

# Toward an Environmental Ethic beyond Science and Religion

by David Partch

In the beginning, there was truth. There it is: the word *truth* – a word so familiar and obvious and, yet, one that defies all rational explication. We use expressions like “in reality”, “actually”, and “in fact” as pathetic attempts to point the way back to what we mean by this mysterious word. There is nothing more self-evident than the meaning of *truth*. And yet, as soon as we try to define the word, we find ourselves lost in a hopeless vocabulary that will always fall short of the goal and that will always leave us unsatisfied. We know what we mean, but we cannot express it.

This would indicate there is something wrong with our vocabulary. We say “we know what we mean”. Well, what does that mean? We are using the word *know* in pretty much the same way we use the word *truth*. “We know what we mean” is the same as “we have the truth”. We are stuck again. How can we “know” something? What does that mean? It appears we can give no rational definition of any of these words. We cannot understand them with the same vocabulary that we have become accustomed to using to describe what we call the “world”. In our understanding of “reality” and “fact” we use a conceptual vocabulary that is fraught with abstractions, assumptions and theories. Where does this vocabulary come from? Somewhere along the way, we have gone down the wrong path and were lead away from the truth. We have become so lost, that it seems we can never find our way back. We have fallen from innocence. We have irretrievably lost our immediate sense of the truth. Or so it would seem.

It is even difficult to speculate about what went wrong and when. In doing so, we are inevitably left with using the same vocabulary that got us in trouble. The only possible way out might prove to be a radical attempt to throw out our currently accepted vocabulary and start all over again. To me the vocabulary that needs an overhaul is inseparable from what we commonly call “science” and the inevitably related academic or “scientific community” of so-called experts. Unfortunately, we have no other vocabulary readily available and simply inventing one does not appear to be an option. And so, we are left to muddle through using the wrong tools for the job – hoping that we can somehow achieve the task anyway. It’s like trying to drive in a screw with a hammer. It would be a lot easier and more precise with a screw-driver, but we don’t have one. So we are left with brute force.

Certainly, to admit in our contemporary culture that you have doubts and concerns about science and its method and that you are skeptical about scientific knowledge is essentially intellectual suicide – or maybe even worse: outright heresy. It is one thing to say that science does not answer the question of the meaning of life and does not provide a world-view. But to question the scope of its validity probably would be viewed as a ludicrous position.

Well, I’m about to commit intellectual suicide. I am not sure at this point, however, how public I want to go with this critique. Sometimes I fear that I might be doggedly pursued to the very ends of the earth by the science mind-control police (whoever they are) for my blasphemies and irreverent treatment of their passionately held dogmas – very similar in some figurative sense to the way Salman Rushdie was pursued by the ayatollahs. At least, the fanatic intolerance of science advocates does often seem that severe. At the very least, a vicious verbal affront is a virtual certainty.

There are certainly plenty of reasons why we might be uneasy about science. Indeed, you don’t have to look hard to realize that a good many of our major problems these days are actually

“achievements” of science – or, at least, the direct side-effects thereof. We are faced with annihilation by means of weapons of mass destruction and/or probable extinction through ecological disaster. One can also attribute many of history’s totalitarian regimes to certain underlying “theories” that were created with the best of “scientific” intentions. Of course, the science apologist is going to point out that this is merely incidental. Science, they will argue, is not intrinsically the cause of these problems. Rather, it is the application of science that causes the problems – an application, it is claimed, that is driven by the ugly “values” of human beings. I would not suggest that there is a direct causal link between science and our demise, but I believe there is, indeed, a more subtle connection. I suspect that science is, on another level, indirectly responsible for at least some of those ugly values. In the following, I will attempt to offer an abbreviated explanation for why I believe this.

My concern is that science does, indeed, represent a hidden world-view and that it has infected the intellectual community with its underlying assumptions and dogmas that are not only restrictive but also misleading and disastrous. This has created the vocabulary that we use to talk about the “real” world. Indeed, it shapes not only our concept of reality. It even defines what we now mean by faith and belief. It has defined what we mean by “rationality”, “reason” and “value” to an extent that we have come to “understand” everything with reference to that conceptual framework.

The science enthusiast will undoubtedly want to point out that science can be viewed as liberating, emancipating – the fruit of the enlightenment. It allows us to free ourselves of “superstition” and “myth”. It opens the door for “progress” that might have been stifled by less enlightened views. S/he will also want to assert that science is probably our only salvation. After all, isn’t it science that monitors global warming and discovers holes in the ozone layer? Isn’t it science that determines how polluted our air and water supplies are and how to improve on them? Isn’t it science that is making solar and wind power practicable? Etc. No doubt, we are in many respects thoroughly and undeniably addicted to this intellectual drug. We cannot simply go cold turkey. But, in the long run, we may find it necessary to correct our overdose. In the end, we will need to learn to distinguish between science as a technical activity and the methodology and theories of science – not to mention its underlying value-system.

It is glibly maintained that science is the extension of common-sense. This is a widely accepted view represents a serious misunderstanding of what science really is, however. It is also assumed that scientific knowledge is based on what we know through our senses. Again, this is simply not true. These common misconceptions about science are the fundament of our popular understanding. Science, however, is not really about knowledge and it is not about understanding. It is about control. It is about what we can accomplish with it. It is a tool. It is technology. There is no science that is devoid of and divorced from technology: the myth of “pure” science. Science is always about results. Even progressive theories about society are proposed as tools for improving society. It is the results that demonstrate the advantage or the “success” of the “method”. Scientists have been extolling this superiority – in one form or another – ever since Copernicus and Galileo upended the ancient understanding of the heavenly bodies.

In contrast, today we are becoming increasingly aware of how extensive and precise knowledge and understanding can be totally independent of any scientific method. The people we generally have referred to as “aboriginal”, “indigenous”, “native”, or even “primitive” turn out to have (or have had?) a knowledge base that has allowed them to survive quite well without science – sometimes in extreme conditions that are quite unimaginable to us in our western “civilization”. They often demonstrate an understanding for their environment that is the envy of scientists. A good deal of this knowledge has often been interpreted as “superstition”. However, we are discovering more and more that there could indeed be an intrinsic logic behind it – one that might just prove to be more

appropriate to a natural and healthy understanding of our environment. This understanding is made rich by an intimate familiarity and based on the fundamental premise that one is **part** of the environment – not just an observer. However, I am not advocating that we could ever simply “return” to such an “original” state of knowledge and existence.

To be sure, science does have explicative value to a large extent and it cannot be denied that the accomplishments of modern technology are overwhelming. Within a certain scope of interest there is no doubt that it has great utility, if by *utility* we mean its efficacy irrespective of whatever value that might have. It has proven to be an excellent tool – sometimes even too excellent. The problem with science, in my view, is when it attempts to explain **everything** that we can experience and think, and when scientists (or, at least, their high-priests, the “philosophers of science”) refuse to admit that certain aspects of our existence are beyond its scope. This obscures and purports to eliminate all other potentially fruitful approaches to understanding our existence as a whole. And, certainly, it obscures the truth – especially about science itself.

At best, science leaves some wiggle room for belief in a “spiritual” realm devoid of all empirical or immanent content, beyond our everyday experience of the “real” world – the one that science has claimed exclusive rights to. This is also important to scientists who want to maintain a faith in a deity of some sort. Einstein, arguably one of the most respected scientists of all time, is an excellent example. But this extra-experiential spiritual realm is thought of as transcendent, the meaning of which is itself defined in contrast to science. I.e. science even defines what we mean by *spiritual*. It is that safe realm to fit our faith into without contradicting the logic and basic precepts of science itself. It is something withdrawn from any rational understanding of our experienced world. It can be posited, but it can neither be demonstrated nor understood. We draw our values from it, perhaps, but those values may not enter into our reasoning about the world. With this, science has also cornered for itself the whole concept of reason. It has defined reasoning as a method. And that method is, of course, limited to phenomena that are “observable” (meaning: testable, manipulatable) and, therefore, considered “external” to us and our values. Everything beyond the scientific method is irrational and out of the reach of our reasoning, however much we might want to believe in it.

This precludes the idea that we can have any **reasonable** understanding of the world that does not conform to the scientific method, however that is defined. All other concepts are “irrational” or “metaphysical”. Only things that can be folded back into the scope of science can be understood “rationally”. For some this is almost a trivial matter of definition. However, that is misleading because there are other ways of using the word *reason* that are in danger of losing their meaning because of this – in particular, the use of *reasoning* in the context of ethics. The only way to “understand” ethics, indeed, is said (by the scientific-minded) to also be as an object of science – as an observable phenomenon, the rationality of which can only be understood as utilitarian. I would maintain that this is not the natural way that we use the word reason with respect to value judgments. Moreover, we have lost the entire concept of *value* in the process. Value is reduced to a relative concept – relative to an individual or group of individuals attempting to “survive in nature”. Value is just another way of saying what is useful. The rationality of values cannot be understood in the value itself. Values do not imply their own rationality. Values are implied strategies. Only as strategies can we see our values as rational. Supposedly.

This may correspond to what is increasingly becoming the prevailing attitude. I would argue, though, that it might not entirely line up with what a less theoretical concept of *value* would be – i.e. one that is common-sense. There are some very fundamental values that I do not believe can be cast in terms of strategy. The right to political equality, for example, would be one of them. (Remember: “We hold these truths to be self-evident...”) It seems counter-intuitive to say that we believe in equality only because we consider ourselves better off that way. Of course, one could argue that,

indeed, we are, in the end, generally all better off in a society of equals. But that is not the argument (i.e. reason) we present to those who have an advantage in inequality and therefore try to maintain it with force. We simply say that inequality is wrong. Period! Utility is not why equality is considered a value in and of itself. The *reasoning* we give for this must be of a radically different sort. Otherwise, we would inevitably lose the argument over the value of it. The “value” would be disclosed as merely the strategic value of the argument itself and would, therefore, be meaningless to the opponent. And I would suggest that there are many other values of this sort. So, if we cannot understand this meaning of *value* in the context of scientific “rational” understanding, what could it mean? How are we to find any intrinsic reason in a *value* at all? This is the predicament that we are presented with when the scientific method has become widely viewed as the only truly definitive method of rational or reasonable discourse. Values are disclosed as mere arbitrary dogmas or decrees, if not understood in a strictly utilitarian sense. At best, they might be deemed to be a “matter of the heart”.

The situation also becomes troublesome when the attempt is made to apply the scientific approach to understand *understanding* – in effect, science itself as an object of empirical science. Understanding becomes something like “a function of the brain” that can be “understood” only within the context of neuro-psychology. The obvious circularity in this attempt somehow seems to escape the scientists who insist on pursuing this line of thought. They claim that they need only more time to do the appropriate “research”. Consciousness itself is thus postulated as an “observable” phenomenon. It is not something that enables observation, it is itself observable. We thus think we can “observe” our own ability to observe (hence, the circularity).

This is true even for those who see “consciousness” as something other than a material entity. It is still viewed as a phenomenon that, say, requires “expansion” through “evolution” in order to facilitate emancipation, freedom and peace. This pseudo-spiritual approach still entails a reified concept of consciousness. It casts it as a thing.

The need of empirical science to come full cycle in our “understanding” of “observation” – as something observable – is, I believe, driven by a desire to leave nothing outside the realm of the scientific method that could possibly be of any interest to science and *observable* is, indeed, a concept of unique importance, since it is definitive of science itself. The consequence of this approach is that **all** other ways of understanding consciousness are deemed to be wrong or, at best, metaphysical, which is just as bad.

Behind this necessity are, I believe, the (not so hidden) precepts of science. One can try to establish the logical purity of the scientific method in “inductive” or “deductive” (a la Popper) reasoning – those supposedly pure and irrefutable modes of thought that lend science its **compelling** nature: its rationality. However, the real driving forces behind scientific inquiry are the underlying **assumption** of the supposedly irrefutable rationality of mathematics, on the one hand, and the unwavering **faith** in physicalism (i.e. that everything is to be explained with respect to the causal mechanics of the “external” world), on the other. The holy grail of neurological science is to remove the Cartesian mind/body duality by simply declaring that there is no mind. We now have located the mind as just another aspect or property of the brain. Everything is now “external”. We are external to ourselves! And, thus, materialism will have finally and definitively won the metaphysical dispute and resolved the duality problem in the most banal of all possible solutions. And with that, certain other old fashioned concepts like *dignity* and *free will* can be summarily tossed out the window as so much metaphysical garbage. We – and everything else, even our thoughts – are indeed nothing but meaningless nodes in a vast universe of mechanics. Of course, one can appeal to the overall miraculous wonder of nature in all of its (perhaps even God-given)

complexities, but somehow that, by itself, is of little consolation. In the end, everything about us is fully determined. We **choose** (ironically) to lay our will down on the ground and stomp all over it.

I am neither trying to argue for the correctness of Descartes' so-called dualism – i.e. that there is some ethereal reality to the “mind” parallel to the physical reality of the body – a notion that has its origins in the spiritual beliefs of our western culture, the model of the ghost in the machine. Nor am I trying to re-establish the superior status of human beings in the realm of nature as the chosen species for whom God created nature. I am only trying to re-open a window of hope that some other way of **reasoning** about our existence could help us expand our understanding of ourselves beyond the mechanics of the physical world without lapsing into arbitrary transcendent dogma.

In other words, I am trying to retrieve the meaning of *reason* as something that goes beyond science and, yet, is still in some sense compelling. This is not for the sake of enforcing a system of thought, but in the sense of seeking consensus for a meaningful basis of discourse outside of the purely theoretical realm. In the process, it just might turn out that we can both eliminate the pitfalls of dualism and, at the same time, establish the true value of science itself – as a methodology of understanding, i.e. as a pragmatic method for understanding **how** things work.

It might be helpful in this context to introduce a clear distinction between *reason* and *rationality*. *Reason*, we might say, can be applied to ethics in addition to serving as the basis of our common-sense understanding of or theoretical insight into our experience. *Rationality*, on the other hand, would be limited to our instrumental view of the world – i.e. the study of its proportionality, especially through the use of mathematics. Thus, when we speak of our actions as being “rational”, we mean whether or not they are effective. In contrast, the question of their “reasonableness” could be said to be entirely different.

But before we can make this distinction clearly, we must first understand what *things* are.

At the outset, I made the rather presumptuous statement that science is neither about knowledge nor about what we know through our senses. However, in keeping with science's own methodology, it would have to be admitted that science is really about hypotheses (and the theories they are contained in) on the one hand, and “observable results” on the other. The observable results come to us in the form of statements about “things”. If you think about it, though, things are not something we know through our senses.

“What?!” you say. “That is utter non-sense.”

No, things **are not** part of what we know through our senses. I.e. they are not part of our perceptual data. Whoever would like to maintain that we “perceive” things is not only not paying attention to his/her senses, but also flying in the face of the prevailing scientific theory of perception as delivered to us by the empirical science of psychology. We perceive visual contrasts of hue, saturation and luminosity, or sounds, or textures, or heat, or pressure, or odors, etc. We do not perceive (i.e. see, hear, smell, taste, or touch) things as such. There is no **sense** for acquiring the “quality” of thingness. One might argue that this is falling back into the trap of the psychological/mechanical theory of perception. However, that is not my intention. I am not talking about the mechanical model that the **theory** expounds. I am focusing only on the tentative concept of “raw perceptual data” as a naïve entry point into my discussion.

Now the phenomenologist might argue that the given part of our experience **is** the thing – i.e. the phenomenon. And that we arrive at the **concept** of sensory data only **analytically**. This is a fair argument and one that I don't intend to dispute – on the contrary (but more on that later). The context here is quite different, though. I am concerned right now only with the common, but mistaken notion that we verify observational data through our senses, as understood within the

context of “empirical” science. The argument is meant to disclose the fallacy that there is anything empirical (in the common-sense notion of perceived data) about empirical science: *the empiricist has no clothes!* One only has to read Popper (one of the Godfathers of the Philosophy of Science) to see what I mean, where he asserts that statements like “there are white ravens” are actually “metaphysical” in nature. He maintains this because you cannot deduce from them a way of falsifying them. (And it doesn’t really matter that this happens to be a statement we would generally agree is untrue, since “true” statements have the same structure.) Such statements thus play the role of mini-hypotheses. Yes, our everyday statements about the world are **hypotheses**, not “empirical facts”! And this I would agree with, if seen in the proper light. But the complexities of Popper’s theory of the scientific method go beyond the intent of the current discussion.

Indeed, as with the phenomenologist, I would agree that the thing (or phenomenon) is our original awareness. We do not first have “awareness” of perceptual data and then inductively piece together the “awareness” of the “thing”. Awareness can never be prior to the thing, since there would be nothing to be aware of. This almost sounds tautological. But it is extremely difficult to conceptualize, since we are, because of the influence science has on our thinking, inevitably prone to fall into the widely accepted explanation of how perceptual data is “synthesized” into an object. This is because we must talk about things in the form of statements about things. It is the structure of statements that is synthetic – not our immediate phenomenal experience. When we attempt to explain this “synthetic” character of our “knowledge” of “objects”, we, thus, tend to fall habitually in the direction of a psychological or mechanistic explanation of perception. According to that model, data from the sensory organs is transferred via the nerves to the brain. There the so-called “neural firings” interact in some yet unknown fashion to give rise to the “awareness” of the object. Thus, this “awareness”, is also interpreted as an observable “object” or, at least, an “emergent quality” inside the brain. This seems straight-forward enough, doesn’t it? But, it is a trap.

There are certainly many ways we can try to explain this awareness. I would argue, however, that our ex post facto “empirical” or causal explanation of the *awareness* of things is necessarily a **theory** about awareness (of phenomena) and will, therefore, **never** be conclusive or compelling. Strictly speaking any well-informed scientist would have to agree with this. My guess is, however, that probably most working scientists would not. The informed scientist would also have to agree that it is better to be able to explain more rather than less. And this is precisely where the mechanistic model breaks down, since it narrows the extent of the explainable. Within its framework, we cannot explain, for example, how we ever got the notion of free will. Nor can our value statements ever be said to be reasonable. We are even unable to say what the function or utility of consciousness itself could be in a purely physical world. That’s why these concepts and questions have become viewed as “meaningless” from the scientific perspective. If you want to talk about these things, you can, but only in the context of a transcendent or “spiritual” explanation, the rationalists would say.

Of course, the scientist is going to hold us to “the method”. We are not free, in their view, to theorize in any old way we wish to. We have to stick to the method – at least according to the mind police. We are not free to **question** the method. One must note, though, that the method itself is **not** (and cannot be) defined in scientific terms! And this is exactly the point where I feel justified in my heresy.

At first, the only recourse, indeed, seems to be to opt out and resort to some arbitrary transcendent or “metaphysical” explanation. One can say, for example, that the “real” or physical world is actually just an illusion and that salvation can be found in a transcendent Absolute. Or one can decree that God works His will through us and that only He truly has free will. Or we can theorize that our values (e.g. “the good”) are really “pure” ideas with their own separate existence and

reality. And so forth. Granted, these are very crude descriptions of belief systems I may have only a shallow understanding of. However, I would ironically have to agree with the scientist that none of this sort of “speculation” sounds terribly compelling. It is highly unlikely that one could ever convince the reticent non-believer. As an understanding of our existence resembling something that might be called *reasoning*, these ideas – and other similar religious or metaphysical beliefs – are inevitably going to leave one with an empty feeling. Even some more rational sounding socio-political theories require a faith-like commitment, in the end. They may have some explanatory value, but their operative hypotheses are left open to debate. So what is the alternative? Some other (also not so hidden) underlying dogmas of empirical science might give us a clue.

Contemporary empirical science purports, by some accounts, to consider all descriptive concepts to be abstractions that are ultimately “induced” from sensory experience. This turns out, of course, to be a gross over-simplification, if not a misrepresentation of how science actually proceeds. The illusion does serve as potent propaganda, however, to counter all historical attempts to focus on “concepts” that are neither induced from experience, nor deduced from other statements, but somehow are essential to our understanding of experience itself. Such concepts have at times been referred to as “innate” (a quaint term that is misleading, since it implies we are “born” with them – on a par with instincts almost). Kant referred to these concepts as “transcendental” categories. (Please do not assume, though, that by mentioning Kant I want to defend his particular system of categories!) His general thesis was that these concepts, although they may appear to be abstractions, actually represent the conceptual framework that makes experience itself possible. The empirical dogma that forbids such concepts severely limits our concept of analyticity. Analytic argument has been basically confined to whatever can be formulated as a logical tautology. In other words, the discussion of such “transcendental” categories cannot be viewed as the result of a direct analysis of phenomenal experience. They must be considered abstractions that are either induced or derived from hypotheses with respect to the causal explanation of phenomenal behavior.

I’m not sure when this dogma started to gain weight, but I suspect it has something to do with the increasing predominance of formal logic as the sole basis of “rational thinking”, and also with the increasingly popular view that formal logic represents the fundamental way the “mind” works. Apparently it was determined that any other approach to analysis was too “subjective” and therefore not compelling enough to attain universal acceptance in the scientific community. Only the rules of formal logic and mathematics enjoy the status of being “objective”. However, that – being dogmatic – does not itself represent a compelling or rational argument. It is not even obvious that an actual argument was ever put forth. Even science theorists resort to a naturalistic explanation of how scientific theories, methods and dogmas become established – i.e. by asserting themselves in the “survival of the fittest”. I suspect that this is what substituted for an argument.

Another dogma appears to be that one must never make an appeal to anything that even remotely smacks of *teleology*. In other words, nothing can be explained with reference to *purpose*. It is assumed that explanation must always be causal. Again, I’m not sure how this dogma became so entrenched. Most likely, it is the fundamental distrust that modern science has come to have with respect to religious doctrine. Any teleological argument will most likely be suspected of having an ulterior **motive** of proving the existence of God – something that, from another perspective actually might be considered distasteful to both science **and** religion. And, of course, one’s motivation, according the method, may never enter into the formulation of a scientific theory, which must supposedly remain “impartial”. However, introducing a concept of purpose into our understanding does not necessarily compel us to postulate an ultimate or final purpose any more than we are required to postulate an original, ultimate cause. It means only that our concept of things might be inextricably linked to some concept of purpose.

Together, these two dogmas of empirical science (the ban on “innate” concepts as well as the strict avoidance of the concept of “purpose”) severely restrict and bias our options. And yet, it is precisely these two options that I would like to exploit. Of course, they do tend to open up the possibility that our explanations appear to become purely “speculative” – meaning that they offer no means of “verification” or “falsification”. Of course, not every argument is compelling. But neither is science free of speculative assumptions.

A prime example of the speculative assumptions at the very heart of science is the axioms of geometry (and mathematics as a whole), which are generally accepted as “self-evident” or “intuitive” postulates. Actually, they are themselves mini-hypotheses (at least, according to Popper, with whom I agree on this point). Their “proof” is to be found in how much they can possibly explain. Beyond the hypothetical nature of the axioms of geometry, one might also become suspicious about the whole idea of arbitrarily applying geometry (i.e. pure abstract forms) to the phenomena of nature, which are not abstract at all. Geometry might be a useful model for certain tasks, like surveying. But that does not mean that we can flat out assume that “reality” is geometrical. And even within the safe realm of abstract mathematics, the application of numbers to geometrical entities to arrive at what is called trigonometry may be seen as questionable in the sense of representing a model of “reality”. (It appears to me, at least, to be nothing but conceptual spaghetti when you try to find units on a pure, abstract entity, such as a line, that is originally conceived of as not quantifiable – like the difference between analog and digital. Such extrapolations lead to things like the postulation of “irrational” numbers, etc. But what do I know? I’m not a mathematician and do not share the penchant to reify mathematical “objects”.) These assumptions of mathematics may seem “self-evident” and obvious enough to most, but that does not qualify as a rational justification for them and for their application in empirical science. And it does not, therefore, make them less hypothetical (or, in a less flattering vocabulary: “speculative”).

I am, therefore, proposing as an alternative that we look for a reflective analysis of phenomena that is more than merely speculative – i.e. that has some kind of compelling nature to it. This is my appeal for a **new** form of *reason* as a basis for human discourse. I believe this is what Kant meant when he talked about the *condition of the possibility*. If we can say convincingly that we cannot possibly think of something in any other way, then that should be taken as a compelling argument. In other words, we are seeking out some conceptual condition (or set of conditions) without which *things* (or “objective reality” or phenomena of any sort) would not be imaginable. Without which, as Kant would say, we would have no experience at all. Without which, therefore, “we” (whatever we take that to mean) would not exist.

We apply exactly the same argument to mathematics and logic and, as I have suggested, the validity of that assumption could even easily be disputed. Why should the same line of reasoning not be valid in any other context? Are mathematics and formal logic the only acceptable basis of rationality? And where is that law written?

One might argue that our inability to “think” something does not preclude its ultimate truth. However, it would, indeed, in any manner of speaking, be meaningless to try to talk about it. If we are ever to carry on a meaningful discussion, it must be within the scope of what we **can** think and say. And this includes discussing values, i.e. justifications for our actions. (Obviously, however, those who are not at all interested in discourse will not be swayed by this argument.)

It is crucial, I believe, to completely avoid, at the outset, all causal explanation of phenomena. We are not trying to explain **how** something is – only **that** it is and what the necessary conceptual conditions for it are. Causal explanation must first be placed in a broader context to have “validity”, if we can define what that means at all. The proposed approach could avoid a fundamental problem

that has long faced both science and the whole history of western philosophy: the problem of the correspondence theory of truth (how does my concept of the object match with the real object) or the problem of objectivity (how can I as a subject develop an objective concept of something) – two ways of saying the same thing.

My approach is unabashedly “subjective” – at least on the surface. Actually it is neither subjective nor objective. That is the sense of saying that it is phenomenological. We start with the phenomena – **neither** the idea of phenomena that a “subject” possesses **nor** the “objective” phenomena that are said to exist independent of the “knowing subject”. We might say that the terms “subject” and “object” simply have no meaning here. We can talk about the awareness of phenomena (which is another way of saying the phenomena themselves) without respect to anything in possession of the awareness or something that it is the awareness of. In other words, the concepts of *subject* and *object* themselves can be said to be derivative. They are the result of an analytical process. They are the result of asserting that this awareness of phenomena **implies** a differential between subject and object – without saying that the thus derived concepts represent components or qualities of the awareness of the phenomena itself. In other words, we arrive at the differential concepts of *subject* and *object* through a *reflective* analysis. This is, of course, not a logical deduction. But, I would maintain, it is a necessary process in our thinking. Because of this necessity, I call it “analytical”. But I am not primarily concerned with the concepts of *subject* and *object*, which are in everyday language probably always doomed to be misleading. The scientist, by the way, does not even attempt to avoid these concepts. They are simply assumed and neither their validity nor their status is questioned. And to that extent, all scientific discussion is bound to remain on a naïve plane.

In short, I believe that while focusing on phenomenological awareness as such, there are many things we can say about *awareness* without reverting to a mechanical/materialistic explanation, but things that are, nonetheless, compelling in the sense that we cannot think of it any other way. One is, indeed, the idea that *things* **imply** perceptual qualities and attributes. We cannot think of them in any other way. We are compelled to use synthetic statements about them. This may be said to be analytical, but without losing sight of the original phenomenological sense of our awareness. Thus, in a phenomenological **analysis** we arrive at an equivalent notion of “perceptual data” without implying any type of underlying physical structure. We have to constantly remind ourselves **not** to fall into the hypothetical mode of causal explanation.

The claim that this method of proceeding to discuss phenomena in a phenomenological mode is “analytical” may appear to be unusual and arbitrary (or, at the very least, unconventional). It is certainly an expansion of the concept of analyticity with respect to its narrower traditional form – i.e. the one that the orthodox theory of science would allow. The assertion is that this mode of thought can be seen as having some compelling nature beyond traditional logical deduction. Indeed, it is truly intuitive in that we are insisting on focusing on the aspects of things which are **given** with the experience of things as such – as opposed to a theory (based on arbitrary metaphysical assumptions like materialism or causal mechanisms) that attempts to explain how the phenomena come to be – i.e. what “causes” them. Here we need only **assume** the phenomena – and rightly so, because that is, indeed, the only *fact*. Everything beyond that is either derived analytically or hypothetical. And all causal explanation is hypothetical in the end.

I would suggest that another thing that can be derived using this notion of analyticity is that thing-ness implies *change*. What does this mean? A simple consideration suffices. If one were to try to imagine a world in which perceptual data is given, but there is no change in that data, then it is impossible to imagine how we could ever become aware of *things* without assuming some “sense” of thing-ness which, as I have suggested, is not at all obvious. We might imagine something with a sense of contrast maybe – i.e. between hues, luminosity, etc. However, even this is debatable –

since that might be said to require a shift in attention or some activity of comparison, at least. Indeed, it is hard to even imagine the perception of sound at all without a concept of change. In this sense, *change* becomes something that is given with the awareness of things, without saying that it is a *quality* that is perceived (seen, heard, touched, smelled, tasted). And, yet, it is a **necessary** concept. We cannot understand thing-ness without it.

I have long considered it somewhat naïve that scientists (as well as most other people, of course) seem to assume things like “time” and “space” as objects that can be taken for granted, measured, etc. Change is, of course, an immediate fact in the phenomenological sense I have described. It is given with experience. But “time” and “space” as independent phenomena in and of themselves are not. They are abstract concepts. Indeed, they are hypothetical entities postulated to help explain the phenomenal world. And yet this thing-like vocabulary has so invaded our common view of “reality”, that it would appear absurd to most people to deny the “existence” (i.e. the “objective” status) of time and space. (Could it be that this existential assumption is at the root of the debate between relative vs. classical mechanics? Would it be a debate at all if time and space were disclosed as hypotheses?) This is an indication of what I mean when I say that such **vocabulary** shapes our notion of “reality”.

I believe that there are also a lot of other meaningful statements that we can make about the awareness of things (or phenomena). And we can make them without being either “metaphysical” or hypothetical. The thus derived concepts could be viewed as the “axioms” or “theorems” of an alternative and yet **reasonable** discussion about the nature of existence. Indeed, I believe that this approach is **less** metaphysical than the scientific method – and the more inclusive, as well. It also might help us to understand the more natural mode of understanding the world that has been applied successfully by pre-scientific cultures. In any case, this would hopefully point us in the direction of a mode of thought that could turn out to be more life-sustaining in intent than that of empirical science. It does not mean that we have to stop observing and measuring things (collecting data). We just have to understand in which context we are doing that and why. And we might conclude that there are ethical limits to what we can do and say in the name of science. I know that this sounds like an affront to man’s “quest for knowledge”, but it really isn’t – quite the contrary.

I have mentioned that the concepts of *subject* and *object* can be viewed as derivative in this new-found analytical sense. One of the things that we experience is ourselves. I.e. we are self-aware. And this is, indeed, the basis of reflection. In turn, we cannot imagine ourselves (as beings capable of sensory awareness – however that is possible) without a concept of thing-ness, otherness. The two concepts are interdependent. We cannot think them apart from each other. I would not contend that this assertion is strictly logical in any formal sense. Indeed, in a formal sense it is virtually inconceivable. As soon as we start to talk about such concepts – self and otherness – with our current vocabulary, the internal unity of the concepts that makes them possible is destroyed and lost in the logic of “inner” and “outer” and all sorts of other terms that lead us down a slippery slope. And the only way out soon appears to be the complete and unabashed **transcendence** into the dogma of materialism or some other metaphysical substrate. It would be more appropriate to emphasize that both the tension between as well as the indefinable unity of *subject* and *object* serve the **purpose** of enabling existence by mutually constituting each other.

We are better off to view the awareness of phenomena for what it is – i.e. how it presents itself: *as a self-perpetuating, ever-changing process with no underlying substrate at all*. In this view, we would see the phenomenal “world” as a process that is self-creating. And to whatever extent it is meaningful to talk about a “we” in this context at all, it could be said that we are co-creators in this process. “We” (whatever that includes), as consciousness, are also a necessary condition of thing-ness. And, in turn, we discover ourselves (our consciousness) only in terms of the otherness of

things. In a manner of speaking, we **are** the things. This would be more or less logically self-contradictory in the formal sense. It cannot be expressed in that vocabulary. And, yet, it could be viewed as compelling and, therefore, rational in the analytical sense I am proposing, and it is **more** explicative than logic in the narrower sense. Thus we understand ourselves as the awareness of things and at the same time this awareness is nothing other than the things themselves as phenomena. Things (including ourselves) imply oneness, and yet their oneness can only be understood in terms of their otherness in a multiplicity of phenomena under the duress of change. All of this can and, indeed, almost must be said without leaving the realm of an analysis of what we mean by phenomena – i.e. by **refusing** to segue into the hypothetical or the metaphysical. This analysis is **given** with the awareness of phenomena – the only thing that can ultimately and truly be viewed as “given” and, therefore, self-evident or *fact*, at all.

So what consequence would this have? After all, the goal of this exercise was to arrive at an environmental ethic.

*Warning: Just to preclude some rather dire misunderstandings, however, I want to interject that it is not (and I repeat: **not**) and never will be my intention to propose any mores of behavior. I do not consider myself or anyone else to be the Pope of some new religion of phenomenology or whatever. On the contrary, part of my analysis would counter the whole notion of enforcing behavior. Actions must be autonomous. Otherwise they are not properly speaking actions. Behavioral engineering can only be understood as fascism. Indeed, it is precisely the interpretation of actions as mere behavior that destroys and purports to eliminate the whole concept of autonomy. Ethics, as a discipline, can only be about finding principles. The interpretation of those principles must be an **act**.*

I think it is reasonably clear from the above analytical conclusions that the underlying and implied interdependence of all things gives rise to a rather obvious principle: We cannot separate ourselves from the things (including other people) we experience. There are no value-neutral things out there that are not a part of us in some sense. And we cannot consider ourselves as independent, value-free agents that have no responsibility for the things we manipulate and use. To **not** understand the intrinsic value of everything in nature is to not understand ourselves. It is to deny our own existence. It is to reduce our own dignity to that of just another “physical object” in the “world”. We can do that, of course. The scientifically minded do it all the time. Yes, we can think that way. But do we want to? And more importantly, do we **have** to? Is it compelling?

Indeed, for anything to have value or meaning at all and, thus, for us to find our own value, we must understand how we are inextricably linked to everything else – not in a materialistic sense, but rather in the *factual* sense of our immediate, phenomenal experience. We cannot change the value of what we experience, we cannot make it something “detached” or “impartial” without changing the value of our own existence.



Today in most, if not all, major aspects of our lives, we are confronted with a multitude of overwhelming problems. Without attempting to discuss all of these problems at length, I will mention a few of the dilemmas we face.

*Economics:* We are caught up in an economy that appears to be dependent upon expansion and is geared exclusively toward material and quantitative gratification. It is driven by an ethic of more is better. Its engine is the seemingly undeniable human tendency toward insatiable greed. Such an economy obviously has a severe limit in a finite world. And we are now beginning to see the real effects of this limitation.

*Environment:* The environment that has hitherto sustained us and all other living beings is now stressed to the point where the crisis is both measurable and noticeable and the demise of most life-forms is seemingly imminent. The means, knowledge and desire with which we are able to destroy

the earth continue to outpace our knowledge of how to fix it and our willingness to expend the required effort or limit our participation in its destruction.

*Politics:* The political system that has given us a brief historical reprieve from older forms of tyranny is beginning to crumble. It is slowly giving way to fanaticism of various sorts. The system's ability to control corporatism is essentially non-existent. We have known for some time now that the real centers of political power are international corporations – not the nation-states and their constitutions. The only other source of power appears to be naked terrorism. Democracy is also turning out to be an illusion in the face of media manipulation and moneyed interests – not to mention rampant apathy. Mounting a peaceful and democratic counter to corporatism – especially in the context of a two-party system – appears to be virtually impossible.

*Science:* Even empirical science, in spite of its domination of our educational institutions, is witnessing its own crisis of sorts. The limitations of the “method” are becoming apparent in many ways. First, there is the admission of indeterminacy which limits the concept of the *observable* as well as ultimate causal linkage. Then there is the defiance of “language” to disclose its deep-seated mysteries and allow us to develop a mechanical model with which we could replace our “minds” with machines – thus limiting our insistent quest for total control and automation. Also, the definition of life remains a mystery and is requiring a substantial overhaul in the form of the theory of Gaia and other purportedly post-Cartesian models. One result of these and other problems is the growing discontent with science itself and the corresponding increased interest in alternative modes of thought. The great hope of science as the vehicle of emancipation is fading into the realization that science is merely the perspective of indifference. This might be considered a blessing, if it were not for the complete absence of a reasonable alternative.

*Religion:* It would appear that religion is experiencing a great comeback. As it becomes increasingly apparent that science does not solve the question of the meaning of life, people seek refuge in what appears to be the only alternative: an unquestioned and extra-rational belief in a spiritual dimension beyond what science can explain. The intensity of our social, economic and political problems also drives us to seek salvation in a cosmological resolution of these problems beyond the real world, and/or an alternative “moral force” for dealing with them. It is, however, also becoming a prevailing trend for religion to regress into ever more potent forms of fundamentalism and the corresponding fanaticism that is threatening not only our political systems but the very fabric of society. As I write this, the predominant powers in force in the world today are: American imperial expansionism led by a fundamentalist Christian faction and the radical fundamentalist Islamic movement hell-bent on either domination or suicide (excuse me: martyrdom).

*Ethics:* The academic reduction of all ethics to utilitarianism, on the one hand, or to a mere language puzzle, on the other, reveals a deep-seated problem in our concept of *values*. To talk about “right” and “wrong” at all, we have to resort to very clever formal arguments (e.g. the “prisoner’s dilemma”) and intellectual, even computerized models that defy all common-sense and are relegated to obscure and isolated chambers of academia. Or we opt for behavior by decree. The common man is left with no choice but to resort to some dogmatic value system that ultimately requires imposition through brute force to have any impact. There appears to be no possibility of reasoning in the context of ethics, and this reduces all political discussion to mere rhetoric and strategy.

*Medicine:* Not even in the realm of medicine are we witnessing a clear victory for science and technology. World epidemics (like AIDS) remain ahead of our solutions. The cures for the hard-core problems of cancer and sclerosis continue to elude us. The strategy of combating things like

malaria by attempting to remove their source with pesticides has failed, even backfired. And we are seeing the rise of ever-more-powerful influenza viruses. All of this and more, combined with the weakening of resistance to disease due to our unhealthy diet and lifestyle as well as the threat from an increasingly polluted and less life-sustaining environment, is a recipe for disaster. Throw in the pending world-wide water shortage crisis and we are all but doomed.

These problems all beg for solutions. Of course, this list is neither complete nor are they given a thorough treatment here. There are many other overwhelming and undeniable problems I haven't even mentioned, such as over-population, racism and combustion engines (and I cannot emphasize enough how big a problem that is!). It is not my intent to systematically catalogue all known problems and offer corresponding solutions. On the contrary, I would suggest that these problems have a common root for which we must search. And it is in light of that search that I have chosen to describe the problems in the manner I have.

My point is that isolated technical solutions will inevitably fail. The solutions cannot be "engineered" through science. We cannot separate each problem into its own neat little category and approach it with hypotheses and experimentation – as an isolated discipline or object of study. The solutions need to be sought at a deeper level. On the other hand, it is also not a matter of orthodox religion (including some socio-political or psychological theories). We need to address the problems of this, our own existence – right here, right now – not attempt to transcend it. We can also not trivialize or relativize our own immanent existence as an aspect of some metaphysical substrate or the cog in the wheel of some over-arching and inevitable "evolution". And the egocentric attempt to attain individual supernatural powers is also neither plausible nor, in the long run, even desirable. What would we use those powers for and how would that be justified – other than to retract into a personal and, thus, detached sphere of something like "nirvana"?

If we continue to see only two options – science and/or religion – I find it questionable that our problems will ever be resolved.

Instead, I believe we need to re-examine the way we view our existence as a whole. We need to redefine what we mean by *reality* without resorting to religious decrees. From this I hope guiding principles will arise that will lead to new social and political frameworks. Wouldn't it be nice, if someday people were to view the wanton destruction of nature that results from unnecessary consumption as just as barbaric as we now view slavery? Wouldn't it be nice, if someday the general population found their primary source of joy in the preservation of wilderness and a deep, respectful communion with nature instead of domination over it? In order for this to happen we will need to fundamentally change our vision and sense of who we are. And this can happen only if we stop perpetuating the distorted visions and arrogant anthropocentric theories we now advocate and take for granted. Only by developing a new understanding of what *nature is*, will we be able to find a way to "save" it.

One might legitimately ask whether it is even remotely possible to effect this kind of fundamental change in thinking in time to avoid our extinction. And the answer is: maybe not. It should be noted, however, that we have become heavily influenced by extremely esoteric philosophies in the past. This essay itself is an attempt to show how successful empirical science has been in shaping our view of the world, in spite of the fact that its premises are not only questionable, but staggeringly complex and dissatisfactory in their philosophical implications. We have let ourselves be convinced that it is impossible to understand the "universe" and its mechanisms without advanced degrees in highly technical mathematical sciences. In effect, the lay person has relegated his understanding of the world (and one's self) to the "experts" – that is, as long as their charade holds up. And how long will that be? In comparison to science and most religions, I would like to believe that my world-

view is relatively easy to learn and to grasp and does not require a leap of faith nor years of intense study. With that I am not suggesting that people should stop doing science or stop having faith in their religions. That is not for me to say. However, if we are never given an alternative, the pitfalls of both of these modes of thought may prove to be fatal. I hope we will never find out. Science will definitely continue to play an important role in our survival and the search for a spiritual dimension may also be an essential aspect of redefining our view of the world and our role in it. I can only hope that here my own contribution to this effort will help and not hinder that process.

A wise uncle of mine told me more than 40 years ago that there were numerous ways in which mankind could meet its end and that it was almost a certainty that one or more of these options would become a reality within 100 years or so. To date, this has not happened. At the same time, however, I do not believe anyone would dare to assert that we have superceded all of these possibilities and that we are home free in a safe world or that we are even well on our way there – quite the contrary. For myself, I have endured an entire lifetime of being accused of having an “unrealistic” or “idealistic” point of view. To that I counter: it remains to be seen whether there is a “realistic” solution to these problems at all, or if, to the contrary, the problem is not in our concept of “realism”.

In short, I believe the solution, if there is one, is to be found in a fundamental shift in our attitude about what it means to exist. We have to rethink ourselves, not some detached and determinate “world” or even what the ultimate, absolute and transcendent substrate of the “immanent” world is. We have to understand how we fit in. We have to **realize** that we are **responsible** to and for the world. If we continue to attempt to remove ourselves from reality – by viewing ourselves as the impartial observer and technological master of the world (the atomistic “self” hell-bent on “emancipation”), which is precisely the gist of science and, in another way, of religion, as well – we will probably get our wish in a way we do not intend.