

*X15 – EXchanging Worldviews, 15:
EXploring Prospects for Peace & Prosperity, 7:
EXtricating Humanity from EXcrutiating Problems by, 1:
EXpanding Education*

Dear: In the six prior X-chapters (those with the subtitle “EXploring Prospects for Peace and Prosperity”), I’ve tried to show you some of the many problems confronting humanity. For the remaining X-chapters, those with the additional (!) subtitle “EXtricating Humanity from EXcrutiating Problems”, my goal is at to try to show you how some progress toward solving such problems might be possible.

More to the point, whereas my assignment was “only” to respond to a certain troublesome four-year-old’s question about why I don’t believe in god, I’d be satisfied if I can convey some impression of the prospects for peace and prosperity if humanity would rid itself of all supernaturalism. As for how to “extricate humanity”, let me summarize my recommendation using a phrase that a certain grandchild would frequently say to me. Thus, my goal is to comment on prospects for more peace and prosperity if more people would “Get real!” [🤪]

In reality, there are many consequences – and some are really serious consequences – of people refusing to get real, living in dream world, pretending that some magic man in the sky is available to rescue them from their folly, “believing” that they’re headed for a better world after they leave this one, provided that they do as their clerics demand. In earlier chapters (especially those labeled with the letter ‘P’), I’ve commented on some of the consequences (to individuals, families, and larger groups, including societies) that follow from people engaging in such “supernatural make-believe”. Here, therefore, my goals will be both to explore consequences of such “make-believe” to prospects for more peace and prosperity for the entire world and to suggest how more progress could be made if more people would “Get real”. In this chapter, I’ll start with some suggestions for “EXpanding Education”.

Immediately, however, I should mention a number of caveats and remind you: *Caveat lector!* [“Let the reader beware!”]

Among the caveats, first in importance is derived from my inexperience: I spent most of my career exploring various topics in the physical sciences, not “exploring prospects for peace and prosperity”. Therefore, Dear, if you want more knowledgeable opinions about “extricating humanity from excruciating problems”, then almost certainly you’d be better off consulting those who spent their careers working in various areas of the behavioral sciences.

A second caveat is that, even if I can identify solutions to some problems, that’s different, of course, from solving the problems. For example, Dear, if you’re having problems in one of your courses, then the solution is probably obvious: study harder! [🎯] But again, knowing a solution to a problem is different from solving it. [😞] As another example, an obvious solution to the problems facing humanity is to make me dictator of the world. [👍] Some people, however, might decide that such a “solution” would cause a new and even worse set of problems. As a more realistic example, therefore, I’ll suggest that most of the problems facing humanity could be solved by expanding knowledge – but as I’ll be showing you, this “solution” is beset with its own huge number of serious problems.

And a third caveat, related to the second, is that “there are solutions, and then, there are solutions”, differing not only in how the problems are solved but also when. For example, if people were wise enough to make me dictator of the world, then I (or my chosen successor, i.e., my daughter) should be able to solve most major problems within a decade or so, but if the solution chosen is to try to expand knowledge, then I suspect that the solution will slowly evolve over many generations – which may be too slow. That is, in the meantime Nature may find her own solution to the problems (with worldwide diseases and famines) or humans might try another “solution”, namely, a “war to end all wars” (and most of humanity).

My fourth caveat, consistent with the third, was recently stated well by M.I.T. professor of linguistics Noam Chomsky:

There are no magic answers, no miraculous methods to overcome the problems we face, just the familiar ones: honest search for understanding, education, organization, action that raises the cost of state violence for its perpetrators or that lays the basis for institutional change – and the kind of commitment that will persist despite the temptations of disillusionment, despite many failures and only limited successes, inspired by the hope of a brighter future.

And although hints of my fifth and final caveat are included in the above quotation from Chomsky, I think that it deserves separate and enhanced recognition.

I'll put it this way. Dear: try not to become too pessimistic; do your best to be realistic – including the realization that the future is essentially impossible to predict. And in case you're wondering where this fifth caveat is "coming from", I'll first illustrate that it's easy to envision that humanity's future is bleak:

- Save for an "enlightened" minority, the vast majority of people in the world apparently desire to consume as much as most Americans do: they want their own homes, cars, refrigerators, TVs, computers, etc., not to dwell on desires for ample food, clean water, indoor plumbing, and so on. But given the current and projected human population and given the Earth's finite resources, there's "no way" that such desires can be satisfied. Therefore, if such consumptions are to be realized, the human population must be reduced by roughly an order of magnitude (to about a billion people).
- The possibility of reducing the human population by an order magnitude (without the world's worst wars, famines, and diseases) seems remote. But even if such a population reduction were possible *via* education (and/or intimidation, as in China), the economic consequences from the modified demography would almost certainly be horrendous: already, the outlook for old age "social security systems" throughout the world is bleak (because, as the population "ages" there are relatively fewer workers supporting relatively more retirees); if there were still fewer births, the current problems would be exacerbated; an obvious alternative, maybe with the slogan "work or die", is a "solution" with its own obvious set of problems.
- As flukes of geography, the Earth's resources aren't distributed uniformly (witness the excellent farm lands in North America, the petroleum reserves in many Mid-East counties, the diamond mines in S. Africa, etc.), and those who live in proximity to such resources of course claim ownership of "their" resources. Meanwhile, as a result of different histories, technological competences of different societies differ markedly, but ownership of such "intellectual capital" is not generally protected or even recognized. As an example, an intelligent Pakistani, Iranian, or North Korean can buy a few textbooks (or attend university in a Western country) and relatively easily acquire knowledge sufficient to build an atomic reactor (or bomb) – knowledge that cost Western countries hundreds of billions of dollars to acquire. Because of such relative ease in gaining access to technical knowledge, the technological "playing field" is relatively level throughout the world – but not so for the natural-resources playing field. This puts technologically advanced societies (most Western countries, Japan, South Korea, Taiwan...) at economic disadvantages compared to countries with economies based on natural resources. As a result, while consumption (or "material well-being") in developing countries (China, India, and maybe

* Go to other chapters *via*

eventually Islamic and African countries) increases, it will simultaneously fall in Western countries – the economic equivalent of reducing fractions (or “factions”!) to their lowest common denominator.

- Avoiding technological “start-up costs” gives “up-start” economies major advantages (e.g., in energy-conversion, information technology, telecommunications, transportation, etc.); thus, the rapid “catch up” of the economies of Japan, South Korea, Taiwan, Singapore, and soon China and India. Those economies will, however, encounter “slow downs” when they, too, reach technological frontiers. Yet, those countries may then pull ahead of Western countries, because their educational systems are now producing relatively more scientists, engineers, and technicians than are Western countries.
- Simultaneously, an ancient “pyramid of order” has been inverted and is now standing precariously on its apex: previously, for thousands of years, the vast majority of people supported (on their laboring backs) a few “aristocrats” (kings, bureaucrats, land and business owners, clerics, etc.); in the past roughly 100 years, in contrast, a relatively small minority of the people (scientists, engineers, technicians, medical professionals, etc.), through use of their minds, have supported the vast majority of people (those who primarily used “their backs”, the “blue-collar workers”, and in general “the consumers”). Thus, the ingenuity of a Thomas Edison or Henry Ford provided abundant livelihoods for millions of “Joe and Jane six-packs”. Now, however, in most Western countries, this inverted pyramid is teetering, on the verge of collapse, both because the Joe and Jane six-packs in the West demand too much compensation for their relatively meager contributions (compared to wages paid in developing countries) and because the developing countries are acquiring their own scientific and technological competences (who will eventually carry the weight of all their Joe and Jane six-packs).
- In the past (e.g., with the Netherlands, Britain, Germany...) and still at present (e.g., with Japan and the US), capitalist countries have been able to continue to prosper in part by using their money to make more money (e.g., investing in developments abroad and then repatriating profits). But especially as the price of oil increases, a huge shift in capital to oil-rich nations (Saudi Arabia, Iran, Venezuela, etc.) is occurring; thereby, such countries will become the capitalists of the future. Capitalism, however, has its nemesis: successful capitalists (“fat, happy, and lazy”) typically spoil their children, who within a few generations squander their inheritances – and then the “lean, mean, and ambitious” youth of other societies become the new capitalists, repeating the same cycle.
- The desires of “the have-nots” to have more and the desires of “the haves” to continue their consumption is not a prescription for peace; instead, expect more people to migrate to satisfy their desires to consume more – and expect more wars. Although democratization decreases the likelihood of war, the probability doesn’t fall to zero: the nemesis of democratic governments is that they respond to the people’s will – and if the will of the people is to at least maintain their financial status (and

their level of consumption) and if (as a group) they are sufficiently powerful, then the probability increases that they will demand that “their will be done”, even by initiating war. Thus, under some “politically correct” pretext, there may be a US-led invasion of oil-rich countries such as Iran, Saudi Arabia, and/or Venezuela.

- Without major wars, major shifts in economic power seem inevitable, generally to a common denominator (which will mean a much poorer US and much wealthier China and India). Some nations (e.g., Saudi Arabia, Iran...) with abundant natural resources will, however, grow even wealthier – at least until their resources are depleted. Attempting to avert war *via* appeals to “economic justice” will generally be just “labor lost”: there is no “justice” in the geographical distribution of natural resources (it “just is”), and once some genie is out of its technological bottle, it won’t return. Consequently, for example, Iran will have its oil and its nuclear reactors (and maybe nuclear bombs as well), and there’s really nothing any Western nation can do about it – other than initiate war.
- The only sensible resolution to associated massive problems is to reduce the world’s population by a factor of about ten and replace all “nation states” by a single worldwide community. Then, the common denominator of consumption for all people could be comparable to current consumption in most Western countries. Such a resolution, however, will be extremely difficult to achieve. Establishment of worldwide government is blocked by nationalism (particularly virulent in the US, especially from those Americans who see their country’s ongoing decay – and who would probably choose to go to war in an attempt to avert the inevitable). And the goal of population reduction *via* birth control (rather than *via* war) is thwarted by ignorant and power-mongering clerics of the world (be they Catholic, Islamic, Mormon, or whatever). Expect, therefore, that “things” will become much worse before they get better, possibly including more wars, more riots in American streets, and maybe even an American dictatorship (even a theocracy, if America’s “Religious Reich” achieve its goals).

And thus, Dear, perhaps you see the potential for pessimism, which is why I added the caveat: “try not to become too pessimistic; do your best to be realistic – including the realization that the future is essentially impossible to predict.”

Consistent with that caveat – in case you’re disturbed by such dire “predictions” – let me add some crude estimates of probabilities.

- I suspect that there’s better than an 50% probability that Iran won’t get nuclear weapons: there’s a 30% chance (or so) that the Iranian youth will overthrow the ruling clerics, and if not, I expect that Israel or the US will eliminate Iran’s nuclear capabilities.

- The economic hardships in store for the US will probably be slow in developing (taking decades). Further, they'll be slowed with development of American oil-shale and tar-sand resources and if there's a significant increase in nuclear-power generation (e.g., enough for widespread production of hydrogen to power automobiles). Consequently, so long as the pain is slow and relatively steady, I would estimate that there's only a ~10% chance that there will be economic riots in the streets and that the US will initiate another war (this time, against Iran).

Yet, Dear, in case you then become too optimistic, I'll add some more "realism". With the increasing demands for food and other natural resources (water, soil, metals, timber) from throughout the economically expanding world, then I'd bet that there's better than a 50-50 chance of major, worldwide economic collapse during this century – unless there's a huge new commitment to sustainable development.

Consequently, Dear, if humanity is to avert economic and other disasters during this century, then as far as can see, two major steps must be taken within a decade or so: 1) Whole-heartedly commit to sustainable development, and 2) follow China's lead in "strongly encouraging" no more than one child per family. To take those two steps, I know of no other humanitarian approach than *via* education of the people. But as I already wrote, such a "solution" has its own set of major problems.

The root problem is that so many people have adopted so many crazy worldviews: in a nutshell, the vast majority of people are nuts! Stated differently, the root problem is that so many people are living in their dream worlds, refusing to "get real." Such idiocy was succinctly summarized (and yet simultaneously ridiculed) in *The Song from Pippa Passes* by Robert Browning (1812–1889), in which he has "an impoverished and exploited orphan girl" (Pippa) sing: "God's in his heaven – all's right with the world."

In reality, in Browning's time and still now, all's not right with the world – and no data support either the dream that there is such a thing as "heaven" or the dreams that there are (or ever were) any such things as "gods". In reality, further, maybe the only thing that will save people from collapsing ecosystems and economies ("compared to which the Black Plague will be a trivial occurrence") is a "war to end all wars", fought with nuclear, chemical, and biological weapons. Of course, that "solution", too, has its own problems – as Einstein said: "I know not with what weapons World War 3 will be fought, but World War 4 will be fought with sticks and stones."

If details aren't examined – the solution seems simple enough. Thus, whereas the root problem is that so many people have adopted so many crazy worldviews, the solution is to get people to exchange their worldviews for something more sensible. But this is an ephemeral “solution”: it serves only to reveal a deeper layer of problems, namely, how to convince people to abandon their crazy worldviews, e.g., how to convince Muslim fundamentalists that they're fooling themselves by thinking that they'll go directly to paradise if they blow themselves up in some clerically proclaimed “Jihad”, how to convince Christian fundamentalists that they're fooling themselves by thinking that Christ will soon return to begin some crazy clerics' idea of “Rapture Time”, how to convince Catholics that in fact the pope is wrong (that having more children actually devalues human life – according to the well-established economic principle of “supply and demand”), how to convince American consumers that they would be happier if they had substantially less, how to convince people throughout the world that mimicking American consumerism without simultaneously decreasing the world's population is madness, and how to convince essentially everyone that unless humans reduce their consumption of natural resources by a factor of about ten, then Nature will do it for us.

THE EDUCATION SOLUTION

If details continue to be ignored, the solution to all problems mentioned above seems simple enough: it's “just” a matter of educating the people. As Jefferson wrote in 1818:¹

If the condition of man is to be progressively ameliorated, as we fondly hope and believe, education is to be the chief instrument in effecting it.

Further, as he wrote in a letter to William Jarvis in 1820:

I know of no safe depository of the ultimate powers of the society but the people themselves; and if we think then not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion.

But once again, that “solution” merely provides a way to rephrase the same set of problems: how to “[inform their discretion](#).”

¹ I found this quotation (at <http://www.monticello.org/pressroom/showArticle.php?id=86>) in an advertisement for the 2005 book *Jefferson and Education* by Jennings L. Wagoner, Jr., (the 14th title in the Monticello Monograph Series published by the Thomas Jefferson Foundation).

During most of his life, Jefferson worked to try to solve that set of problems, by promoting and practicing what he described as a “[crusade against ignorance](#)”. Three months after writing the Declaration of Independence in 1776, he returned to his home state of Virginia, where he had been a member of the legislature since 1769. As a legislator, his accomplishments included: a law providing free elementary-school education for all children (and additional free schooling for the brightest students), a law that erected a “[wall between church and state](#)” (atop which flew a banner inscribed with his famous phrasing: “[It is error alone which needs the support of government; truth can stand by itself](#)”), and as the last great accomplishment of his life: establishment of the University of Virginia.

Further, Jefferson’s commitment to education wasn’t restricted to his support for formal schooling. For example, in defense of the mass media of the time (i.e., newspapers) is his stirring statement in a 1787 letter to Colonel Carrington:

[The basis of our government being the opinion of the people, the very first object should be to keep that right; and were it left to me to decide whether we should have a government without newspapers, or newspapers without a government, I would not hesitate a moment to prefer the latter.](#)

Yet as with the tasks of mothering, the tasks of educating (or the obstacles to overcome in Jefferson’s “[crusade against ignorance](#)”) seem endless. Further, the tasks seem to have become even more difficult, as information and knowledge expand and as societies become increasingly complex.

DATA ON “SUPERNATURAL BELIEFS”

Later in this chapter and in subsequent **X**-chapters, I’ll provide some suggestions about how to tackle such problems, but before that, let me show you some data that support the idea that “belief” in god (and in similar supernatural silliness, such as angels, the devil, heaven, hell, miracles, etc.) decreases with increasing education, particularly in science (including anthropology, psychology, and history). And even before showing you that, let me comment on what is perhaps even more apparent from the data, namely, that such silly beliefs primarily depend on “cultural conditioning” (or to be more blunt, on “indoctrination in ignorance”).

* Go to other chapters *via*

Belief in God Depends on Indoctrination in Ignorance

I assume that such a result doesn't surprise you, Dear, since I trust you agree that, when you were a child you were recognized to be a Mormon solely because of your indoctrination. Similar is true for children throughout the world. Moreover, some 1991 data show that such cultural conditioning can cut both ways.²

Thus, if one assumes that, in 1991, education levels in the US (a culture generally promoting religious beliefs) were roughly comparable to those in, for example, Russia and in what was previously called East Germany (whose cultures demoted religious beliefs during the era of the Soviet Union), then this difference in cultural conditioning would seem likely to explain why 62.8% of Americans subscribed to the statement “**I know God exists and have no doubt about it**”, whereas the comparable percentages in Russia and East Germany were 12.4 and 9.2%.

Such data belie the “belief” that religion has a “biological basis” (viz., that people have an “instinct” for religion); instead, the data suggest that religion is primarily a cultural phenomenon –in turn dependent on human's “herding instinct”. Others have concluded similar. Thus, Robert Pirsig (the author of *Zen and the Art of Motorcycle Maintenance*) wrote:

When one person suffers from a delusion, it's called insanity; when many people suffer from a delusion, it's called religion.

And in Alexis de Tocqueville's description of America written in 1835, just as Mormonism was getting underway:

Here and there in the midst of American society you meet with men full of a fanatical and almost wild spiritualism, which hardly exists in Europe. From time to time strange sects arise which endeavor to strike out extraordinary paths to eternal happiness. Religious insanity is very common in the United States.

As for the extent of such “delusions” (or “insanities”), the data are discouraging – at least for some of us.

² Data from the 1991 International Social Survey conducted by the Inter-University Consortium for Political and Social Research (ICPSR) at the University of Michigan; data obtained here from the article (available on the internet) by George Bishop (Professor of Political Science at the University of Cincinnati) entitled “What Americans Really Believe” (from the magazine *Free Inquiry*, Vol. 19, No. 3).

Discouraging Data on Belief in God

Below are some such data, taken from an amazing website created by Preston Hunter (at <http://www.adherents.com/index.html>). I hope that the web site is still available when you read this, Dear, and that you'll spend some time going through it. In fact, as a way of advertising the site, I'll quote some material from it that describes the site, in hopes that this information will encourage you to visit it:

Adherents.com is a growing collection of over 41,000 adherent statistics and religious geography citations – references to published membership/ adherent statistics and congregation statistics for over 4,200 religions, churches, denominations, religious bodies, faith groups, tribes, cultures, movements, ultimate concerns, etc.

The Adherents.com website is primarily the work of Preston Hunter (me). This is an independent project and is not supported by or affiliated with any organization (academic, religious, or otherwise). But numerous individuals (academic researchers; university professors of sociology, comparative religion or history; religious representatives) have provided assistance in their areas of expertise.

And as a further introduction to the site, I'll quote Hunter's response to the "Frequently Asked Question" (FAQ): [What proportion of the world believes in God or a higher power?](#)

I would say that roughly 83 to 90% of the world's population professes a belief in God or a similarly understood higher power(s).

Nationwide, in the US, this is an easier question to answer. Gallup, Harris, and other polls, including Kosmin (1990 survey of 113,000 Americans) consistently indicate that between about 92 and 97% of Americans say they believe in God.

A worldwide figure is more difficult to ascertain. But the *Encyclopedia Britannica* and other sources, including our own internal analysis, indicate that about 16% of the world could be classified in such categories as Non-religious, agnostic, atheist, secular, etc., with regards to religious affiliation...

Keep in mind that 'nonreligious' is not the same thing as 'atheist' or 'agnostic'. Many of those who identify themselves as nonreligious do claim to believe in God. Such people simply don't consider themselves a member or adherent of any specific religion. Philosophically or intellectually, they believe God exists, but they may have a personalized form of spirituality, or feel that affiliation with a specific religion is unnecessary. For some people, the question of whether or not they believe or disbelieve in God may seem to not be of immediate concern. Such people may be so "undecided" that they aren't even agnostic; they may spend no more time considering ontological questions than most people spend choosing a favorite Latvian composer.

I doubt there exists a really good, sociologically robust study on this precise question which incorporates survey data from every country in the world, but various estimates [suggest] that between about 85 and 95% of people in the world believe in God and/or a higher power.

The number would depend on how the question is defined. Most people take no exception to the traditional view of God/higher power presented by the religious group they consider themselves a part of. But many individuals have a more personalized or more vague view. The Adherents.com database is focused primarily on religious and tribal affiliation data (what groups people are a part of), more than on polling data. Belief in God or a higher power usually, but doesn't necessarily, corresponds to religious group affiliation.

The Adherents.com database has some actual polling and survey data citations about the percentages of people in a few specific countries who profess belief in God. [Those data are] in the "religion by name" database under "poll – believe in God" ...

If you will examine some of that data (located not at the web site he references but at http://www.adherents.com/Na/Na_503.html), then the following (for me, depressing) information can be found.

- Close to 95% of Americans "believe in God".
- Recently, however, there seems to have been a slight increase in sanity [decrease of insanity] even of "believing" Americans: "...most... still claimed some belief in God, but fewer now held this belief with certainty than in the past: 62% [of Americans sampled] said they had no doubts about God's existence in 1981, compared with 77% in 1964."
- Compared to many Americans, Europeans are becoming more sane: "In one 1990 survey, 61% of respondents in the Netherlands professed a belief in God, compared with 80% in 1947. Similarly, 63% of respondents in the former West Germany claimed to believe, compared with 81% in 1947."
- And it appears that, since 1990, Europe continues to progress. "*God is dead* wrote the German philosopher Friedrich Nietzsche in the late 19th Century; today [in 1998], for the first time in history, most Germans believe [better, "agree with"] him. According to a poll by *Der Spiegel* magazine, only 45% believe in God, and just a quarter in Jesus Christ" – although I wonder how much that statistic was influenced by sampling former East Germans.
- Even in America, some progress toward more sanity seems to be occurring: during the 35 years from 1963 to 1998, the fraction of the Americans who "believe the Bible is literally true" has dropped from about 65% to under 40%.

- But in other aspects of “belief in supernaturalism”, it seems that there has been sparingly little progress: “...a 1991 study by Andrew Greeley... of Americans... 80% believe in the afterlife, 70% believe in the existence of heaven (compared with 57% who believe in the existence of hell)...”
- Yet, such statistics seem to be rather unreliable. Thus, compare the previous bulleted item with: “A 1994 [Gallup] poll [of Americans] found that... nine adults in ten believed in a heaven...”
- In any case, substantial data lead many people to question the sanity of many more Americas. For example, a 1996 Gallup poll found that: “69% of Americans believe in angels, half believe they have their own guardian angels, and 48% believe UFOs are real.”
- And if that isn’t sufficiently depressing, there’s the following from a 4 March 2003 *New York Times* article by Nicholas Kristof:

A new Gallup poll shows that 48 percent of Americans believe in creationism, and only 28 percent in evolution (most of the rest aren’t sure or lean toward creationism). According to recent Gallup Tuesday briefings, Americans are more than twice as likely to believe in the devil (68 percent) as in evolution.

- It seems similarly appropriate to question the sanity of many Canadians. At <http://www.100megsfree4.com/farshores/pollcan.htm>, the following news report is given. It was originally released on 21 Oct. 2001.

MONTREAL (CP) – A majority of Canadians believed last month in angels and in life after death while about one-third thought aliens and ghosts existed, suggests an opinion poll. The Leger Marketing survey indicated that 57.4% of Canadians believed in life after death, compared with 32.3% who didn’t. The remainder did not know or refused to answer. The polling firm also reported that 6.3% of respondents said they had seen a ghost, 5.8% an angel and 4.4% a witch.

As well as questioning the sanity of so many Canadians, however, one should also question the validity of the data: no statistician worth her salt would report sampling data to within such precision (one decimal place) without simultaneously reporting “margins of error”. Thus, I wouldn’t be surprised if the results should read, for example, that “(57±10)% of Canadians believed in life after death”.

Some Hopeful Signs for Humanists

Meanwhile, other studies suggest that Humanists have “reason to hope” that “belief in God” is a correctable mental disorder, that not so many people are so mentally ill as some studies suggest, and that better-designed statistical studies are being instigated. Below, I’ll show you three sets of studies that support those contentions.

- 1) In “Brief *Amicus Curiae* [literally, “friend of the court”] of the Church of Freethought in Support of Respondent”, available on the internet and

submitted to the US Supreme Court to support Michael Newdow's petition to have "under God" removed from America's Pledge of Allegiance:

The greatest increase in absolute as well as in percentage terms has been among those [American] adults who do not subscribe to any religious identification; their number has more than doubled from 14.3 million in 1990 to 29.4 million in 2001; their proportion has grown from just eight percent of the total in 1990 to over fourteen percent in 2001.

Of course it doesn't follow that all these ~30 million Americans "who do not subscribe to any religious identification" also no longer "believe in God", but I consider the signs to be hopeful – especially since such a dramatic change has occurred in such a relatively short period of time, i.e., essentially doubling during a single decade! Keep that up and by the time you're my age, Dear, organized religion in American will be dead!

- 2) Tom Flynn, in an article entitled "By the Numbers" (available at www.amliberals.com), conveys the following information.

In 1993 Williamson estimated the total population belonging to atheist or humanist organizations or subscribing to the movement's publications at 178,000. As minorities go, that's vanishingly small. And if you listen to the Religious Right, it's about what you'd expect: a trifling fringe of village-atheist misfits whose concerns are hopelessly remote from the American mainstream.

But perhaps counting membership cards isn't the best way to gauge the size of our movement. If we take the whole spectrum of nonbelievers, from hard-bitten atheists to those self-described 'religious humanists' who nonetheless hold no transcendental beliefs – the population that a coalition of humanist and atheist groups recently dubbed 'the Community of Reason' – how many Americans might we be talking about?

In 1995 [the editors of the magazine] *Free Inquiry [FI]* decided to find out. Suspicious that Gallup and other pollsters under-reported unbelievers, we hired a national polling organization to conduct our own telephone survey. We labored over the questions to remove pro-religious spin. For example, in 1976 Gallup started asking not whether respondents believed in God, but whether they believed in God or a universal spirit – a good way to keep the number of reported believers stable even as their notions of God grew more diverse.

In contrast, the *FI* poll's principal 'God question' was designed to count only believers in a traditional anthropomorphic deity and to exclude deists, pantheists, and those who view God as an impersonal spirit. On this question 88.6% of our

respondents said they believed in a personal God who answers prayers. Sure enough, instead of Gallup's stereotypical finding that 95% of Americans believe in God, our poll identified 11.4% who don't believe in the classical idea of God.

A 1999 Scripps-Howard study using different methodology replicated that number almost exactly. Scripps Howard News Service and the Ohio University E.W. Scripps School of Journalism analyzed seven national public-opinion polls conducted in the late 1990s by O.U.'s Scripps Survey Research Center. Respondents were asked to choose their religious preference from a list of sects. 'None' was not a menu item; nonreligious respondents had to volunteer that response. Despite that obstacle, 11.24% reported no religious preference. Scripps's own summary said it plainly: the nonreligious must now be considered the second-largest single belief group in America, second only to Roman Catholics.

From this I conclude that the Community of Reason is significantly larger than most people – even many humanist activists – previously thought. If *Free Inquiry's* numbers are correct and 11.4% of Americans do not believe in a god who answers prayers – if the Scripps numbers are correct and 11.24% of Americans will go out of their way to deny any religious preference – then something between 30,996,687 and 31,437,921 Americans belong in our camp...

How marginal are we, then? Can 30 or 31 million people form only a blip on the cultural radar scope that's too small to keep in focus? I'd suggest that numbers like that give us all the bodies we need to defend the civil rights of the nonreligious and carve out a place of respect for secular humanism in an increasingly diverse America. Our challenge is to recruit a larger fraction of that vast population into the Council for Secular Humanism and indeed into all of the nation's atheist, freethinker, secular humanist, and humanist organizations...

Although I find such results to be encouraging, it's again a pity that a statistician wasn't involved to provide "error bars" for all those numbers. Thus, surely a competent statistician wouldn't have permitted the author to provide eight-figure accuracy (e.g., 30,996,687) using sampling data that should have been reported as, perhaps, $11 \pm 3\%$!

- 3) In a 3 Nov. 2003 article (at <http://atheism.about.com/b/a/039172.htm>) entitled "Who Doesn't Believe in God?" and which seems to have been written by Austin Cline, one of the "guides" at the "About" group of websites (<http://about.com/>), the following information is conveyed.

If America is such a religious and Christian nation, who in the United States doesn't believe in God? It seems almost incredible that anyone, or at least any significant percentage of the population, would actually buck tradition and society by not believing – but in reality, quite a few people don't bother with theism.

Netscape News reports on a recent Harris poll:

- Ten percent of Protestants, 21% of Roman Catholics, and 52% of Jews do not believe in God.
- 84% of women believe in God, compared with 73% of men.
- 91% of African Americans believe in God, compared with 81% of Hispanics and 78% of whites.
- 87% of Republicans believe in God, compared with 78% of Democrats and 75% of Independents.
- 82% of those with no college education believe in God, compared with 73% who went to college.

Dependence of Belief in God on Level of Formal Education

Such differences in “belief in God” that seem to be derived from differences in formal education lead me (at last!) to investigate data for differences in “belief” in all supernatural silliness (not only in America) that might be attributable to education. For example, polling data from 60 countries by Gallup “on the eve of the New Millennium” show the following.³

Higher education correlates to lower levels of belief, the survey showed. Fifty-two percent of college graduates are religious compared with 54% of people with a high school education and 70% of those who completed only primary school.

I admit, however, that I don’t find this result very informative for at least two obvious reasons. First, the result doesn’t identify what the students learned in high school: Can they read? Do they read? In the Islamic cultures (of those 60 countries sampled) did the primary school students read anything besides the Quran? And second, the result doesn’t identify the students’ colleges or majors. For example, I expect that few students at any Islamic “university” develop capabilities to evaluate their religious indoctrination – and I expect similar for students enrolled in this country’s religious “universities” (such as Bob Jones “University”, Brigham Young “University”, or Regent “University”). [😞]

Such data are generally more informative when collected in a single nation. For example, in their 1993 book *One Nation Under God*, Barry A. Kosmin and Seymour P. Lachman state the following (for the US):

Changes in the educational levels of the general population in recent years appear to account for much of the variance in biblical beliefs over time. The current proportion of biblical literalists is 32%, only half of what it was in 1963, when 65% of

³ Available at <http://www.gallup-international.com/ContentFiles/millennium15.asp>.

Americans said they believed in the absolute truth of all words in the Bible and that it represented the actual word of God. Belief in [biblical] inerrancy is most likely to be found among people who did not complete high school (58%), and least likely among college graduates (29%).

A more recent example is in an article (available on the internet) by John Dart in the 14 December 2004 issue of *Christian Century* entitled “Americans’ belief in God is high but nuanced”. In this article, Dart reports the following.

The data came from a total of 8,000 adults polled in six General Social Surveys by the Chicago-based National Opinion Research Center in the period 1988 through 2000.

In a paper for this year’s meeting of the Society for the Scientific Study of Religion, sociologist Darren Sherkat of Southern Illinois University said he did “the first systematic analysis” on what demographic factors would predict “the odds of being an atheist, agnostic or a true believer.”

Higher education, as expected, takes its toll on certainty of belief. “Each year of increase in education reduces the odds of being in a more ‘certain’ belief category by 7 percent,” Sherkat said.

I would expect that, in general, that’s a fairly accurate result. Thus, after (for example) 5 years in one of the US colleges sampled, then on average, there’s a $5 \times 7\% = 35\%$ increase in probability that a certain “true believing” grandchild (if there is one!) would become at least agnostic – unless she attends a religious “university” (such as BYU).

Such a result is consistent with earlier data, for example as reviewed in the December 1999 article by Kevin Courcay in the Willamette Freethinker newsletter, published by the Corvallis [Oregon] Secular Society (CSS):⁴

In an article entitled “Atheists and Agnostics Infiltrating Christian Churches”, released this past October by the Barna Research Group, we find some interesting facts about our fellow unbelievers...

Demographically, Barna’s research indicates that atheists and agnostics are dominated by men (64%), adults under 35 (51%), whites (71%) and residents of the Northeast and West (56%). College graduates are also more likely to reject God (34% qualify as atheists or agnostics).

⁴ Available at http://css.peak.org/newsletter/1999/dec99/eaf_pres.html.

According to a 1997 Harvard study, “The most rapidly growing religious/ spiritual/ ethics grouping in the US is not an organized religion; it consists of non-believers (Atheists and Agnostics).” The number of Atheists and the non-religious in the US now exceeds the membership of the Churches of Christ, the Reformed Churches, the Episcopal Church, the Presbyterian Church, Jews, Mormons, and members of Islam – combined!

So the next time it all seems hopeless, just remember: our numbers are increasing. The entire planet is becoming less and less enthralled by religion every day. It is only a matter of time before religious beliefs will be seen as a quaint anachronism of a superstitious age gone by.

Meanwhile, though, religious leaders won’t sit by idly while the numbers of paying customers in their pews diminish. Illustrative of their reactions are the following comments by Victor Storkel:⁵

Three Reasons Why Children Leave The Faith

The verdict is in and we are losing the war! Over 50% of those going to college will reject the beliefs they were taught as a child. Why is this happening? What is happening in our homes that is causing this to happen? Are we passing on the “faith once delivered to the saints” and preparing them for the ravaging wolves in these universities? Most importantly, what can we do to prevent this disastrous outcome? How can we prepare our children to defend the faith? Discover the keys to raising an “overcomer”. [And he then goes on to advertise his wares; i.e., how to indoctrinate children in religious balderdash.]

Although there is obviously some variation in the data, whether “a college degree” results in a 35% or a 50% drop in the number of US “believers”, I expect the most important determinants are the universities and the students’ majors. For example, earning a “doctorate” in theology at, e.g., Bob Jones “University” or Brigham Young “University” isn’t like to lead to any “enlightenment”; instead, the student is expected to become even more religious. In contrast, even a couple of years majoring in biology or physics at a even a half-descent state college can be enough for roughly half of the students to trash all supernaturalism as “colossal silliness”.

In any event, other data support the conclusion that (depending on details) “education” increases people’s abilities to identify and reject clearly invented religious balderdash. Illustrative is the following news report, by an unidentified author, posted on the internet on 25 July 1998:⁶

⁵ Available at <http://www.bereanbookshelf.com/Seminars.htm>.

⁶ Available at <http://www.atheists.org/flash.line/atheism1.htm>.

NEW SURVEY: SCIENTISTS “MORE LIKELY THAN EVER” TO REJECT GOD BELIEF

A leading scientific journal concludes that increasingly, scientists have doubts about the existence of a deity or similar supernatural and religious claims. This finding questions the pop-culture view that science and religion are moving toward a consensus, and a shared view about the humanity and the universe. The study also touches on the changing character of the scientific enterprise in modern society.

A study in today’s edition of the prestigious science journal *Nature* reveals that members of the scientific community are “**more likely than ever to reject God and immortality,**” discloses Britain’s *Daily Telegraph*.

That claim is based on another study which repeats a historic survey first made in 1916 by Dr. James Leuba of Bryn Mawr University. It revealed that over eight decades ago, only about 40% of the scientists surveyed expressed belief in any supreme being. Leuba predicted that advances in education and technology would further erode faith in religious claims.

In 1997, Edward Larson of the University of Georgia decided to revisit Leuba’s study and evaluate the prediction that religious belief was disappearing, at least in the scientific community. Author of the book *Summer for the Gods* and a professor of science law and history, Larson said that Leuba’s original survey raised “good questions”. “They provoke responses and give much more insight into how people think than the vague Gallup poll question, ‘Do you believe in God?’” he told a writer from *Research Reporter*.

Larson closely followed Leuba’s methodology, repeating the same questions and attempting to find a representative sample which met the original survey profile. “I had no idea how it would turn out”, Larson said.

60% responded, a figure considered high for any surveys. **Of those, 40% expressed belief in a deity, while nearly 45% did not.** Larson’s survey also discovered that physicists were less likely to have such faith, while mathematicians were significantly more likely to believe in a supreme being, as defined by Leuba.

NATURE SURVEY – LESS AND LESS BELIEF

The follow-up study reported in *Nature* reveals that the rate of belief is lower than eight decades ago. The latest survey involved 517 members of the National Academy of Sciences; half replied. [I think I saw elsewhere, Dear, that the author means the US National Academy of Sciences.] **When queried about belief in “personal god”, only 7% responded in the affirmative, while 72.2% expressed “personal disbelief”, and 20.8% expressed “doubt or agnosticism”.**

Belief in the concept of human immortality, i.e. life after death, declined from the 35.2% measured in 1914 to just 7.9%. 76.7% reject the “human immortality” tenet, compared with 25.4% in 1914, and 23.2% claimed “doubt or agnosticism” on the question, compared with 43.7% in Leuba’s original measurement. Again, though, the highest rate of belief in a god was found among mathematicians (14.3%), while the lowest was found among those in the life sciences fields – only 5.5%.

The only thing I would add to this (for me) reassuring report is that I’m not surprised that mathematicians are less likely than physical and life scientists to reject religious balderdash – because mathematicians are trained to think logically, not critically.

That is, pure mathematicians (as opposed to applied mathematicians) seem to delight in creating huge logical artifices – built on essentially arbitrary premisses (and more power to them, because such enterprises have led to some ready-made toolkits for physicists, such as were subsequently used in general relativity and string theory). In contrast, natural and life scientists accept only those premisses supported by data and whose predictions can be (but have not yet been) falsified. Thereby, [pure] mathematicians aren’t scientists – they’re logicians – and in a way, they’re similar to theologians (who build huge artifices based on essentially arbitrary premisses). Consequently, I’m not surprised that more mathematicians than scientists are unable to recognize religious balderdash for what it is.

I’d add, further, that although I’m encouraged that only ~7% of the members of “the Academy” cling to the prehistoric idea of “God”, I admit to discouragement that 7% still “believe”: to me, this result indicates that these ~7% shouldn’t be permitted to serve in the Academy (dedicated to using scientific knowledge to help guide public policy), because these members thereby demonstrate that they haven’t applied the scientific method to establish policies in their own lives! Stated differently, I agree with and would even extend the philosopher Delos B. McKown’s remark: “It is scandalous that any modern, intelligent, well-educated person should believe in Christianity” ...or the tenets of any similar “belief system”.

PRINCIPLES FOR EXPANDING EDUCATION

But that said and with the data showing that education generally leads to more educated people (), who are then able to trash religious balderdash, let me return to the task at hand. As I already wrote:

* Go to other chapters *via*

...as with the tasks of mothering, the tasks of educating (or the obstacles to overcome Jefferson's 'crusade against ignorance') seem endless. Further, the tasks seem to have become even more difficult, as information and knowledge expand and as societies become increasingly complex.

Moreover, and related to "mothering", there are serious "systemic problems" in the "education solution", perhaps best illuminated with some personal examples.

Some Systemic Problems in Educating Children

I don't recall why, but I drove the two oldest grandchildren to school (perhaps the older was in grade one and the younger in kindergarten). I also don't recall why, but we were sitting in the car (maybe waiting for the school to open) and talk turned to Halloween, which was coming soon. If I recall correctly, the oldest grandson was talking about being afraid of all the ghosts, and I do recall trying to comfort him, saying: "Don't worry; there's no such thing as ghosts." "Uh huh," said the grandson. "No..." I responded (adding his name), "there are no ghosts; it's all just pretend." "Uh huh," he insisted, defiantly adding: "the Holy Ghost." "Oh," I backed off, not wanting to contradict what his parents had taught him, adding: "Now I understand what you're talking about." And I assume because he felt he had won the argument, I distinctly remember his smiling smugly.

During that same visit (at least I think it was then), he and I went to the local Apple Computer Store to buy a new operating system for your computer. Noticing a man who was so fat that he could barely walk, the older grandson said, "Look how fat that man is!" I said, "No..." (adding his name), "you shouldn't say that; he might hear you, it would make him sad, and it might not be his fault. It might be in his genes." The grandson responded: "Then why doesn't his mother buy him different ones." For a second I didn't understand what he meant, but then added: "Oh, I see; I'll explain when we get back to your house."

Upon returning to your house and after putting the new system on your computer, I sat down on the floor with the two oldest grandchildren and tried to explain about homonyms, the difference between 'genes' and 'jeans', computer codes and DNA codes, and the possibility that even traits such as being obese might be "genetically programmed". I don't know if I was successful, but both of you seemed to enjoy identifying lots of homonyms and the idea of being cloned.

Coupling those examples with the earlier example of my oldest grandchild informing me that she didn't have two eyes in the back of her head, not because of evolution, but because “**that's the way Jesus made me**”, reveals some of the “systemic problems” in educating children. These include:

- The difficulties (and maybe even the dangers) of exposing children to worldviews (e.g., with no gods and no ghosts) that conflict with the worldviews of their parents,
- The challenges of teaching children about complex ideas such as computing, genetics, and evolution,
- The critical importance of exposing a child to new experiences and thereby, building a child's vocabulary, and therefore,
- The importance of parenting, especially the “primary care-giver” (who is usually the mother, so I'll be writing, “the importance of mothering”).

And what I want to start on now, Dear, is the complex task of trying to show you how some of these systemic problems in education might be solved.

But first, Dear, please remember “*caveat lector*”, because I'm way out of my “field of expertise” – if I still have one! I do have some experience in education (e.g., I did teach at universities, full-time for seven years and then part-time for at least another ten years), but teaching at universities is different from teaching in grade schools: in grade schools, one teaches students; in universities, one generally teaches “just” courses (in part because it's difficult to do otherwise in classes consisting of hundreds of undergraduate students, and in the case of graduate classes, generally the subject matter is so challenging that it requires one's full attention).

Therefore, in an attempt to compensate for my relatively meager experience in teaching students, I plan to extensively quote the opinions of more experienced educators and those who have devoted more effort trying to solve systemic educational problems.

Schopenhauer's Recommended Solution

Illustrative are the following tremendous ideas about teaching children, advanced more than 150 years ago by the philosopher Arthur Schopenhauer (1788–1860). Although I could just give you an appropriate internet reference to some of his essays and hope that you'd read them, I'll try to increase the probability that you'll read them by providing you with the following, long but significant quotation.

To this quotation,⁷ I've added a few notes in brackets, some paragraph breaks, and some boldface type to encourage you to especially consider what I think are particularly significant statements. Also, in places I'll interrupt the quotation to add additional comments.

We know that man is in general superior to all other animals, and this is also the case in his capacity for being trained. Mohammedans [Muslims] are trained to pray with their faces turned towards Mecca, five times a day; and they never fail to do it. Christians are trained to cross themselves on certain occasions, to bow, and so on. Indeed, it may be said that religion is the *chef d'oeuvre* [viz., 'masterpiece'] of the art of training, because it trains people in the way they shall think – and, as is well known, you cannot begin the process too early. **There is no absurdity so palpable but that it may be firmly planted in the human head if you only begin to inculcate it before the age of five, by constantly repeating it with an air of great solemnity...**

Let me pause, here, to comment on his Schopenhauer's statement "as is well known, you cannot begin the process [of indoctrination] too early."

Some of Schopenhauer's contemporaries who said similar were William Wordsworth (1770–1850), "The child is father of the man...", and William Ross Wallace (1819–1881), "The hand that rocks the cradle... rules the world." Earlier, Milton (1608–1674) wrote: "The childhood shows the man, as morning shows the day." Even earlier, there is from the Bible's New Testament (*Matthew 18*, 3): "Except as ye... become as little children [i.e., extremely gullible, naive, trusting and yet fearful, and "lost in unreality"!], ye shall not enter into the kingdom of heaven", and from the Bible's Old Testament (*Proverbs 22*, 6): "Train up a child in the way he should go, and when he is old, he will not depart from it." Throughout the ages, this concept has been corrupted by priests and other tyrants (of course for their own benefits), as illustrated with the boast of the Jesuit Priests: "Give me a child for the first seven years, and you may do what you like with him afterwards." Similar was recognized and utilized by recent dictators, including Hitler, Stalin, Mao, the current dictators of Cuba and North Korea – and all clerics and parents who indoctrinate their children in pure unadulterated religious balderdash!

⁷ Taken from Schopenhauer's essay "Studies in Pessimism", available at many location on the internet, including <http://www.gutenberg.org/dirs/1/0/7/3/10732/10732-8.txt>.

But I'll now get back to quoting Schopenhauer, who digs into details about how such indoctrination is accomplished:

The human intellect is said to be so constituted that **“general ideas” arise by abstraction from “particular observations”, and therefore come after them in point of time.** If this is what actually occurs, as happens in the case of a man who has to depend solely upon his own experience for what he learns – who has no teacher and no book – such a man knows quite well which of his particular observations belong to and are represented by each of his general ideas. He has a perfect acquaintance with both sides of his experience, and accordingly, he treats everything that comes in his way from a right standpoint. **This might be called the “natural” method of education.**

Contrarily, the “artificial” method is to hear what other people say, to learn and to read, and so to get your head crammed full of general ideas before you have any sort of extended acquaintance with the world as it is, and as you may see it for yourself. You will be told that the particular observations, which go to make these general ideas, will come to you later on in the course of experience; but until that time arrives, you apply your general ideas wrongly, you judge men and things from a wrong standpoint, you see them in a wrong light, and treat them in a wrong way. **So it is that education perverts the mind.**

This explains why it so frequently happens that, after a long course of learning and reading, we enter upon the world in our youth, partly with an artless ignorance of things, partly with wrong notions about them; so that our demeanor savors at one moment of a nervous anxiety, at another of a mistaken confidence. The reason of this is simply that our head is full of general ideas which we are now trying to turn to some use, but which we hardly ever apply rightly. This is the result of acting in direct opposition to the natural development of the mind by obtaining general ideas first, and particular observations last: it is putting the cart before the horse.

Instead of developing the child’s own faculties of discernment, and teaching it to judge and think for itself, the teacher uses all his energies to stuff its head full of the ready-made thoughts of other people. The mistaken views of life, which spring from a false application of general ideas, have afterwards to be corrected by long years of experience; and it is seldom that they are wholly corrected. This is why so few men of learning are possessed of common-sense, such as is often to be met with in people who have had no instruction at all.

To acquire a knowledge of the world might be defined as the aim of all education; and it follows from what I have said that special stress should be laid upon beginning to acquire this knowledge “at the right end”. As I have shown, **this means, in the main, that the particular observation of a thing shall precede the general idea of it; further, that narrow and circumscribed ideas shall come before ideas of a wide range.**

It means, therefore, that the whole system of education shall follow in the steps that must have been taken by the ideas themselves in the course of their formation. But whenever any of these steps are skipped or left out, the instruction is defective, and the ideas obtained are false; and finally, a distorted view of the world arises, peculiar to the individual himself – a view such as almost everyone entertains for some time, and most men for as long as they live.

No one can look into his own mind without seeing that it was only after reaching a very mature age, and in some cases when he least expected it, that he came to a right understanding or a clear view of many matters in his life, that, after all, were not very difficult or complicated. Up till then, they were points in his knowledge of the world which were still obscure, due to his having skipped some particular lesson in those early days of his education, whatever it may have been like – whether artificial and conventional, or of that natural kind which is based upon individual experience.

It follows that an attempt should be made to find out the strictly natural course of knowledge, so that education may proceed methodically by keeping to it; and that children may become acquainted with the ways of the world, without getting wrong ideas into their heads, which very often cannot be got out again. If this plan were adopted, special care would have to be taken to prevent children from using words without clearly understanding their meaning and application. **The fatal tendency to be satisfied with words instead of trying to understand things – to learn phrases by heart, so that they may prove a refuge in time of need, exists, as a rule, even in children; and the tendency lasts on into manhood, making the knowledge of many learned persons to consist in mere verbiage.**

However, the main endeavor must always be to let particular observations precede general ideas, and not *vice versa*, as is usually and unfortunately the case; as though a child should come feet foremost into the world, or a verse be begun by writing down the rhyme! The ordinary method is to imprint ideas and opinions, in the strict sense of the word, “prejudices”, on the mind of the child, before it has had any but a very few particular observations. It is thus that he afterwards comes to view the world and gather experience through the medium of those ready-made ideas, rather than to let his ideas be formed for him out of his own experience of life, as they ought to be.

A man sees a great many things when he looks at the world for himself, and he sees them from many sides; but this method of learning is not nearly so short or so quick as the method which employs abstract ideas and makes hasty generalizations about everything. Experience, therefore, will be a long time in correcting preconceived ideas, or perhaps never bring its task to an end; for wherever a man finds that the aspect of things seems to contradict the general ideas he has formed, he will begin by rejecting the evidence it offers as partial and one-sided; nay, he will shut his eyes to it altogether and deny that it stands in any contradiction at all with his preconceived notions, in order that he may thus preserve them uninjured.

So it is that many a man carries about a burden of wrong notions all his life long – crotchets, whims, fancies, prejudices, which at last become fixed ideas. The fact is that he has never tried to form his fundamental ideas for himself out of his own experience of life, his own way of looking at the world, because he has taken over his ideas ready-made from other people; and this it is that makes him – as it makes how many others! – so shallow and superficial.

Instead of that method of instruction, care should be taken to educate children on the natural lines. **No idea should ever be established in a child's mind otherwise than by what the child can see for itself, or at any rate it should be verified by the same means;** and the result of this would be that the child's ideas, if few, would be well-grounded and accurate. It would learn how to measure things by its own standard rather than by another's; and so it would escape a thousand strange fancies and prejudices, and not need to have them eradicated by the lessons it will subsequently be taught in the school of life. The child would, in this way, have its mind once for all habituated to clear views and thorough-going knowledge; it would use its own judgment and take an unbiased estimate of things.

And, in general, children should not form their notions of what life is like from the copy before they have learned it from the original, to whatever aspect of it their attention may be directed. Instead, therefore, of hastening to place “books”, and books alone, in their hands, let them be made acquainted, step by step, with “things” – with the actual circumstances of human life. **And above all let care be taken to bring them to a clear and objective view of the world as it is, to educate them always to derive their ideas directly from real life, and to shape them in conformity with it – not to fetch them from other sources, such as books, fairy tales, or what people say – then to apply them ready-made to real life.** For this will mean that their heads are full of wrong notions, and that they will either see things in a false light or try in vain to “remodel the world” to suit their views, and so enter upon false paths; and that, too, whether they are only constructing theories of life or engaged in the actual business of it.

It is incredible how much harm is done when the seeds of wrong notions are laid in the mind in those early years, later on to bear a crop of prejudice; for the subsequent lessons, which are learned from real life in the world have to be devoted mainly to their extirpation. **“To unlearn the evil” was the answer, according to Diogenes Laertius, Antisthenes gave, when he was asked what branch of knowledge was most necessary; and we can see what he meant.**

Let me again interrupt your reading of Schopenhauer, this time to comment on something that you might find puzzling. I certainly wouldn't advocate not exposing children to general principles (and I doubt if Schopenhauer would have, either), but a “boot-strap” approach is best, with children extracting lessons from their own experiences.

Such an approach is what educators call “learning with understanding”,⁸ partly summarized by the adage “Experience is the best teacher”, but better summarized by the famous American philosopher and educator John Dewey (1859–1952):

Everything depends upon the quality of experience... just as no man lives or dies to himself, so no experience lives and dies to itself. Any experience is mis-educative that has the effect of arresting or distorting the growth of further experience. The central problem of an education based upon experience is to select the kind of present experience that live fruitfully and creatively in subsequent experiences.

Further, it’s important that general principles be induced from experience – no matter which general principle – rather than be advocated dogmatically. Even the most fundamental of general principles, dealing with existence, should be introduced with qualifications, e.g., “There’s an extremely high probability that thinking (i.e., the process of thinking, itself) exists” and “There’s a very high probability that I exist (and also, by extension, that other humans exist).”

When a child is introduced to other possible principles, options should be mentioned, opinions given, and the child should be stimulated to recognize limitations in knowledge and permitted to explore the possibilities of different choices. For example, if a youngster asks something similar to “Where did this universe come from”, then a response similar to the following would seem appropriate:

Well, some people say that God made it, other people say it started with what’s called ‘The Big Bang’, but I wouldn’t be surprised if it came from totally nothing, which separated itself into ‘positive and negative parts’ and then exploded in the Big Bang. Thus, my best guess is that the universe made itself.

The alternative, i.e., dogmatically indoctrinating children with principles, is what Schopenhauer opposed, and I would even go so far as to suggest that such activities should be classified as “crimes against humanity”.

Schopenhauer’s summary of his brilliant essay – a summary that I think should be memorized, “internalized”, and put into practice by every schoolteacher in the world! – is the following:

⁸ See, e.g., the book *How Students Learn* by the Committee on How People Learn, A Target Report for Teachers, M.S. Donovan and J.D. Bransford, eds., 2005, Division of Behavioral and Social Sciences and Education, National Research Council of the National Academies, the National Academy Press, Washington, D.C., available on line at <http://books.nap.edu/books/0309089506/html/R1.html>.

No child under the age of fifteen should receive instruction in subjects which may possibly be the vehicle of serious error, such as philosophy, religion, or any other branch of knowledge where it is necessary to take large views; because wrong notions imbibed early can seldom be rooted out, and of all the intellectual faculties, judgment is the last to arrive at maturity. The child should give its attention either to subjects where no error is possible at all, such as mathematics, or to those in which there is no particular danger in making a mistake, such as languages, natural science, history, and so on. And in general, the branches of knowledge which are to be studied at any period of life should be such as the mind is equal to at that period and can perfectly understand.

Childhood and youth form the time for collecting materials, for getting a special and thorough knowledge of the individual and particular things. In those years it is too early to form views on a large scale; and ultimate explanations must be put off to a later date. **The faculty of judgment, which cannot come into play without mature experience, should be left to itself; and care should be taken not to anticipate its action by inculcating prejudice, which will paralyze it for ever...**

In contrast to Schopenhauer's recommended solution – which I'll summarize by saying **children should be taught how to extract lessons from their own experiences** – think first, Dear, of what happened to you. As soon as you learned to talk, you were taught to repeat strange words such as “God”, “heaven”, “the Lord Jesus Christ”, “Savior”, and so on. What could those words possibly have meant to you? – except that, if you used them “properly”, you'd be rewarded, similar to how a puppy is trained.

Throughout your childhood, you were continuously indoctrinated in a worldview that included the speculation that some magic man, some giant Jabberwock in the sky, was in control of everything, and who watched and judged not only your every move but even your every thought! You were brainwashed in a general philosophy (concocted by savages) even before you learned the most elementary particulars: that you must thank Jesus for food before eating it, that you must plead to Jesus for his blessing before sleeping, and so on, on and on. As a result, by the time you were four or so, you told me that the reason why you had only two eyes in the front of your head (and none in back) is because **“That's the way Jesus made me.”** You weren't taught to extrapolate from your own experiences, you weren't permitted to build a worldview developed from your own experiences; instead, you were first indoctrinated with a general philosophy and then required to force-fit your own particular experiences within the worldview dictated by your parents.

Similar horrors occur throughout this country and throughout the world. For example, recently while I was looking for something else on the internet, I bumped into the following statement, describing the mission of the Rochester (NY) Catholic Schools.⁹

Our mission is as follows:

- The Rochester Catholic Schools are a ministry serving the Church’s mission to proclaim the Good News of Jesus Christ.
- The Rochester Catholic Schools assist the family in the faith formation of their children.
- The Rochester Catholic Schools provide challenging, quality education.
- The Rochester Catholic Schools are truly Catholic.

My response is: the administrators of these Schools should be indicated for criminal indoctrination of children in unadulterated balderdash! And of course the above is only one of probably millions of examples. For example, think of all branches of Christianity (including Mormonism) and then think of Islam.

Further, you might wonder how parents could possibly be so cruel as to so badly warp their own child’s mind (either directly or by sending their children to religious schools) – but of course the answer is obvious: the parents “think” that what they’re doing is “right”, because they were similarly brainwashed when they were children or (as in the case of your father, as I mentioned in an earlier chapter and as I’ll detail in a later chapter) they made massive mental errors and fell into the clerics’ logic trap. Consequently, in their worldview, it would be cruel of them to do anything but indoctrinate their own children in the same worldview; after all, they argue, the fate of their children’s “immortal souls” are at stake!

This is an extremely difficult “systemic problem” that screams for a solution. It’s a horrible Catch-22 or “vicious cycle”: somehow the indoctrination of children in “clearly invented balderdash” must stop; yet to do that, parental permission is needed; but such permission won’t be granted, because the parents were indoctrinated in the same balderdash when they were children.

⁹ At http://www.rochestercatholic.k12.mn.us/html/fast_facts_rcs.html.

The Parasitic “God Meme”

Thereby, as Richard Dawkins would say, the “god meme” continues to propagate: the parasite priests continue to feed off another crop of hosts; the clerical leeches suck the life blood from still another generation of humans.

Let me show you a little about this idea of “meme”. The following was written (during July 2003) by “Vajradhara”, about whom all I know is “Location: Dharmadhatu”.¹⁰

Among many anthropologists, sociologists and philosophers, it has recently become fashionable to dismiss all religions as memes – parasitic mental processes, which propagate in the same manner as chain letters... In this view, religious belief is a self-perpetuating delusion. A meme (rhymes with ‘dream’) may be defined as any self-referential belief system that contains within itself the instructions for its own propagation. Memes are often described as the cultural equivalents of computer viruses.

The general defining features of all memes can thus be seen to be self-referential “closed-loop” type of circular statements, and a strong tendency towards hate and intolerance. The science of the study of memes, their internal structures and modes of propagation is known as ‘memetics’ (by analogy to genetics – how biological entities propagate themselves). More detailed analysis will usually show the following features.

Like a virus or parasitic worm, a successful meme must perform two actions:

- Ensure it takes up long-term residence in its host,
- Bring about the conditions for its spread.

To establish itself in the mind of its host it will use some or all of the following mechanisms:

- [1] Promise heaven for belief,
- [2] Threaten eternal punishment in hell for disbelief,
- [3] Boost the believers’ egos by telling them they are ‘chosen’ or ‘superior’ to believers in false memes,
- [4] Disable the faculties of disbelief (“immune response”) by claiming that faith is superior to reason,

¹⁰ You can find the complete communication, entitled *Religion as a Meme*, at <http://www.comparative-religion.com/forum/showthread.php?t=246>.

- [5] Establish itself as the One True Meme, usually by some sort of holy book containing a circular self-referential argument such as:

X is the one true meme. We know X is the one true meme because The Source of Universal Truth has approved X. We know The Source of Universal Truth has approved X, because X contains statements which say so. We know what X says is true because X is the one true meme.

Once it has parasitized the mind of its host, a meme needs to propagate itself. A successful meme will contain instructions for some or all of the following:

- [6] Holy war – convert or kill all unbelievers,
- [7] Intimidation and terrorism – threaten and discriminate against unbelievers,
- [8] Enforced social isolation or even death to apostates (An apostate is a host which has cured itself of a meme-infection. It is especially dangerous to the meme, because it might pass on meme-resistance to others.),
- [9] Fecundism – encourage true believers to breed faster than believers in false memes,
- [10] Censorship – prevent rival memes from reaching potential hosts (a theological doctrine known as “Error has no rights”),
- [11] Disinformation – spread lies about rival memes. Demonize them – the bigger the lies the more likely they are to be believed. The disinformation may even include instructions for a meme to lie about itself.

I trust you see, Dear, how Mormonism, Evangelicalism, Catholicism, and so on, on and on, through essentially all organized religions (of course including Islam) can accordingly be classified as memes, i.e., “**parasitic mental processes... the cultural equivalents of computer viruses**”.

As a further illustration, consider the following quotation from the final chapter of the 1976 book in which the idea of meme was first introduced, namely, *The Selfish Gene* by Richard Dawkins:¹¹

Examples of memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches. Just as genes propagate themselves in the gene pool by leaping from body to body *via* sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain *via* a process which, in the broad sense, can

¹¹ Copied from <http://www.rubinghscience.org/memetics/dawkinsmemes.html>.

be called imitation. If a scientist hears or reads about a good idea, he passes it on to his colleagues and students. He mentions it in his articles and his lectures. If the idea catches on, it can be said to propagate itself, spreading from brain to brain. As my colleague N.K. Humphrey neatly summed up an earlier draft of this chapter:

... memes should be regarded as living structures, not just metaphorically but technically. When you plant a fertile meme in my mind you literally parasitize my brain, turning it into a vehicle for the meme's propagation in just the way that a virus may parasitize the genetic mechanism of a host cell. And this isn't just a way of talking – the meme for, say, 'belief in life after death' is actually realized physically, millions of times over, as a structure in the nervous systems of individual men the world over.

Consider the idea of God. We do not know how it arose in the meme pool. Probably it originated many times by independent "mutation." In any case, it is very old indeed. How does it replicate itself? By the spoken and written word, aided by great music and great art. Why does it have such high survival value? Remember that "survival value" here does not mean value for a gene in a gene pool, but value for a meme in a meme pool. The question really means: What is it about the idea of a god that gives it its stability and penetrance in the cultural environment? The survival value of the god meme in the meme pool results from its great psychological appeal. It provides a superficially plausible answer to deep and troubling questions about existence. It suggests that injustices in this world may be rectified in the next. The "everlasting arms" hold out a cushion against our own inadequacies which, like a doctor's placebo, is nonetheless effective for being imaginary. There are some of the reasons why the idea of God is copied so readily by successive generations of individual brains. God exists, if only in the form of a meme with high survival value, of infective power, in the environment provided by human culture.

Psychoses Generated by Religions

Approximately 100 years ago (approximately 50 years after Schopenhauer and 50 years before Dawkins wrote the above), the psychiatrist Boris Sidis saw something similar:¹²

One important point claims our attention in the early education of children. We should immunize our children against mental microbes, against superstitions and prejudices, against all forms of harmful beliefs, as we vaccinate our babies against smallpox. The cultivation of critical judgment and the knowledge of good and evil form the powerful constituents for the neutralization of virulent toxins, produced by mental microbes. We should not at the same time neglect proper conditions of mental hygiene or mental sanitation. We should not people the child's mind with ghastly and ghostly stories, with uncritical beliefs in the supernatural, and with article of creed which under the cloak of love are charged with arrogance, intolerance, and hatred.

¹² Copied from <http://www.nospank.net/sidis.htm>, originally published in the *Journal of Abnormal Psychology* 14, 333-348, 1919.

We must guard the child against all evil fears, force, violence, superstitions, prejudices, and credulity...

We should counteract the baneful influences of the pathogenic, pestiferous mental microbes which now infest our social air, since the child, not having yet formed the antitoxin of critical judgment and knowledge of good and evil, has not the power of resisting mental infection, and is thus highly susceptible to mental contagion, on account of his extreme suggestibility. The cultivation of credulity, the absence of critical judgment and the lack of recognition of good and evil, with consequent increase of suggestibility make man an easy prey to all kinds of social delusions, mental epidemics, religious crazes, financial manias, patriotic wars, enthusiastic parades, resulting in slaughter and plagues which have been the baleful pests of aggregate humanity in all ages, and more specially in our times when the wave of social suggestibility of the worst type spreads like wild fire throughout the world...

An uncultivated personality with a limited mental horizon, with a narrow range of interests, a personality sensitive to fear inhibitions, is a fit subject to all forms of obsessions. The fear instinct, fostered by mysteries, frights, scares, dread of sickness, dread of the moral mind and its shadows, and fear of thought-transmission of deadly mortal ghosts of ideas, entertained by superstitious sects... is a fundamental factor in the causation of abnormal mental states termed psychopathic. Fear impressed by moral and religious injunctions and duties by means of physical punishment, or by constant scares of punishment to come in this world or in another world, the enforcement of social taboos with the consequent dread of failure, degradation, and loss of character – all go towards the cultivation of the impulse of self-preservation and fear instinct, which in later life form the soil of functional psychosis with all its baneful effects and morbid symptoms.

What isn't so easy to see is how such “pathogenic, pestiferous mental microbes”, such “viral memes”, can be exterminated – or if not exterminated, then at least how to minimize their effects.

What does seem clear is that several “mental vaccination” policies and procedures should be implemented simultaneously and pursued vigorously to counteract the psychoses generated by religions. To explain what I mean, however, will take quite a while – in fact, most of the remaining X-chapters. And whereas one of the “neat things” about books is that they'll wait for you until you're not so busy, why don't you now get busy – getting the experience of more exercise?!