousness, this little “answer” may be just the thing to ignite a liberated exploratory quest, with no horizon, and no end. It is a limitless quest, pursued for its own sake, instead of by a desperate search for “the ultimate answer to the ultimate question of Life, the Universe, and Everything.”⁸ Or put another way, *It is the journey that counts, not the destination*.

These observations are naturally offered as another complex of myths, subject to further evolution; and are not claimed to be “graven in stone.”

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⁸Douglas Adams, *Life, the Universe and Everything*, 1982.