

Site Map: [MAIN](#) / [A Reader's Treasury](#) / [Webpage](#) [Printer Ready](#)

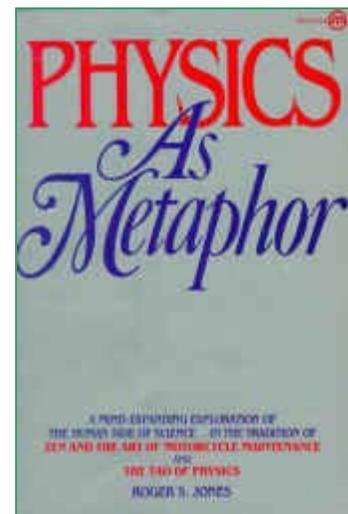


*A READER'S TREASURY*

**Physics as Metaphor by  
Roger S. Jones  
A Mind-Expanding Exploration of the Human  
Side of Science**

Published by Times Mirror/NY in 1983  
A Book Review by Bobby Matherne ©2003

*Paradox is always at the level of metaphor, never  
reality. Bobby Matherne, 1983*



I had scribbled the above statement in the margins of the Preface page back in 1983 when I read this book. I had been studying metaphor intensively and this book represented a chance for me to combine two fields of expertise, namely, Physics and Metaphor. It's been over twenty years since I first read this book, but it is amply annotated with my comments which will provide the nuclei for this review. As I read this passage in the Preface by the author, I knew I had found someone whose ideas would resonate with me, both the me of 1983 and the me of today.

**[page x] Within physical and mathematical ideas, it is always the philosophical, the aesthetics, the psychological that I savor and which excite me the most. I believe that many scientists share and relish these tastes with me, but when they exclude all subjective, metaphysical, and ethical matters from their work and communications, I part company with them. I am no longer convinced that this exclusion makes one's work more objective.**

There is so much that I agree with in Jones' book that if I include a passage, you may assume that I wholeheartedly agree with his words unless I say otherwise. Here's an example. Jones says that we are not the cool observers of the world, but its "passionate creators" -- that we are all poets and the world is our metaphor. He goes on to suggest that:

**[page 5] . . . scientists (and indeed all who possess creative consciousness) conjure like the poet and the shaman, that their theories are metaphors which ultimately are inseparable from physical reality, and that consciousness is so integral to the cosmos that the creative idea and the thing are one and the same.**

To which I appended a large BINGO! in the margins. With the advent of quantum mechanics, the physical theory that only dealt with "an observed world" no longer exists as a useful metaphor because the "observer has an uncontrollable and nonremovable effect on what is observed." Reality is what we see reflected in the pond water when we place our finger into the water — we cannot observe what is reflected without changing what is reflected.

In a brilliant metaphor, Jones says, "The child, science, has outgrown and rejected its parent, natural philosophy, which languishes in a slow death." Undoubtedly this is because the warm and juicy Nature

portions of natural philosophy have been discarded as juvenile illusions and we are left with the cold, dry, cardboard philosophy of abstract thoughts in its place, up until now.

Jones gives us an excellent description of what an operational definition is, actually a prescription. An operational definition can only be defined operationally - that is, by describing how one goes about giving an operational definition. One explains what operations one must perform to decide whether some unknown fits the operational definition. While this may seem to be a bit abstract, it is the opposite of abstract, because the prescription of a good operational definition can replace totally abstract definitions. Abstract definitions have the wonderful quality, praised by statesmen and divines, that one can choose to interpret them *any way one wishes*. One does not have that luxury with an operational definition because anyone can perform the prescribed operations and decide for themselves whether such-and-such fits the definition. Take freedom, for example. Have you ever heard a good operational definition for the word "freedom"? Likely you haven't because it is the statesmen and divines who usually claim the high ground in proffering a definition of freedom, isn't it? And they posit only an abstract definition which fits their purposes. The advent of an operational definition for freedom, rightly understood, would undermine all political and religious organizations by revealing under all their golden tresses the deep, dark roots of *coercion*. More on that later. Back to the book's prescription of operational definition, in other words, an operation definition of operational definition.

**[page 16] It is an amazing fact about physics that none of its concepts are ever really defined. What we are given instead of a definition is a prescription for measurement. To build a rocket and send it to the moon, you need only measure space, not define it. The measurement of space is the only specification of it needed for scientific purposes, and this is called an operational definition.**

Those of you who have followed me so far may be wondering how could one offer an operational definition of freedom. It would take someone who thought like a physicist, who had encountered time and time what he thought was freedom only to find in its place a squishy abstract definition used to conceal more than it revealed. I say "he" because it was one man who performed this amazing feat, one that will change the world, even for those who never encounter his definition. Before I reveal this man's name to you, consider for a moment all the definitions you have heard for freedom.

Listen for a day or so to people talk and whenever they speak of freedom, consider what their definition might be for the concept for freedom. A teenager might say, "I want to be free to drive the family car." A union worker might say, "I want to be free to work for higher wages." A minority might say, "I want the freedom that the majority has." And each year a new minority forms which claims its right to a new freedom. And another minority rises which opposes that new freedom. But what is freedom? There's freedom to do things we want to do, and there's freedom from things we don't want to do. We are free to pay taxes, but not free from paying taxes. We are free to vote, and also free to not vote. There are all levels and kinds of freedom: people are given freedom, people fight for freedom, people flee to freedom, people take freedom for granted, people die for freedom. All this and few of those doing all those things in the name of a word they lack an operational definition for.

Thank you for waiting. Here's the operation definition of freedom. I wanted this definition so much that I paid a month's rent back in 1981 for it, and I spent 19 Monday nights in a small room listening to a man's voice on tape tell me about freedom and explain his operational definition of the word. The man was Dr. Andrew Joseph Galambos and the course was called Volitional Science 50T, the T stood for Tape. The lectures were given by a local contractor on audio tape and slides. At the end of the course, the course of my life had changed. I was now able to discern what was freedom and what was not in the milieu of what people claimed was freedom, especially the statesmen and divines. I was ready to begin building freedom for myself instead of fighting for freedom, claiming freedom, and all the other things that people did who did not have this operational definition. I had a measuring tool for freedom!

That's what an operational definition provides us, a measuring tool, for the thing described. I could now

lay anyone's concept of freedom (as betrayed by their own words) alongside my freedom gauge and measure it. Let's see, does it measure up? If not, it's not freedom. You might wonder why someone who was born and raised in the so-called "freest country in the world" would be so concerned with freedom. Well, I am now able to measure this country against my freedom gauge and see exactly those areas in which it doesn't measure up. And you would be able to do the same thing if you had a "freedom gauge". One way to get a freedom gauge for yourself is to find a contractor in your area who gives V50T, though I doubt there are a lot of them around. It's hard to sell something that everyone thinks they already know all there is know. Another way would be to read Dr. Galambos's book, "Sic Itur Ad Astra" which is available from large on-line book sellers. Another way would be to read my [review](#) of the book which is a verbatim translation of the same V50T course I took over 23 years ago. It is your choice which you can take in freedom and decide for yourself whether this new definition of freedom works for you or not.

Jones proceeds to challenge the basic assumptions of modern science and he points out he "cannot use those same assumptions to reject other belief structures." For example our relationship to space has changed over time and maybe it's time for it to change again:

**[page 60] It is the sum of all the felt organic connections between my inner and outer worlds that I experience as space itself. Space is the synthesis of all my feelings of relatedness, connectivity, orientation. Owen Barfield summarized it beautifully:**

**The background picture then (in the Middle Ages) was of man as a microcosm within the macrocosm. It is clear that he did not feel himself isolated by his skin from the world outside him to quite the same extent as we do. He was integrated or mortised into it, each different part of him being united to a different part of it by some invisible thread. In his relation to his environment, the man of the Middle Ages was rather less like an island, rather more like an embryo, than we are.**

Maybe it's time for us to change from the cold, abstract isolated island of modern science back into the living embryo of Nature once again. It may be argued that we had to become this island for the past 600 years in order to learn fully about the physical world in which we live, but we were never meant to continue on this course indefinitely. If we do, we risk losing our very humanity, our soul, and our immortal spirit, and humankind will disappear when the Earth vaporizes in some distant future. If we are not a living spirit, a [microcosm in the macrocosm](#), this is our ultimate fate: the lifeless chill of empty space. In freedom, you get to choose which destiny you wish for yourself. Given the two choices everyone would choose the former. What is amazing to me is that modern scientists proudly choose the latter. (Note: I mean *modern materialistic scientists* when I use the phrase *modern scientists*. Clearly the author is a modern scientist, but not a materialistic one, nor am I. )

Modern scientists also proudly make derisive comments about those people who believe in astrology. This reminds me of the words of Herbert Spencer, "There is a principle which is a bar against all information, which is proof against all arguments and which cannot fail to keep a man in everlasting ignorance — that principle is contempt prior to investigation." Modern scientists seem to revel in remaining in ignorance that they are on the slippery slope to an icy death.

The basic principle that connects humankind with the universe is the principle of 'As Above, So Below'. This principle is not talking about a place, but the scales of space, and scales of time. If you are interested in how this happens, you could study Rudolf Steiner's book, [Cosmosophy, Volume 1](#), to come an understanding of how you as an individual in your time between birth and death have the cosmos outside you and later in the time between death and a new birth have the cosmos inside of you. You would need to study something that people in the early mediaeval period and before knew as a fact, before we began to accept as real only those things revealed by our sensory apparatus after the scientific revolution which began in 1453 A. D.

**[page 64] For the medieval astrologer, above and below refer not to different places but to different aspects of the same thing. There can be no above without a below. The two**

**are connected — in fact, unified; and the many correspondences and felt relationships between them inform the study of astrology. Astrology is thus the explication of the connections that exist between the stars and humans, between two apparently different realms which are actually one.**

Jones neglects to mention the planets which are also deeply connected with the human being -- they have a direct relationship, one-to-one, with the various organs of the human body. It should be obvious that simply giving a list of those relationships of planets to organs as astrology books do provides no insight into how this comes to be. Only a study of spiritual science can provide those insights — if one works at it, they will come in time to be revealed.

**[page 65] In such a realm of organic connectedness, the medieval astrologer pondered the relationship of humans to the stars. He did not think in terms that we might use of the influence of the planet Mercury on someone at the moment of his birth, projected across millions of miles of empty space. Rather, he recognized in the primal moment, when a new born child drew its first breath of life, the stamp of a unique event impressed upon the whole cosmos and reflected in its every rhythm and pattern.**

One of the perennial celebrations in families around the world is that of a person's birthday. Each year we are reminded of our relationship to our natal arrangement of the stars in the sky when we celebrate the anniversary of our birth. Modern science endeavors to suck the life from the celebration by flattening the patterns of stars into some geometrical pattern which has no conceivable connection to our life on earth. No "conceivable" connection in their dry, intellectual way of conceiving things. Jones fleshes out the reality that lies beyond the abstract reckonings of science:

**[page 66] Meaning and wisdom are incorporated in astrological space, which is symbolic, organic, and synchronistic, rather than empty, geometrical, and causal. . . . A natal chart represents the organic and harmonic relations among the various astrological elements rather than the geometrical ones. It is the organic, reflective, symbolic relation that is primary importance, and this connection is felt intuitively by the astrologer, as it was by ordinary people in the Middle Ages.**

**The medieval person felt connected to Mercury in much the same way as you feel connected, let us say, to your liver. The geometrical location of your liver scarcely begins to suggest its basic relationship to you. It is your liver's organic and functional relation to you that is really important.**

We have performed many amazing technological feats by modern science's application of algebra, calculus, and geometry to space. We have applied these mathematical maps to land men on the moon and bring them back, to created world-wide communications with global satellites, and to many other less savory ballistic innovations. But along with these inventions, we have come to mistake our maps of space for the territory they represent — to pretend that space is nothing but an empty void between isolated stars, planets, and comets which humans may one day navigate between. With that we have lost our comprehension of how we live in concert with the Earth, Moon, Sun, planets and stars between birth and death and they form our inner reality during the time between death and a new birth.

Jones begins his last chapter with a long quote from a famous scientist made on PBS about which he comments:

**[page 208] My principal objection to the statement that opens this chapter is to its ironic unwillingness to recognize in our present scientific world view the same story-like quality as there is in the tales of the those who thought they lived on the back of a turtle.**

The above passage calls to mind a story about William James who was confronted by a woman after a lecture in which he talked about the Earth's floating in space orbiting the Sun:

**In a cloying sweet voice, she said, " Prof. James, I cannot believe your story about the Earth floating in space. Everyone knows the Earth is sitting on the back on an elephant."**

**James looked at her and replied, "My dear lady, in that case what is the elephant stand upon?"**

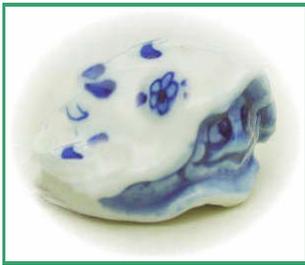
**"Well, everyone knows the elephant is standing on the back of a turtle."**

**"I suppose I must ask you then what is the turtle standing on," James said.**

**"Ooh, Prof. James, why of course, it's turtle all the way down!" she replied triumphantly.**

We are given metaphor after metaphor by modern science upon which they perch their abstract theories and calculations. Their results are useful in manipulating the physical world, but like the lady's theory, when we examine the basis of science's theories, we find that it is metaphor all the way down.

## Discover Freedom on the Half Shell



[What are the oysters talking about? Click Here to find out.](#)

