

MODERN SCIENCE IN CRISIS
Influences on scientists affect the validity of their research
and Dancing with Reality (from [Wild Adventures](#))

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Science is the most valid source of information about humans and planet earth. It has also provided wonderful gifts such as longer, healthier lives, and machines that keep us amused and creative. But best be aware of the influences on scientists that affect the validity of their work. Scientists have too often accommodated the needs and agendas of governments, businesses, interest groups, and themselves. Wittingly or unwittingly.

As a result, faith in science as a valid source of information is being seriously damaged. And the damage is likely to increase as it becomes clear in the next year how badly many of the recent pronouncement of science have been politicized and bastardized.

Two hypotheses will be offered, courtesy of President Donald J. Trump.

The second chapter explores the severe constraints on the scientific method imposed by human sensory organs and brain structures.



Dwight D. Eisenhower

The prospect of domination of the nation's scholars by Federal employment, project allocations, and the power of money is ever present and is gravely to be regarded. Yet, in holding scientific research and discovery in respect, as we should, we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific technological elite.

[A. Influences on scientists and publishers](#)---they are very human

All scientists have assumptions and biases that affect their research. Objectivity is impossible, but an ideal worth striving for.

[B. Dancing with Reality](#)---let's give Reality a great big hug

Answer three questions about your intimate relationship with Reality. Included are many quotations from people exploring the same questions, and a few funny fillers to give your brain a rest. Your answers and mine are at the end.

A

INFLUENCES ON SCIENTISTS AND PUBLISHERS

They are very human

1. [Scientists and publishers are human](#)
2. [The interface between humans and Reality](#)
3. [Thoughts of many people](#)

1

SCIENTISTS AND PUBLISHERS ARE HUMAN

Yes, very human.

All scientists have assumptions and biases that affect their research. Objectivity is impossible, but an ideal worth striving for. Research data is meaningless without a context, a theory, belief system, paradigm, practical application, etc. The framework chosen to give meaning to the data depends upon the assumptions, biases and especially the personal needs of the scientist. That choice dramatically effects what they choose to study, their experimental design, and the analyses and interpretation of the data.

1. Publish or perish.

In academia publications are usually essential for tenure and career advancement. Good teaching is seldom as highly respected or rewarded. Unless you do exceptionally good work, go for quantity. And, there is often a hot topic with lots of funding. Jump on the gravy train.

2. Pressure from peers and society to conform to the dominant paradigm.

The pressure to conform is enormous. At stake are careers, departmental funds and perks, friendships, and journal publications. And best of all you get to go on all those expense paid trips to Zurich and Hawaii to present your paper, the one that so beautifully supports the current paradigm.

3. Political agendas and Noble Causes.

Scientists have just as firm commitment to causes and ideologies as anyone. Even the most honest and intelligent cannot avoid their research being affected. How much depends upon how honest and how intelligent they are. If you want to optimize your career it would be best not to be too honest or too intelligent.

4. Publisher constraints.

The practical needs of the scientific publication establishment greatly affects what is published and what is rejected.

- a. Few journals publish negative results. Why make enemies.
- b. There is very little replication. No funds, no glory, and no friends. When replication studies have been done, usually less than half can be replicated ([Smithsonian](#), [Wikipedia](#), [Laframboise](#), [Loannidis](#)).
- c. Peer review is usually pal review. You don't want to give a bad review because the researcher may review a paper of yours tomorrow. The reviewer is supposed to be anonymous but it's a small group of reviewers in many fields, so you can usually tell who did it. And who has the time or interest to deeply analyze the study. You aren't getting paid a penny. And who chooses the reviewer? Bias operates here like everywhere.
- d. Publishers need to make money or maintain funding to stay in business. So you look for clickbait, and publish what attracts the most readers. Yes, publish a few odd ball scientists now and then who might make it. That's the fun part.

5. Funding source.

Science used to be the search for truth, now it's the search for grant money. The greatest fear of a research scientist is loss of funding. Research depends upon a steady flow of money. And that steady flow of money usually depends upon the steady flow of research findings that support the needs and agendas of the funding source. Especially vulnerable are scientists doing research with political, financial or ideological implications.

President Donald J. Trump has provided a wonderful opportunity to test the influence of money on scientists.

Two hypotheses proposed on 1/15/17.

1. If the research has important political, financial or ideological implications, the agenda of the funding source largely determines the outcome of the research.

The Obama administration was heavily committed to the proposition that human emission of CO₂ was primarily responsible for the increasing temperature of the planet. The data collected by government scientists and those with government grants strongly supported this proposition.

Now the Trump administration will determine who gets grant money. Experimental data collected by government scientists and those receiving government grants will now find that human emission of CO₂ is tiny and insignificant. The temperature of the planet is controlled by natural variability.

Much will be made of the immense amount of money and manpower wasted on a non-problem. If there is enough widespread anger, the government will invoke RICO and put a few scientists and enablers in jail for falsifying data during the Obama administration.

2. The interpretation of data is determined by the biases and assumptions of the interpreter.

The skeptics will shout, "We told you so", and there will be a great victory celebration denouncing the shameless scientists who sold their souls for money, power, and glory. The global warmers will shout just as loud that the Trump administration stacked the deck with scientists who have shamelessly sold their souls for money, power and glory.

3. So what do you do if you honestly want to know whether the anti-or the pro-global warmers are closer to the Reality of what actually exists on planet earth?

Carefully examine the arguments and evidence on both sides and make up your own mind. It's impossible to keep your own biases and assumptions from influencing your judgment, but being aware of them lessens their influence. We humans do the best we can with what we got.

2

THE INTERFACE BETWEEN HUMANS AND REALITY

1. Sensory organs and brain structures.

The scientific method is restricted to what is available to our human sensory systems and brain structures, and their mechanical extensions. Scientific equipment such as a wave length meter lets us know that there exist wave lengths undetectable by our unaided visual system.

Data from such equipment must be in a form that our visual system can detect. And to organize and describe data generated by scientific equipment we use metaphors such as "wave" and "length", words derived from sensory data and brain structures. As Timothy Leary said, "All science is metaphor." Atoms are tiny solar systems. All matter is composed of strings. Genes are selfish. A change in paradigm is a change in metaphor.

Go to the second chapter, [Dancing with Reality](#), to further explore the interface between humans and Reality.

3

THOUGHTS OF MANY PEOPLE

1

Most of the scientific community will lend lip service, and support in their usual servile way, whatever is fashionable, puts money in their pockets, and avoids burdensome peer pressure that's imposed through political correctness. The adage that the masses are asses is just as applicable to the scientific community, as to any other collection of humans.

Michael Gruenfeld

2

Facts have absolutely no influence on those committed to a paradigm. It is true that some of us fervently believe we are less committed and our narratives better, closer to Reality. Those with a different narrative just as fervently believe the same.

Arguments between people who hold different paradigm are usually a waste of time. Each knows facts and logic are on their side. So the other side must be racist, sexist, elitist, dumb, evil, liars, libertarian, deniers, etc. How else to explain their not agreeing with what is so obvious? Such a discussion frequently devolves into name calling. Well actually, it often starts with name calling.

Whatever. It's fun to confirm and massage our paradigms and narratives by cherry picking and over-generalizing with friends. Your brain gets washed with delight, with substances similar to narcotics. Humans are addicted to their beliefs.

The sad, dangerous part is that there really is a Reality outside ourselves and some narratives, some maps, are closer to that Reality than others. And "closer" is desperately needed to plan and respond adequately to the hard unforgiving Reality of planet earth.

Science in the past has been a big help in demonstrating the better map. Now the race for big bucks grant money from government, businesses, and interest groups make the results of such research at least suspect, if not worthless. Researchers know if they don't come up with results that support the agenda, they will not get another grant. And departmental perks and their ongoing research program depend on that money.

Old Man

3

It is simply no longer possible to believe much of the clinical research that is published, or to rely on the judgment of trusted physicians or authoritative medical guidelines. I take no pleasure in this conclusion, which I reached slowly and reluctantly over my two decades as an editor of the New England Journal of Medicine.

Marcia Angell

4

I quit as a scientist (I can't tell you the details because I would effectively name myself) because the political interference had become intolerable. It was becoming clear that research funding would dry up unless you gave them the results they wanted. I was reminded of the government maxim: "Never hold an inquiry until the outcome has been decided."

Seldon

5

Government is and always has been incapable of supporting real science. The political agenda always gets in the way.
Sirgareth

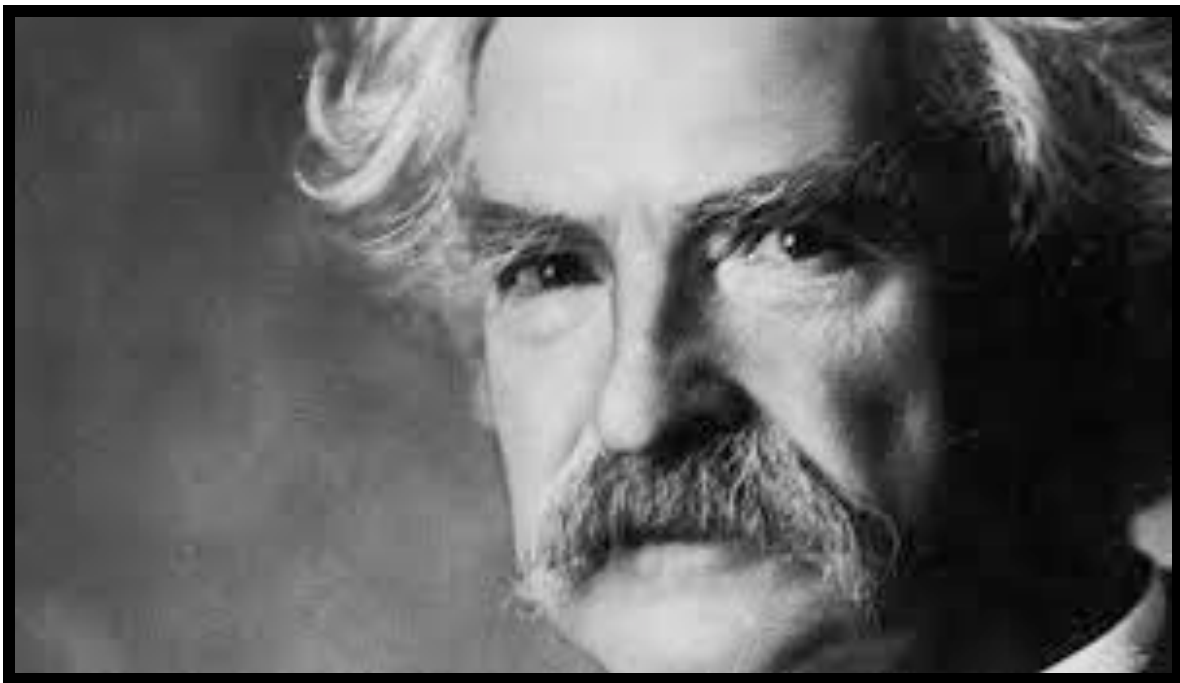
6

Bias has hallucinogenic properties.
Roger L. Simon

7

When you proclaim that the debate is settled, it tells me that the debate is raging, and that you're on the losing end of it.
Charles Krauthamer

8



Mark Twain

Whenever you find yourself on the side of the majority,
it's time to pause and reflect.

9

I never guess. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.

Arthur Conan Doyle

10



Noam Chomsky

In the ancient world priests would tell people things about the gods and hence nature, climate, weather and more to encourage obedience to the rulers and sacrifice. This encouragement usually taking the form of fear of what would happen if people did not obey and sacrifice. The ruling class has always known the hold on the people is in the mind. If they could get the vast majority to believe something the few who might resist who wouldn't believe were easily dealt with. The

majority would even help in that effort. But a ruler saying things is too transparent. He needs experts to back him up. Hence the well paid intellectual priest class.

Only the words and terms have changed. The song remains the same. The respected intellectuals are those who conform and serve power interests.

11

These days, we have substituted grant groveling for science, set against a pathetic backdrop of political motivation.

Michael Shaw

12

Since politicians are ultimately in charge of deciding how much money agencies receive to dole out to the research community, it is inevitable that politics and desired outcomes influence the science the public pays for.

The result of this pernicious, incestuous relationship between government and the research community is biased findings by researchers tasked to find that which they were paid to find.

Roy Spencer

13

I no longer know what to say to students and postdocs regarding how to navigate the CRAZINESS in the field of climate science. Research and other professional activities are professionally rewarded only if they are channeled in certain directions approved by a politicized academic establishment — funding, ease of getting your papers published, getting hired in prestigious positions, appointments to prestigious committees and boards, professional recognition, etc. How young scientists are to navigate all this is beyond me, and it often becomes a battle of scientific integrity versus career suicide (I have worked through these issues with a number of skeptical young scientists).

Judith Curry



Richard Kessler

Life can be hard enough without adding the crushing burden of the truth.

15

On the one hand, as scientists we are ethically bound to the scientific method, in effect promising to tell the truth, the whole truth, and nothing but – which means that we must include all doubts, the caveats, the ifs, ands and buts. On the other hand, we are not just scientists but human beings as well. And like most people we'd like to see the world a better place, which in this context translates into our working to reduce the risk of potentially disastrous climate change. To do that we need to get some broad based support, to capture the public's imagination. That, of course, means getting loads of media coverage.

So we have to offer up scary scenarios, make simplified, dramatic statements, and make little mention of any doubts we might have. This "double ethical bind" we frequently find ourselves in cannot be solved by any formula. Each of us has to decide what the right balance is between being effective and being honest. I hope that means being both.

Stephen Schneider

16

The case against science is straightforward: much of the scientific literature, perhaps half, may simply be untrue. Afflicted by studies with small sample sizes, tiny effects, invalid exploratory analyses, and flagrant conflicts of interest, together with an obsession for pursuing fashionable trends of dubious importance, science has taken a turn towards darkness.

In their quest for telling a compelling story, scientists too often sculpt data to fit their preferred theory of the world. Or they retrofit hypotheses to fit their data.

Richard Horton

17

You start to cheat, but somehow you know it's not really cheating. You massage the data by tweaking it a little bit, just a teensy weensy little bit, moving it in the right direction. Once on that slippery slope, it becomes all too easy to get imaginative with the methods as well. By then, you've slipped so far into that mortal sin zone of science, all that's left is stopping your ears to any criticism, shutting your eyes and defending it desperately at any cost. It's your own inner voice making those carping objections. Nobody will notice, nobody will check.

But they did.

In the end, you've nowhere left to go but denying anyone wishing to replicate your work the data or details of your methodology. It's all way too far over their head and anyway, they only want to use it against you. Anything but that sort of cooperation, because then the whole sordid game would be up. All would be lost. You fudge, you delay, you tell them the data is lost, it's protected by commercial IPR agreements, you hide behind FOI legislation and in the end you threaten to sue them if they won't leave you alone. At the same time, you play the martyr card; why are they persecuting me?

Pointman

18

Four common ways scientists cheat:

1. When you get a significant correlation assume causality, and ignore the possibility that you only have an association, with other variables determining the relationship. Avoid double-blind studies.
2. After collecting the data, eliminate the outliers, the high and low data points. This reduces the error term and increases the probability that your study supports your hypothesis. Eliminate as many as needed.
3. Do the study, mine the data for significant results, then write your paper as if those were the results you predicted before you started the study. A big no, no, because a study of any size

usually has statically significant results of some kind by chance. It is perfectly respectable to do a study, mine for significant results, then do a second study with predictions based on what you found.

In an exploratory study, smart, competent and honest scientists collect the data and randomly divide it in half. Mine for significant results, and then test what you found on the second half.

4. Fake the data, or destroy data that does not support your hypothesis. A scientist's career, salary, a presentation in Paris, prestige, etc., depend heavily upon publications. Self-interest is as strong in scientists as anyone, as is ideology---Noble Lies for a Noble Cause.

The chance of getting caught is tiny. There are very, very few whistleblowers. The price is much too high---blacklisted, lose your job, lawsuits.

Old Man



Douglas Edmeades

In brief, from the age of enlightenment we have emerged into the philosophy of post-modernism which sets aside evidence as the authority and asserts that the ‘truth’ is what you believe—if you believe it, then it is your ‘truth’. Importantly all opinions are to be given equal authority irrespective of where the evidence may lie.

These ideas have progressed to what is now called ‘Post Normal Science’. This holds that science is subservient to the story that must be told. The role of science is no longer about discovering new ‘truth’ but supporting the ‘story’ which is perceived to be the truth. This gives rise to the notion of “noble-cause science”, which allows scientists to ignore contrary evidence,

or worse, manipulate the evidence, if the cause is noble. We have seen evidence of this in the climate change debate.

20

...this latest stage of the post-enlightenment. If your facts plainly contradict someone else's orthodox beliefs, then you are simply being "unhelpful" or even "harmful" and should therefore be suppressed. That's to be done not by logical refutation or counter argument, but intimidation, bullying, shunning, character assassination and threats to a person's career or livelihood.

Basically, the gloves come off and you get mobbed by a gang of like-minded thugs. Destroy the person, not the argument.
Pointman

21

Our freedom to doubt was born out of a struggle against authority in the early days of science. It was a very deep and strong struggle: permit us to question — to doubt — to not be sure. I think that it is important that we do not forget this struggle and thus perhaps lose what we have gained.
Richard Feynman

22

In the world of science and philosophy, the merest hint of dogmatic certainty as to finality of statement is an exhibition of folly.
Alfred North Whitehead

23



Mae West with W. C. Fields
His mother should have thrown him away
and kept the stork.

24

- a. The scientific studies of government workers and agencies produce results that favor the government agenda.
- b. The results of scientific studies favor the agenda of those who fund the research, whether government, business, or interest group.
- c. The IPCC fund research and political activities that further the creation of a world order governed by the UN. Much of the immense power and billions of dollars are dependent upon the validity of CAGW, as are green interest groups, green industries, carbon related trading, scientists' research funding, and people who need a Noble Cause to give meaning to their lives.

In science, politics and business, there is nothing quite as powerful as an alliance of greed and idealism. Ah, the glory and profit of a Noble Cause.
Old Man

25

When people accept a belief, they immediately go into confirmation bias, accepting evidence for, automatically rejecting evidence against. The effect is particularly strong among contemporary environmentalists who deeply believe in CAGW, and fear serious harm to the planet. Level headed, intelligent people are not immune. Those with kind hearts and good intentions are the most easily taken in because they assume that people who believe as they do are as nice as they are. It takes a very long time to realize they have been had, and most never reach that horrible moment.

Old Man

26



Old Man

For God's sake! Isn't a Noble Cause and warm feelings good enough for you?

27

Science progresses by moving from one false theory to another.
Karl Popper

28

Science at its best is skeptical, a community of doubters and agnostics.
At its worst, it's a community of theologians.
Wesley Pruden

29

Science is NEVER about consensus and belief in any form. Those who invoke such arguments are operating in the realm of politics and religion, probably because their science is weak. We would never say that the earth is round because the majority of scientists believe it is. We would simply produce a photo of the earth taken from the moon!

For those who think that the professional societies are the ultimate authority, I like to remind them that they are really labor unions looking out for the best financial interests of their members.
Gordon Fulks

30



Karl Popper

In my view, the appeal to the authority of experts should be neither excused nor defended. It should, on the contrary, be recognized for what it is – an intellectual fashion – and it should be attacked by a frank acknowledgement of how little we know, and how much that little is due to people who have worked in many fields at the same time. And it should also be attacked by the recognition that the orthodoxy produced by intellectual fashions, specialization, and the appeal to authorities is the death of knowledge, and that the growth of knowledge depends entirely upon disagreement.

31

The greatest advances in science occur when some stubborn son-of-a-bitch has data that indicates that the consensus is wrong. The poor bastard better be ready for a life of abuse, failure and poverty. The old guard doesn't change, it dies. The next generation of scientists accepts the new paradigm, heaps lavish praise on the poor, dead, trouble maker, and is just as narrow minded and intolerant.

Old Man

Let's be clear: the work of science has nothing whatever to do with consensus. Consensus is the business of politics. Science, on the contrary, requires only one investigator who happens to be right, which means that he or she has results that are verifiable by reference to the real world. In science consensus is irrelevant. What are relevant are reproducible results. The greatest scientists in history are great precisely because they broke with the consensus.

Historically, the claim of consensus has been the first refuge of scoundrels; it is a way to avoid debate by claiming that the matter is already settled. Whenever you hear the consensus of scientists agrees on something or other, reach for your wallet, because you're being had. There is no such thing as consensus science. If it's consensus, it isn't science. If it's science, it isn't consensus. Period.

Michael Crichton

33



Thomas Huxley

Science commits suicide when it adopts a creed.

34

Propaganda 101:

Muzzle the other side by any means necessary and then celebrate the overwhelming consensus.
Old Man

35

It is error only, and not truth, that shrinks from inquiry.
Thomas Paine

36

All of science, in your time, has been set up to promote beliefs that run in direct contradiction to the knowledge of man's heart. Science has denied emotional truth and firmly believes that knowledge can only be acquired from the outside, from observation. You are taught not to trust your subjective experience, which means that you are told not to trust your initial and primary connection with reality.
Seth

37

You should never accept as fact a theory that contradicts your own experience. Man's experience includes, for example, all kinds of behavior for which science has no answers. That is well and good. Science cannot be blamed for saying that its methods are not conducive to the study of this or that area of experience, but science should at least be rapped smartly on the knuckles if it automatically rejects such behavior as valid, legitimate or real, or when it attempts to place such events outside the realm of actuality. Science can justly be reprimanded when it tries to pretend that man's experience is limited to those events that science can explain.
Seth

38



Seth

Now, while it seems that your world contains more and more information all the time, your particular brand of science is a relatively narrow one, in that it accepts as valid only specific areas of speculation. The areas outside of its boundaries become taboo. The unknown is more feared by science than it ever was by religion.

39

“So there is more to this world than scientific materialism assumes?”

“Oh yes. Scientism is more intolerant and closed-minded than most religions.”

Young Woman

40

The myths of the people of the world whether those of the Celts of long ago or the Navajo of today are their science, psychology and philosophy. We are being naïve if we think the science, psychology and philosophy of our own day are not also myths and will not be so regarded by future generations.

Seth

41

Come to the dark side---we have cookies.
AOL chat room

B

DANCING WITH REALITY

Let's give Reality a great big hug

(From [*Wild Adventures*](#) and [*Maps of Reality*](#))



Is The Buddha correct?

Answer three questions about your intimate relationship with Reality. Included are many quotations from people exploring the same questions, and a few funny fillers to give your brain a rest. Your answers and mine are at the end.

- [1. The three questions](#)---your dance with Reality
- [2. Deep thinkers and funny fillers](#)---Einstein and Groucho Marx
- [3. Your answers and mine](#)---let's give Reality a big hug

1
THE THREE QUESTIONS
Your dance with Reality

1. Kant divided Reality into phenomena and noumena. Phenomena are those aspects of Reality accessible to our sense organs processed by our brain. All other aspects of Reality, noumena, are forever closed to humans.

The foot feels the foot when it feels the ground.
The Buddha

Is it true that humans can only be aware of the affects of Reality on our nervous system as processed by our brain, never Reality itself? Is it really true that ALL IS MAYA?

2. Is objective science the only valid source of information about the nature of Reality, or can subjective experiences also be valid?

The arguments back and forth revolve around definitions of “valid”, often implicit. Changing the definition automatically changes the answer. How do you define “valid”? Is there one correct definition, or are there many? A Christian would likely consider his experiences in church at least as valid as objective data.

3. Is it possible to obtain valid information about Reality without using the five senses? Do you believe that extra-sensory perception exists? If so, can it provide valid information about the nature of Reality? Would you like to give the definition of valid another try?

Throughout the long history of humankind there have always been people who believed that they obtained valid information about the nature of Reality using extra-sensory perception. What they brought back from their explorations was often difficult if not impossible to communicate to those who had not had the experience because the explorers had to use words and logic based on the five senses and human brain. They usually fell back on metaphor.

2

DEEP THINKERS AND FUNNY FILLERS

Einstein and Groucho Marx

(Selected from *Golden Moments of Wisdom and Folly*)

1

I think perhaps the most important problem is that we are trying to understand the fundamental workings of the universe via a language devised for telling one another where the best fruit is.
Terry Pratchett

2

Philosophy is a battle against the bewitchment of our intelligence by means of language.
Ludwig Wittgenstein

3

In the world of science and philosophy, the merest hint of dogmatic certainty as to finality of statement is an exhibition of folly.

Alfred North Whitehead

4

Space to a man blind from birth is bodily sensations changing through time. When an operation allows him to see, he does not need to move his body to become aware of the reality around him. He just looks, and what an incredible sight, as he whirls around in a circle.

Maps of Reality radically shift, depending upon the sensory system and brain structures of the organism. The sensory system and processing power of humankind are quite limited, but provide a very good survival map for planet Earth.

Old Man

5

Think you of the fact that a deaf person cannot hear. Then, what deafness may we not all possess? What senses do we lack that we cannot see and cannot hear another world all around us.

Frank Herbert

6



Galileo

I think that tastes, odors, colors, and so on are no more than mere names so far as the object in which we locate them are concerned, and that they reside in consciousness. Hence if the living creature were removed, all these qualities would be wiped away and annihilated.

7

I want you to understand that there are no colors in the real world. That there are no textures in the real world. There are no fragrances in the real world. There is no beauty, there is no ugliness. Nothing of the sort. Out there is a chaos of energy soup and energy fields. Literally. We take that and somewhere inside ourselves we create a world. Somewhere inside ourselves it all happens.

John Eckles

8



Arthur Eddington with Albert Einstein

The external world of physics has thus become a world of shadows. In removing our illusions we have removed the substance, for indeed we have seen that substance is one of the greatest of our illusions.

The sparsely spread nuclei of electric force become a tangible solid; their restless agitation becomes the warmth of summer; the octave of ethereal vibrations becomes a gorgeous rainbow. Nor does the alchemy stop here. In the transmuted world new significances arise which are scarcely to be traced in the world of symbols; so that it becomes a world of beauty and purpose. The frank realization that physical science is concerned with a world of shadows is one of the most significant of recent advances.

[The Buddha understood that long ago. ALL IS MAYA.]

9

What was once called the objective world is a sort of Rorschach ink blot, into which each culture, each system of science and religion, each type of personality, reads a meaning only remotely derived from the shape and color of the blot itself.

Lewis Mumford

10

“Ms. Shannon, Plato and Kant were both interested in the difference between our perception of Reality and Reality itself. How did they differ in their treatment of this subject?”

“Plato felt that he could turn his head from the shadows on the wall of the cave, look over his shoulder, and see Reality straight on. He saw the Eternal Forms. Kant had no such illusion. In modern terminology our sensory systems and brain structures necessarily provide only awareness of the effects of Reality, never Reality itself.”

Young Woman

11

There's a whole different reality to explore as a coyote, and what is reality to a cat or butterfly? Awareness of Reality on our planet is always created by sensory systems and neural structures. Then what is Reality with a big R? Kant's noumena of course, but naming only gives the illusion of knowledge.

I guess all my philosophy classes are pretzeling my brain a little more than I thought.

Young Woman

12

Through naming comes knowing; we grasp an object, mentally, by giving it a name---hension, prehension, apprehension. And thus through language, create a whole world, corresponding to the other world out there. Or we trust that it corresponds. Or perhaps, like a German poet, we cease to care, becoming more concerned with the naming than with the things named; the former becomes more real than the latter.

And so in the end the world is lost again. No, the world remains---those unique, particular, incorrigibly individual junipers and sandstone monoliths---and it is we who are lost.
Edward Abbey

13

There really is a Reality outside ourselves, and our sensory systems and brain structures give us an excellent map of that Reality, at least for planet earth. Every human alive has the same basic map. You don't jump off high places, you eat when hungry, etc. And on top of the basic map we all share are the immense number of maps of Reality human's have created over the centuries--customs, languages, religious, political and economic creeds, scientific and philosophical theories, etc. etc. Maps shape and limit our experience of Reality.

Our ancestors would not have survived if their sensory systems and brain structures had not given them a very good approximation to The Truth of what actually exists here on planet earth. If their Hit Lists, talking points, narratives and maps of Reality had strayed too far from That Truth you would not be reading this sentence.

The map is not the territory but some maps are better than others.
Old Man

14



Groucho Marx

I'm not crazy about reality,
but it's still the only place to get a decent meal.

15

In brief, from the age of enlightenment we have emerged into the philosophy of post-modernism which sets aside evidence as the authority and asserts that the 'truth' is what you believe—if you believe it, then it is your 'truth'. Importantly all opinions are to be given equal authority irrespective of where the evidence may lie.

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Douglas Edmeades

We have to offer up scary scenarios, make simplified dramatic statements, and make little mention of any doubts we may have. We each have to decide the right balance between being honest and being effective.

Noble People with a Noble Cause

17

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Richard Horton

18

Four common ways scientists cheat:

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2. After collecting the data, eliminate the outliers, the high and low data points. This reduces the error term and increases the probability that your study supports your hypothesis. Eliminate as many as needed.
3. Do the study, mine the data for significant results, then write your paper as if those were the results you predicted before you started the study. A big no, no, because a study of any size usually has statically significant results of some kind by chance. It is perfectly respectable to do a study, mine for significant results, and then do a second study with predictions based on what you found.
4. Fake the data, or destroy data that does not support your hypothesis. A scientist's career, salary, a presentation in Paris, prestige, etc., depend heavily upon publications. Self-interest is as strong in scientists as anyone, as is ideology---Noble Lies for a Noble Cause.

The chance of getting caught is tiny.

Old Man

19

You start to cheat, but somehow you know it's not really cheating. You massage the data by tweaking it a little bit, just a teensy weensy little bit, moving it in the right direction. Once on that slippery slope, it becomes all too easy to get imaginative with the methods as well. By then, you've slipped so far into that mortal sin zone of science, all that's left is stopping your ears to any criticism, shutting your eyes and defending it desperately at any cost. It's your own inner voice making those carping objections. Nobody will notice, nobody will check.

But they did.

In the end, you've nowhere left to go but denying anyone wishing to replicate your work the data or details of your methodology. It's all way too far over their head and anyway, they only want to use it against you. Anything but that sort of cooperation, because then the whole sordid game would be up. All would be lost. You fudge, you delay, you tell them the data is lost, it's protected by commercial IPR agreements, you hide behind FOI legislation and in the end you threaten to sue them if they won't leave you alone. At the same time, you play the martyr card. Why are they persecuting me?

Pointman

20

...this latest stage of the post-enlightenment. If your facts plainly contradict someone else's orthodox beliefs, then you are simply being "unhelpful" or even "harmful" and should therefore be suppressed. That's to be done not by logical refutation or counter argument, but intimidation, bullying, shunning, character assassination and threats to a person's career or livelihood.

Basically, the gloves come off and you get mobbed by a gang of like-minded thugs. Destroy the person, not the argument.

Pointman

21



Richard Feynman

Our freedom to doubt was born out of a struggle against authority in the early days of science. It was a very deep and strong struggle: permit us to question — to doubt — to not be sure. I think that it is important that we do not forget this struggle and thus perhaps lose what we have gained.

22

One of the saddest lessons of history is this: If we've been bamboozled long enough, we tend to reject any evidence of the bamboozle. We're no longer interested in finding out the truth. The

bamboozle has captured us. It's simply too painful to acknowledge, even to ourselves, that we've been taken. Once you give a charlatan power over you, you almost never get it back.

Carl Sagan

23

When a scientist doesn't know the answer to a problem, he is ignorant. When he has a hunch as to what the result is, he is uncertain. And when he is pretty damn sure of what the result is going to be, he is still in some doubt. We have found it of paramount importance that in order to progress, we must recognize our ignorance and leave room for doubt. Scientific knowledge is a body of statements of varying degrees of certainty — some most unsure, some nearly sure, but none absolutely certain.

Richard Feynman

24

For God's sake. Isn't a Noble Cause and warm feelings good enough for you?

Old Man

25

All of science, in your time, has been set up to promote beliefs that run in direct contradiction to the knowledge of man's heart. Science has denied emotional truth and firmly believes that knowledge can only be acquired from the outside, from observation. You are taught not to trust your subjective experience, which means that you are told not to trust your initial and primary connection with reality.

Seth

26

You should never accept as fact a theory that contradicts your own experience. Man's experience includes, for example, all kinds of behavior for which science has no answers. That is well and good. Science cannot be blamed for saying that its methods are not conducive to the study of this or that area of experience, but science should at least be rapped smartly on the knuckles if it automatically rejects such behavior as valid, legitimate or real, or when it attempts to place such events outside the realm of actuality. Science can justly be reprimanded when it tries to pretend that man's experience is limited to those events that science can explain.

Seth

27



Seth

Now, while it seems that your world contains more and more information all the time, your particular brand of science is a relatively narrow one, in that it accepts as valid only specific areas of speculation. The areas outside of its boundaries become taboo. The unknown is more feared by science than it ever was by religion.

28

“So there is more to this world than scientific materialism assumes?”

“Oh yes. Scientism is more intolerant and closed-minded than most religions.”

Young Woman

29

Come to the dark side---we have cookies.
AOL chat room

30



Thomas Kuhn

Paradigm: A framework containing the basic assumptions, ways of thinking, and methodology that are commonly accepted by members of a scientific community. [and individuals and interest groups]

31

When you believe something is right or wrong, true or false, you believe the assumptions in the words which express the arguments. Such assumptions are often full of holes, but remain most precious to the convinced.

Alfred North Whitehead

32

Paradigm paralysis is the inability or refusal to see beyond the current models of thinking...caused by motivated reasoning, oversimplification, and consensus seeking; worsened and made permanent by a vicious positive feedback effect.

Judith Curry

33

Facts have absolutely no influence on those committed to a paradigm. It is true that some of us fervently believe we are less committed and our narratives better, closer to Reality. Those with a different narrative just as fervently believe the same.

Arguments between people who hold different paradigm are usually a waste of time. Each knows facts and logic are on their side. So the other side must be racist, sexist, elitist, dumb, evil, liars, libertarian, deniers, etc. How else to explain their not agreeing with what is so obvious? Such a discussion frequently devolves into name calling. Well actually, it often starts with name calling.

Whatever. It's fun to confirm and massage our paradigms and narratives by cherry picking and over-generalizing with friends. Your brain gets washed with delight, with substances similar to narcotics.

The sad, dangerous part is that there really is a Reality outside ourselves and some narratives, some maps are closer to that Reality than others. And "closer" is desperately needed to plan and respond adequately to the hard unforgiving Reality of planet earth.

Science in the past has been a big help in demonstrating the better map. Now the race for big bucks grant money from government, businesses, and interest groups make the results of such research at least suspect, if not worthless. Researchers know if they don't come up with results that support the agenda, they will not get another grant. And departmental perks and their ongoing research program depend on that money.

Old Man

34

The greatest advances in science occur when some stubborn son-of-a-bitch has data that indicates that the consensus is wrong. The poor bastard better be ready for a life of abuse, failure and poverty. The old guard doesn't change, they die off. The next generation of scientists accepts the new paradigm, heaps lavish praise on the poor, dead trouble maker, and are just as narrow minded and intolerant.

Old Man

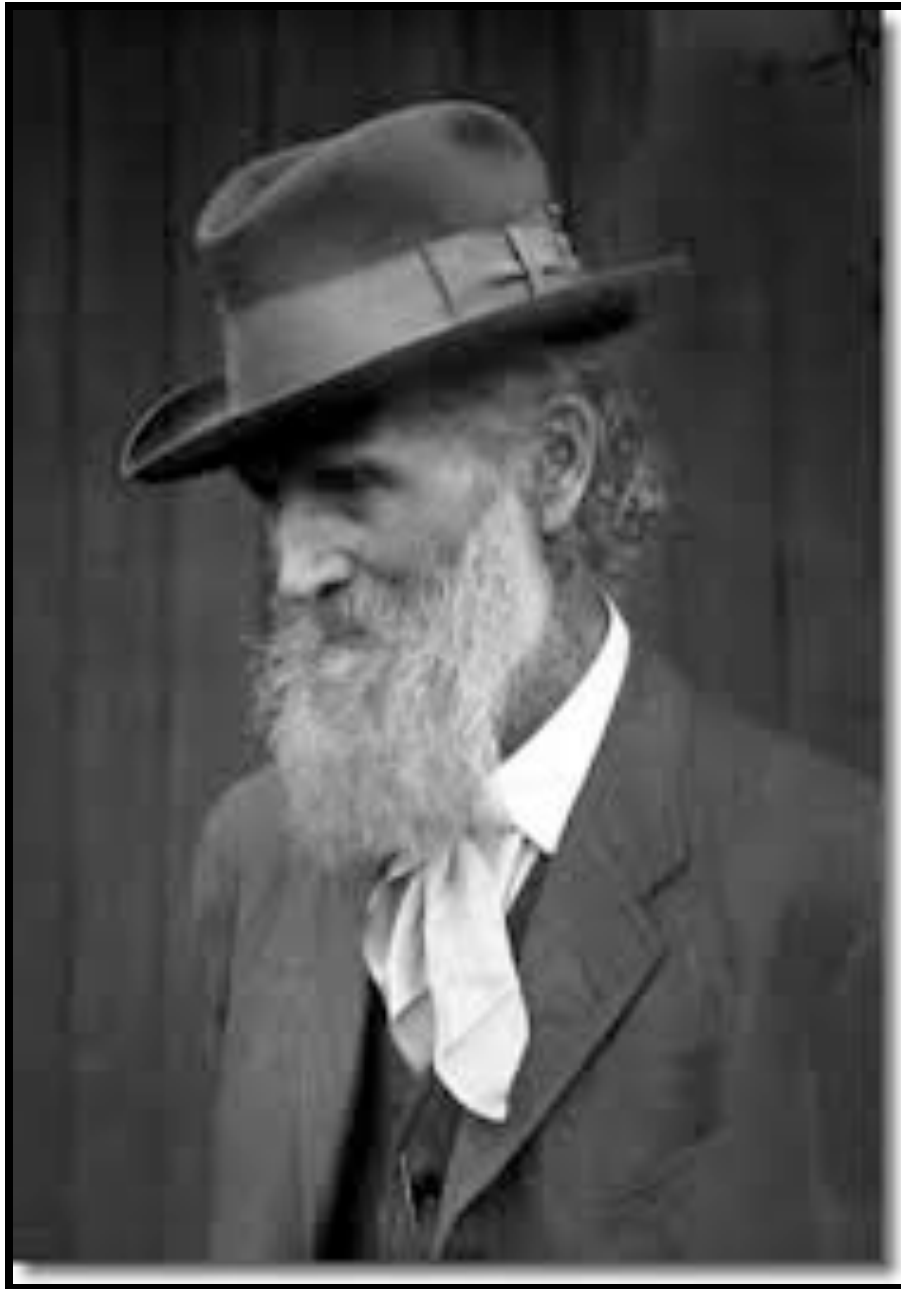
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The Fantasy Cycle

When we embark on a course of action which is unconsciously driven by wishful thinking, all may seem to go well for a time, in what may be called the “dream stage”. But because this make-believe can never be reconciled with reality, it leads to a “frustration stage” as things start to go wrong, prompting a more determined effort to keep the fantasy in being. As reality presses in, it leads to a “nightmare stage” as everything goes wrong, culminating in an “explosion into reality”, when the fantasy finally falls apart.

Christopher Booker

36



Old Man

Every important question has at least two valid points of view, fully supported by data, logic, and a whole mess of unacknowledged biases and assumptions.

37

Our brains interpret the input from our sensory organs by making a model of the world. When such a model is successful at explaining events, we tend to attribute to it, and to the elements and concepts that constitute it, the quality of reality or absolute truth. But there may be different ways in which one could model the same physical situation, with each employing different fundamental elements and concepts. If two such physical theories or models accurately predict the same events, one cannot be said to be more real than the other; rather, we are free to use whichever model is most convenient.

Stephen Hawking & Leonard Mlodinow

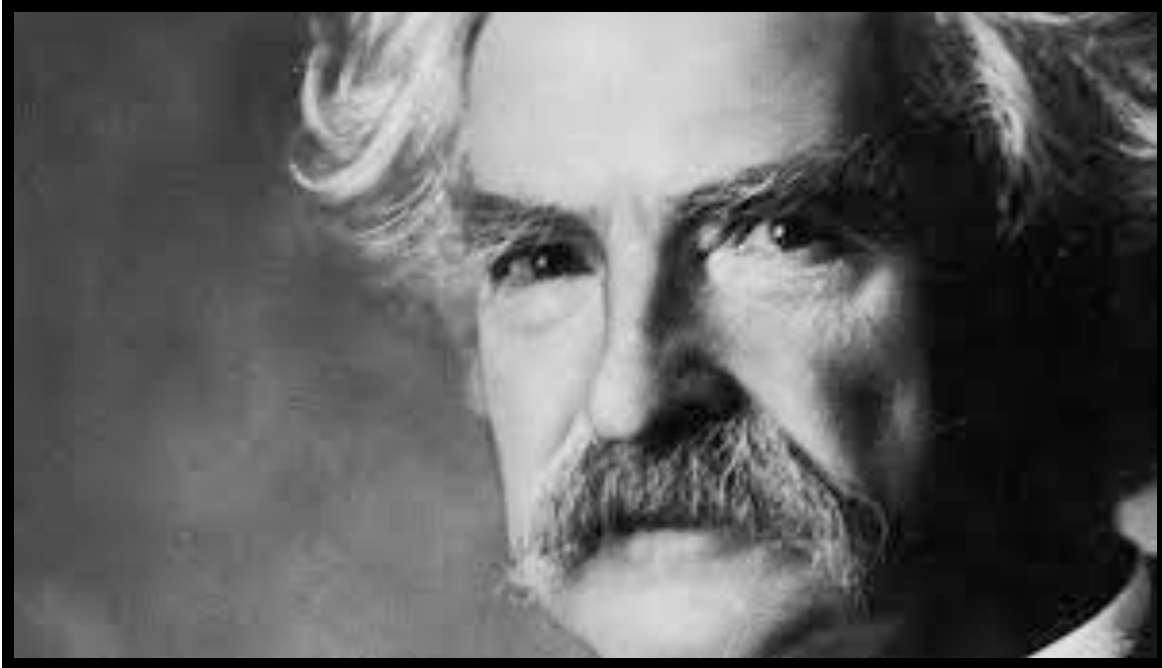
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TRUTH

For an engineer to keep his job, he has to be brutally correct and honest---all the time. Products and reality don't lie. For a scientist to keep his job, he has to obtain funding. This is generally accomplished by convincing politicians that something you want to study is important, and frequently involves exaggeration and/or fabrication.

39



Mark Twain

Whenever you find yourself on the side of the majority,
it's time to pause and reflect.

40

Consciousness is unquantifiable, a ghost in the machine, barely considered real at all, though in a sense this flickering mosaic of awareness is the only true reality that we can ever know.
Alan Moore

41

An important working hypothesis of science is that physical matter, in some unexplained manner, was formed after an initial explosion of energy, and consciousness emerged from that initially dead matter in a way yet to be explained. Instead, consciousness formed matter. Consciousness and matter and energy are one, but consciousness initiates the transformation of energy into matter. In those terms, the “beginning” of your universe was a triumph in the expansion of consciousness, as it learned to translate itself into physical form.
Seth

42

When the physical origin of your universe is finally discovered, your scientists will be no better off than they are now. They will be up against the problem that they have avoided for so long, that of the origin behind origin. The physical universe and everything in it is the result of consciousness. It did not evolve consciousness. To the contrary consciousness not only created the physical universe but continues to do so.
Seth

43

Man can put his consciousness together in numberless ways and therefore perceive himself and his world in different fashions. Most likely the subjective nature of reality was perceived far differently in previous civilizations. There is no need to call one superior to another. There are countless casts that consciousness can take. Each civilization, indeed, each generation, prefers one and holds it as its official psychological stance. Certainly there must be “something out there” to be worked upon, molded and experienced, but that “something” is far more plastic, manipulatable, and giving than conventional practical psychology would lead you to believe.
Seth

44

The myths of the people of the world whether those of the Celts of long ago or the Navajo of today are their science, psychology and philosophy. We are being naïve if we think the science, psychology and philosophy of our own day are not also myths and will not be so regarded by future generations.
Seth

45

To change reality you first become aware of the contents of your conscious mind. Second, you must be clear that your thoughts are not you---you are the Self that has the thoughts. Your beliefs are not you---you are the Self that entertains them. Change your beliefs, thoughts and expectations and a change in reality will always follow.
Seth

46



Carlos Castaneda

I've told you that the internal dialogue is what grounds us. The world is such and such or so and so only because we talk to ourselves about its being such and such or so and so. To change our idea of the world is the crux of sorcery, and stopping the internal dialog is the only way to accomplish it. The rest is just padding.

47

Objectivity is the delusion that observations can be made without an observer.
Shunyata

48



Without a narrative there isn't any possibility of interpreting the "facts" as presented to us.
Shunyata

49

Science is all metaphor.
Timothy Leary

50

Scientists have to have a metaphor. All scientists start with imagination.
Ray Bradbury

51



Alfred North Whitehead

The requirement of coherence is the great preservative of rationalistic sanity. But the validity of the criticism is not always admitted. If we consider philosophical controversies, we shall find that disputants tend to require coherence from their adversaries, and to grant dispensations to themselves. It has been remarked that a system of philosophy is never refuted, it is only abandoned. The reason is that logical contradiction, except as temporary slips of the mind---plentiful, though temporary---are the most gratuitous of errors, and usually they are trivial.

Thus, after criticism, systems do not exhibit mere illogicalities. They suffer from inadequacy and incoherence. Failure to include some obvious elements of experience in the scope of the system is met by boldly denying the facts. Also while a philosophical system retrains any charm of novelty, it enjoys a plenary indulgence for its failures in coherence. But after a system has acquired orthodoxy, and is taught with authority, it receives a much sharper criticism. Its denials and its incoherence's are found intolerable, and a reaction sets in.



Mae West with W. C. Fields

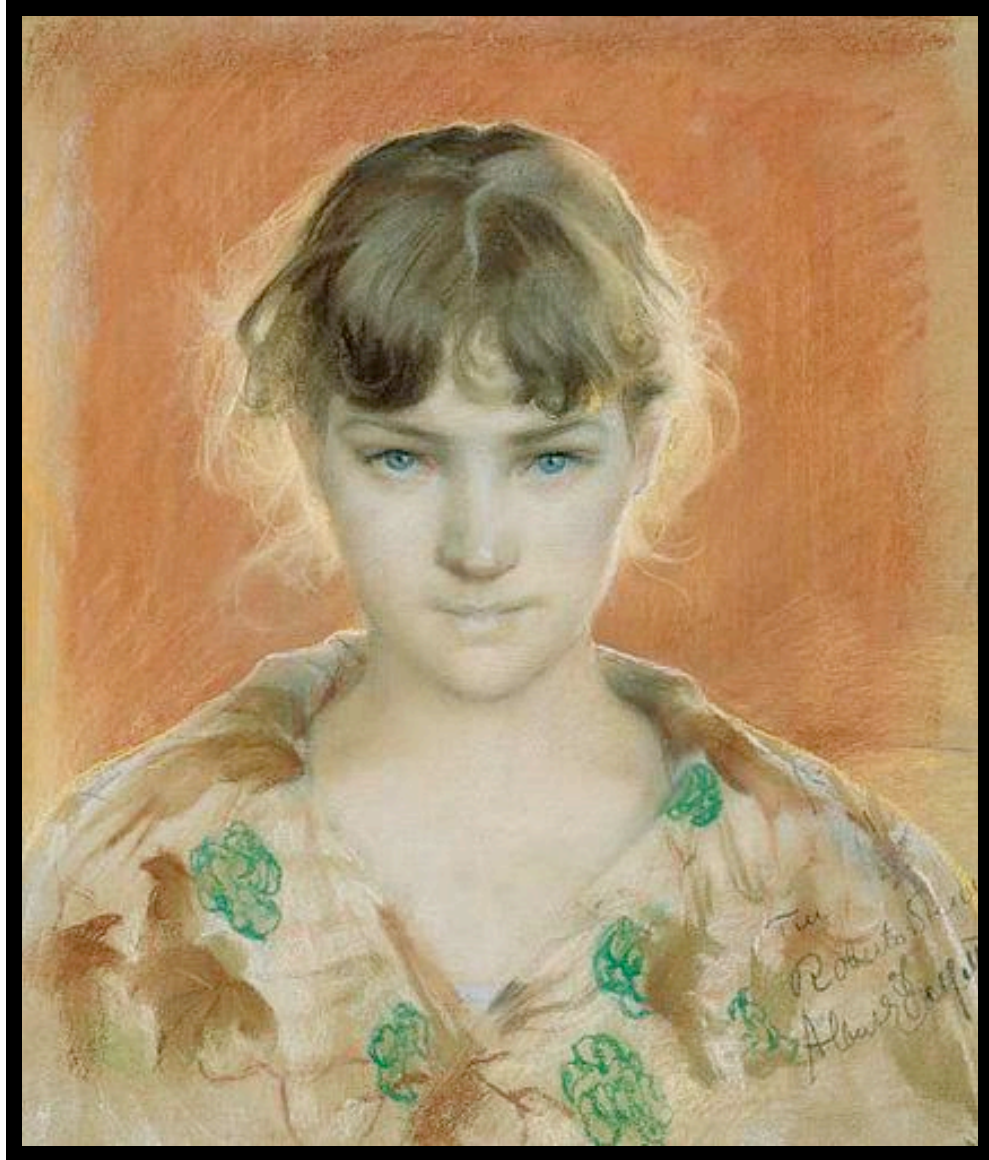
His mother should have thrown him away
and kept the stork.

53

The outward rusticity of primal behavior makes Western people devise a self-serving ideal of themselves as civilized, which sets them widely apart from other peoples and from nature. Their withdrawal from an awareness of their place in nature is nearly complete and they now believe that nature serves them and that divine intention makes them the dominant beings of the world. It was with the “manifest destiny” in mind that Europeans assumed their right to possess the ancient land of other peoples.

Such primal peoples live among animals and vegetation constantly in close contact with the sources of nourishment and death, understanding their environment and expressing their ideas and feelings in terms of the natural world. In contrast, people in the West have created an idealization of their relationship with nature which has neither life nor spirit.

Jamake Highwater



Young Woman

Hey! I just had an epiphany. Now I understand what Jamake Highwater was trying to say. Here in the mountains as a coyote I have direct contact with nourishment and death. I'm intensely aware of everything around me. I hunt and am hunted. That small movement in the grass may be something to eat. It is damp and muddy near the brook and the wind brings smells and sounds from far away. That large shadow scares me and I crouch down and stay very still.

As a human I'm in the middle of dense clouds of words and idealized images of nature. Smelly boxes are my home. We civilized people have moved far from the flow of nature, far from raw Reality, and have created an artificial world---a world without life or spirit.

Most of the crowd dropped words-data-logic and experienced a melding with each other and with the Forces around them. But on the way back to the Many Glacier Lodge, most were busy using words-data-logic to think and talk about what just happened, rather than continue the experience.

Yes, and you sharp people are aware I have done the same. A balance of going back and forth between direct experience and words-data-logic is necessary. You can't stay with raw Reality because you need to process and give meaning to the experience and survive on planet earth. But if you only know words-data-logic, you are dead.
Young Woman

56

There is a marvelous scene in the movie *Dances with Wolves* when Dunbar shifts from words-data-logic to raw Reality, a direct experience of the Forces. He is alone at night, bobbing, weaving, and swaying around a large campfire. The background music moves in time to the thrusts of his lance toward the fire. It's called the [Fire Scene](#) on YouTube and is the greatest evocation of primal Forces I have ever experienced in a movie. Become quiet, relaxed, go full screen, and open yourself to the experience. It is particularly powerful in a movie theater.

There are many kinds of Forces all around me. They are rock and lake; the animals and the trees. They are interacting with each other and me but no communication in the sense of a message. It's a melding. Like blending colors together. I hate having to fall back on metaphor but have no choice. I must use words to point, and hope you either have had the experience, or enough imagination to create one.

If your primary modality is auditory rather than visual your words-data-logic will use sound metaphors to describe the Forces, like melding together into a Grand Chorus. A traditional Indian might experience the personified Spirits of water and rock. A Christian might experience God, angels and devils. Your belief system and primary modality determine what words-data-logic you use to interpret and describe your experiences.
Young Woman

57

Well, that's as far as I've gotten. Like all human understanding I am very sure my maps of Reality are idealized, rationalized, sanitized, and vastly simplified.
Young Woman

58



Albert Einstein

The most beautiful experience we can have is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science. Whosoever does not know it and can no longer wonder, no longer marvel, is as good as dead, and his eyes are dimmed.

59

There is enough evidence to build an excellent case for life after death. All of this involves direct experience---episodes, encountered by individuals, that are highly suggestive of the after death hypothesis, but the hypothesis is never taken seriously by your established sciences. There

is far more evidence for reincarnation and life after death than there is, for example, for the existence of black holes. Few people have seen a black hole, to make the most general statement possible, while countless people have had private reincarnation experiences, or encounters that suggest the survival of the personality beyond death.

Those experiences are usual. They have been reported by peoples of all kinds and in all ages, and they represent a common-sense kind of knowledge that is frowned upon by the men of learned universities.

Seth

60

A hallucination is a fact, not an error; what is erroneous is a judgment based upon it.

Bertrand Russell

61

Miracles are not contrary to nature, but only contrary to what we know about nature.

Saint Augustine

62

Material fundamentalists tend to go berserk when the supernatural is mentioned.

Young Woman

63

I've had bad luck with both my wives. The first one left me and the second one didn't.

Patrick Murray

64



Edward Abbey

It will be objected that the book deals too much with mere appearances, with the surface of things, and fails to engage and reveal the patterns of unifying relationships which form the true reality of existence. Here I must confess that I know nothing whatever about true underlying reality, having never met any. There are many people who say they have, I know, but they've been luckier than I.

65

I almost had a psychic girlfriend but she left before we met.
Steven Wright

66

You do not need a parachute to skydive.
You only need a parachute to skydive twice.
Unknown

67

I asked the waiter, "Is this milk fresh?" He said, "Lady, three hours ago it was grass."
Phyllis Diller



W. C. Fields

If you can't dazzle them with brilliance,
baffle them with bull.

Many a good argument has been shot to hell by some damn fool who knows what he's talking about.
Old Man



Pablo Picasso

Everything you can imagine is real.

99 percent of lawyers give the rest a bad name.

Steven Wright

True reality is what we experience when all the perception is set aside. For instance, when we go to Yellowstone National Park and we are looking at the beautiful mountain covered with snow and we are in awe of its beauty, in that instance we are experiencing reality. We are not thinking about anything but rather are just experiencing. When we start to put some thought to our experience, that is when it becomes perception rather than true reality. That is when the perception becomes skewed because we are relating our past experiences to an interpretation of the present experience.

Rodney Groves

73

Whatever reality is, it's not that.
Herman Northrop Frye

74

Beware the writer who always encloses the word "reality" in quotation marks: He's trying to slip something over on you.
Edward Abbey

75

The saddest moment of my adolescence was when I suddenly realized that my girlfriend did not have a boyfriend.
Old Man

76

Beyond the fiction of reality, there is the reality of the fiction.
Slavoj Zizek

77

If there's no chocolate in Heaven, I'm not going.
Jane Seabrook

78

Maybe I need to be a little kinder and more patient with not so bright people. All relative. Yes, we are smarter than an ant, but imagine a super-super-being with a brain the size of the earth, or who creates universes in her spare time.
Young Woman

79

The secret of success is sincerity. Once you can fake that you've got it made. It is always the best policy to tell the truth, unless of course, you are an exceptionally good liar.
Jean Giraudoux

80

"How many husbands have I had? You mean apart from my own?"
Zsa Zsa Gabor

Trying to understand the worms made me remember that great passage at the beginning of Goethe's *Faust*. Faust tells the Devil he feels a kinship, an understanding. The Devil squashes the poor doctor flat with a great putdown.



“The spirit thou doest comprehend is like thyself, not me.”
Young Woman

Like can only apprehend like.
Plotinus

83

Humankind is subject to many myths and fallacies, none more befuddling than these four:

1. What precedes an event causes the event.
 2. Metaphors are real.
 3. Pattern and meaning spontaneously emerge from random data.
 4. And the worst befuddler of them all. Ignorance of the pervasive biases and assumptions that govern our lives.
- Old Man

84

Plato said the unexamined life is not worth living.
The opposite is also true.
Young Woman

85

We cannot define *anything* precisely. If we attempt to, we get into that paralysis of thought that comes to philosophers, who sit opposite each other, one saying to the other, "You don't know what you are talking about!" The second one says, "What do you mean by *know*? What do you mean by *talking*? What do you mean by *you*?"
Richard Feynman

86

There is no greater mystery than this, that we keep seeking reality though in fact we are reality. We think that there is something hiding reality and this must be destroyed before reality is gained.
Sri Ramana Maharshi

87

Confucius say: "Life is really simple. We insist on making it complicated."
Old Man say: "Life is really complicated. We insist on dumbing it down."

88

Energy is above all things infinitely creative, innovative, original. Energy is imaginative. I am not assigning human traits to energy. Instead, your human traits are the result of energy's characteristics.
Seth

89

I like nonsense, it wakes up the brain cells. Fantasy is a necessary ingredient in living. It's a way of looking at life through the wrong end of a telescope. Which is what I do, and that enables you to laugh at life's realities.

Dr. Seuss

90

I admit I have a tremendous sex drive. My boyfriend lives forty miles away.

Phyllis Diller

91

An experience cannot be measured. Measurements from all the scientific instruments in the world add knowledge about the experience, but are not the experience. That holds true for all scientific measurements. They add knowledge about whatever is being measured, such as gravity, but are not what is being measured. The effect of gravity on scientific instruments is not gravity.

Old Man

92

The output of all scientific instruments must be in a form that our sensory system and brain structure can access. That necessarily severely restricts our ability to comprehend Reality using the scientific method.

Old Man

93

Our imagination and direct experience are alternatives to the scientific method for glimpsing the nature of Reality. Each provides valid information depending upon what you want to accomplish. If you want a bridge to hold up, the scientific method will give you the best chance of success. If you are making love, direct experience is likely to be more satisfying.

There was a joke going around when I was a graduate student studying behaviorism. After sex the guy turns to his partner: "That was great for you. How was it for me?"

Old Man

94

What a kid I got. I told him about the birds and the bee and he told me about the butcher and my wife.

Rodney Dangerfield

After a lifetime of serious consideration, I know three things:

- a. I am. To deny that is self-refuting.
- b. Human sensory systems and brain structures provide a decent map to the surface of planet earth. Otherwise I would be dead.
- c. Love, joy and beauty filled my life with wonder, magic and fun.

Old Man



Ansel Adams

There are worlds of experience beyond the world of the aggressive man, beyond history, and beyond science. The moods and qualities of nature and the revelations of great art are equally difficult to define; we can grasp them only in the depths of our perceptive spirit.



97



I have had my share of women, and they have given me the most marvelous moments of my life. And I mean more than sex, but the sex is so real and beautiful.

On the other hand I never chose to be attracted to human females and make them one of the centers of my life. That was hard wired in the womb, as were all of the other major sources of pleasure and pain in my life. I chose none of them.

Sometimes I feel I've been had, but what a ride. What a wonderful ride.
Old Man

98

A member of Parliament to Disraeli:

"Sir, you will either die on the gallows or of some unspeakable disease."

"That depends, Sir," said Disraeli, "whether I embrace your policies or your mistress."

99



H. L. Mencken

Q. "If you find so much that is unworthy of reverence in the US, why do you stay?"

A. "Why do men go to zoos?"

100

If there are two ways of comprehending reality, which one is “better”? If one has two different choices as to how to do something, we ask which one should we choose. The answer to this question is clearly that each is better for different things. It depends upon what you are trying to do. Both are equally valid even though they are quite different. Which one is chosen at a particular time does not depend on which is more true, but on what you are trying to accomplish at that particular moment. Each has assets and liabilities.

Seth

101

O see you not yon narrow road,
So thick beset wi’ thorns and briars?



That is the path of righteousness,
Though after it but few inquire.

And see ye not yon braid, braid road,
That lies across the lily leven?



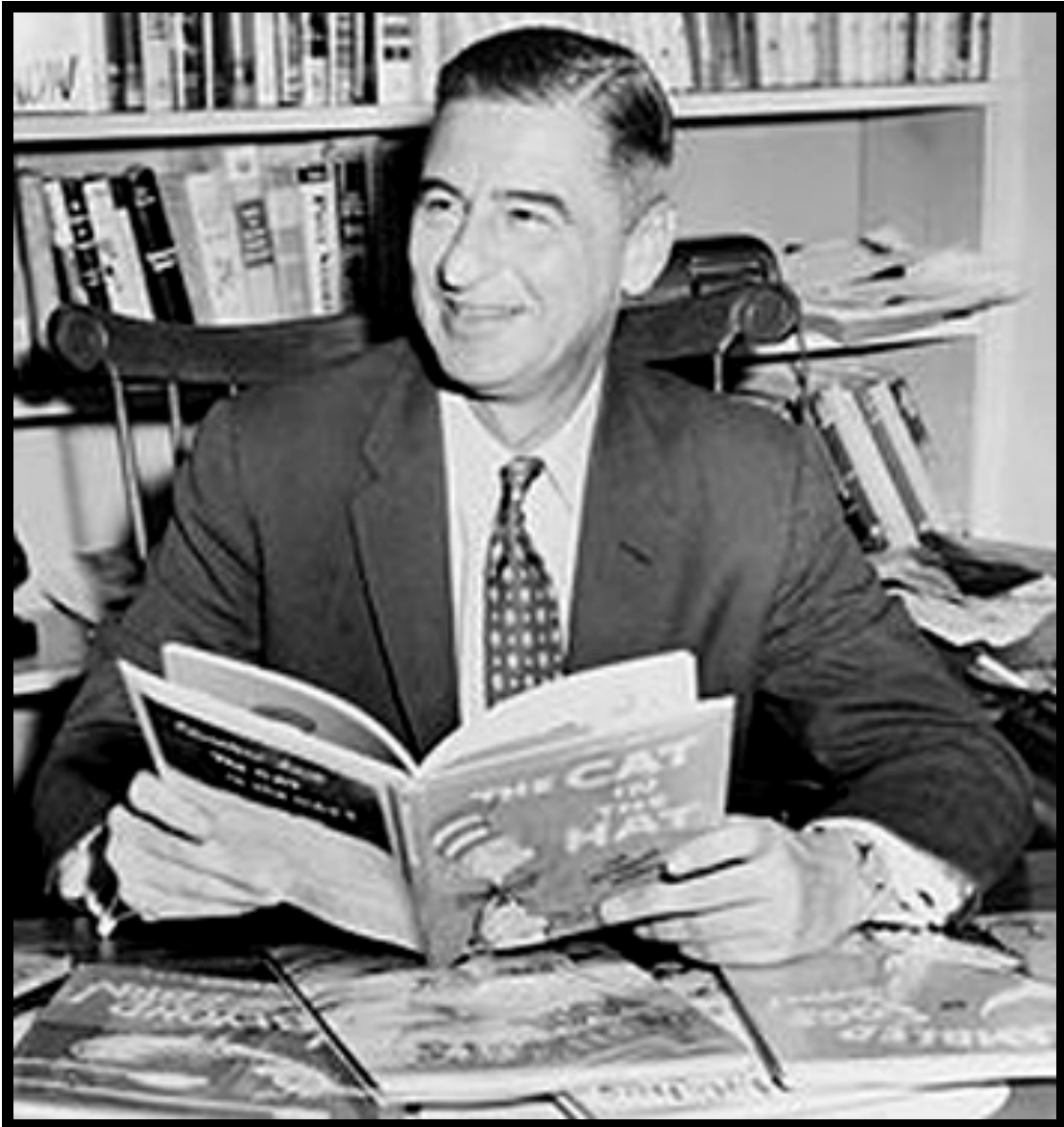
That is the path of wickedness,
Though some call it the road to Heaven.

And see ye not yon bonny road
That winds about the fernie brae?



That is the road to fair Elfland,
Where thou and I this day maun gae.
Thomas the Rhymer

3
YOUR ANSWERS AND MINE
Let's go give Reality a great big hug



Dr. Seuss

Think left and think right
and think low and think high.
Oh, the thinks you can think up if only you try.

YOUR ANSWERS

1. Kant divided Reality into phenomena and noumena. Phenomena are those aspects of Reality accessible to our sense organs processed by our brain. All other aspects of Reality, noumena, are forever closed to humans.

The foot feels the foot when it feels the ground.
The Buddha

Is it true that humans can only be aware of the affects of Realty on our nervous system as processed by our brain, never Reality itself? Is it really true that ALL IS MAYA?

YOUR ANSWER

2. Is objective science the only valid source of information about the nature of Reality, or can subjective experiences also be valid?

The arguments back and forth revolve around definitions of “valid”, often implicit. Changing the definition automatically changes the answer. How do you define “valid”? Is there one correct definition, or are there many? For instance a Christian would likely consider his experiences in church at least as valid as objective data.

YOUR ANSWER

3. Is it possible to obtain valid information about Reality without using the five senses?

Throughout the long history of humankind there have always been people who believed that they obtained valid information about the nature of Reality using extra-sensory perception. What they brought back from their explorations was often difficult if not impossible to communicate to those who had not had the experience because the explorers had to use words and logic based on the five senses and human brain. They usually fell back on metaphor.

Do you believe that extra-sensory perception exists? If so, can it provide valid information about the nature of Reality? Would you like to give the definition of valid another try?

YOUR ANSWER

MY ANSWERS

1. The Buddha is correct. Humans do not feel the rug. We feel our feet. The many nerve endings on the bottom of our feet send information through the spinal cord to our brain. The information is processed and we “feel” a rug. Feel is put in quotes because there is a critical difference in the two ways the word is being used. It is true we do not literally feel the rug, only the effect of nerve endings processed by our brain. But we do “feel” the rug in the sense that whatever is “out there” is differentially activating those nerve endings resulting in our awareness that we are “feeling” a rug, not concrete

Here is another example of the critical difference using sight. Fred sees a tree because whatever is “out there” has activated the rods and cones in Fred’s eyes. Whatever is “there” exists whether Fred is looking or not. But the tree that he sees, the result of the activation of rods and cones as processed by his brain, only exists while he looks at the tree. When Fred turns his head away that tree no longer exists.

And what happens when you look at yourself in the mirror and then turn your head away? Very freaky.

We literally have no direct contact with anything outside the surface of our body. Whatever is “out there” activates the sensory organs and from those signals the brain constructs our marvelous world. The Buddha is right again---ALL IS MAYA.

The Darwinian process pretty much guarantees there really is something “out there” we label “rug” and “tree”, but we can only be aware of those aspects of whatever is “there” that affect our nervous system processed by our brain. The mechanical extensions of our sensory systems make clear there is much more to Reality than can be processed directly by human sense organs and brain.

We swim in an ocean of energy, and “swim”, “ocean”, and “energy” are all metaphors. We have no idea what they “point to”. And yes, another metaphor. And yes, I’m afraid it’s metaphors all the way down.

Whatever Reality is, it's not that.
Herman Frye

Phenomena---aspects of that Great Ocean that activate our five senses and brain. Noumena---the unknowable activators. The distinction between phenomena and noumena is useful because it

reminds me of the limitations necessarily imposed by the human condition. Humility in the presence of Reality creates a greater openness to new knowledge, and avoids the hubris Whitehead warned against: "Whoever undertakes to set himself up as a judge of Truth and Knowledge is shipwrecked by the laughter of the gods."

2. Like all human dichotomies, subjective and objective do not exist in the event. They exist as words humans use to point to different aspects of the event as interpreted by our human senses and brain. If I hit the table I can emphasize the objective---spilled water. Or I can pay attention to the subjective---pain and hardness. My experience of an event usually has both subjective and objective elements.

At the moment I like three definitions of "valid". The hard definition is the one the hard sciences like physics and chemistry try to use. A measurement is valid if it has a high correlation with whatever it purports to measure. For instance, the number on my bathroom scale correlates highly with other objective measurements of my weight.

I use the soft definition of "valid" in my everyday life and when doing a soft science, such as psychology and sociology. Does the content of my subjective experience correlate well with objective data? Is the letter A I see on the eye chart really a letter A on the eye chart?

My third definition of "valid" is everything I experience. The content may or may not be valid given the other two definitions but the experience itself just is, and the fundamental basis of everything I am and know.

Which definition of "valid" is best depends on what I'm doing. I would emphasize the hard definition when doing a hard science or repairing my car. The soft definition when doing a soft science, or driving my car. Best to go experience eating Key Lime pie made with real Key limes or in the back seat with my girl friend.

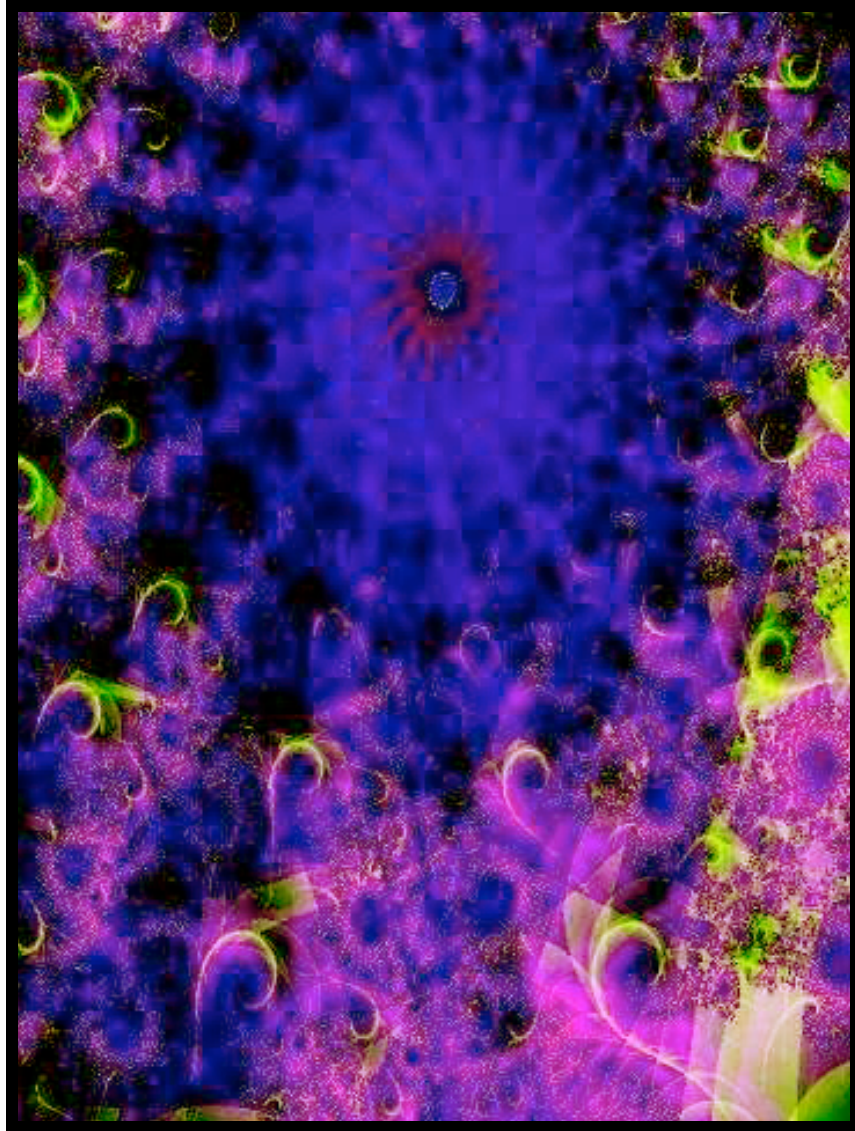
3. I don't believe there is an absolute division between sensory and extra-sensory. As humans evolve, what was considered extra-sensory will become redefined as sensory. So it is rash and profoundly anti-science to automatically dismiss the experiences of people because they cannot at this time be attributed to knowledge obtained from the five senses.

I believe that extra-sensory experiences are valid because of a small number of very extraordinary experiences I have had. And I've talked to others who describe their unusual experiences in much the same way. I was hiking down to three lakes on Cut Bank creek in Glacier Nation Park. As I came to the middle lake I "knew" with absolute certainty that shaman had conducted ceremonies on the far bank. A Blackfoot shaman later told me that the site was a shaman circle used in the old days for war parties going over the pass.

One of my friends described a similar experience when she was 11-years old. She was taking part in an extra-sensory experiment given by a friend who asked her to name the color of a woman's clothing in five hidden pictures. She got them all right and knew with that

unforgettable sense of certainty that she was right. She even correctly described the setting of the pictures, such as the building one of the women was standing in front of, even though that was not part of the experiment.

Material fundamentalists will rush forward with ways to explain away such experiences. And they may be right. I have no problem seriously considering sensory based explanations. I have a serious problem when the fundamentalists allow no other.



Man can put his consciousness together in numberless ways and therefore perceive himself and his world in different fashions. Most likely the subjective nature of reality was perceived far differently in previous civilizations. There is no need to call one superior to another. There are countless casts that consciousness can take. Each civilization, indeed, each generation, prefers one and holds it as its official psychological stance. Certainly there must be “something out

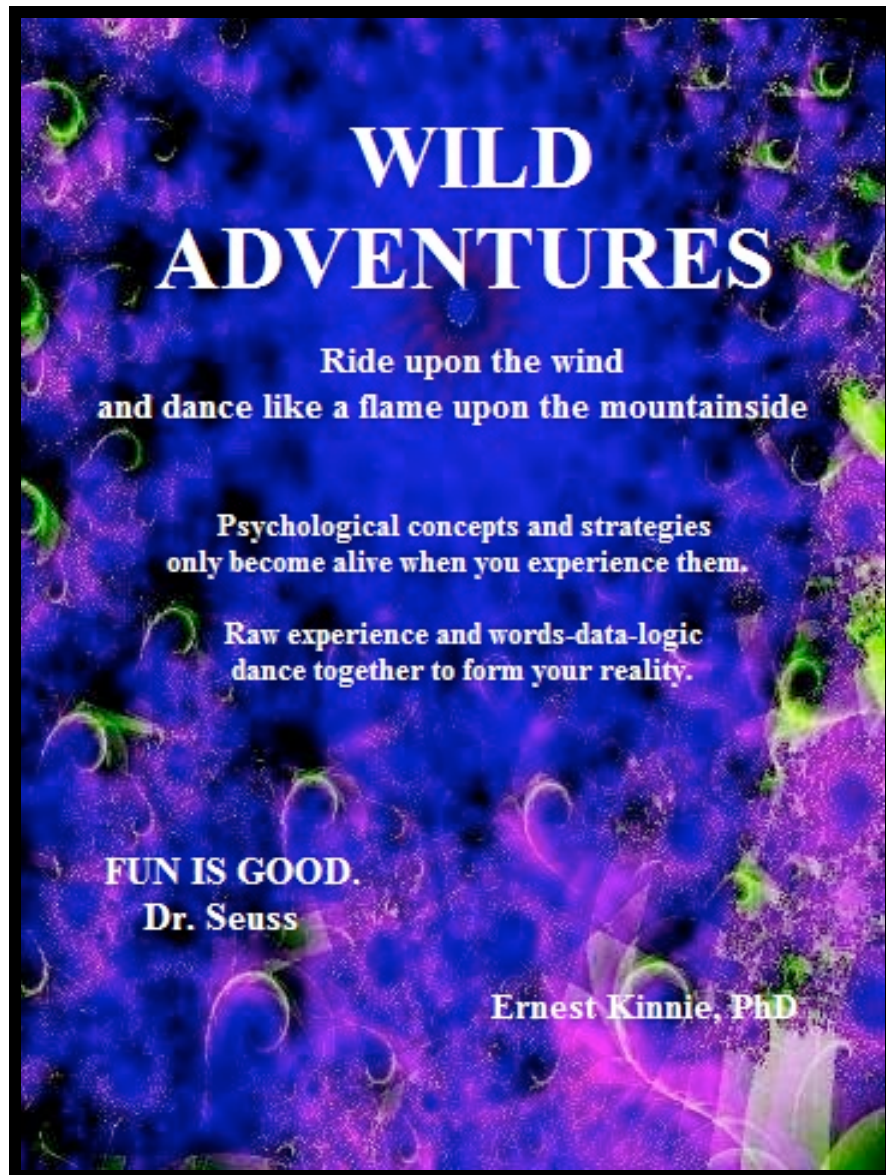
there” to be worked upon, molded and experienced, but that “something” is far more plastic, manipulatable, and giving than conventional practical psychology would lead you to believe.
Seth

If you liked *Modern Science in Crisis*, I would be grateful if you would write a review. One or two sentences would be fine, or make it as long as you like.

[Click here](#) and scroll down to the review section.

Thanks.

Chasing Reality is from *Wild Adventures*. Click on the cover.



Psychological concepts and strategies only become alive when you experience them. Raw experience and words-data-logic dance together to form your reality. You will go on many wild adventures to explore and create your life.

And have fun. As Dr. Seuss said so elegantly: **FUN IS GOOD.** And so are love, joy, creativity, and dancing on the mountainside.

Do the Adventures alone or share with a group. Use good judgment. If you are asked to do something that doesn't feel right, move on, perhaps to try another day.

PART 1 Wild Adventures 1-25---the essentials

PART 2 Wild Adventures 26-50---go Zen

PART 3 Wild Adventures 51-60---being your **Self**

PART 4 RELAX---ENERGIZE.

PART 5 Intense arousal and fulfillment---two wild animals

PART 6 Chasing Reality---is The Buddha correct?

Twilight Reality

How to guarantee a wonderful life

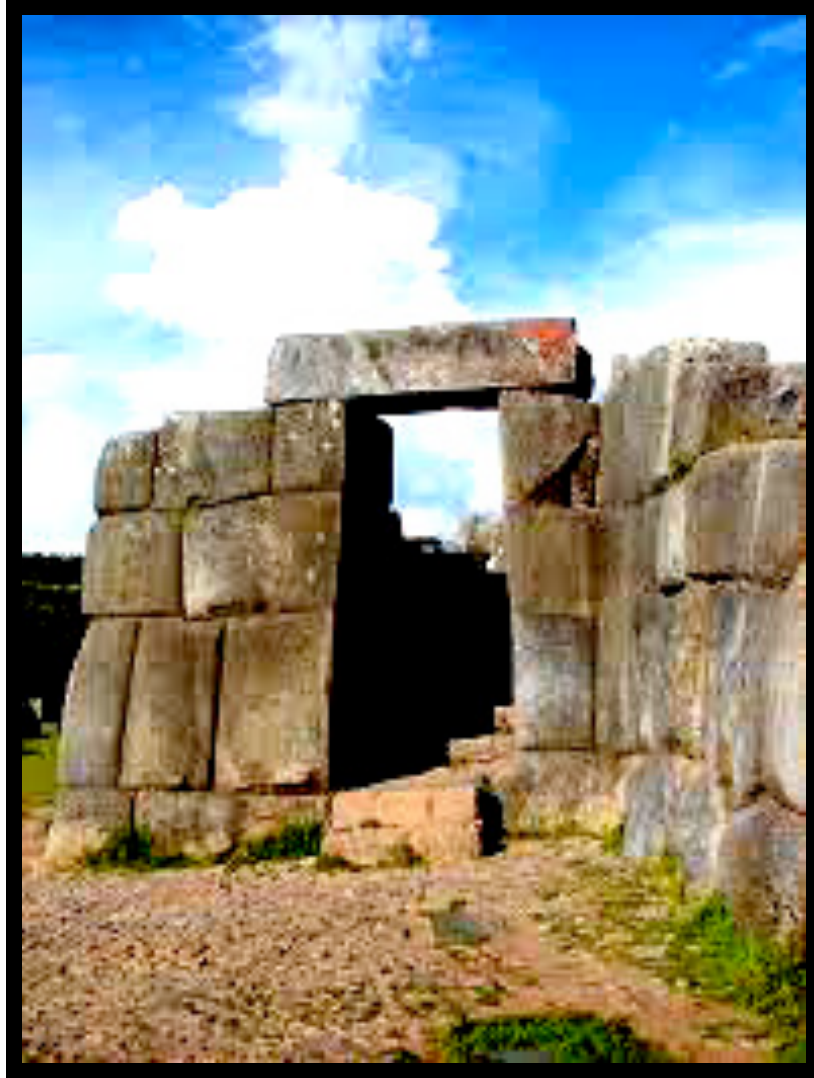
PART 1

WILD ADVENTURES 1-25

THE ESSENTIALS

1. Placebo power---shake your rattle
2. Blessings and curses
3. Create Power Pills
4. Create Power Words
5. Implode---Explode
6. The 10-second cure
7. Maybe it's you
8. Make and break contact
9. Flowing with them---flowing with yourself
10. People read you like a book
11. Down the Yellow Brick Road
12. Fritz's Magic Chair
13. The joys of stamp collecting
14. Living fairy tales
15. Fake it.
16. Two old hustlers---**Buy! Buy! Buy!**
17. Two old hustlers---**Vote! Vote! Vote!**
18. They stuff your brain
19. Are you a useful idiot?
20. Humans are pack animals
21. Tales from the dark side
22. Wonderful ways to defend the pack
23. Try open-minded and tolerant
24. Fun confusing friends---and enemies
25. THE TRUTH

How to guarantee a wonderful life



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DISCOVERY AND WONDER**

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Alice II: the nature of Reality

Alice III: the creation of Reality

Mary: raised in a whorehouse by a Blackfoot Spirit Woman

BOOKS by Ernest Kinnie

A Light in the Darkwood: two children learn the power of imagination

Dancing with Reality: with love and joy---Freedom and vitality

Expand Awareness and journey into your Greater Reality

Global Warming and Natural Variability

Golden Moments of wisdom and folly: No safe spaces provided. No trigger warnings given.

Volume 1 Volume 2 Volume 3 Volume 4 Volume 5 Volume 6 Volume 7 Volume 8
Volume 9 Volume 10

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Amoral Science---Brainless Religion: two world views

Eric Berne: the best of Games People Play

Fritz Perls & Lao Tzu: out of your head, into the NOW

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Sammy finds a way

You want Sex?

The Brujo and the Four Professors: a 2-act play