Q1 – Questioning Questions

Dear: When I'm walking, what I normally do for 'Q' is the following.

Q: *Quality – as much as time permits (including interactions with people).*

Quotations: The quotes from Emerson and Churchill notwithstanding, do read Bartlett's again – in spite of its biases and misrepresentations.

Questions: "There's no such thing as a stupid question" (unless you already know the answer), but in asking questions, distinguish "why-questions" from "how-questions": why-questions assume a purpose (appropriately asked of people); how-questions inquire about processes (more appropriate for the rest of nature).

As per usual, it'll take me a while to explain my meaning; I'll do it by just "chipping away", one piece at a time, starting with the last part, i.e.,

"THERE'S NO SUCH THING AS A STUPID QUESTION."

I put the above statement in quotation marks, because I'm quoting a wonderful fellow under whose direction I earned my master's degree in nuclear physics, more than 40 years ago [now, 50 years ago!]. To explain what he meant, let me reminisce.

When I was in my final undergraduate year in Engineering Physics, I still hadn't answered the question: "Whaddya wanna be when you grow up?" That was before I realized that it was a mistake to plan on not continuing to grow! Yet, I did have fun in a physics lab class (which was a new experience for me, because generally, I disliked labs!), especially with an experiment (which I was later asked to demonstrate during an "open house") in which positrons (from the decay of particular radioactive nucleus) were annihilated by electrons (i.e., a matter-antimatter reaction, as predicted by Dirac), producing detectable gamma rays with a precise energy (as predicted by Einstein's $E = mc^2$). That fun plus a flyer that I happened to notice (announcing competition for a graduate research assistantship under the fellow who, I later learned, was the country's top nuclear physicist) led me toward a graduate degree in Nuclear Physics. So much for ideas about a well-planned life!

Anyway, the summer before I enrolled for my graduate studies (and courtesy the kindness of my graduate advisor-to-be), I worked at the country's top

nuclear physics laboratory. It was quite a trip back East, but I'll leave describing details for sometime when we're talking. Occasionally during that summer, my advisor would drive the 50-or-so miles from his university, in part to attend seminars at the Lab. With his kind invitations, I attended the seminars with him, and I was astounded by the questions he would ask of the speakers – no matter the seminar's subject.

I particularly remember a seminar on Fermi surfaces in metals, a subject that, at the time, I had only very scant knowledge (mostly gained, by the way, from reading articles in *Scientific American*, for I had set myself the summer-time, lunch-time, fun-time task of reading all interesting articles in the library's collection of maybe 50 years' worth of this wonderful magazine). Anyway, while the seminar-speaker was sketching some of the most astoundingly contorted Fermi surfaces imaginable, my future advisor (a nuclear physicist) almost continuously peppered the speaker (a solid state physicist) with what appeared to me to be penetrating questions.

After that particular seminar, as we walked along the narrow road from the auditorium (and I can remember this as if it happened yesterday), I remarked to my advisor-to-be how amazed I was that he knew so much to be able to ask so many intelligent questions. He was, by the way, also the head of the Physics Department at his university. His response was close to: "Well, in my view, there's no such thing as a stupid question." "Besides," he added (I don't know how much in jest), "I feel it's my civic duty to ask questions: if I don't understand what the speaker's talking about, think of all the others who know even less!"

After that experience, I adopted his policy – not of providing a service to others by asking questions (!) or of making an arrogant assessment of other people's knowledge (!), but agreeing with his opinion that there's no such thing as a stupid question (although I subsequently made explicit my realization of his implicit restriction: "unless you already know the answer"). Consequently, during my graduate studies (both for my M.S. at his university and when I went to work on my Ph.D. at another university), I would pepper my professors with questions. In fact, normally I would sit at the front of the class – because, back then, I was quite shy and I became nervous when, sitting at the back of the class, I could easily see that there were so many other students present!

In time, I "progressed" to the stage wherein I wouldn't even raise my hand to ask questions; instead, immediately when any professor would say something or write something on the board that didn't make sense to me, I'd holler out: "Question!" I imagine I became quite a nuisance, but actually, many students subsequently thanked me for interrupting the profs so frequently (a result consistent with my M.S. advisor's assessment!), none of the profs ever complained (although, on occasion some of them would say something similar to: "Now, if Mr. xxx would permit me to continue…"), and most significant for me was that, finally, I began to feel that I could understand anything that anyone knew enough about to be able to explain!

I strongly encourage you, Dear, to similarly adopt the principle: *There's no such thing as a stupid question – unless you already know the answer*. That is, even if you would similarly feel nervous about asking questions, then using whatever method that works for you, go ahead and ask your question. Don't be concerned about revealing your ignorance by asking a "dumb question." There is no such thing as a dumb question – but it can be dumb to let something pass that you don't understand.

And certainly you shouldn't restrict your questions to seminars or classrooms. Whenever someone is talking to you, interrupt the instant you don't understand. If a word is used that you don't understand, then ask for an explanation. If the speaker gets haughty, then great: you'll immediately learn something about the speaker! If the speaker can't explain, then again, at least you'll have learned something about the speaker. Perhaps most importantly for your self-esteem, Dear, never (but never!) conclude that your lack of a specific piece of knowledge reflects on your intelligence.

There's a vast difference between intelligence and education, and your lack of knowledge about something is solely a reflection of your education, nothing whatsoever to do with your intelligence. Let me put it this way: perhaps the most important statement ever made, ever since people first began to speak, was (and still is!): "I don't understand"! As Einstein said:

> The important thing is to not stop questioning. Curiosity has its own reasons for existing. One cannot help but be in awe when [one] contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries to comprehend a little of this mystery every day. Never lose a holy curiosity.

The importance of a "holy curiosity" can be seen in the following article[1] entitled "The Questioning Mind: Newton, Darwin, & Einstein."

> Most people think that genius is the primary determinant of intellectual achievement. Yet, three of the all-time greatest thinkers had in common, not inexplicable genius, but a questioning mind. Their intellectual skills and inquisitive drive embodied the essence of critical thinking. Through skilled, deep, and persistent questioning they redesigned our view of the physical world and the universe.
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> Consider Newton. Uninterested in the set curriculum at Cambridge, Newton at 19 drew up a list of questions under 45 heads. His title, "Questions", signaled his goal: constantly to question the nature of matter, place, time, and motion.
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> His style was to slog his way to knowledge. For example, he "bought Descartes' Geometry and read it by himself. When he got over 2 or 3 pages he could understand no farther, then he began again and advanced farther and continued so doing till he made himself master of the whole…"
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> When asked how he had discovered the law of universal gravitation, he said: "By thinking on it continually… I keep the subject constantly before me and wait till the first dawnings open slowly, by little and little, into a full and clear light." This pattern of consistent, almost relentless questioning, led to depth of understanding and reconstruction of previous theories about the universe.
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> Newton acutely recognized knowledge as a vast field to be discovered: "I don't know what I may seem to the world, but, as to myself, I seem to have been only like a boy playing on the sea shore, and diverting myself in now and then finding a smoother pebble or prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me."
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> Darwin's experience and approach to learning were similar to Newton's. First, he found traditional instruction discouraging. "During my second year at Edinburgh I attended lectures on Geology and Zoology, but they were incredibly dull. The sole effect they produced in me was the determination never as long as I lived to read a book on Geology, or in any way to study the science."
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> His experience at Cambridge was similar: "During the three years which I spent at Cambridge my time was wasted… The work was repugnant to me, chiefly from my not being able to see any meaning in [it]…"

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[1] The article is available at http://www.criticalthinking.org/resources/articles/questioning-mind.shtml; it contains the copyright notice: Copyright © 2004 Foundation for Critical Thinking. The unidentified author provides the following, quoted references: *Newton: the Life of Isaac Newton*, by Richard Westfall (NY, Cambridge University Press,1993); *The Autobiography of Charles Darwin*, by Francis Darwin (NY, Dover Publications, 1958); *A. Einstein: The Life and Times*, by Ronald Clark (NY, Avon Books, 1984); *A Variety of Men* by C.P. Snow (NY, Charles Scribners and Sons, 1967).

Like Newton and Einstein, Darwin had a careful mind rather than a quick one: "I have as much difficulty as ever in expressing myself clearly and concisely; and this difficulty has caused me a very great loss of time, but it has had the compensating advantage of forcing me to think long and intently about every sentence, and thus I have been led to see errors in reasoning and in my own observations or those of other."

In pursuing intellectual questions, Darwin relied upon perseverance and continual reflection, rather than memory and quick reflexes. "I have never been able to remember for more than a few days a single date or line of poetry." Instead, he had, "the patience to reflect or ponder for any number of years over any unexplained problem… At no time am I a quick thinker or writer: whatever I have done in science has solely been by long pondering, patience, and industry."

Einstein, for his part, did so poorly in school that when his father asked his son's headmaster what profession his son should adopt, the answer was simply: "It doesn't matter; he'll never make a success of anything." In high school, the regimentation "created in him a deep suspicion of authority. This feeling lasted all his life, without qualification."

Einstein commented that his schooling required "the obedience of a corpse." The effect of the regimented school was a clear-cut reaction by Einstein; he learned "to question and doubt." He concluded: "…youth is intentionally being deceived by the state through lies."

He showed no signs of being a genius, and as an adult [he] denied that his mind was extraordinary: "I have no particular talent. I am merely extremely inquisitive."

He failed his entrance examination to the Zurich Polytechnic. When he finally passed, "the examinations so constrained his mind that, when he had graduated, he did not want to think about scientific problems for a year." His final exam was so non-distinguished that afterward he was refused a post as an assistant (the lowest grade of postgraduate job).

Exam-taking, then, was not his forté. Questioning deeply and thinking critically was.

Einstein had the basic critical thinking ability to cut problems down to size: "one of his greatest intellectual gifts, in small matters as well as great, was to strip off the irrelevant frills from a problem."

When we consider the work of these three thinkers, Einstein, Darwin, and Newton, we find, not the unfathomable, genius mind. Rather we find thinkers who placed deep and fundamental questions at the heart of their work and pursued them passionately…

Let me try to "hammer the point home", Dear, by quoting from the Nobel Lecture given by the Polish poetess Wislawa Szymborska, who was awarded the 1996 Nobel Prize in Literature.[2] In places in this quote, I've added some italics for emphasis and a couple of notes to you.

> I've mentioned *inspiration*. Contemporary poets answer evasively when asked what it is, and if it actually exists. It's not that they've never known the blessing of this inner impulse. It's just not easy to explain something to someone else that you don't understand yourself.
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> When I'm asked about this on occasion, I hedge the question too. But my answer is this: inspiration is not the exclusive privilege of poets or artists generally. There is, has been, and will always be a certain group of people whom inspiration visits. It's made up of all those who've consciously chosen their calling and do their job with love and imagination. It may include doctors, teachers, gardeners – and I could list a hundred more professions. Their work becomes one continuous adventure as long as they manage to keep discovering new challenges in it. Difficulties and setbacks never quell their curiosity. A swarm of new questions emerges from every problem they solve. Whatever inspiration is, it's born from a continuous *"I don't know."*
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> There aren't many such people. Most of the earth's inhabitants work to get by. They work because they have to. They didn't pick this or that kind of job out of passion; the circumstances of their lives did the choosing for them. Loveless work, boring work, work valued only because others haven't got even that much, however loveless and boring – this is one of the harshest human miseries. And there's no sign that coming centuries will produce any changes for the better as far as this goes. [Unless people learn to practice Zen! I trust, Dear, that you'll see what I mean as you read more of this book; for now, I'll just relay the Zen proverb: "Before enlightenment: chop wood, carry water; after enlightenment: chop wood, carry water."] And so, though I may deny poets their monopoly on inspiration, I still place them in a select group of Fortune's darlings.
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> At this point, though, certain doubts may arise in my audience. All sorts of torturers, dictators, fanatics, and demagogues struggling for power by way of a few loudly shouted slogans also enjoy their jobs, and they too perform their duties with inventive fervor. *Well, yes, but they "know."* They know [e.g., that God exists!], and whatever they know is enough for them once and for all. They don't want to find out about anything else, since that might diminish their argument's force. And any knowledge that doesn't lead to new questions quickly dies out: it fails to maintain the temperature required for sustaining life. In the most extreme cases, cases well known from ancient and modern history, it even poses a lethal threat to society.

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[2] Dear: you can find her lecture (along with all the Nobel Lectures) on the internet at http://www.nobel.se/index.html. In fact, Dear, if you have the time to take on a fun challenge, then challenge yourself to reading all the Nobel acceptance speeches!

> *This is why I value that little phrase "I don't know" so highly.* It's small, but it flies on mighty wings. It expands our lives to include the spaces within us as well as those outer expanses in which our tiny Earth hangs suspended…

Yet, Dear, although I encourage you to ask questions, to refuse to be intimidated by any "guru", to never let lack of knowledge inhibit you from seeking more, to be a "restless, questioning spirit", I recommend that you give some thought to the type of questions that you ask, which is the topic to which I'll now turn.

DISTINGUISHING 'WHY' FROM 'HOW' QUESTIONS

When I'm walking, I sometimes embellish what I already showed you I remind myself with the letter 'Q', enforcing what I consider to be an important conclusion, with something similar to:

> In asking questions, distinguish between "the quick and the dead". For "the quick", the living, those with a purpose, why-questions are appropriate, but for "the dead", the inanimate, the rest of nature, emphasize how-questions (about quantity, quality, quickness, etc.), including questions about probabilities (as in quantum mechanics).

Below, I'll try to explain what I mean.

Endless "Why-Questions"

Dear, as you well know, kids love to ask "Why?" Sometimes I think that kids repeatedly ask "Why?" not so much to satisfy a wonderfully inquisitive mind, but because they've learned how to engage adults – and then delight in seeing them squirm!

> "Why is the sky blue?"
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> Well, as you can see at sunrise and sunset, red light isn't scattered by the air very much; that's why sunrises and sunsets have a lot of red in them, because the blue light is scattered from the direct line-of-sight (between the Sun and your eye), scattered to space and to the ground below, whereas more of the red light continues directly toward you. During the day, too, blue light is scattered more; therefore, during the day, the red light goes pretty much straight ahead (but don't look at this light, because you should never look directly at the Sun), but the blue light is scattered first by the air in your line-of-sight with the Sun, then from the air in the rest of the sky, and then to your eyes. Therefore, the sky appears blue.
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> "Why?"

Well, in each molecule in air, the positive and negative electrical charges are separated by the passing electric field of the light, and because red light is of lower frequency than blue light, the charge separation doesn't occur so frequently for red light as for blue. Therefore, less energy is taken from red light, more from blue, and when the molecule re-radiates the energy into all directions (which is what "light scattering" means) more blue light is scattered than red light. In fact, a fellow by the name of Rayleigh showed that the scattering increases with the fourth power of the frequency of the light, which means that the higher frequency blue light is scattered a huge amount more than is red light.

"Why?"

Well, as a fellow by the name of Planck showed, energy comes in discrete and different-size packages, called quanta, like different-size packages on the package-sorting line at the Post Office. But then, the packages aren't sorted by their destination addresses, as at the Post Office, but by their sizes, and then, it's as if different packages are put in different colored trucks. Imagine trucks of every color of the rainbow; then the biggest packages (of visible energy) are put in purple trucks, the next biggest packets are put in blue trucks, progressively smaller packages are put in trucks of the adjacent colors of the rainbow, all the way to the smallest packages of energy, which are put in the red trucks. (And incidentally, Dear, there are also some "ultraviolet" or "UV" trucks, which you can't see with your eyes, but they carry packages of even higher energy, which is why you should wear a hat, sunglasses that block "UV-light", and even sun screen, because ultraviolet light can damage your eyes and the DNA molecules in your skin, causing cancer.) So, anyway, when light comes from the sun to your eye, it's like on a huge, multi-lane freeway, filled with all these different colored trucks, each loaded with its size of packages. Then, some of these trucks have collisions with molecules in the air. But these collisions aren't bad enough to stop the flow of traffic on the freeway – just bad enough that some trucks loose some of their packages of energy. When a blue truck loses one of its blue packets of energy, it's quite a large loss of energy, but when a red truck loses one of its quanta, not so much energy is lost (because the red quanta are smaller and have less energy). Meanwhile, the molecules of air don't keep the packages of energy very long; it's as if the packets just bounce off, like packages bouncing off the road, which is what's called "light scattering". The bouncing of all the high-energy blue packages is what you see as a blue sky; only when all the blue packages are bounced out of the way, at sunrise and sunset, do you get to see the red packages still bouncing.

"Why?"

Well, Dear, I could explain how different size quanta of light stimulate electrons in the nerves in your eyes and how different light quanta emerge from the Sun when electrons drop into lower orbits in their atoms (which, in turn, were stimulated by the high-energy quanta of energy released during the fusion of nuclei, in turn caused by gravity, in turn caused by warping of space-time), but I'm pretty sure I heard your mother calling you – and you know *why* you need to go when your mother calls!

Sorry, Dear – sometimes I get carried away. Yet, there are a few points in the above that I hope you notice.

First, notice that any series of why-questions, asked of inanimate (i.e., non-living) parts of nature, is, in fact, an infinite series (i.e., never ending). That's what I meant, way back in the "poem" entitled "Awareness" that I showed you in the **A**-chapter, when I wrote: "And 'Why?' defies all tries at 'Thus'." It's a discovery made by every inquisitive four-year old! And what impatient "grown ups" (or those with other demands on their time) learn is various ways to terminate the otherwise infinite series. For example, one way to stop a child from asking so many why-questions is with various tricks or excuses, e.g., by saying "I hear your mother calling" or "I'm too busy to answer your question right now" or similar.

"The God of the Gaps"

To terminate an otherwise infinite series of why-questions, then rather than tricking the child by distracting his or her attention or honestly answering with "I don't know" (or, in the vernacular, "I dunno"), most adults unfortunately answer with the mind-numbing, power-mongering idiocy practiced throughout the world for at least the past 5,000 years, namely, some version of: "Cause that's the way God made it." For example, in response to "Why is the sky blue?" an adult of low intellect will respond with the non-answer: "Cause that's the way God made it."

The horror of such an answer is the damage it does to children: a child's wonderful natural inquisitiveness is just beginning to open another window on the world – and an adult's "God-answer" slams the window shut, confining the child's mind to a mental prison. When you see this, Dear, maybe you, too, will have difficulty trying to stay calm when criticizing the clerics of the world. Maybe you, too, will become extremely upset, not so much at the priests now accused and convicted of raping children's bodies, but at all clerics of the world for their horrible raping of children's minds.

The brilliant poet Percy Bysshe Shelley (1792–1822), who died too young, summarized such hideousness well in his essay "The Necessity of Atheism":

> If we wish to explain our ideas of the Divinity we shall be obliged to admit that, by the word God, man has never been able to designate [anything] but the most hidden, the most distant, and the most unknown cause of the effects which he saw; he has made use of his word only when the play of natural and known causes ceased to be

> visible to him; as soon as he lost the thread of these causes, or when his mind could no longer follow the chain, he cut the difficulty and ended his researches by calling 'God' the last of the causes, that is to say, that which is beyond all causes that he knew; thus he but assigned a vague denomination to an unknown cause, at which his laziness or the limits of his knowledge forced him to stop.
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> Every time we say that 'God' is the author of some phenomenon, that signifies that we are ignorant of how such a phenomenon was able to operate by the aid of forces or causes that we know in nature. It is thus that the generality of mankind, whose lot is ignorance, attributes to the Divinity, not only the unusual effects which strike them, but moreover the most simple events, of which the causes are the most simple to understand by whomever is able to study them. In a word, man has always respected unknown causes, surprising effects that his ignorance kept him from unraveling. It was on this debris of nature that man raised the imaginary colossus of the Divinity.

By the way, Dear, the 'God' described by Shelley in the above is now commonly called, somewhat in jest, "the god of the gaps", meaning "gaps in knowledge". Thus, whenever such a god is mentioned, you can substitute the phrase (in the vernacular): "I dunno."

Let me give you an example "closer to home" – an example that really hurt. I still clearly remember the time when your grandmother and I were "baby sitting" you (and your brother and sister) when your youngest sister was born. We were in the dining room, you were sitting on my lap, and I was commenting on your beautiful nose, your beautiful ears, and your two beautiful eyes. I then started to tease you (and I know I do that too much, Dear; I'll try to improve): "But, little Sweetheart", I asked, "how come you have only two eyes? Why don't you have two more eyes, here, in back, so you'd be able to see people if they try to sneak up on you?" To which my darling granddaughter responded: "Because that's the way Jesus made me!"

Poor little sweetheart. Such a brilliant child, with such astounding capabilities to learn and to understand, and yet, similar to so many such children, here was my granddaughter, with her brilliant mind polluted by her parents, by her other grandparents, and in turn and at the base of it all, by the clerics of the world, with such horrible god-garbage.

And yes, Dear, your grandmother and I did consider the possibility of rescuing you from that mental prison, but if you'll think it through, I expect you'll conclude as did we: even in the remote possibility (in this culture) that we'd win the legal battle to protect you from such mental pollution, both you and we would lose too much. We therefore concluded that, when you

were older, you'd need to purge religious pollution from your mind by yourself, just as we did – although maybe I could help you, by writing a certain book…

Someday, you might wonder how parents could be so cruel as to respond to their children's questions with various versions of "the god answer", but I trust you'll conclude that it's done, not out of cruelty, but "only" out of ignorance. For most parents, when they were children, their minds, too, were imprisoned by such answers. In the case of your father, for reasons that I'll leave for him to explain to you, he became "mystical". Thereby, maybe data support the Old Testament's "visiting the iniquity of the fathers upon the children" – just as, perhaps, my own father's failures resulted in my being an inadequate father. And thus, Dear, another challenge for you: to try to do better!

And in all of this, perhaps you can see still another reason why people choose to continue to be religious, long after a discriminating mind should be able to reject all childhood indoctrinations (in ideas about the Tooth Fairy, Santa Claus, and various, similarly fictitious gods). Thus, not only do religions provide people with various instinctive "needs" (such as loving, being loved, and belonging to groups with strong leaders), as well as provide feelings of importance (so important that they're in direct communication with the creator of the universe!), security (even against the threat of death!), and purpose (even if the purpose is the fictitious one of serving their gods or getting into Heaven!), but in addition, religions provide people with simple answers to difficult questions.

Unfortunately, though, religions give people only an illusion of replacing their ignorance with understanding. The answers are wrong, but at least they're answers! For example: How was the universe formed? "God did it." What happens to me when I die? "If you're good, you get to go to Heaven; if you're not, you're headed for Hell." How come you don't have another two eyes in the back of your head? "Because that's the way Jesus made me." Such answers give just illusions of understanding, because the answers create a new set of unanswered questions. Thus, you might respond: "Okay, God made the universe, but how and out of what?" Or you might say: "Okay, I get to go to Heaven, but where is it, how is it maintained, and how come nobody has ever described being there?" And how I hope, Dear, that someday soon you'll ask yourself: "Okay, Jesus made me this way, but how and why?"

In his essay quoted above, Shelley asked his own set of "impertinent questions":

> If he is infinitely good, what reason should we have to fear him? If he is infinitely wise, why should we have doubts concerning our future? If he knows all, why warn him of our needs and fatigue him with our prayers? If he is everywhere, why erect temples to him? If he is just, why fear that he will punish the creatures that he has filled with weaknesses? If grace does everything for them, what reason would he have for recompensing them? If he is all-powerful, how offend him, how resist him? If he is reasonable, how can he be angry at the blind, to whom he has given the liberty of being unreasonable? If he is immovable, by what right do we pretend to make him change his decrees? If he is inconceivable, why occupy ourselves with him? IF HE HAS SPOKEN, WHY IS THE UNIVERSE NOT CONVINCED? If the knowledge of a God is the most necessary, why is it not the most evident and the clearest?

If answers to such questions are sought, the clerics provide the mind-numbing responses: "God moves in mysterious ways", "Who can fathom the mystery of God?", "God has his own divine purposes, known only to God." Which then reveals the wisdom in Mangasarian's assessment:

> Religion is the science of children; science is the religion of adults.

Also, Dear, maybe you see, thereby, how power structures are created that (although totally illusionary) provide ideal frameworks for the power-mongering clerics of the world. The high priest barks out some order (against some other religion, against abortion, against studying what happened before the Big Bang, or whatever), the lower priests obey and bark out their own orders (that men must obey the priests, that wives must obey their husbands, that children must obey their parents, or whatever), the father barks out his orders to his wife, the mother barks out her orders to her children, all claiming "this is the way God wants it", and the children feel the weight of the entire power structure on them – and proceed to try to placate God and to relieve the weight of the entire power structure by praying to him every evening. As Shelley wrote in his 1816 poem entitled *Hymn to Intellectual Beauty:*

> Power, like a desolating pestilence,
> Pollutes whate'er it touches; and obedience –
> Bane of all genius, virtue, freedom, truth –
> Makes slave of men, and, of the human frame,
> A mechanized automaton.

For contrast, Dear, think of some consequences if, in response to a child's inquisitiveness, parents would answer: "That's a good question, but we don't know the answer." Then, rather than the child being burdened with the enormous weight of some religious power-structure, the child might think: "Hmm… if they don't understand it, then maybe I can figure it out and inform them!" What a wonderful way to challenge children!

Maybe why so many parents refuse to admit that they don't know is that they're afraid of losing control over their children, imagining that their children will someday say: "You said you don't know about… so how come you think you know about…" Thereby, do such parents conclude that it's better to lose control to the clerics than over their children? I don't know. Yet, I can't help but shake my head in sadness at the simultaneous arrogance and ignorance of such people: arrogantly thinking that they "know", when all they really know is how to parrot the stupid, power-mongering clerics of the world.

In summary, Dear, the "god answer" is a non-answer. One might as well answer with "39". Why is the sky blue? "39". How was the first human created? "39". Where did the universe come from? "39". What is the purpose of life? "39". Such an answer is equally meaningless, but at least people will laugh at such responses – and they won't need to pay the clerics tithes in exchange for gibberish about some god. Nietzsche summarized the situation well:

> It is a matter-of-course with me, from instinct. I am too inquisitive, too "questionable", too exuberant, to stand for any gross answer. God is a gross answer, an indelicacy against us thinkers – at bottom merely a gross prohibition for us: you shall not think!

But all of that was a bit of an aside, showing you ways that the clerics have polluted humanity by terminating "why questions" with garbage ideas about their gods. The main point that I was trying to make was to urge you to take care about the type of questions you ask.

Purposes *versus* Processes

Dear: please be careful about how you formulate your questions. If you ask "Why is the sky blue?" – in the sense of "What's the process by which the sky emits quanta predominantly of wavelength in a certain range?" – then as I've already demonstrated, I'd go on about quantized packages of energy until I got to "I dunno". But was that really what you wanted to know?

In contrast, I remember when you were visiting when you were 13. We were walking on "the river trail", and you told me about your "blue theory", namely (as nearly as I can recall it!) that everything was probably blue (your favorite color!), but different people saw blue as red or yellow or… Obviously, then, you weren't so interested in quanta as in qualia (which is the plural of 'quale' and which in philosophy means, "the internal and subjective component of sense perceptions, arising from stimulation of the senses by phenomena"). Thereby, if you had asked "Why is the sky blue?", you could have meant something similar to: "What processes occur in our brains that lead most people to conclude that the sky is blue?"

In that case, I'd need to answer "I don't know enough about how the brain works", and if later I found something for you to explore, then I'd let you know – just as I did and sent you the following (from *The New York Times):*

> In tackling consciousness, Dr. Crick and Dr. Koch have reframed the central question. Traditionally the problem has been cast in terms of subjectivity. How is it, for example, that when someone sees red (which physically speaking is electromagnetic waves of a particular frequency) there is also a subjective feeling of redness?
>
> The 'redness' of red and the 'painfulness' of pain are what philosophers refer to as *qualia*. The gap between the objectivity of material science (the electromagnetic waves) and the subjectivity of human experience (the qualia) has led some philosophers to conclude that this chasm cannot be bridged by any materialist explanation.
>
> Rather than getting bogged down in the depthless ooze of qualia, Dr. Crick and Dr. Koch sidestep the issue. Instead of asking the philosophical question of what consciousness is, they have restricted themselves to trying to understand what is going on at the neurological level when consciousness is present.

My point, Dear, is that it's important to formulate your question carefully, to avoid getting the correct answer to the wrong question!

Probably even more important (about asking the right type of question) is to avoid pursuing answers to unanswerable questions. I remind myself of this when I'm walking with:

> …in asking questions, distinguish "why-questions" from "how-questions": why-questions assume a purpose (appropriately asked of people); how-questions inquire about processes (usually more appropriate for the rest of nature).

For example, Dear, if I ask you "Why are you going to the store?", then I'd be inquiring about *the purpose* of your going to the store. If I asked you "How are you going to the store?", then I'd be inquiring about *the process* by which you were planning to go to the store. When I'm walking, sometimes I add (as I already showed you):

> In asking questions, distinguish between "the quick and the dead". For "the quick", the living, those with a purpose, why-questions are appropriate, but for "the dead", the inanimate, the rest of nature, emphasize how-questions (about quantity, quality, quickness, etc.), including questions about probabilities (as in quantum mechanics).

Let me try to explain what I mean, although immediately I should mention that I plan to leave trying to explain the part about "probabilities" until the **U**-chapter (dealing with Uncertainties and Useful Working Hypotheses). Here, I'll just mention: the need to use probabilities arises from uncertainties in both what we do know and what we can know (because of natural uncertainties in all processes). For now, then, please let me get away with providing just a couple of examples.

For example, consider the question: "How did this (particular) rock become weathered this way?" You could spend your entire life trying to answer that question, Dear, and on your deathbed, probably the most you could say is: "Well, of course I'm not sure, but my best guess is that probably what happened is…"! As another example, consider the question: "What's the process by which this universe managed to create itself?" I can hear you delivering your Nobel lecture: "Well, of course I can't be certain, but my generalization of quantum electrodynamics, general relativity, and super-string theory, suggested that the first symmetry-breaking quantum-like fluctuation in the original void was…" No wonder you were awarded a Nobel prize!

But before you start on your Nobel prize winning research, Dear (yet, to help you on your way!), I encourage you to take care to ask the right type of questions, especially those that you seek to answer by yourself. For example, you might ask "Why is the sky blue?" or "Why does mass warp space-time?", but when you ask such questions, you probably wouldn't mean "Why" in the sense "What's the sky's *purpose* in being blue?" or "What *purpose* does mass have in warping space-time?" Instead, surely you're asking, "How does the sky attain its blue color?" or "What occurs in our brains that leads us to conclude that the sky is blue?" or "What's the process by which the sky appears blue?" or "How does mass warp space-

time?" or similar. Thus, many "why questions" have nothing to do with *purpose* but are, if you'll permit me to say, inadequately posed questions about "How?" or "What is the process by which…?" or similar phrasings.

Stating the same idea still differently, I encourage you, Dear, to restrict your why-questions to those cases in which *purpose* is involved, i.e., where life is involved (viz., to "the quick"), because as far as is known, only life has a purpose. For "the dead" or "the inanimate", I encourage you to focus on "how?" or similar questions.

Anthropomorphism & Anthropocentrism

Dear: the distinction between the types of question asked may initially seem trivial to you, but if you'll give it some thought, I trust you'll see something significant. This "something significant" is described with the "two-dollar words" *anthropomorphism* and *anthropocentrism*. In turn, with *anthropos* the Greek word for 'human', *morph* the Greek word for 'form' or 'character', and 'centric' from the Greek word *kentron* meaning "sharp point", then 'anthropomorphism' means "having the form or character of humans" and 'anthropocentric' means "conceiving of everything in the universe in terms of human values" or the view that "considers humans as the central factor, or final aim, of the universe".

If those definitions confuse you, Dear, then good! – because particularly the second meaning for 'anthropocentrism' (i.e., considering "humans as the central factor, or final aim, of the universe") is a great example of an *oxymoron* (i.e., "a figure of speech in which opposite or contradictory ideas or terms are combined"). Thus, I'd have you challenge the authors of your dictionary to provide even the tiniest shred of data that the universe has a purpose or "final aim"! Similarly, I'd have you challenge any and all organized religions, which (consistent in idiocy) adopt anthropocentrism as their central tenet (or belief or dogma), although not a scrap of data supports such an oxymoronic idea.

That is, Dear, and as I've written before, all evidence suggests that the universe started by itself, stars are born and die, the Sun keeps burning, the sky is blue, clouds float by, some yield rain, rivers swell, floods occur, ants go about their business, and rocks pretty much do what they've always done – without the least "concern" for humans! But when ancient people first started thinking about their surrounding, almost certainly they did so with an anthropocentric view, in particular, anthropomorphically, i.e., attributing

human characteristics to the rest of the world. Modern children do similar, as do (unfortunately) a huge number of current adults:

> "Why did that stupid rock trip me? Why did those darn ants ruin our picnic? Why did that flood ruin our crops? I must have done something right for the sky to be so beautifully blue! Thank God the Sun finally came out! Surely the universe has some purpose!"

That is, Dear, people "project" their own views (and values) onto the universe, even to the extent of assigning the human concept of "purpose" onto "things" (such as rocks, rivers, and stars) that "haven't a clue" about the concept of "purpose". Yet, in spite of what I just finished writing, let me admit 1) that nobody knows whether or not the universe has a purpose and 2) that for reasons that I've already hinted at (in earlier chapters) and will show you more as best I can in later chapters (including in **S**, **W**, & **Z**), my guess is that the universe does have a purpose – but no intelligence.

I call it a "guess" (or a speculation), because it's far too tentative to be called a hypothesis. In particular, my guess is that what gravity is "all about" is that the negative-energy background (which we call "space") is "trying" to rid itself of the congealed positive energy (which we call mass). In this view, "gravity" isn't a "force of attraction between masses"; it's a repulsion of mass by space. As an example of this "speculation", I'd posit the possibility that, where there is another mass present (such as the Earth), it precludes some space pushing away, for example, you – resulting in your feeling less repulsion from where the Earth is, which you mistakenly interpret as "gravitational attraction" on you by the Earth. Further, my guess is that this "purposeful pushing" (or "attempted expulsion" of mass by space) culminates in the formation of Black Holes. For these, my guess is that the "congealed positive energy" (viz., mass) is condensed so greatly that finally it can be combined with the negative energy of space to reform into the total nothingness, from which this universe was originally created (in the Big Bang).

Thus, my guess is that "the purpose" of the universe (in the sense that it's a force "driving" the evolution of our universe) is to return "itself" to the state of total nothingness from which it started. And that's what I meant by writing (a few paragraphs ago) that the universe may "have a purpose – but no intelligence", because thereby, its goal may be to commit suicide (i.e., to obliterate itself), which is about a dumb a "purpose" as can be imagined – at least, when viewed anthropocentrically!

But the above was still-another aside, not relevant to the main point I was trying to make, namely, to be careful when asking why-questions. If something has a purpose, then a why-question can be meaningful. But when asking questions about Nature (such as "Why is the sky blue?" or "Why do earthquakes occur?"), I'd advise you to rephrase your questions as how-questions or process-questions, such as "How does the sky become blue?" or "What is the process by which earthquakes occur?"

Stated differently, Dear, whenever you ask "Why?" (in the sense of "What's the purpose?"), make sure that you pose such questions only to something that has a purpose, e.g., something living (viz., to "the quick"). It's sensible to ask "Why?" of people or plants or plankton, because they do have purposes (mostly, to continue living). But rather than ask "Why?" a particular rock is weathered, for example, ask "How?" or "By what process?" it became weathered. On the other hand, because clerics advertise that their gods are "living", then it's totally appropriate to harass both the clerics and their gods with "Whys?" For example:

- Why did God permit six million Jews to be slaughtered by the Nazis?
- Why did God allow Stalin to murder even more Russians?
- Why does God kill so many children?
- Why does God treat women so badly?
- Why does God starve so many people to death?
- Why did God create so many horrible illnesses and viruses?
- Why does God permit (or promote?!) so much evil in the world?
- Why didn't God make humans better?
- Why doesn't God give humans even a hint that He exists?
- Why does God confuse people with so many religions?
- Why is God jealous? And if He's so jealous, why doesn't He give some hint that He exists?!

And so on, in an infinite series of "whys?" – which all the clerics of the world will try to terminate with their non-answer: "God works in mysterious ways". On the other hand, such why-questions can be terminated much more sensibly by you, Dear, with:

Hey, now I see it! There ain't no gods – and there never were any!

My Purpose in Rejecting "the God Idea"

All of which brings me back to a question that a certain brilliant grandchild asked her grandfather, more than a decade ago: "Grampa, how come you don't believe in God?" As part of my response, Dear, permit me to add some comments about your question.

- First, certainly the question isn't stupid: all my grandchildren are brilliant! But when you asked this question, Dear, there was insufficient time (and it wasn't the right time) for me to give you a "quality answer".

- Second, notice that such a question (equivalently asked as "Why don't you believe in God?") is an entirely appropriate why-question, because insofar as I claim to be alive, then I do have a purpose.

But before I restate my purpose for not believing in any god, Dear, let me provide a brief review of what I've written in earlier chapters.

As I wrote at the start of the **I**-chapters (i.e., at the start of Part 2 of this book): if your grandmother or your aunt who is my daughter asked me why I didn't believe in god (and I know that, if they did, they'd do it just to taunt me, because for them, it would be a stupid question, since they already know the answer – just as they know, equally well, how to taunt me!), I'd probably respond: "Because belief in God is bad science and even worse policy."

Also, let me briefly review what I mean by "belief in God is bad science". As I tried to show you in Part 2, belief in any god is not only bad science it's silly science, "mere speculation", unsubstantiated by data. Similarly unsubstantiated by data are the origins of the god idea, but as I tried to show you in the "excursion" **Ix**, I expect that a later step in its "development" came from speculations by primitive people about the causes of a huge number of observed effects, from the cause of the wind to the cause of volcanic eruptions, and from the cause of floods to the cause of the universe. Thereby, 'god' (the "God of the gaps") became an abbreviation for "I dunno".

Thus, to the question "what causes the wind?", your easily identified ancestors in Northern Europe would answer "the wind god Wooden", which could be translated: "I dunno" – and we're still reminded of this silliness every Wednesday! Similarly, to the question "who created the universe?" ancient Egyptian children were told that the cause was the "sky god" Amen (or Amon or Amon-Ra), whose translation would again be: "I dunno" – and we're reminded of this silliness every time we hear a prayer ending with "Amen". In contrast, Dear, after only a few hundred years of serious scientific investigations, we're beginning to replace speculations about all gods (all the "I dunnos" of the clerics) with some "useful working hypotheses", i.e., we're beginning to understand the causes of wind, rain, floods, and so on – including the cause of the universe.

Meanwhile, many people who still "believe in God" would defend their "faith" by saying "the god idea isn't 'bad science'; in fact, it's neither science nor speculation; it's our belief" – not realizing what they're saying. Actually, they're partly correct: it IS their "belief", i.e., what they "wish to be". Similarly, many children "believe" in Santa Claus, and for all I know, some people may "believe" in Superman.

That is, Dear, as you well know, many people "believe" in an all-knowing, all-powerful, all-good, "combination Superman-Santa Claus in the sky", whom they call God. Further, they "believe" that if they're good, this Superman-Santa Claus in the sky will give them the most wonderful present imaginable, i.e., eternal life in paradise, after they're dead. To which those of us who no longer believe in Santa Claus (and/or want to receive our presents while we're still alive!) respond with Bill Cosby's wonderful "Riiiiiight". [That is, Dear, hold on the "i" as long as necessary to produce the desired effect!]

Some proponents of "the god idea" apparently want to demonstrate their awareness of science by calling it "the god hypothesis". But, Dear, scientists demand certain conditions that speculations must meet before they can be called hypotheses, and as I tried to show you in the **I**-chapters, the god idea fails these conditions miserably:

- It summarizes no direct data, the hearsay evidence is unreliable, and as a summary of the circumstantial evidence for any god's existence, the god "hypothesis" isn't succinct: it's easily shaved with Ockham's razor.

- As described in the myths of various "holy books", the god "hypothesis" conflicts with a huge number of established scientific principles, including those that form the basis of logic.

- The "god hypothesis" provides no predictions that can be reasonably tested, i.e., by people who are still alive!

- Those few predictions (or "prophecies") that advocates (or "prophets") of "the god hypothesis" have submitted and that are sufficiently precise to permit reasonable tests have been found to be false.

Thereby, Dear, any scientist worth her salt tosses "the god hypothesis" back into the pile of "mere speculations" where it belongs (along with similar speculations about other "immortals", such as Santa Claus, Superman, Satan, and angels) and goes on about her business of trying to understand nature.

Yet, Dear, for reasons that I tried to show you in an earlier chapter (**Ih**, dealing with "Hypotheses, Probabilities, and Evidence"), my response to your question "How come you don't believe in God" is similar to:

> Dear: whoever told you I don't believe in God doesn't seem to understand. It's not that I do (or that I don't) believe in any God. Instead, I've estimated the probability that any god could have created this universe and found it to be astoundingly small: somewhere in the range from about one part in a google (10^{100}) to one part in a google to the 10^{th} power (i.e., one part in $10^{1,000}$). That's such an astoundingly small probability that all ideas about all gods should be dismissed as being not worth thinking about! God is just a silly idea concocted by savages to mean "I dunno"!

Now, Dear, if that's all there was to the god idea, then I doubt that I would have undertaken the task of writing this book. After all, a huge number of people have an enormous number of "wild and wooly" ideas, from believing in the tooth fairy and guardian angels to believing that the sky is about to fall, and from believing that they have immortal souls or that they, themselves, are God to believing that they are about to win some lottery. Most such ideas cause the rest of us relatively few problems, and therefore, most of us just shrug and say: "Whatever".

Unfortunately, though, data indicate that there is substantially more to the god idea than suggested above. As I tried to describe to you in earlier chapters in this Part 3 of this book, the god idea has led to some truly pathetic policies, both personal and social. By describing such policies as "pathetic", I'm relying on the meaning of the Greek word *pathos,* meaning

"suffering", and by using the term "pathetic policies", I mean both definitions for "pathetic" as given in my dictionary:

> 1. expressing, arousing, or intending to arouse pity, sorrow, sympathy, or compassion; pitiful [as in "pathetic" or sad personal policies], and 2. pitifully unsuccessful, ineffective, etc. [as in "pathetic" or sick public policies]

In fact, a substantial amount of evidence is available to support the conclusion that no idea in the history of the world has caused humanity so much harm as the god idea.

And let me repeat: I'm sure that, in many cases (especially in cases between just two people), advocates of the god idea don't mean any harm. In many cases, the advocates (especially young, foolish "missionaries") aren't sufficiently knowledgeable to realize the harm they're perpetrating. But realizing the harm they cause or not, and meaning to cause harm or not, they do harm other humans – as I tried to show you in chapters **J** though **P**.

Thus, Dear, more to the point of <u>why</u> I don't believe in God (i.e., my <u>purpose</u> in rejecting the "god idea") let me return to emphasizing the phrase "even worse policy". In these past many chapters, I tried to show you what I mean by both the sad personal policies and the sick social policies resulting from the god idea. I've tried to show you that the god idea has led to corrupt concepts of personal, interpersonal, and social justice, that the god idea has totally mangled the concept of morality (replacing the essence of morality, which is "to evaluate", with the horrible alternative "to obey"), and that the root cause of this entire corruption is that clerics of the world have erroneously identified the prime purpose of humans to be serving their gods (a perverted purpose that serves only the pleasure of power-mongering clerics) rather than the obvious prime objective for humans (i.e., pursuit of their trio of survival goals, which include helping humanity to solve its problems intelligently).

But in trying to show you that, Dear, I've been continuously aware of the possibility that I've been "pushing on a rope": courtesy your parents, clerics have indoctrinated you with the god idea ever since you were a baby. Thus, I've been continuously concerned (and even advised by many people) that my entire effort was pointless. Thus, you may have already joined the ranks of those who reject what I consider to be obvious, with your effectively stating: "My mind's made up; don't confuse me with facts."

How I hope it isn't so! Let me put it this way: if there were any gods, I'd pray to them that my grandchildren's minds weren't totally ruined – that they were still willing to evaluate rather than just obey. But whereas I consider it pointless to pray to something that has less than one chance in a google of existing, let me try something else.

To Assess "the God Idea" Read Our Culture's "Holy Books"!

Dear, in case what I've written in Part 3 has failed to convince you that the god idea has led to sad personal policies and sick social policies, then what I'd like you to do is exactly what your parents and your clerics want you to do: carefully read the "holy books" of your religion! That's what the "excursion" **Qx** is all about; in fact, I've even included a brief "excursion" into the Koran, in case you someday might be so foolish as to drift off from the craziness of Mormonism and Christianity into the insanity of Islam!

If you haven't rejected the god idea, I strongly encourage you to go through **Qx** – while simultaneously reading the "holy books" of our culture. During your reading, I also encourage you to seek answers to any questions that arise in your mind. And although I certainly don't want to restrict the questions that might arise, I'll include the following list, in hopes that it will stimulate your inquisitiveness. In fact, Dear, I would have you ask yourself similar questions whenever you consider "buying" anything (including any idea in any "holy book" – or in any book, including this one!):

- What's being offered for sale?
- How did it come to be offered for sale?
- Why is it being offered for sale?
- How is its sale promoted?
- How much does it cost?
- Who's buying it?
- Why are some people buying it?
- Why are some people not buying it?
- What alternatives are available?

If you will consider such questions as those, Dear, I trust you'll find none of them stupid, and I hope that you'll devote as much time answering them as seems appropriate to you to yield answers possessing the quality you desire.

Further, Dear, if you do feel the need to continue following any religion, then I hope you'll ask yourself some even-more-general questions, such as:

- What's my objective?
- What values are being promoted?
- What principles am I being encouraged to adopt?
- What are the purposes of the people who promote the religion?
- What policies have they adopted in promoting their objectives, that the end justifies the means or that the means are ends in themselves?
- What data support the principles being promoted and what experiments have been performed to test predictions of their interpretations of the data?
- What practices do they employ? What politics are in play? Is it all just a pyramid scheme that provides power mongers a method to collect the people's money?

And to end this chapter, Dear, let me reveal why I so strongly encourage you, if you are still stuck in any religion, to study the "holy books" of your religion. To do so, I'll just quote some more competent authors (copied, once again, from the quotations assembled by Wayne Aiken).[3]

> Begin at the root – begin with the Bible itself. Examine it with the utmost strictness. It is our duty so to do. Compare the parts with each other, and the whole with the harmonious, magnificent order that reigns throughout the visible universe, and the result will be, that if the same almighty wisdom that created the universe dictated also the Bible, the Bible will be as harmonious and as magnificent in all its parts, and in the whole, as the universe is. But if, instead of this, the parts are found to be discordant, contradicting in one place what is said in another (as in 2 Sam. xxiv. I, and I Chron. xxi. I, where the same action is ascribed to God in one book and to Satan in the other), abounding also in idle and obscene stories, and representing the Almighty as a passionate, whimsical Being, continually changing his mind, making and unmaking his own works as if he did not know what he was about, we may take it for certainty that the Creator of the universe is not the author of such a book, that it is not the Word of God, and that to call it so is to dishonor his name. (Thomas Paine)

[3] At http://htomc.dns2go.com/atheism/cookie.41a and http://htomc.dns2go.com/atheism/cookie.41b.

> Do not be frightened from this enquiry by any fear of its consequences. If it ends in a belief that there is no god, you will find incitements to virtue in the comfort and pleasantness you feel in its exercise, and the love of others which it will procure you. If you find reason to believe that there is a god, a consciousness that you are acting under his eye, and that he approves of you, will be a vast additional incitement. (President Thomas Jefferson, on advising his nephew to critically examine the Bible)

> God has infinite wisdom, goodness and power; he created the universe; his duration is eternal, *a parte ante* and *a parte post*. His presence is as extensive as space. What is space? An infinite spherical vacuum. He created this speck of dirt and the human species for his glory; and with deliberate design of making nine-tenths of our species miserable forever for his glory. This is the doctrine of Christian theologians, in general, ten to one. Now, my friend, can prophecies or miracles convince you or me that infinite benevolence, wisdom, and power, created, and preserves for a time innumerable millions, to make them miserable forever, for his own glory? Wretch! What is his glory? Is he ambitious? Does he want promotion? Is he vain, tickled with adulation, exulting and triumphing in his power and the sweetness of his vengeance? Pardon me, my Maker, for these awful questions. My answer to them is always ready: I believe no such things. (President John Adams, in a latter to President Thomas Jefferson, 14 Sept. 1813)

> All that is necessary, as it seems to me, to convince any reasonable person that the Bible is simply and purely of human invention – of barbarian invention – is to read it. Read it as you would any other book; think of it as you would of any other; get the bandage of reverence from your eyes; drive from your heart the phantom of fear; push from the throne of your brain the coiled form of superstition – then read the Holy Bible, and you will be amazed that you ever, for one moment, supposed a being of infinite wisdom, goodness, and purity, to be the author of such ignorance and of such atrocity. (Robert Ingersoll)

I would only add, Dear, that the same is true for all "holy books", including the Koran, the Book of Mormon, and all the others that have polluted humanity for so long with such horrible garbage.

But in case you choose not to take the excursion **Qx** and **Yx** (and I wouldn't blame you for your choice, because they were extremely tedious to write and will probably be even more tedious to read!), let me use a few paragraphs to at least try to summarize them. And after going through all the mud and guck of the "Quagmire of 'Revealed' Religions" (in **Qx**) and then struggling through "Your Indoctrination in the Mountainous God Lie" (in **Yx**), I admit that I'm somewhat amazed to see how easily it all can be summarized.

Thus, not only "in the beginning" but also throughout history, people have (as Aristotle said) wanted to know. Knowing the 'whys' and 'hows' has obvious survival advantage. But "in the beginning" (and still today, for many people), people were convinced that some "spirits" or "gods" were in control of everything, and consequently there is now, in various "holy books" (and scrolls and clay tablets), a ~5,000 year-old record showing people's assumed answers to "Why?" But the uneducated people of old (and still today) had asked the wrong questions – and therefore reached incorrect conclusions.

That is, Dear, if you take the "excursions" **Qx** and **Yx**, you'll see a huge number of examples of mistaken answers to incorrectly posed questions, such as:

- Why do people die?
- Why do men need to work so hard when animals don't seem to?
- Why do women have trouble bearing children?
- Why are there so many languages?
- Why do floods occur?
- Why do people have a sense of moral values?
- Why do some groups win their wars?
- Why do people get sick?
- Why do good people suffer?
- Why did Jesus die?

Yet, at least these ancient people were consistent: based on the premiss that the gods were in control, then it was consistent to ask "Why…?", i.e., "What's the purpose of the gods?" But their premiss was wrong: almost certainly there ain't no gods and there never were any!

But before I show you what I mean by that summary (which I'll start trying to do in **Qx**), I want to try to explain the rest of what I review with 'Q' when I'm walking (which is the goal of the next chapter). And before even that, WHY (!) don't you get some exercise?