

Science and the Supernatural

Sunday morning address¹ to the New York Society for Ethical Culture, February 4, 2007
by **Tony Hileman**, Senior Leader

Science and the Supernatural, by various names, have shared an uneasy frontier for as long as humankind has had a concept of either. In his book, *The Borderlands of Science*, skeptic Michael Shermer spoke of a balance between orthodoxy and heresy, between being open-minded enough to consider radical new ideas—and what truly new idea doesn't seem radical when first posited?—to be open-minded but skeptical enough to not be bamboozled by nonsense.

I call the meeting of science and the supernatural a frontier. In his subtitle, Shermer referred to the margin of science as “Where Sense Meets Nonsense.” However gently or harshly you refer to it, crossing the frontier, breeching the border, venturing past the edge of reason, requires a jump, a leap of faith.

Our language is replete with adages concerning just that: “Keep your feet on the ground.” “Get your head out of the clouds.” “Come back down to earth.” “Get real.” Our appreciation for the real, the factual, the verifiable, the scientific, is exceeded only by our desire for complete explanations. It can be argued, and I will, that the quest for understanding of ourselves, our universe, of life, is what propels us forward into an expanded future. It can also be argued, and I will, that claims of possession, usually sole possession of inerrant answers to those questions is what keeps us from moving forward, and that can even drag us back.

One person's sense is another's nonsense. Throughout history rock-solid knowings of the unknown have comforted humankind and disquieted human culture.

My talk this morning is not about the separation of church and state, though you'll see that is some of what I say for you cannot consider the supernatural without mention of the institutions that have been erected in its homage. Nor will I go deeply into current disputes between sense and nonsense except by way of illustration.

What I want to get at is the strength of the embrace of supernatural notions and how that embrace has resisted and retarded scientific and cultural advancement. To me, today, it boils down to comfort and conceit—big Cee Comfort and big Cee Conceit—both in an individual and cultural context. Being comfortable or uncomfortable with the unknown, and being modest enough to accept the limits of our own knowledge—mature enough to say, with comfort and conviction, “I don't know” or, “It's a mystery to me.”

There is a conceit in teaching absolute truth, a conceit at odds with the humble position those same teachings assign humanity. And there is comfort and motivation in not knowing. Ethical Culturists locate wonder, awe, and inspiration in the grandeur and mysteries of the universe. Exploring that grandeur and revealing those mysteries gives meaning to our lives.

Yet ...

Each significant advancement of human understandings of things previously associated with the gods is a seismic event that roils the supernatural sea. Demystifying

¹ The reader is reminded that this is the written text of an oral address and remains in that style. While the speaker's presentation marks have been redacted, there has been no attempt to edit it into an essay.

the ocean of the mysterious does not require magic, though magical thinking has surfed that wave since before recorded history.

Science, hard work, openness, receptiveness, these all combine to cross the threshold. So they help. So does patience and acceptance. “I don’t know” is not ignorance—ignorance. It is the opposite. It is awareness and knowledge of the frontier of fact, of the forward edge of verifiable truth. In his 1961 classic, *Stranger In A Strange Land*, Robert Heinlein referred to that as “the arrogant humility of a man who has learned so much that he is aware of his own ignorance.”

I’m going to cite Heinlein a few times this morning. What he said resonates with my theme and I appreciate his pointed way of expressing himself. The same can be said of Ethical Culture Leader Howard Radest, whose words and phrases I’ll also be turning to. They shared a certain enlightened irreverence that appeals to me.

There are things we do not know. And those things are becoming more sharply defined. The edge of the universe, the beginning of time; infinity and eternity are mysterious to us temporal and spatial beings. They don’t grok. Grok is a term Heinlein coined.

Radest employed less than formal language to get his point across, too. Ethical Culture founder Felix Adler held that questions of origin and destiny, of infinity and eternity, are not the important questions. In agreeing with him in a talk delivered here last summer, Radest called such questions “gibberish.” And with Howard’s use of it *gibberish* became a philosophic term of art.

We all know what gibberish is, but it might help to unpack my title terms, especially supernatural. But let me start with science because it’s easier. Science, in the broadest sense, refers to any system of objective knowledge—emphasis on objective—the observation, identification, description, experimental investigation, and theoretical explanation of phenomena. We Ethical Humanists and philosophic naturalists base the objective, the observable, the empirical, the natural. Or, as it says in *Humanist Manifesto III*, “Knowledge of the world is derived by observation, experimentation, and rational analysis.”

By implication that means that we don’t arrive at our conclusions by means of revelation, authority, tradition, mystical inspiration, divination, or so on. These all require a leap we Humanists are unwilling to take. While we are not at all devoid of faith—we believe deeply in each other and our capacity for good—we do not jump to conclusions, we do not make leaps of faith. And that brings us to the supernatural as claims of knowledge of the supernatural require a leap of faith.

Supernatural—from the Latin: super or “above” nature—refers to entities, forces or phenomena which are not subject to natural laws, and therefore beyond verifiable measurement. The supernatural is not only above, beyond, or outside nature, it is it above beyond, and outside our knowing—except through a leap of faith.

However, if what had previously been believed to be supernatural can be scientifically demonstrated, becomes known in a natural way, it is, by definition, no longer supernatural. In this sense, it is the business of science to make the supernatural natural. And that’s why we’re here this morning considering science and the supernatural.

Adler gave definition or at least concept to this area of the unknown that becomes known. His construct of the Ethical Manifold—in which we are interconnected and

interrelated with all that is, has been, or will be—went past the natural but stopped short of the supernatural in an area he described as supersensible or beyond the reach, the knowing of our physical senses.

In *An Ethical Philosophy of Life* he said, “The difference between ‘supersensible’ and ‘supernatural’ is capital. I do not encourage relapse into supernaturalism. The supernatural is the opposite of the supersensible. It is an attempt to represent in natural or sensible guise what is supposed to be beyond the senses; and the naturalistic representation of the supersensible is then taken not metaphysically but literally.”

And in that he casts the problem. Science and the supernatural represent two decidedly different and opposing concepts of reality, of the universe and our place in it. One placing humanity between the known and the unknown, with the realm of the supernatural above, that of the natural world below, and humanity in the middle—subject to the one above and master of the one below.

Science sees humanity as part of nature.

Supernatural claims, you either accept or you don’t. They require a leap of faith that is said to be intuitive, something you experience emotionally, something you know in your gut. Heinlein disabused us of such thinking in saying, “All your stomach can reflect is prejudice trained into you before you acquired reason...”

It can and often is so firmly trained into us that we accept it without question. The most absurd assumptions become fact and we then proceed quite logically, quite reasonably from there. Logic is only as dependable as the propositions upon which it is based. As Heinlein went on to say, “My stomach is stupid ... but I don’t let it rule my brain.”

That’s what Adler was cautioning against, taking notions of things past our knowing and treating them as literal.

Let me give you a couple of examples that underscore the importance of this considerations. Galileo and Darwin.

The thought that the universe did not revolve around the earth was devastating to the cultural of Galileo’s day. A man all too well acquainted with the force of supernatural belief, Galileo said “Measure what is measurable, and make measurable what is not so.” Make that which we do not know known. Expand our understanding of ourselves and the universe. Make the supernatural natural.

That simple expression of the aspiration of science put him at odds with the cultural forces of his day. It also greatly offended the institutional establishment determined to defend its teachings, its influence on and indeed its ownership of the culture. And of course, to defend and perpetuate its own authority. It also put him under house arrest and, had he not been forced into a pragmatic renunciation of his scientific discoveries, a far worse fate would have befallen him.

Kind of makes you wonder what the legacy of the Greek philosophers would have been had Socrates done the same. He made his point in accepting the hemlock, but it was his last. There’s a place for nobility and there’s a place for pragmatism.

Socrates could have benefited from the wisdom of a contemporary philosopher, country music artist Kenny Rogers—we take philosophy where we find it. Rogers counseled that when taking a gamble “You’ve got to know when to hold ‘em and know when to fold ‘em.”

Galileo tried to separate science and the supernatural, but the culture and the institutions dedicated to preserving that culture rebelled. It took the prosecutors of Galileo four centuries to apologize for imposing supernatural conjecture on scientific discovery. However that came a century and a third after Charles Darwin shook the culture with the publication of his theory *On the Origin of Species by Means of Natural Selection*. That challenged the dominant doctrine of “created kinds” and confronted cultural assumptions with a force unseen since Galileo.

In positing that human beings came about through ordinary rather than divine means, Darwin made us part of rather than apart from nature—the nature we supposedly had dominion over.

Now not only was our world not the center of the universe, but we, it’s humble inhabitants, were exposed as natural rather than divine or even divinely inspired, and reduced to the soulless strata of animals.

He rolled back the frontier and claimed for nature territory previously reserved for the supernatural. That was more than a nineteenth century balance of belief, balance of orthodoxy and heresy, could abide. In fact we’re still struggling to assimilate that advancement and its implications in the twenty-first century.

The mysteries of the universe yield reluctantly to our understanding. Even more reluctant is the abandonment of supernatural explanations. In 1654, just a dozen years after Galileo’s death, Archbishop James Ussher, Primate of All Ireland, proclaimed that, based on his scholarly study, the earth was less than six thousand years old, having been created in 4004 BCE. On October 26th. At 9:00 am. Based on our calendar, it was a Sunday, the day of rest.

Science says it’s more on the order of four and a half billion-with-a-B years old. That’s quite a discrepancy, quite a leap. One of my favorite representations of the age of the universe is just up the street at the Hayden Planetarium. There you can walk the Cosmic Pathway and read of the milestones of our existence on large metal markers, one of which places the age of the universe at 13 billion years. No date or time is given for the Big Bang from which we arose, but the *13* is distinct as it’s on a brighter colored metal plug that replaced whatever age had been there preciously.

Our knowledge of the age of the universe expanded so they simply drilled out the old idea and plugged in the new. It’s not that easy with our culture.

Science does not say that we know or understand all that is, nor does it proclaim absolutely that there is nothing other than the natural world. But it does say that our knowledge of what is is expanding—perhaps not as fast as the universe is expanding but growing nonetheless. This leads us to resist assertions of knowledge about another realm, of stories concerning other places and other beings, of claims to intimacy with an always-was-and-always-will-be creative force.

We recognize that as we continue to learn about the areas those claims imagine they, too, will, by virtue of our knowledge of them, become part of the natural world. We no longer believe that thunder emanates from that realm, from the hammer of Thor, or that Neptune rules the seas or Zeus the skies. We understand that we are not the center of the universe, we recognize that to claim dominion over nature is to proclaim dominion over one’s self for we are nature and nature is us. We are honored and humbled in seeing ourselves as the result of unguided evolution. And it is that pride and humility that brings us to accept that we have limits, that there are things we do not know.

And we've experienced enough of advancement to see that as we expand our knowledge into heretofore unknown areas—even if we were to unravel the mystery that resides the other side of the Big Bang—we know that we would also reveal even greater mysteries. While we would be enriched by that knowledge, we would be humbled by what that knowledge reveals.

There are things we don't know, things that are beyond our present concepts of nature. As much as we may want to know, as firmly as millions and billions believe we do know, we don't. The supernatural is put forth as being a realm above, a realm of which we are not a part, a realm that cannot be verified but that must be accepted on faith. And then we're told all sorts of things about that realm. It boggles the imagination and offends credulity.

And I say that the more others claim to know of that which is not natural—of the other-than- or super-natural—the more they claim to know about the unknowable, the more clueless they are about what is known.

Of course I can't be sure of that.

I think the worst aspect of supernatural belief is that it leads naturally to authoritarianism. When your identity is all tied up in something that is challenged by reason, well, it's pretty hard to go up against reason with something that isn't born of reason. So you resort to dint of will, to the power of personality or the influence of position. And, if that doesn't work, you resort to force.

It's equally difficult to reason someone out of a belief not arrived at through reason in the first place. You simply aren't speaking the same language. You can talk and shout past each other, but it's difficult to talk to each other. So we wind up hitting each other.

It's not science and religion that struggle to accommodate each other. Left to its own devices, religion is elastic enough to accommodate the understandings of science. It doesn't seem to mind having the old drilled out and the new plugged in. That acceptance, that consistency, is what it means to be progressive.

So it's not religion per se that's at odds with science, it's the supernatural or, more specifically, supernatural belief that clashes with science. The confusion comes in when you introduce a third party, the religious institution that represents supernatural belief. They are heavily invested in the propagation of supernaturalism. Their viability, their authority, their very existence depends upon it.

Religion can and has peacefully co-existed with thinking science has eventually proved to be fanciful, magical. That's a process humanity depends on.

As Ethical Culturists, we do our best to locate our beliefs within nature. When our understanding of nature expands so, too, does our arena of belief. Placing things in a natural context makes for a firmer foundation of belief. Placing them in the supernatural is risky.

For example, placing us, humanity at the center of the universe—something Humanist are ironically accused of today—with all else revolving around us, above and below us. When Galileo destroyed that, he exploded our concept of up and down, and along with it our concept of a heaven above and a hell below. And a lot more that institutional ego came tumbling down.

Same for Darwin. Our animating vitality was held to be in the realm of the supernatural, in the soul of a created and favored being. Evolution atomized that and poof went the soul.

The scientifically oriented are no less susceptible to misguided beliefs. But the difference is this. When our concept of nature expands, when our understandings widen causing us to toss out old concepts in favor of new, we are uplifted not threatened. That's a validation of the human struggle to understand ourselves.

The Hayden Planetarium I mentioned before is part of the American Museum of Natural History, who next month will play host to the annual Isaac Asimov Memorial Debate, which this year considers the Pioneer Anomaly

The Pioneer spacecrafts, were launched in the 1970s on trajectories that would send them past the outer planets and onward with enough speed to leave the Solar System entirely—a first in space exploration. Their telemetry, which gives us their precise positions in space, does not match where our laws of physics say these craft should be. And the discrepancy is growing.

Is this some unforeseen glitch of spacecraft design, or does this dilemma herald the need for a new law of physics, perhaps even a new understanding of gravity? A distinguished panel of expert engineers and physicists will gather for this event, named after one of our own, Isaac Asimov, to debate the remarkable enigma that has been dubbed the "Pioneer Anomaly."

That's how the scientific and the philosophically natural segments of our movement meet findings at odds with our foundational beliefs. We're excited and motivated by them. We don't try to bend new findings to fit old beliefs, we don't try to cram them into old concepts.

We recognize our own fallibility. We know that mythology can easily masquerade as rationality, and that what seems rational can be rationalization. We're left with the obligation to continually examine our own thinking to determine what is root and what should be rooted out.

Ethical Culture has established a natural basis for ethics, one that offends and frightens dogmatic theology. But the supernatural has not, as Adler had hoped, been exorcized from our culture. Phantoms and superstitions still lurk. And while we uphold or interdependence in seeking truth from all sides, many do not. Fanaticisms are still prevalent in our culture, and indeed have taken center stage of late.

So, is it time to hold 'em or fold 'em? Kenny Rogers went on to say, "Know when to walk away and know when to run." Socrates had the chance to escape. He could have run and lived to philosophize another day, and I wish he had. But in the current atmosphere of science and the supernatural, of fact and faith, of sense and nonsense, what are our options and which should we choose? What gamble should we take?

The upper hand is not always the winning hand, and that which prevails in one round may not in the next. We've chosen philosophic naturalism and that's a hand we can not fold. There might and likely will come a day when that which we hold true has advanced and we're again called upon to embrace something other than that which brought us to where we are. At that point we must have the courage to walk away from it, just as we now distance ourselves, run from those who would impose a ridged past on a progressive future.

In the words of another religious reformer, Rabbi Sherwin Wine, “I am not a man of faith, I am a man of courage, I am a Humanist.”

Ethical Culture, founded within the bounds of rational constraint, is philosophically sound and intellectually oriented. It stands in stark contrast to the emotionality of the evangelical movement which had, at the time of the founding of our movement, just experienced its second Great Awakening which took it further from its doctrinal roots.

These two divergent events, one intentional, the other beyond the restraint of reason, put Ethical Culture at once at the leading edge of contemporary religion and at the overlooked margin of mainstream religion. That’s a distinction that still applies today. But, I do not accept Ethical Culture as a mere tributary to the mainstream. But rather I see it as the headwater of a new stream of religious thought and life. A stream that trickles and struggles but refreshes those who thirst for reasoned meaning.

The embrace of Science and the rejection of the supernatural were part and parcel of the founding inspiration of our movement. But as powerful and appealing as science and philosophic naturalism are, they are not capable of leading the moral charge. Indeed, it can be said that they simply create the context in which our moral development becomes possible.

We are, as it says on the side of our building, “Dedicated to the ever increasing knowledge and practice and love of the right.” Our love of these things stems not only from their power and appeal, but from their application in our daily lives, in the practice of our knowledge. It is our love of these things that drives our moral quest.

As harsh and plain-spoken as he could be, Robert Heinlein could also be tender and he reflected the attitude of Ethical Culture when he said, “Love is that condition in which the happiness of another person is essential to your own.”

Let me close with the words of Howard Radest. This is from the introduction to *Humanism With A Human Face*. “There is then an extraordinary richness in my experience of self and other that, when joined to the richness of nature and imagination, fills my life with more than enough of love and joy, challenge, fascination, and surprise. I do not need some other world elsewhere and elsewhere since I am never lonely, never without something interesting before me, and, of course, never without some other who cares. To be sure, my experience—like yours—includes its share of suffering, pain, frustration, disappointment. Nature and others can harm as well as help, frighten as well as support. Yet I have confidence not so much in outcomes—which are never assured—but in next moments and next persons and next ideas.”



A member of the American Ethical Union
and the International Humanist & Ethical Union

2 West 64th Street • New York, New York 10023
212.874.5210 • www.NYSEC.org