

Ia – Awareness of Ideas

Dear: Starting with this chapter, I plan to make some changes. If this book were divided into “Parts”, this would be the beginning of Part 2. Most of Part 1 dealt with feelings (pleasure, enjoyment, freedom, fears, gladness, happiness, hopes) associated with goals; most of Part 2 has to do with ideas (especially about consciousness, existence, the scientific method, logic, gods, souls, “eternal life”, beliefs, faiths, trust, confidence, and so on). As a summary of Part 1:

- Please be aware of your prime goals (your trio of survival goals),
- When making decisions, please “dig out” and evaluate all your goals,
- Please realize that your happiness is in large measure derived from making progress toward your goals, and
- Please be especially careful when setting priorities for your goals, so that your hopes will be realistic.

Now, in this Part 2 (i.e., in the next group of chapters, all of which are labeled with the letter “I”), I want to try to help you consider not *feelings* and *goals* but various *ideas* – about ‘causes’, ‘existence’, ‘beliefs’, ‘gods’, ‘logic’, and so on.

A dominant *cause* of this change (from focusing on feelings about goals to focusing on various ideas) is the *existence* of a certain grandchild! Thus, once upon a time – as I write this, almost 10 years ago! – a certain beautiful and brilliant four-year old asked me why I didn’t *believe* in *God*. I responded that I’d tell her when she was older. Undaunted and with perfect *logic*, she objected: “I’m already older!” Unswayed, I responded: “Yes, Dear – but wait until you’re about sixteen.” And now that you’ve approximately that age, I want to describe to you some ideas (about *causes*, *existence*, *beliefs*, *gods*, *logic*, and so on) to start toward showing you why I don’t believe in god (any god).

Meanwhile, given the logic and skepticism that you displayed even as a four-year old, I wouldn’t be surprised if you now asked me something similar to: “Does it really require a whole book to explain why you don’t believe in God?!” Well, Dear, if you did ask this question, my answer would be: it depends on who asks the question.

For example, if my wife (your grandmother) asked me to summarize why I didn’t believe in any god, I’d respond: “It’s bad science and even worse

policy.” I expect that she’d then pause to think about my summary for few seconds, consider her experiences as the manager of the engineering department at a nuclear reactor (where she was exposed both to good and bad science and to good and bad policy), then respond “Hmm”, and move on to some other topic.

As another example, if my daughter (your aunt) asked me why I didn’t believe in any god, I would respond with something similar to “because it’s silly science and pathetic policy”, but because she seems to have an aversion either to misunderstanding me, [;>)], or to making me explain myself more clearly, [:> ;], she would probably ask: “Whaddya mean?” In my response, maybe I’d have the presence of mind to list at least the following.

The “god idea” is silly science, because: 1) it summarizes no data, 2) it has no predictive capability, 3) it should be eliminated using Ockham’s razor, 4) all “proofs” of the god idea are illogical, and besides, 5) all “proofs” of the “truth” of any existence are silly, for the “truth” of any assertion is restricted to closed systems. I’d then try to convey to my daughter that the god idea is pathetic policy, because the mystics of the world have constructed an elaborate “supernatural structure” as a basis for morality, instead of applying a few simple principles from behavioral science, and the result has caused humanity – and continues to cause humanity – enormous harm. That is, in summary, “the god idea” is a “god-awful mixture” of bad science and even worse policy.

But how am I to respond when my granddaughter asks why I don’t believe in God? My daughter and wife would need no more than brief responses, not only because they have one and two generations of experiences more than you, Dear, but also because both of them understand the indictment that the god idea and its consequences are bad science coupled with bad policy (for both have degrees in science and engineering and both have had years of experience in applying science to public policy). Furthermore, and more significantly, I wouldn’t need to be careful when responding to my wife and daughter (worrying about consequences of my response), because their lives are on firm foundations, based on scientific humanism (i.e., applying the scientific method to solving human problems).

But with my grandchildren, it’s different. Not only have they been indoctrinated with “the god idea” ever since they were babies but also they can’t be expected (as yet) to be very familiar with either the essence of science or the basis of sound policies (both personal and public). To show

them why I consider the god idea to be silly science and pathetic policy, therefore, not only should I first show them a basis for sound personal and public policies (namely, in general, the topics that I review when I'm walking) but also I should try to explain some basic ideas in science. Furthermore, and likely more significantly, should I succeed in showing them that "the god idea" is bad science and even worse policy, I want to ensure that immediately available to them is both better science and much better policies, i.e., scientific humanism.

So, Dear, in answer to your possible question: Yes, it does require a book to answer your question – or maybe even more than a single book – because I feel I must answer carefully. Before showing you that "the god idea" is unquestionably bad science, I want to make sure you understand the basis of good science, and before showing you that "the god idea" leads to sick policies, I want to make sure you understand bases for healthy personal and social policies.

Thereby, Dear, my goal for this and subsequent chapters is to try to do two things at once. On the one hand, in response to a certain four-year old, I want to demonstrate why I don't believe in God – with the hope that you, too, will see that "the god idea" is worse than useless. And on the other hand, I want to continue to show you an idea vastly superior to "the god idea", namely, scientific humanism (which is the essence of what I review when I'm walking and which is based on results in science, such as logic).

Stated differently, Dear, there is *a host of basic ideas* that I want to convey to you before I get to responding to your question. And because I plan only to introduce such ideas in this chapter, Dear, I'll need to ask for a double dose (or even multiple doses!) of your patience: patience with me when I introduce a topic and then just set it aside, and then more patience with me when, later in this book, I pick up the topic again (and again!) to examine it more carefully.

Associated with my plan, I'll be making some changes to the format of this and many future chapters. Until now, the chapter format has been derived mostly from my wanting to show you (and to explain to you) what I review when I walk in the desert; thereby, prior chapters have usually ended with a summary of what I review when I've walking. But as I've written before, normally when I'm walking I don't review ideas about gods, because such ideas no longer interest me – save when I see the harm caused by such speculations, especially to certain grandchildren. Consequently, in most

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subsequent chapters, I plan to show you less about my ideas and more about the ideas of others, and thereby, in the summary of many subsequent chapters, I'll be reviewing not my ideas but quoting ideas expressed by others.

And let me mention two asides about such quotations. One is that I've taken many from a great (and a huge!) source of quotations, namely the one assembled by Wayne Aiken.¹ And second, I want to defensively add that I include so many quotations not necessarily to try to bolster my conclusions by relying on "higher authorities" (for no one should accept any authority higher than one's own analysis of available data and the acquisition of additional data), but because I've never been trained as a writer, and I find that others seem to be able to express thoughts similar to mine much better than can I.

And still another reason why I felt the need to change the "chapter format" is the following. When trying to explain to you the silliness of "the god idea", I've found the need to rely on some "basic ideas" (dealing with existence, "proofs", "truth", sets, logic, differences between religious speculations and scientific hypotheses, etc.), which normally I don't review when I'm walking. And of course it's not that I don't consider such ideas important, Dear, but after spending 21 years in various schools and universities and then 30 years working as a scientist, many of these "basic ideas" are now "second nature" to me. Yet, if I'm to explain to you why I consider "the god idea" to be harmful to humanity, I'll need to explain some more "basic ideas" to you – and in what follows, in some cases, I'll need to devote entire chapters to explaining such ideas, chapters that will be devoid of anything that I review when I'm walking.

And if you wonder why I don't just stick to the trail that I've been on (trying to explain ideas as I go along), let me put it this way. On this walk, there's quite a long way yet to go, and I want to use this chapter (and the other "I-chapters") to try to indicate where the trail leads, how long it'll take, and what I hope you'll notice along the way. For example, Dear, let me start by pointing out the general direction of where this trail leads.

As far as is known, Dear, the only "absolute" that humans will ever know is that we'll *never* be able to "prove" that anything "truly exists", because "proof" and "truth" and "existence" are only relative terms, incompletely

¹ Aiken's collection is so huge that it's broken into two parts, available at <http://htomc.dns2go.com/atheism/cookie.41a> and <http://htomc.dns2go.com/atheism/cookie.41b>.

described with words or other symbols (such as are used in mathematics). Instead, the best that we humans will ever be able to do is just “muddle by” with “useful working-hypothesis”. For example, Dear, I encourage you to adopt the hypothesis that you exist, for you will find that such a hypothesis is amazingly useful. In contrast, I’ll be in encouraging you to reject the “hypothesis” (or, better, “speculation”) that any god exists, for not only is it a “useless hypothesis”, it’s actually a seriously damaging speculation – for reasons that I’ll try to show you.

Now, it’s going to take me quite awhile to explain the meaning of the previous paragraph. It will take me even longer than otherwise, because I also want to show you some of the history that has led to this understanding. Fortunately, though, none of the explanation is difficult to understand – as I’ll try to show you.

Meanwhile, when I’m walking in the desert, what I do for “I” is recall just the final two stanzas from the last of my “versifications”. For completeness, I’ll subject you to the whole thing:

What am I?

*If you removed my limbs, I would persist;
Or if you numbed my senses pleasureless,
Yet still I would maintain that ‘I’ exist –
This ‘I’, this spark of Nature’s consciousness.*

*This ‘I’: this stardust burning solar fuels,
This thinking part of all the universe,
This temporary host for spiral molecules –
This ‘I’, alone, when thoughts become a curse.*

*For, no, I’m not a scroll on which I scribe,
Alone. At best, the scroll contains the prides
Of thoughts: the best from all this human tribe.
And yes, of course, the worst, as well, resides.*

*Nor am I ego scared and all enclosed:
I am the sum of all that I’ve been told;
Of all, to which this mind has been exposed;
Unique – uniquely sensing what is old.*

*But maybe I can sum it differently!
If so, then maybe I can see still more;
If so, then ‘I’, the thought, continues ‘me’,
Just as this ‘I’ thinks thoughts that went before.*

*So what am I? Just one more tiny link
In Nature's chains of thought. I am, no less,
A wave of thought, uniquely blown to think
Upon this common sea of consciousness.*

*And if one wave should break out from the norm,
Perhaps with ripples running out in rhyme,
To help some 'I' make waves of better form,
Then 'we' might know a little more, next time.*

And thus ended my attempt at expressing some of my “meditation” in poetry. I don't know why the last two stanza's stuck in my mind – but they did, and no doubt will continue to roll around in my brain, because I now remind myself of them every day when I walk!

To start to explain the ideas in the above “versification” maybe I should briefly mention its origin. More than twenty years ago, when problems with my boys shook me up so badly, I finally landed on both feet, feeling firm on solid ground, with the single thought – or better, affirmation: “I exist!” I then dutifully recorded this thought in my notebook (!), and soon thereafter, wrote the above versification, which includes: “Yet still I would maintain that ‘I’ exist”. As I already wrote, when I'm walking I still repeat the above stanzas – perhaps only because of the appearance of the letter ‘I’ in the alphabet!

I can make fun of this now, Dear, and you may think it's all rather silly, but actually, it's not entirely trivial. Although I didn't know much about it at the time, I later learned that philosophers have spent enormous mental energy (and anguish) on the question of existence. This branch of philosophy is called ‘ontology’, where with *ontos* the Greek word for ‘being’ or ‘existence’ and *logos* (the root of the English word ‘logic’) being the Greek word for ‘theory’ or ‘account’, then ‘ontology’ means “existence theory”.

The branch of philosophy dealing with existence theory (ontology) is different from the branch dealing with ‘phenomenology’, i.e., classifying and understanding phenomena – without worrying about their existence! It's this phenomenology that those of us awarded “Doctors of Philosophy (in Science)” normally pursue – leaving ontology to “real philosophers”! Later in this book, I'll show you some of this phenomenology; here, though, I want to show you some ontology (all of which, incidentally and for reasons that I'll try to explain, I consider to be a huge waste of mental energy).

Perhaps the most fundamental ontological problem deals with one's own existence, and probably the most famous "proof" of one's existence was espoused by Descartes, about 400 years ago (and after whom is named the "Cartesian" coordinate system, which you've probably now seen in math). He stated his conclusion in his famous: "I think; therefore, I am!" (which in his native French is "Je pense; donc, je suis!" and in the Latin in which he wrote, it's "Cogito; ergo, sum!").

Let me show you how Descartes reached this conclusion by quoting his own words, here taken from the textbook that your grandmother used in her Philosophy 101 course (a course that I never took, but wish I had!): *A History of Western Philosophy* by W.T. Jones, Harcourt, Brace, and Company, New York, 1952).

I suppose, then, that all the things that I see are false; I persuade myself that nothing has ever existed of all that my fallacious memory [or mind] represents to me. I consider that I possess no senses; I imagine that body, figure, extension, movement, and place are but fictions of my mind. What, then, can be esteemed as true?... Was I then not likewise persuaded that I did not exist?

Not at all; of a surety I myself did exist, since I persuaded myself of something... But [suppose] there is some deceiver or other, very powerful and very cunning, who ever employs his ingenuity in deceiving me. Then without doubt I exist also if he deceives me, and let him deceive me as much as he will, he can never cause me to be nothing, so long as I think that I am something. So that, after having reflected well and carefully examined all things, we must come to the definite conclusion that this proposition: I am, I exist, is necessarily true each time that I pronounce it, or that I mentally conceive it.

Actually, "Saint" Augustine (354–430 CE), who along with "Saint" Paul is "credited" (or, perhaps better, "blamed") with founding Christianity, reached the same conclusion, in essentially the same way, about 1200 years earlier. Again quoting from the book by Jones, Augustine wrote:

I am not at all afraid of the arguments of the Academicians, who say, What if you are deceived? For if I am deceived, I am. For he who is not, cannot be deceived; and if I am deceived, by this same token, I am. And since I am if I am deceived, how am I deceived in believing that I am? For it is certain that I am, if I am deceived. Since, therefore, I, the person deceived, should be, even if I were deceived, certainly I am not deceived in this knowledge that I am. And, consequently, neither am I deceived in knowing that I know. For, as I know that I am, so I know this also, that I know.

And still further back in time, about 800 years before Augustine and therefore about 2,000 years before Descartes, Aristotle wrote something

similar: “To be conscious that we are perceiving or thinking is to be conscious of our existence.”

Yet, I’m not overly impressed with any of this “logic” (a topic that I’ll begin to review in **Ib**). For example, if one completes Descartes’ statement, it becomes: “I think, therefore I am [thinking].” Similarly, if one completes Augustine’s sentence, it becomes: “For, as I know that I am [thinking], so I know this also, that I know [that I am thinking].” And if one corrects Aristotle’s conclusion, it should be “To be conscious that we are perceiving or thinking is to be conscious of our [perceiving or thinking].” That is, none of these statements address a person’s ‘existence’, only thinking. And, Dear, if you were to complain (similar to what your Grandmother wrote in the margin of her textbook!) that it’s all just “a bunch of word games”, I would respond: welcome to the world of ontology!

With similar “logic”, Descartes, Augustine, Aristotle, and many others proceeded to “prove” the existence of God. In later chapters (e.g., see **Id**, entitled *Digging into the God Idea* and **Ie** entitled *Evaluating ‘Proofs’ of God’s Existence*), I’ll show you the errors in all such “proofs”. Here, let me just outline the error in Descartes’ “proof” of God, which in outline form is as follows (again quoting from Jones’ *History of Western Philosophy*):

Though Descartes’ proof of God’s existence is somewhat complicated, the main points are easily stated: (1) Everything, including our ideas, has a cause, (2) We have an idea of God, (3) Nothing less than God is adequate to cause our idea of God. Therefore (4), God exists.

Now, Dear, although I have next-to-zero doubt that everything has a cause (a concept, known as the *principle of causality*, which I’ll return to in **Ib**), and although I have next-to-zero doubt that our ideas have causes, you can bet that I have grave doubts about Descartes’ proposal that “Nothing less than God is adequate to cause our idea of God”: as any child who has ever been frightened by a monster under her bed knows all too well, we humans (all by ourselves!) are quite “adequate” to conceive all sorts of “wild and wooly ideas”!

In subsequent chapters (especially in “the excursion” **Ix**), I’ll dig into evidence for and suggestions about possible origins of all the “wild and wooly ideas” of gods. To make a very long story short and to summarize a huge number of myths, it appears that such ideas have two principal origins. One is the experiences of primitive people with death, with their own shadows, their dreams, and in many cases, probably their consumption of

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various types of hallucinogens (herbs, plants, fruits, and similar); thereby, primitive people apparently conceived of the ideas of “spirits”, “the spirit world”, “souls”, “life-after-death”, and so on. A second origin of the idea of gods, which may have come much later in human development, was a misidentification of causes: causes of wind, rain, thunder, lightning, floods, volcanoes, meteors, eclipses, and even the stars, sun, and moon were misidentified as a huge number of gods.

Meanwhile, modern-day humans (even those who aren't on drugs and who haven't been indoctrinated with “the god idea” since they were children) manage to conceive “wild and wooly ideas” about gods apparently from how the human brain works. To illustrate, let me generally follow an example given by the Scottish philosopher David Hume in his 1748 book *An Enquiry Concerning Human Understanding*. By the way, Dear, Hume was a leader of “the Enlightenment Period”, which in part led to the formation of our form of government, and you are quite likely rather closely related to him (*via* your dad's mother).

What Hume examined, in part, was the way we think, and to see his argument, Dear, would you please do the following, right now. Please think about the proposition: “all invisible flying elephants are pink.” I won't be asking you to “believe” that this idea is “true” (!), but please think about it for a moment.

Now, Dear, please consider how you were able to think about the proposition that “all invisible flying elephants are pink.” Hume saw that the explanation is in the way that we link thoughts in our brains. Thus, Dear, please stop reading for a couple of second to “watch” your brain first think about ‘elephants’. In your brain, do you “see” a “picture” of an elephant? Good.

Next, please think about the concept (or color) ‘pink’ – and then quickly imagine a pink elephant. Thank you. Now, please think about ‘flying’. So now, Dear, can you see (“in your mind's eye”) pink elephants that can fly? (Whether you decided to put wings on the pink elephants to “permit them” to fly, or had them use their ears as wings, or even neglected any such details is irrelevant for present purposes!) And now that you have all those pink elephants flying around in your mind, Dear, please think about the concept of ‘invisible’. Okay, would you now please make all the flying pink elephants invisible?! It's okay if the flying elephants of other colors continue to be visible!

Thereby, Dear, you have the basis of the proposition that “all invisible flying elephants are pink” – and this basis is solely how our minds link thoughts. That is, Dear, I assume you agree that it wasn’t any invisible pink elephants flying around in reality that put thoughts about them in your mind! And thereby, maybe you, too, are skeptical about Descartes’ assumption that: “Nothing less than God is adequate to cause our idea of God.”

Meanwhile, the above demonstration provides many observations, including the following:

- Our minds are amazing,
- We can easily imagine things and processes to which nothing corresponds in the reality external to our minds,
- Our thoughts seem to exist (at least as electrochemical signals in our brains) even if what we think about doesn’t “really” exist,
- Our thoughts needn’t be supported by data, nor do they need to conform to various “rules” (of logic, causality, “laws” of science, such as the minimum ratio of weight to wing-area for something to be able to fly, etc.),
- If we want to constrain our thoughts to things and processes that exist in the reality external to our minds, then we need to take care,
- We would be silly to restrict our thoughts only to things and processes that exist in reality,
- We should carefully examine what is meant by ‘existence’,
- And so on!

Now, it’ll take me many chapters to “flush out the details” in the above list; so, Dear, please be patient with me.

Even before I begin to try to explain, e.g., what is meant by (or what *should* be meant by) ‘existence’, let me mention another obvious way that our brains seem to work. All humans (and, I will suggest, many other animals as well) apparently have a “natural tendency” to group ideas into what mathematicians call “sets”. In what follows, I’ll be referring to “mathematical sets” or “math sets”; I’ll want the adjective ‘mathematical’ (although I may slip into using just the word ‘sets’), because if you look up the word ‘set’ in a large dictionary, you’ll find that the definitions fill essentially a full page!

By ‘set’ a mathematician means simply a collection of whatever (!) in which any distinction among the members of the set is (at least initially) irrelevant. Any such distinctions can become relevant when considering “subsets” of the original set, but I won’t get to such complications until later chapters.

To illustrate, let me ask you, Dear, to think of a few (mathematical) sets. As examples, consider the set of all things that your dog “considers” to be “food” (an amazingly large set!), the set of all objects in your room that should be put away (another very large set!), the set of all male humans that still haven’t grown up (!), the set of all ways that you can get even with so-and-so, the set of all ways that you can pay your debt to the past, and so on. I trust you agree that our minds seem to have a natural “propensity” to organize ideas into various sets.

Now, Dear, although I have yet to address what is meant (or, better, what should be meant) by the concept of ‘existence’, yet I’m certain that you already have an idea of what ‘existence’ means, and at least at the start of what follows, I’ll be asking you to apply your current concept of existence to define and consider two sets of ideas. As contents of one set, please include all ideas for which something correspondingly “exists” in the reality external to your mind, e.g., dogs, people, trees, stars, the photosynthesis process, whatever! In the other set, please include all ideas for each of which nothing corresponds in the reality external to your mind (e.g., flying pink elephants, mermaids, perpetual motion machines, chemical processes that turn lead into gold, and so on). With that introduction out of the way, let me now start on the list of “bulleted ideas” that I started a few paragraphs earlier – although I don’t plan to go through items in that list in the order they were given

First, surely you agree that our minds are amazing. We can easily imagine what in reality is totally ridiculous. As I’ll be showing you, just as ridiculous as ideas about invisible flying pink elephants are ideas about invisible pink gods – well, at least for Caucasians, their gods are usually imagined to be pink! These gods have been flying around in people’s imaginations for the past 10,000 years or more! What eventually I’ll be addressing is whether these ideas of invisible pink gods belong to the set of ideas for which there exists something in reality external to our minds or not – and I assume that you know what my conclusion will be!

But before I get to any of that, Dear, I trust you agree that it’s extremely important that we’re able to think of things and processes to which nothing exists in the reality external to our minds. In fact, this ability of our minds to

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imagine nonexistent things and processes is exactly the amazing capability that makes us human. Thereby, for example, we can imagine what might happen in the future (which obviously doesn't yet exist!), estimate probabilities, make appropriate plans, set priorities for our goals (i.e., develop associated hopes), and so on. Other animals can apparently do some of this; for example, when my previous German Shepherd heard me open the back of my pickup truck, he seemed to foresee that we were headed out for a walk in the desert. Yet, compared to such abilities in animals, humans excel in this activity of imagining things that don't exist in reality.

Immediately, an obvious question is: Is it “useful” to speculate that what we can imagine actually exists (or will exist)? And of course the answer is: it certainly can be! First, as I've written earlier in this book (and will return to later), when I use the word ‘useful’ or ‘valuable’, I mean useful (or valuable) for the promotion of our trio of survival goals. Then, certainly it's ‘useful’ to speculate that what we can imagine (e.g., destruction caused by an approaching hurricane) can actually occur (or will exist). Such speculation is the basis of all planning.

On the other hand, it's not always useful to speculate that what we can imagine actually exists (or will exist). For example, Dear, I trust you agree that there's zero value (at least as far as I know!) in speculating that invisible flying pink elephants actually exist (as anything but thoughts). We can imagine such beasts, our thoughts of them can exist as electrochemical signals in our brains; nonetheless, I can't imagine when it ever would be of value to speculate that invisible flying pink elephants actually exist – save, perhaps, to placate an old grandfather!

Therefore, Dear, once again we need to make decisions. Specifically, from among the many ideas that we are capable of conceiving, we should choose only a relatively few to be speculations about things or processes that have some reasonable potential to exist (as anything besides thoughts). And as I expect that you expect (!) that I'll write: to make such decisions, data are essential. As a certain grandchild once said: “Show me the data!”

But before I try to illustrate how to dig into relevant data to make such decisions about what has “a reasonable potential” for existing, let me go back to tackle the question about what ‘existence’ really means – or should mean! In summary, once again, the key is found by digging into data. Thus, when we say that some object (e.g., a person!) or process (e.g., life) ‘exists’ what we mean – or should mean – is something similar to the following. If a

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number of different people make a number of different observations and measurements of the object or process and then, upon comparing their data, they generally agree on the object's description, then – if it's useful – we adopt the hypothesis that the object or process exists.

Now, Dear, given all the “buildup” to the concept of ‘existence’, quite possibly you were “let down” by the brevity (and triviality?!) of that definition for ‘existence’. In a later chapter (in U, dealing with Understanding), I'll try to explain what I mean more completely and more convincingly. But for now, I hope you'll at least consider the possibility that any statement about ‘existence’ is simply a hypothesis derived from a set of data. That is, by hypothesizing that something or some process ‘exists’, we mean no more than that there's general agreement among a number of observers about a set of observations, measurements, and any associated deductions.

For example, if there's a question about the existence of a particular brick wall, then all observers should be invited to continue to bang their heads against it until there's general agreement to proceed with the working hypothesis that the wall exists! As another example, Dear, if you would ask all members of your family if you exist, then upon comparing notes, they probably will be prepared to proceed with the useful working hypothesis that you exist.

As you know from your studies, and as I'll review in the next chapter, the process described above represents the first few steps in the scientific method, namely: observe, analyze the collected data, and then advance a hypothesis that summarizes the data (in the above case, the hypothesis that you exist). As you also know, the next steps in the scientific method are to test your hypothesis by performing some experiments, collect more data, analyze these new data, if necessary advance a new hypothesis that summarizes the new data, and so on, without end!

In particular, Dear, the hypothesis that you exist has amazingly good predictive capabilities, as you can readily verify for yourself. With it, for example, you can predict that you will be able to move on to the next page of this book, read still more of this junk, and then finally go out and have a little fun! But before you go out to have some fun (of course, solely to test the predictive ability of your hypothesis!), please bear with me for a little longer, while I try to try to show you some more.

In particular, Dear, I want to suggest that, just as was the case with Aristotle, Augustine, Descartes, and many others, no one will ever be able to ‘prove’ the hypothesis that you or God or anything ‘exists’. In fact (for reasons that I’ll explain in detail in **T** dealing with “Truth), in the “real world”, nobody can ‘prove’ the ‘truth’ of any hypothesis; it’s possible only to obtain estimates for the probability that some hypothesis is true. And whereas there seems to be a fairly high probability that the hypothesis that you exist is true, I encourage you to adopt it as a “useful working-hypothesis” – because, as I already wrote, you’ll find that it’s an amazingly useful working-hypothesis!

I also want to suggest, Dear, that the prime reason why no one can define what ‘existence’ means (except in “operational terms”, such as by banging one’s head against an ‘existing’ wall) is because of the limitation of the symbols that we call ‘words’. I’ll try to explain this limitation in detail in a later chapter (e.g., in **W**), but in summary, the idea is this: at the root of any language, there must be “core words” or “base words” that can’t be defined using other words! These “base words” are sounds (or grunts!) that we agree to make to represent something fundamental, which can be defined only “operationally” or “phenomenologically”. In particular, the word ‘existence’ is the sound (or grunt) used to communicate the idea that if you kick a tree it hurts – although rather than use the word ‘existence’, some people prefer to say ‘ouch’!

Further, these “core words” or “base words” (which can be defined only operationally or phenomenologically) are used to define other words. That is, Dear, you’d be “chasing your own tail” (or your own “tale”!) if you try to define ‘existence’ as ‘real’ or ‘being’ or ‘actualized’ or similar. Thus, if you use a dictionary to find the meaning of such synonyms, they return you to the “base word” of ‘existence’. Incidentally, that’s what I meant in my “versification” *Awareness* (to which I already exposed you, in “**A**”): “To be MUST BE mysterious”. That is, ‘being’, ‘existing’, and synonyms are used, in a sense, to camouflage the idea that the base word ‘existence’ (or ‘being’) can’t be defined in terms of other words.

Actually, Dear, there are a huge number of words that are defined only operationally. Basically, they’re all the words that you learned before you were about four and that you never use a dictionary to determine their meanings! Thus, by the time you were four, you had become sufficiently competent in “phenomenalism” to know the meaning of such words as eat, sleep, smile, cry, stop, go, in, out, back, forward, try, help, and thousands of similar words that can’t be defined in terms of other words. And of course I

* Go to other chapters *via*

know, Dear, that, for example, ‘help’ is defined in the dictionary, but then look up the word ‘assistance’, then look up... And as for your word “outrageous”, well...

Stated differently, “ontology” (the theory of existence) is just as your grandmother wrote in the margin of her textbook: “word games”. Instead, if one wants to understand “existence”, then it should be studied as a part of phenomenology. Thus, Dear, if ever anyone suggests to you that you should study ontology, maybe you’d like to respond: “Thanks anyway, but kicking so many things hurts my foot!”

To see the importance of the point that the word ‘existence’ can be defined only operationally, Dear, maybe you would like to try the following. When someone asks you if you think that God exists, then rather than ask “which god”, respond with: what do you mean by ‘existence’? Then, just keep prodding for more explanations, no matter the other person’s response. For example:

“I mean do you think there IS a god – that He’s real?”

What do you mean by ‘IS’? What do you mean by ‘real’?

“I mean that He’s actually here – that all that’s written and said about Him is true?”

But what do you mean by ‘actually here’ and what do you mean by ‘true’?

“I mean... Oh never mind; it’s clear that you don’t believe in Him, anyway...”

If you try something similar to the above, Dear, I’m certain that you’ll find what I’ve found: people using words (such as the word ‘God’) that they don’t understand, that aren’t defined, or that can’t be defined.

In contrast, Dear, if you want to know if a certain tree “exists”, then try kicking it: if the resulting kick causes pain in your foot, then I’d advise you to adopt the working hypothesis that the tree “exists” – and not to kick it again! Similarly, Dear, but more generally, if ever anyone proposes to you the hypothesis that such-and-such a thing or process “exists”, then wonderful

grandchild and budding scientist that you are, I'd be pleased if, as a first step, you'd respond: "Show me the data!"

Seriously, Dear, as a minimum, please demand to see the data. For example, using the following space that I will allot, please fill in all known data that supports the idea that invisible flying pink elephants exist as anything but electrochemical signals in our brains: . Thank you – and I trust that I provided ample space for you to include all relevant data!

Next, Dear, in the following allotted spaces, please fill in all known data that support the concept that the following ideas correspond to anything beyond electrochemical signals (or fleeting neurons) in our brains.

- Immortal souls:
- Heaven:
- Hell:
- Any god:
- Any angels, demons, spirits, or similar:

Thank you – and I trust that again I provided you with ample space to fill in all relevant data. And I also trust that you're beginning to get the suspicion that, although *ideas* of such things as souls, gods, and so on, obviously exist (as electrochemical signals in our brains), nothing exists in the universe external to our minds to which such ideas correspond!

But meanwhile, of course the clerics of the world won't let you get away this easily! They're not going to give up a good con game (in which they collect a fortune without doing any physical labor – and they get power and at least think that they get dignity to boot) just because no data are available to support their claims that "in reality" their gods are real and that, therefore, their concepts are "far more" than just electrochemical signals in people's brains.

To illustrate, consider just the introduction to the 1985 "proof" of the existence of God given by "His Holiness" Pope John Paul II. Actually, his "proof" for the existence of God (which you can find on the internet and which I'll show you in a later chapter) is just another "rehash" of "proofs" that are so old that they now have names, such as "first cause", "intelligent design", and so on. In **If** and in **R**, I'll show you the logical fallacies in all such "proofs"; in later chapters (**Ie** and **S**), I'll show you, from a scientific viewpoint, that the God idea is silly; in **Z**, I'll suggest how the universe

created itself. But meanwhile, here's what this Pope includes in the introduction to his "proof":

In speaking of the existence of God we should underline that we are not speaking of proofs in the sense implied by the experimental sciences. Scientific proofs in the modern sense of the word are valid only for things perceptible to the senses, since it is only on such things that scientific instruments of investigation can be used. To desire a scientific proof of God would be equivalent to lowering God to the level of beings of our world, and we would therefore be mistaken methodologically in regard to what God is.

Now, perhaps it would be a bit too cynical of me to mention that, given that zero data are available to support the idea that "the god idea" is anything more than just an idea, it's suspiciously convenient for "His Holiness" to suggest that his God has no measurable characteristics! But the Pope's suggestion that never will any such data ever be found, then begs the obvious question: "Well, then, if God isn't one of the 'beings of our world' (or, I assume, of our solar system, galaxy, or universe!), if God isn't 'perceptible to the senses' or to 'scientific instruments of investigation', then exactly what in hell is He?"

And immediately, this obvious question has an equally obvious answer, an answer with which apparently the Pope (and, I suspect, all clerics and all religious people) and I agree: *God is an idea*. Thus, certainly substantial data support the contention that *the idea* of God exists. But apparently where some disagreement arises is that the Pope and his compatriots "think" that there's something external to our minds to which the idea of God corresponds (even though the Pope admits that this "thing" is undetectable). In contrast, Dear, when I find absolutely nothing to detect with my senses or with any "scientific instruments of investigation", then I conclude that there's nothing external to my mind that corresponds with the idea. Stated differently, I conclude that God exists *only* as an idea.

I trust that you agree, Dear, that your thoughts "exist" as electrochemical signals in your brain. Of course, it's rather difficult to "kick" your thoughts or to bang your head against them (save when you're trying to sleep and your thoughts won't let you sleep!), but tests are available to "see" your thoughts (e.g., as brain-wave patterns using various "brain scans") and even to "kick them" (e.g., with electrical shocks or with various chemicals). And certainly you can have fun with ideas! For example, Dear, suppose you found a million dollars; then... Or suppose there really was a heaven, and when you die and go to heaven, then...

But although it's easy to demonstrate that it's a useful working-hypothesis to assume that our thoughts exist (as electrochemical signals in our brains), it requires another hypothesis to assume that something exists external to our minds and to which any particular thought corresponds. Thus, *thoughts* of invisible flying pink elephants can apparently exist, as can thoughts about various gods and immortal souls, but then, it's a separate hypothesis to assume that there's anything external to our minds that corresponds with such ideas. And if you propose to make a hypothesis that such-and-such exists as anything but an idea, Dear, I strongly encourage you to base your hypothesis on some data!

In contrast, Dear, and as you well know, there are literally billions of people who literally “stake their lives” on the “hypothesis” (or better, “speculation”) that, corresponding to their thoughts, various gods “exist” in “the real world” external to their minds. Yet, if you inspect their notes (i.e., their “holy books”) that “describe” their gods (e.g., the gods who allegedly created this universe), then you'll find enormous disagreements about who these gods are and how they did it. Further, and more importantly, if you will examine the consequences of their hypotheses about the existence of various god, then (as I will try to show you in later chapters) the conclusion seems inescapable that the existence of gods (any god) is *not* a useful working-hypothesis – in fact (as I'll try to show you) an enormous amount of data supports the conclusion that it's been an absolutely horrible hypothesis.

But those are opinions, and an obvious question is: if opinions no longer differed, would that be “proof” of existence? For example, suppose that Muhammad achieved what he apparently desired, namely, that absolutely everyone in the world would become a devout Muslim, prostrating to Allah multi-times per day, absolutely convinced that the Koran (or Quran) was the “holy word” of Allah. Then, if absolutely everyone (except you) agreed with the idea of Allah, would that mean that Allah (or any other god) “existed” in the “real world” as something besides figments of primitive people's minds? If you disagreed about the reality of Allah, this “wrong idea” could certainly cause you difficulty: you would be executed as an “infidel”! Stated differently: if you wanted to live, then certainly it would be a “useful hypothesis” to agree that Allah “existed”!

Without question, Allah (and all other gods) exist as ideas. But although such ideas can obviously be manipulated, shared, argued about – and therefore in some sense can be “measured” – there is the startling fact that apparently has escaped the attention of literally billions and billions of

* Go to other chapters *via*

people: never once, in the history of the world, has anyone ever found anything exterior to people's minds to which such "god ideas" correspond, something on which measurements, observations, readings, and so on can be performed. Pope Paul proposes that this deficit of data reflects the nature of God (he can't be measured); again, I may be too cynical if I provide reasons why he rejects the alternative (and simpler) explanation that there's no God to be measured. In the customs of our time, it's not polite to tell such Emperors that they have no clothes!

Perhaps aware of thousands of years of nakedness of early clerics (an awareness that, as I'll show you in subsequent chapters, seemed to be stimulated by thoughts of the Ancient Greeks), early Christians clerics tried to cover themselves with a fig leaf that "Saint" John proposed: "God is love". The argument then went: "God is love; love exists; therefore, God exists."

Budding scientists of the time (who even in those days demanded that, if something exists, then some measurements or observations or similar of this "something" must be possible) were temporarily distracted by the proposal that "God is love". People could observe, measure, and discuss various types of love (between a man and woman, a mother and her child, and so on). It was then easy to agree that love definitely seemed to exist. But eventually someone got around to asking: "What's God got to do with it?"

One of the problems was the following. Throughout the world, clerics had always claimed that God made the universe. When this proposal was put together with the Christian clerics' proposal that God is love, the result was obviously: "God is love; God created the universe; therefore, love created the universe". People then realized that this idea had been advanced in Ancient Greece in about 500 BCE by Empedocles and had been rejected as silly: 'love' is a word we humans use to describe an emotion (e.g., between and among humans and maybe even between and among animals). But then, it's rather silly to suggest that this emotion had anything to do with the creation of the universe – before any humans or other animals existed!

Further, by adopting erroneous logic such as "God is love; love exists; therefore, God exists" (with the error arising from shifting meaning of the word 'is', as I'll show you in **Ib**), the clerics soon found themselves caught in some serious "logic traps", such as: "God is responsible for everything; there is much evil in the world; therefore God is responsible for all the evil

* Go to other chapters *via*

in the world.” One of the most famous of these “logic traps” was the one proposed by the Greek philosopher Epicurus (341–270 BCE):

Is God willing to prevent evil, but not able?
 Then he is not omnipotent.
 Is he able, but not willing?
 Then he is malevolent.
 Is he both able and willing?
 Then whence cometh evil?
 Is he neither able nor willing?
 Then why call him God?

To such devastating logic, the clerics of the world responded (and still respond) in two ways.

One response was (and still is) to attack logic, itself. In later chapters, I’ll show you some (complicated!) examples, e.g., from two of the Christian church “fathers” (Tertullian and Augustine). Here, let me show you a simple example from Martin Luther (1483–1546), who stimulated the “protestant revolution”, protesting and eventually breaking free from the Catholic Church’s control (and therefore, eventually, leading to Mormonism):

Reason [or logic] is the greatest enemy that faith has: it never comes to the aid of spiritual things, but – more frequently than not – struggles against the divine Word, treating with contempt all that emanates from God... Reason must be deluded, blinded, and destroyed. Faith must trample underfoot all reason, sense, and understanding, and whatever it sees must be put out of sight...

Poor old Martin Luther: in the above quotation, he uses reasoning to reason that reasoning should be “destroyed”! How’s that for logic?! An even more famous (and shorter!) example is Luther’s: “Die verfluchte Huhre, Vernunft.” [“The damned whore, Reason.”] And yes, Dear, I agree that Luther was a lunatic.

The more common response by all clerics to “devastating logic” was (and still is) to respond only: “God works in mysterious ways.” In fact, clerics respond similarly to huge number of difficult questions – which then reveals a much more accurate synonym for ‘God’ than the word ‘love’. As illustrations:

- Why is there so much evil in the world? To which the clerics respond: “God works in mysterious ways.” (Translation: “I don’t know”, or, in the vernacular, “I dunno.”)

- Why do bad things happen to good people? Response by clerics: “God works in mysterious ways.” (Translation: “I dunno.”)
- Why doesn’t God defeat the devil? Response by clerics: “God works in mysterious ways.” (Translation: “I dunno.”)
- Who made the universe? Response by clerics: “God did.” (Translation: “I dunno.”)
- What existed before “the beginning” and what did God use to make the universe? Response by clerics: “God only knows.” (Translation: “I dunno.”)
- Who created God? Response by clerics: “God created himself.” (Translation: “I dunno.”)
- Why doesn’t God eliminate all the confusion about his existence? Response by the clerics: “God works in mysterious ways.” (Translation: “I dunno.”)

And so on it goes, Dear – in fact, on and on and on! And thereby you can get a glimpse of both a much more accurate synonym for the word ‘God’ than ‘love’, namely, ‘ignorance’ – and you can also get a glimpse of a most astoundingly sorry sight: billions of people around the world worshipping ignorance!

“But,” some people say, “there’s value in the hypothesis that God exists.” They say (in effect): “Although there isn’t the tiniest shred of data to support the concept that God is anything but an idea, it’s a useful idea: it’s a way to keep the ‘riff-raff’ of humanity ‘in line’.” As the Greek historian Polybius (c.208 – c.126 BCE) wrote, more than 2,000 years ago:

Since the masses of the people are inconsistent, full of unruly desires, passionate, and reckless of consequences, they must be filled with fears to keep them in order. The ancients [!] did well, therefore, to invent [!] gods and the belief in punishment after death.

But Dear, as I’ll be showing you in chapters that follow, I strongly disagree with this cynical view of humanity. Furthermore, not only do I have more respect for ordinary humans, I strongly object that the self-proclaimed

leaders of humanity are a bunch of stupid clerics who, demanding respect and power (and money!), keep repeating with great solemnity: “I dunno!”

But I’m getting ahead of myself. First, let me address the idea that the “God idea” is bad science, which is what I’ll begin to address in the next chapter. Meanwhile, Dear, why don’t you take a break from reading to get some exercise?