X4 – EXchanging Worldviews, 4: EXamining System & Subsystem Goals

Dear: In **X1**, I tried to show you that the roots of many human problems can be found in religions – buried in, clinging to, and feeding on ignorance. In **X2**, I tried to show you some reasons why people are religious. And in **X3**, I showed you more reasons why people are religious plus reviewed some ideas about why organized religions persist (in spite of their being "clearly invented balderdash"). Given all those reasons and their associated problems, you might expect that I'd now turn to solutions.

Well, Dear, eventually in these **X**-chapters, I'll suggest some solutions, but I'm sorry to say, "Not now", because I'm even sorrier to say: "I can't see any simple solutions or 'quick fixes'." That is, I doubt that there's an easy way to purge humanity of religious ignorance: seeds of knowledge have difficulty germinating when planted in minds contaminated by dogma, growth of understanding is stunted in minds polluted by greed and fear, and wisdom rarely flowers in minds filled with the admonishment, recrimination, supernaturalism, and ritual that's perpetrated by the world's clerics. Therefore, "to get there from here" will almost certainly be a very long and difficult "row to hoe."

It's an especially difficult "row to hoe" because there isn't agreement on which row needs hoeing! That is, there's disagreement about goals; i.e., contentions between theists and Humanists are derived from differences in worldviews and therefore in goals. In the theists' worldview, their god is watching them and will reward them generously for being 'good' and punish them terribly for being 'bad'; their goal, therefore, is to do what their god demands – as dictated by their clerics. In the humanists' worldview, we accept only what the evidence suggests (and even then, only until better evidence becomes available), e.g., that (to date) humans are the most intelligent life-form identified in the universe, that the range of human intelligence is large, that humans have a huge number of problems that require application of intelligence, knowledge, understanding, and wisdom to solve, and our goal, therefore, is to help solve humanity's problems though wise application of reliable knowledge. And when groups have different worldviews, therefore different objectives, and therefore different sets of values, it's unsurprising that a result is contentious confrontations.

After contentious confrontations occurred as a result of the Los Angles police brutally beating Rodney King, he asked: "Can't we just get along?" In response, I'd say that, in general "to get along", it isn't essential but certainly it's helpful if people share a common objective. And whereas values have meaning only relative to objectives, subgroups of humans who share a common goal generally have common values. But as is too obvious to belabor, all humans don't share a common goal. Yet, maybe it would be useful for you, Dear, if I did "belabor" distinguishing among goals of different types of systems, because then, maybe you can see more clearly possible ways that we humans may yet learn to get along.

There are, of course, many different ways to distinguish different systems (and I'll show you some of these different ways later in this chapter and in later chapters), but to start simply, I'll distinguish different systems by differences in system objectives and subobjectives. To that end, I've created the following table, which isn't meant to be a complete categorization but may stimulate your thoughts. In this table, I've distinguished three types of systems (Type 1, 2, & 3) by questioning if they do have an overall prime objective (Type 1 – Orange), if they don't have a prime objective (Type **3** – Green), or if it's not clear if they do or don't have a prime objective (Type 2 – "passion purple" – or however that color is named!).

Type	*Objectives & Subobjectives*	*Examples*
1	Systems with a sensible overall objective:	Any well designed system!
1a	A single prime objective for the system	Hospitals, highways…
1b	Multiple prime objectives for the system	An individual human
1c	Mutually supporting subobjectives	Any well functioning system
1d	Conflicting subobjectives	Any poorly operating system
2	Systems with a questionable overall goal:	Most systems run by humans!
2a	Systems with a self-defeating overall goal	Many governmental systems!
2b	Systems with a fake overall goal	All political parties & religions
2c	Systems with a dumb overall goal	All organized religions
2d	Systems with an unknown overall goal	The universe?
3	Systems with no overall goal:	Most natural systems
3a	Systems defined by near-neighbor rules	"Emerging systems"
3b	Subsystem goals usually nonconflicting	Humans in isolated groups
3c	Subsystem goals generally conflicting	Competing subgroups
3d	A subsystem's goal usurping the system	Theocracies, Monarchies…
3e	Subsystem goals generally cooperating	Within most democracies
3f	Subobjectives mutually supporting	Some hopeful signs…
3g	Subobjectives evolving into a prime goal	Humanity's future?

It'll take me most of the remainder of this chapter to explain the entries in the above table, which I'll start to do, now, beginning with the first three entries:

1	Systems with a sensible overall objective:	Any well designed system!
1a	A single prime objective for the system	E.g., hospitals, highways…
1b	Multiple prime objectives for the system	E.g., an individual human

For all systems designed by humans (hospitals, highways, school systems, sewer systems, subway systems, space-exploration systems…), certainly it's hoped that there's an unequivocal and sensible prime goal. The prime goal is defined (as I've written before) as the one goal for which all other (then, lower-priority) system goals (or subgoals) would be sacrificed. Sometimes, however, such as for an "individual human system" (which is a particularly amazing "human-made" system, in that the system is capable of thinking for itself!), there are multiple "prime goals", and the system has the capability to shift among these goals as conditions warrant. For example, which of an individual's trio of survival goals (survival of one's self, one's extended family, and one's values) that an individual chooses as the prime goal – at a particular time – depends on existing circumstances.

1c	Mutually supporting subobjectives	E.g., any well functioning system

For all complicated systems, of course there are many lower-priority or subsidiary goals (or subobjectives). For well functioning systems, these subobjectives are mutually supporting and support the system's prime goal, just as all components of a person's healthy body support the person's survival. Maybe the best other example is the majority of universities in western countries: their prime goal is the expansion of knowledge (in breadth, *via* faculty research, and in depth, *via* student instruction), and though experience exposed me to a huge number of subgoals at the three universities where I earned degrees and the five universities where I taught, yet looking back on all those experiences, I'm in awe of the magnificent way that the prime goal of those universities was pursued. How I hope, Dear, that your university experiences will be as positive as were mine: in my view and in general, universities are the best systems that western societies have created. In contrast, and most unfortunately, our society has created many systems with an unequivocal and sensible prime goal but whose subsidiary goals conflict, leading to poorly operating systems, i.e.,

1d	Conflicting subobjectives	E.g., any poorly operating system

A sad example is most of our public school systems. Although (as I'll argue in later chapters) their prime goal should be to teach children evaluative-thinking skills, various "stake holders" in schools pursue a huge variety of subsidiary goals that in many cases conflict with one another and that compromise the prime goal: some teachers primarily seeking to stay employed, students pursuing many nonacademic goals (sports, dates, gaining peer recognition, "goofing off"…), parents seeking other goals (not just that their children will learn but also that they'll be safe, stay off the streets, stay away from drugs…), plus a variety of goals of taxpayers, politicians, and "religious fundamentalists" (e.g., the goal of indoctrinating children in crazy ideas of "creationism" or "intelligent design", in turn in pursuit of the fundamentalists' goal of getting into their imagined heaven).

But I'll leave suggestions about how school systems might be improved until later chapters and, now, move on to the next category of systems identified in my colorful table, i.e.,

2	Systems with a questionable overall goal:	Most systems run by humans!

Humans have unfortunately created a huge number of such systems, which here I'll distinguish by criticizing their goals, for example,

2a	Systems with a self-defeating overall goal	E.g., most governmental systems!

In some such cases, the prime goal is (or should be!) self defeating – which I find to be the case for most systems created by most governments.

And yes, Dear, I agree that I should try to defend the previous sentence's indictment, but believe it or not, I don't want this to become a diatribe. Consequently, let me just ask you to try to answer, by yourself, some questions about various taxation, social welfare, and medical systems implemented by various governments.

- If the goal of taxation is to provide maximum revenue for a government at minimum cost to a nation's economy, then why tax profits of successful corporations while letting failing corporations be tax-free?

- If the goal of socialized medicine is to provide the best possible health care to everyone at the lowest possible cost, then in such a system, how would health care improve and costs be minimized if the people don't need to pay the costs out of their own pockets and if there are no financial incentives for companies to develop new medications and procedures?

- If the goal of welfare programs is to get people off welfare and out working, then isn't the goal either self-defeating or not being achieved? And if the rejoinder is that the goal of welfare systems is "to help the needy", then I'd ask:

  Help them with (or to do) what? Are we to feed, clothe, and house unwed mothers, so they can have more children – whom we'll need to feed, clothe, and house? I'm willing to feed, clothe, house, and educate young children – but only in reputable boarding schools, away from their irresponsible mothers!

But since I can obviously build up quite a head of steam thinking about such systems, let me open a bypass valve by moving on to the next case:

2b Systems with a fake overall goal E.g., all political parties & religions

There are a huge number of examples of systems with fake or bogus overall goals, not just essentially all systems designed by politicians and clerics but also: highway systems whose prime goal is actually to "line the pockets" of some contractor and/or politician with public funds; legal systems whose prime goal is to profit some insider group; companies (including hospitals) whose prime goal is to bilk the public; "religious universities" (another oxymoron) whose prime goal is to promote, not scientific knowledge, but religious ignorance; all political parties (which put out seemingly endless pronouncement of their goals – save for announcing the truth that their prime goal is to grab the reins of power); all organized religions (which similarly never seem to tire of describing their lofty goals – never admitting that their obvious prime goal is to perpetuate their con games); and so on. And with the steam obviously rising again, I'll quickly move on to

2c Systems with a dumb overall goal E.g., all organized religions

– although the pressure could easily burst the pipes if I were to belabor this case of systems with a dumb prime goal.

And yes, Dear, of course I admit that it's not "politically correct" to say that the prime goal of all religions is dumb, but on the one hand, I've no particular desire to be "politically correct". And on the other hand, I'd ask you: What better word than 'dumb' is available to describe any organization dedicated to idiotic "beliefs" such as 1+1 = 3, or that some god or gods made the universe, or that the chief god killed off all the other gods (defined to be beings that can't be killed!), or that the chief god has such a warped sense of justice that his killing of his innocent son would "atone" for the sins of the guilty (i.e., those who refused to continue to be ignorant), or that some fictitious beings called angels drop down to Earth to communicate with humans, or that you're headed to a fictitious place called Hell if you don't believe that some schizophrenic or other deranged person was in communication with some magic man in the sky, or that some group of people is "God's chosen race", or that some other group of people carries "the curse of Cain", or that those who don't believe such nonsense should be killed, or that…?!

Actually, though, and all claims to the contrary notwithstanding, the prime goal of all organized religions is, not the promotion of various ludicrous dogma, but simply the survival of the organization, the continuation of the con game, no matter the cost (in some "doctrinal truth", in lies and corruption, in human suffering and death, or anything else). For example, solely to survive, leaders of the "one true religion" (the Mormon Church) abandoned previously claimed "truths" about polygamy and about "the curse of Cain" on negroes (two doctrines that caused a huge number of people enormous pain) – and I think it'll be interesting to see if the Mormon Church can yet survive as the "true" religion if it acknowledges as "false" its silly central tenet that America was first populated by the lost tribes of Israel. Another case that provides even more egregious examples is the Catholic Church: not only innumberable past instances of torturing and murdering people for not "believing" in their dogma, but similar continues today. Thus, because the Vatican still maintains that the Pope is infallible and has concluded that the Church will not survive if the central dogma of "Papal Infallibility" is abandoned, the Vatican therefore continues to defend its stupidity – regardless of the suffering and death of uncountable millions of women because of the Pope's idiotic pronouncements about birth control. Similar idiocy is of course rampant in Islam, where even today a Muslim will be sentenced to death for advocating the assessment given in the Quran that Muhammad was a "mad poet"!

Actually, organized religions provide examples of all the above "purple" systems: it's not that they don't have a prime objective (namely, the prosperity of their religion), but their stated prime goal (to serve their god) is a fake, their real prime goal is dumb (at least in so far as it's stupid to promote ignorance), and surely in-the-long run their prime goal is self-defeating. That is, surely any organization committed to maintaining ignorance will eventually collapse. Yet, the sadness of it all is that the time constants for such idiocies to destroy themselves have been found to be so very long. And though I leave this case with sadness, wondering how much longer will humans choose to engage in such nonsense, I find some comfort in the thought that, meanwhile, the universe goes on – leading me, also, to move on to

2d	Systems with an unknown overall goal	E.g., the universe?

In earlier chapters I suggested, however, that perhaps the universe does have a prime goal: as I'll show you more in **Z**, perhaps the universe is "trying" (*via* what we incorrectly call the gravitational "force") to return itself to a state of total nothingness from which it emerged. But as far as I know, all other scientists have concluded that evidence supports the hypothesis that the universe has no goal (and of course that there are no gods) – which then leads me to my third type of systems:

3	Systems with no overall goal:	Most natural systems

You might think, Dear, that if a system doesn't have an overall objective, then it shouldn't be called a "system". But if you'll check your dictionary, 'system' has many different meanings. For example, of the 15 meanings for the word 'system' that pop up almost automatically in the dictionary that comes with this word processor (**Word**), the first is: "a combination of related elements organized into a complex whole." Consequently, if a "combination of related elements" is organized in some manner other than *via* its pursuit of an overall goal, then it's still called a 'system'. For example, it's consistent with the definition of 'system' to identify "the system known as humanity" (even if we don't have an overall goal), because certainly we're organized – at least in so far as the vast majority of us still live on this one big ball called Earth! Thereby, if nothing else, the organizing principle for humanity is the Earth's gravitational field – which could mean that we're organized by a force trying to obliterate us!

And actually, Dear, it's not uncommon that the principle "organization principle" for many human subgroups is animosity from other groups, trying to obliterate them. Examples include early "infidels" (e.g., the followers of Socrates and Jesus), the first Quakers, Mormons, and others, and also, the first Humanists. That is, it's sad but data support the concept that people and groups are defined not only by what they hate but frequently by those who hate them. In this regard, special mention should be made of the poor Jewish people, whose principal "organizing principle" during the past ~2,500 years has been, arguably, not their devotion to a single god and their commitment to laws attributed to Moses, but hate by others (possibly including the ancient Egyptians and certainly including the ancient Mid-Easterners and Romans, almost all groups of Christians, the Nazis, etc.).[1]

In particular, it can be argued that if "loving Christians" hadn't shown Jews so much hate, then the Jews probably would have just merged with the rest of humanity at least 1,000 years ago. Yet, I'd argue (somewhat facetiously, even though one should be serious when contemplating the horrors that have befallen the poor Jewish people) that the root cause of anti-Judaism is the stupidity of the Jews: if they had been smarter, they'd never have permitted their Bible to be used by Christians, Muslims, and Mormons! Can you imagine any other group of people permitting (let alone promoting) such atrocious propaganda against themselves? It's a wonder that some Jewish lawyers don't take the case to the World Court demanding that all "hate literature" against them be confiscated, i.e., that all Bibles be burned!

But be that as it might be, Dear, you can thereby see a different way to classify systems (which I'll use in a later chapter): rather than proceed as I have been doing with my table (classifying systems by looking at their goals), you could classify systems by looking at their "organizing principles". The organization principle of most human-designed systems is derived from their goals, but for most natural systems that don't have an overall goal (such as the system called 'humanity'), it probably would be better to classify them (or use a subclassification) according to the system's organizing principle. Soon, I'll provide more examples, but first, let me mention something I find rather amusing.

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[1] As I've mentioned before, this animosity is commonly called "anti-Semitism", but actually, it's "anti-Judaism": most Mid-Easterners (including all current Arabs, most of whom seem to hate the Jews) are also Semites – and many Jews aren't Semites

As I already wrote: "For all systems designed by humans (hospitals, highways, school systems, sewer systems, subway systems…), certainly it's hoped that there's an unequivocal and sensible prime goal. The prime goal is defined… as the one goal for which all other (then, lower-priority) system goals (or subgoals) would be sacrificed." Thereby, Dear, also you might be amused to see the low likelihood of the existence of any god – or if there is one, he must have flunked his course in systems engineering! That is, although evolution has assigned individual humans their prime goals (survival of themselves, their extended families, and their values) and although most if not all religious people will say that their prime value is to serve their gods, yet, I think even religious people would agree that the system known as humanity has no known prime goal. So then, the obvious (innocent) inquiry is: what kind of an incompetent god would design a system without a prime goal?!

Anyway, Dear, as another example of a system without an overall, prime goal (besides humanity), consider any "ecosystem" (by which I mean all life within a somewhat isolated area). Of course I agree that some ecosystems (such as a flowering desert) can seem very satisfying (with every component seemingly working in harmony to please the human visitor!), yet in reality, an ecosystem is a collection of ferocious elements striving to their utmost to kill their competitors! Thereby, when a bird sings or a flower blooms in the desert, it means that they were winners in their "fight to the death". Thus, although an ecosystem has no overall objective; nonetheless, it's "organized" not only in the sense of being in a given location but also according to the Darwinian principle of "survival of the fittest [genome]." Notice, however, that this survival goal is the objective of individual members of the system and not an overall objective of the system.

Nonetheless, although it might be better to distinguish systems according to their organization principles, I'll continue with my classification according to goals – but not on the goal of the overall system (in systems for which there is no overall goal!) but on subsystem goals and on some of the interactions within the system caused by the pursuit of these subsystem goals. I'll start with what may be the simplest case, namely:

3a Systems defined by near-neighbor rules E.g., "emerging systems"

Natural systems without an overall goal seem to be the rule rather than the exception. Examples include ant colonies, beehives, trees, any ecosystem,

the human body, the solar system, galaxies… Thus, as far as is known (as you can learn from reports on the internet), ant colonies or beehives aren't organized with some "king ant" or "queen bee" defining the entire system's objective and then barking out orders, instructing what all other members are to do. Instead, recent research suggests that ant hills, beehives, and similar, just evolve, defined only be near-neighbor interactions: if one ant loosens a pebble, a nearby ant will move the pebble away, another will seek out food, another will return the food to the nest, and so on – and amazingly, any ant has the capability of doing any one of the jobs, and none seems to "know" that what they're doing is building an ant hill! It's a self organizing system, defined by near-neighbor interactions – plus whatever external constraints on the system that it must accommodate.

Similarly, the living cells in our bodies don't have an overall objective: they don't "know" that their purpose is to create and support the functioning of an overall living body. Courtesy DNA "software", each cell has a set of rules that it's to follow, it interacts accordingly with its neighbors – and 'lo and behold, you appeared! Similar occurs for the huge number of interactions among all members in any terrestrial ecosystem (bacteria, worms, ants, bees, birds, grasses, trees, large animals…) and similarly in aquatic ecosystems, with everything feeding on everything else – including the bacteria that feed on dead whales! No member of the system "knows" the system's "overall objective" – there isn't one! Instead, each member just "does its thing" according to some "near-neighbor rules" programmed in its genes – and the system just keeps "putting along". Such "complex emerging systems" (including all ecosystems, humans, human communities, most economic systems, the solar system…) evolve (or "emerge") just from "goals" of individual members or "near-neighbor interactions".

Now, Dear, to explain the previous sentence in detail would require another book, which I have neither the desire nor the competence to write. Instead, I'll just list a few ideas that you might want to pursue on your own.

- If you want to see some mathematical analyses of complex emerging systems, then have a look at the huge 2002 book by Stephen Wolfram entitled *A New Kind of Science*. I wouldn't suggest that you try to read more than the first few chapters of this book (in part because the essence is in the first few chapters, in part because the author inadequately references the accomplishments of other researchers, and in part because I expect that you, too, will find the author's arrogance unbearable), but from the first few chapters, you can see how "order" can evolve in complex systems simply from application of a few, relatively trivial near-neighbor rules.

- If you want to see some examples in nature, look into (for example) ecological studies of ant colonies or beehives.

- If you find the field of "emerging systems" sufficiently interesting, then you may want to invest substantial effort in understanding the field. To start, just search for "emerging systems" on the internet; at Google, you'll get ~100,000 hits!

Who knows, you may find the field sufficiently interesting that you want to seek your Ph.D. in this burgeoning new field, but, Dear, I don't recommend that you try. I jumped on "the emerging-systems bandwagon" soon after it got underway (in the early 1970s), and at least paid attention to it throughout my scientific career. And my summary of it all is: "Too much hype, too much speculation, too little science!"

Now, it's difficult for me to show the reasons for my summary statement to someone so young – and I won't add "I'll tell you when you're older", not only because I already learned my lesson from that one (☹) but also because I don't plan to be around much longer! Let me just say that, if you study emerging systems sufficiently, you'd see that all its hype hinges on speculations about details of the interactions (or "communications") between elements of the systems. And until these interactions are investigated by the scientific method, then all the rest is "mere speculation". It's true that some great "tools" have been developed (courtesy inexpensive computational power) to investigate how complex systems emerge once the interactions are specified, and it will be great to have the various "toolboxes" available when the interactions are known, but until they are, theories of emerging systems are little more than computer games – with pretty pictures!

Recently, I ran across an even more devastating criticism of "emergence" or "emergent phenomena", which perhaps you'd like to read:[2]

> In decrying the emergence fad, I decry the use of 'emergence' *as an explanation in itself*. It's okay to have a completed model to which an emergence enthusiast could attach 'emergent' as an adjective. One might legitimately have some *specific* model of how the behavior of an ant colony *emerges from* the behavior of the ants. A hypothesis like that can be formal and/or technical. The model of the ant colony has internal moving parts and produces specific predictions; it's just that the model happens to fit the verbal term 'emergent' – the behavior which emerges from modeling many interacting elements is different from the behavior of those elements

[2] Taken from an article on the internet entitled "A Technical Explanation of Technical Explanation" [No, Dear, that's not a typo!] by Eliezer Yudkowsky at http://yudkowsky.net/bayes/technical.html.

considered in isolation. I do not consider it stupid to say that Phenomenon X *emerges from* Y, where Y is some specific model. The phrase "emerges from" is okay, if the phrase precedes some specific model to be judged on its own merits.

However, this is *not* the way 'emergence' is commonly used. 'Emergence' is commonly used as an explanation in its own right. I have lost track of how many times I have heard people say, "Intelligence is an emergent phenomenon!" as if that explained intelligence. This usage fits all the checklist items for a mysterious answer to a mysterious question. What do you know, after you have said that intelligence is 'emergent'? You can make no new predictions. You do not know anything about the behavior of real-world minds that you did not know before. It feels like you believe a new fact, but you don't anticipate any different outcomes. Your curiosity feels sated, but it has not been fed. The hypothesis has no moving parts – there's no detailed internal model to manipulate. Those who proffer the hypothesis of 'emergence' confess their ignorance of the internals, and take pride in it; they contrast the science of 'emergence' to other sciences merely mundane. And even after the answer of "Why? Emergence!" is given, the phenomenon is still a mystery and possesses the same sacred impenetrability it had at the start.

To say that intelligence is an "emergent phenomenon" fits every possible behavior that intelligence could show, and therefore explains nothing. The model has no moving parts and does not concentrate its probability mass into specific outcomes. It is a disguised hypothesis of zero knowledge.

To see why I object to the academic fad in 'emergence', even though I have admitted the legitimacy of the phrase "emerges from", consider that "arises from" is also a legitimate phrase. Gravity arises from the curvature of spacetime (according to a certain specific mathematical model, Einstein's General Relativity). Chemistry arises from interactions between atoms (according to the specific model of quantum electrodynamics). Now suppose I should say that gravity is explained by 'arisence' or that chemistry is an "arising phenomenon", and claim that as my explanation.

A fun exercise is to eliminate the adjective 'emergent' from any sentence in which it appears, and see if the sentence says anything different.

Before: Human intelligence is an emergent product of neurons firing.
After: Human intelligence is a product of neurons firing.

Before: The behavior of the ant colony is the emergent outcome of the interactions of many individual ants.
After: The behavior of the ant colony is the outcome of the interactions of many individual ants.

Even better: A colony is made of ants. We can successfully predict some aspects of colony behavior using models that include only individual ants, without any global

colony variables, showing that we understand how those colony behaviors arise from ant behaviors.

Another good exercise is to replace the word 'emergent' with the old word, the explanation that people had to use before emergence was invented.

Before: Life is an emergent phenomenon.
After: Life is a magical phenomenon.

Before: Human intelligence is an emergent product of neurons firing.
After: Human intelligence is a magical product of neurons firing.

Does not each statement convey exactly the same amount of knowledge about the phenomenon's behavior? Does not each hypothesis fit exactly the same set of outcomes?

Magic is unpopular nowadays, unfashionable, not something you could safely postulate in a peer-reviewed journal. Why? Once upon a time, a few exceptionally wise scientists noticed that explanations which invoked 'magic' just didn't work as a way of understanding the world. By dint of strenuous evangelism, these wise scientists managed to make magical explanations unfashionable within a small academic community. But humans are still humans, and they have the same emotional needs and intellectual vulnerabilities. So, later academics invented a new word, 'emergence', that carried exactly the same information content as 'magic', but had not yet become unfashionable. "Emergence" became very popular, just as saying "magic" used to be very popular. "Emergence" has the same deep appeal to human psychology, for the same reason. "Emergence" is such a wonderfully easy explanation, and it feels good to say it; it gives you a sacred mystery to worship. Emergence is a popular fad *because* it is the junk food of curiosity. You can explain anything using emergence, and so people do just that; for it feels so wonderful to explain things. Humans are still humans, even if they've taken a few science classes in college. Once they find a way to escape the shackles of settled science, they get up to the same shenanigans as their ancestors, dressed in different clothes but still the same species psychology.

Anyway, Dear, moving on, consider the next row in my table:

3b	Subsystem goals usually nonconflicting	E.g., humans in isolated groups

Early groups of humans undoubtedly behaved similar to any emerging system governed solely by near-neighbor interactions. As with all animals, each member of the group had perfectly clear knowledge of its own objective (and still does): it's dual survival goals – party and procreate!

Consistently, early humans joined into groups (of "extended families", such as the Israelite tribes) entirely for self-interest, seeking survival and more opportunities to procreate. Thereby, "subsystem goals" (i.e., the goals of individuals) were usually nonconflicting – even supportive – providing "fitness" for the survival of the group.

Within groups of primitive humans, specializations led to economics being a primary organizing principle – and it persists today throughout the world! Thus, as soon as some primitive human demonstrated special competence in some occupation (fishing, hunting, gathering, making implements for fishing, hunting, and gathering, knowledge of roots and herbs, healing, cooking, making foot covering and clothing, building shelters, etc.), some economic near-neighbor rules were adopted that further organized the system, e.g., if you make spears for me, I'll do the hunting and give you a portion of my kill. Undoubtedly, the fundamental "economic organizing principle" derived from specialization was between a man and a woman (leading to the institution of marriage!), which provided the additional advantage of sex for the male and surely some advantage for the female – food, housing, protection, sex, or whatever it is that women want!

Anyway, consistent with the self-serving dual survival goals of individuals, sets of "group values" evolved, such as don't kill other members of your group (try to get along), don't be greedy (share), don't lie (at least, not when it's solely for your own benefit), and so on – leading to an obvious list that "modern" ignorant and/or con-artist clerics still claim were dictated to them by their gods, but in reality, are derived solely from the principle derived from experience "what goes around comes around." That is, groups of early humans (and dolphins, monkeys elephants, etc.) that practiced reciprocal altruism and punished cheaters thereby had a better chance for survival (better "fitness"), and in time, such procedures became instinctive (i.e., if we violate such rules, our "conscience" gets on our case!) and became ritualized (leading to the rituals in all religions).

As a result, ever since before written records became available and continuing today, religions have been used to organize and unify their subgroups. Most religious subgroups are organized under some variation of the common theme that every member's prime goal is to serve the subgroup's god (or gods), with details dictated by the subgroup's clerics. Setting aside for a while the silliness of pursuing a prime goal for which no data support any other conclusion than that such a goal is totally arbitrary

(the people might just as well pursue a goal of jumping over the moon, if pursuing such a goal would make the people happy!), I'll just mention that pursuing the goal dictated by the clerics can result in a tightly unified subgroup – especially if people outside the subgroup ridicule the goal, because then, the subgroup taps its members' "herd instinct" to defend itself against "the infidels". Such is the strength of many groups, from Mormons to Muslims and from Orthodox Jews to Catholics.

In practice, members of an organized religion pursue their subgroup's prime goal by following a set of rules, regulations, and rituals dictated by their clerics. An example with which you're unfortunately familiar is the Doctrine and Covenants of the Mormon Church; similar are in every religion; basically they're a set of laws prescribed by clerical leaders. The leaders of all religious subgroups of course claim that their laws were dictated to them by their gods. This is the "law lie" that I mentioned before (in **M1**) and will describe in more detail in the "excursion" **Yx**. There, I'll at least outline its very long history, showing that it started before Hammurabi and Moses, continued after Muhammad and Joseph Smith, and includes a series of atrocities perpetuated by a continuous sequence of lying popes.

Records also show that, within every subgroup of humans that clerics have tried to organize, some "conspirators" (or "traitors" or "infidels" or "unbelievers" or "heathens" or "atheists") saw through the clerics' ruse, realizing that the clerics were lying about the origin of their laws. In response, the clerical leaders resorted to "might makes right". Thus,

- Hammurabi's Law #109 (which he claimed was dictated to him by his god) prescribed the death penalty even for the owner of the tavern where conspirators met.

- Greek clerics had Socrates put to death for "not believing in the gods in which the state believes…" – similar to the reason (some evidence suggests, as I'll show you in **Yx**) that Jesus (ben Pandera?) was put to death by Jewish clerics.

- We're told in the Old Testament (at *Exodus 32,* 27) that Moses instructed his storm troopers (the Levites): "Arm yourselves, each of you, with his sword. Go through the camp from gate to gate and back again. Each of you kill his brother, his friend, his neighbor…" for disobeying the laws that Moses allegedly claimed were given to him by his god – including the law: "Thou shalt not kill"! (Clerics don't need to be logical, just forceful!)

- In the New Testament (at *Mark 16,* 16) the clerical authors have their Jesus state: "Go forth to every part of the world, and proclaim the Good News to the whole

creation: those who believe it and receive baptism will find salvation [and a con-artist with his hand open – whoops, that sort-of just slipped in there]; those who do not believe will be condemned [to figure things out for themselves]."

- In the Quran (at *4.*101), Muhammad informed his followers "surely the unbelievers are your open enemy ['cause, doncha know, we'll never make money from those who think for themselves – whoops, this keyboard seems to want to type by itself]."

- In the Book of Mormon (at *3 Nephi 16,* 15), the author (almost certainly Sidney Rigdon) wrote: "But if they will not turn unto me [Christ aka Joseph Smith aka Sidney Rigdon], and hearken unto my voice, I will suffer them, yea, I will suffer my people… that they shall go through among them, and shall tread them down, and they shall be as salt hath lost its savor, which is thenceforth good for nothing but to be cast out, and to be trodden under foot… [although, in truth, if salt loses its savor, then chemically it's no longer salt – but do go ahead and cast it out, to be trodden under foot, cause doncha know, it's great for melting ice!]"

But such silliness (and associated horrors) aside, religions thereby purge their groups of "undesirables" (such as, at various times, Socrates, Jesus, Luther, Spinoza, Sidney Rigdon, etc.), leading to a group more tightly controlled by ruling clerics. Nonetheless, the religious group is ultimately weakened by their leaders' failure to accommodate dissent, because commonly the followers of the dissenters form into competing subgroups.

As a result, as different subgroups (of "extended families" or "tribes" or religious groups) interact, then when viewed as a larger "human system", the following case usually evolves:

3c	Subsystem goals generally conflicting	E.g., competing subgroups

This case of subsystem goals generally conflicting has dominated the world during at least the past 5,000 years, i.e., at least from the time that the Sumerians conquered the original groups living in Mesopotamia up to and including current conflicts throughout the world, e.g., in Mesopotamia today! Conflicting goals of subgroups commonly has led to war: subgroups (including individuals) can go after what they want by creating it or (if someone else already owns it) by working for it, bargaining for it, or (if the owner refuses to relinquish control of it) by stealing it, or taking it by force (e.g., *via* war). Thereby, by initiating war (which is a step that sometimes is difficult to identify!), subgroups resort to the law of the jungle.

In many cases, wars have arisen from real or perceived threats to some subgroup's survival, either directly (through attacks) or indirectly (through threats of attack or by usurpation of land or other resource). In most wars, economics and associated "power politics" were of dominant importance, but leaders commonly camouflage such causes under blankets of propaganda (dealing with patriotism, values, religion, racism, and whatever else they think will "move the masses"). And whereas any clerical con game is dependent of the economic viability of their "marks", throughout history, the clerics of all societies have been strong supporters of their societies' efforts to win their wars – to maintain their own economic vitality.

Normally, however, clerics camouflage links between their religion and economics. To discern these linkages, it's commonly necessary to dig beneath the surface. Let me list a few cases where, someday, you might want to dig deeper (and for some of which I provided some details in the "excursion" **Yx**).

- I doubt very much that Moses (or Ezra) would have been able to organize the Israelites into a fighting force if he hadn't offered them "an economic incentive" (promising to lead them to "a land of milk and honey").

- It appears that the "religion" proposed by Jesus (ben Pandera?) never "caught on" until the clerics got involved, preaching a new economic message of "peace and prosperity for eternity".[3]

- I bet that the "reformation" stimulated by Luther's complaints of economic excesses by the Pope would never have led to the "protestant revolution" if the German princes

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[3] Dear: In case you find that comment confusing, maybe I should add a little explanation here. I'll show you more in **Yx**. Thus, the New Testament informs the reader that, after Jesus had pulled off all his alleged miracles, he had managed to "convert" only a very few people: "about one hundred and twenty in all" (*Acts 1,* 16). If it's assumed (as do I) that the *Gospel of Thomas* (found in 1945 in the Egyptian desert near Nag Hammadi) provides a better indication of what Jesus actually said (better than what the clerics wrote in the New Testament), then possibly the failure of Jesus to convince many people can be traced to his apparent disdain for economic principles and incentives: according to the *Gospel of Thomas*, Jesus taught his disciples to disown worldly goods ("If you have money, don't lend it at interest. Rather, give [it] to someone from whom you won't get it back") and that Heaven was available here on Earth ("The Father's kingdom is spread out upon the earth, and people don't see it"). Subsequent "Christian" clerics, however, soon saw how to capitalize on a good con-game, requiring only a "slight modification" of what Jesus taught. Of course the clerics never fully enunciated their scheme, but its essence is: "If you'll give your money to us, not only will we pass it on to the poor for you (charging only a slight commission for services rendered, because, Lord knows, you don't want to get your hands dirty passing out money to the poor!) but in addition, we'll make reservations for you in the Father's kingdom, where you'll be rewarded for your generosity with peace and prosperity for eternity." And I must admit that the Christian clerics deserve some credit: from the fruits of their organizing principle based on economics (plus quite a bit of help from the persuasive power of the sword!), they managed to grow from an original rag-tag group of about 120 people with essentially zero finances to, now, about 1.2 billion people and a multi-trillion dollar empire!

didn't simultaneously promote the economic advantages (for themselves!) of not sending "tributes" to Rome.

- As an otherwise trivial example, Sidney Rigdon's twists on Christianity almost certainly never would have led to a prosperous Mormon Church if Joseph Smith hadn't manipulated the group into becoming an economic unit (by conning members out of their money).

- I suspect that Islamic clerics in most mid-Eastern countries wouldn't still be in control of their societies if members of both the clergy and the society couldn't languish in the "oil wealth" of their countries (or, in some cases, the wealth from trading heroin).

- Currently in this country, Catholic clerics seem to be losing control over their constituents because of a "currency crunch" (donations are decreasing while payouts are increasing, in turn because of revelations about the behavior of sexually deviant priests).

In summary, even for subgroups that are ostensibly organized under some governing principle unrelated to economics, some economic principle can usually be found to be critically important – if not dominating.

In contrast, most large subgroups of humans (commonly called 'societies' or 'nations') are no longer organized under religious principles. Yet, 1) there have been many such cases throughout history (including the recently removed Taliban government of Afghanistan), 2) there continue to be a few unfortunate cases in today's world (such as, as I write this, the clerical rulers of Iran, which is miscalled a "theocracy", because all claims to the contrary, there is no evidence that a "theo", i.e., a god, rules Iran), and 3) there are lunatics even in this country who seek to transform our government so that we'll become a "Christian theocracy" (as I'll show you in a later **X**-chapter). Thus, this case of "subsystem goals generally conflicting" has been hugely complicated by the next case in my table, namely

3d	A subsystem's goal usurping the system	E.g., theocracies, monarchies…

Any complex system can be viewed not only as "a combination of related elements organized into a complex whole" but also as a process by which an input is transformed into an output. As an example, a human body (viewed as a system) can transform "inputs" of air, water, and food into "outputs' of wastes, actions, and (amazingly) into ideas!

In addition, most complex systems contain many "feedback loops": in each, some of the output is fed back to the system as input. If such feedback tends to stabilize the system, it's called "negative feedback". For example, if you eat too much, then you'll get "negative feedback" in the form of a stomach ache, "advising" you to eat less – and if you eat too little, then you'll get "negative feedback" in the form of another stomach ache (or headache), "telling" you to eat more. On the other hand, if the feedback tends to destabilize the system, it's called "positive feedback". For example, many illegal drugs are addictive – that is, using them causes one's body to "demand" even more.

For human systems, positive feedbacks can cause a subgroup to dominate the system. For example, if *via* a series of positive feedbacks a subgroup can gain control of some essential quantity for the entire system (such as the group's food or water, or weapons, or "reins of power", or ideas), then the corresponding subgroup (of "business leaders" or "militarists" or "politicians" or "priests", respectively) can gain power over the system, respectively leading to monopolies, dictatorships, autocracies, or theocracies.

In such cases, some subgroup can force its prime goal to become the entire system's goal. A huge number of examples could be given, from the pharaohs of ancient Egypt (who managed to convince the people that their prime goal was to build pyramids) to every dictatorship (in the past and still today). In contrast, the founders of this country (especially Thomas Jefferson, James Madison, and Alexander Hamilton) designed a political system in which militarists, autocrats, and theocrats would have great difficulty in gaining control over the entire system – primarily through civilian leadership of the military, a free press, and "the wall between church and state." This country's founders, however, didn't do enough to constrain monopolies, but subsequently a variety of "anti-trust laws" were promulgated to dampen destabilizing positive feedbacks.

But the dangers of such positive feedbacks continue in this country and throughout the world. In his speech accepting the 2001 Nobel Peace Prize, Kofi Anan (the Secretary General of the UN) stated:

> The obstacles to democracy have little to do with culture or religion, and much more to do with the desire of those in power to maintain their position at any cost.

In his 1961 "Farewell Address" to this nation, President Eisenhower warned:

> In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.[4]

In his speech, Eisenhower also warned of a "scientific-technological elite", in turn dominated by "the power of [Federal] money", but this danger hasn't materialized: perhaps he didn't realize how difficult it is to get a group of scientists and technocrats to agree on anything, let alone a conspiracy to gain power over the people. Herding cats (or atheists!) would be easier.

Currently the most threatening positive feedbacks in this country continue to be the military-industrial-congressional complex and President George W. Bush's attempt to weaken the separation of church and state, his reliance on military "solutions" to international problems, and his administration's threats to the freedom of the press. But setting aside further comments on the horrors of such positive feedbacks until a later chapter, let me move on to the final three entries in my table, starting with

3e	Subsystem goals generally cooperating	E.g., within most democracies

Within most modern democracies, certainly there are many contentious issues – from abortion to xenophobia. [Well, it's pronounced as if the 'x' in 'xenophobia' was a 'z'!] In the subsequent **X**-chapters, I'll examine possible resolutions of some such contentious issues in our country. But if such problems are ignored for now, then support can be found for the suggestion that, in most democratic countries, subgroups with a huge number of different goals are amazingly cooperative. For example, Humanists usually do little more than smile at the silliness of people who pursue their ridiculous religions (provided that they don't try to get our children and grandchildren hooked on their drugs!), and now that they can no longer murder us with impunity, theists usually do little more than show their disgust for those of us who just say "No" to their verbally generated

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[4] As reported by William D. Hartung in *The World Policy Journal* (Vol. XVIII, No. 1, Spring 2001), in an article entitled "Eisenhower's Warning: The Military-Industrial Complex Forty Years Later", in turn quoting Lars Erik-Nelson, *Military-Industrial Man,* New York Review of Books, December 21, 2000: "In the penultimate [i.e., next to last] draft of his final address, President Eisenhower warned of the 'growing influence of the military-industrial-**congressional** complex' but decided to strike the word 'congressional' because he thought it was 'not fitting... for a President to criticize Congress'." What a pity Eisenhower made such a decision: probably the worst of the bad actors in this trio of power mongers is Congress, with most members of Congress up to their elbows in political pork, seeking to maintain their power.

hallucinations. [How's that for biased writing?!] More generally, different groups competitively pursue their educational, economic, entertainment, and other objectives with substantial cooperation, guided by agreed-upon "rules of conduct" (e.g., minimize biased writing!) and ruled by a huge collection of laws. Leading me to the next entry in my table:

3f	Subobjectives mutually supporting:	Some hopeful signs

Although many people throughout the world are still held in the grips of various power mongers, although huge numbers of people are still living in poverty and desperation, although humanity has recently suffered some serious setbacks (e.g., from Muslim terrorists, from unconstrained capitalism and consumerism, and from resulting environmental degradation), and although the plague of organized religion still infects a large fraction of humanity (especially in the U.S., in Islamic nations, and in most other backward countries), yet peering through the fog of problems in every society, through the clouds of poverty and desperation throughout the world, and through the dust and smoke of war, optimists discern candles of hope flickering in winds of contention, illuminating the possibility of subgroups (such as nations) pursuing mutually supporting goals. I'm sure you could list many examples yourself, but to possibly stimulate your thoughts, I'll list the following.

- In spite of the many weaknesses of the United Nations (UN), surely history will judge its creation to be one of humanity's greatest political achievements of the 20th Century. If its remaining (major!) inadequacies can be removed (and in a later **X**-chapter, I'll offer some suggestions for how that might be done), then the result may be humanity's greatest political achievement of the 21st Century.

- Of the UN's many achievements, surely one of its greatest is its formulation and adoption of the UN's Universal Declaration of Human Rights. I'll comment on this Declaration in a later **X**-chapter (and include comments on some of its inadequacies), but for now, I'll summarize just by saying that I wish ~6 billion copies of this Declaration would be printed and that every human would use it with authority whenever his or her rights were threatened or violated – assuming that humanity first has the decency to insure that all ~6 billion people in the world will be able to read!

- Working consistently with the UN's Declaration of Human Rights, many subgroups (generally designated as nongovernmental organizations or NGOs), with worldwide membership, have been formed to help humanity. Wonderful examples include Amnesty International, CARE, Committee of Concerned Scientists, Doctors Without Borders (Médecins Sans Frontières), Earthwatch Institute, Environmental Defense Fund, the Red Cross, Save the Children Foundation, and literally thousands of others.

Given such wonderful contributions made by so many people (of course including the people who contribute financially to the NGOs, permitting them to function), it makes me think that at least some humans may yet deserve the title *homo sapiens,* i.e., the wise ones!

But I might be confusing you. You might wonder how I managed to drift from the topic of "subgroup objectives" to "human rights" (which, of course, are a set of values). Knowing you (at least somewhat), you might even complain (that much I know!): "Even my useless old grandfather used to say: 'Values have meaning only relative to some objective'."

And yes, Dear, I'd agree with such criticism. Values have meaning only relative to some objective, and therefore, the pursuit of various rights for all humans assumes the pursuit of some objective against which such values are measured. Yet, notice that at least some humans have thereby made some wonderful progress: those who work so hard to try to assure basic rights of all humans are not only measuring their values against their dual survival goals (of themselves and their extended families) but also have made the wonderful advance to recognize all humans as members of their "extended family". As an illustration "closer to home", I know you'd do what you could to protect the rights of your sisters; most people would do similar to protect members of their immediate family. The step forward occurs when members of a tribe, state, or nation consider all members to be a part of their "extended family". Thus, what's now occurring is that many people in many parts of the world recognize all of us as members of the same "human family" – and then, they're taking steps to protect the rights of any and all family members, anywhere and everywhere.

Even many religious groups have stepped in to help protect human rights. Those religious groups that rely on the Old Testament (Jews, Christians, Muslims, and Mormons) can "justify" their efforts by referring to the statement by the "prophet" (or poet) Micah: "He hath shown thee, O man, what is good. What doth the Lord require of thee, but to do justly and to love mercy, and to walk humbly with thy God?" But as much as I can welcome contributions even from religious groups, yet usually they (as with the Salvation Army) do more harm than good, contaminating their contributions and polluting their provisions with proselytizing, promoting a worldview developed by savages and maintained by fools and con artists, leading to even more disharmony throughout the world.

Stated differently, although there's substantial hope for humanity (in that so many people already realize that we're all family), it nonetheless appears that the "human system" has not yet identified a prime goal – which amazingly enough leads me to the final entry in my table:

3g	Subobjectives evolving into a prime goal:	Humanity's future?

Immediately, before I try to identify a prime goal that humanity might adopt, I should try to make two points.

One is the observation that, as far as is known, systems don't have objectives, only people (and other life forms) do. But in so far as humans (and other life forms) create systems in pursuit of some objective (or objectives), then to simplify the description, we talk of the "system's objective" (or objectives). Further, if the vast majority of members of any human group agree on some objective, then we again shorten the wording and talk of the "group's goals". Consequently, with the question in the above "green line", I'm wondering if it's in humanity's future that the huge variety of objectives of the vast number of groups of humans might someday evolve into a prime goal recognized and adopted by an overwhelming majority of humans.

My second initial point addresses a more important question, namely: would it be desirable if humanity adopted a prime goal? To address that question requires more consideration, which I'll relay in subsequent paragraphs. But because I'm worried that my message may get lost in all my ramblings, let me summarize at the outset: not only do I think it would be desirable if humanity adopted a prime goal, I think that we already have – but because of so much confused thought, because so many errors have been made (camouflaging the prime goal in so much verbal garbage), I'm afraid that few people recognize the prime goal that essentially everyone has always been pursuing, namely, *to solve our problems intelligently*, or stated more explicitly: *to expand and apply knowledge to solve human problems more intelligently.*

To try to explain what I mean, I probably should start with some comments on causes of the confusion. For example, a huge amount of data supports the statement that the majority of people have "concluded" (without thought or with confused thought) that the prime goal of the entire human system is

to "serve god". But not all humans have adopted such a meaningless goal: even in America (which has a large fraction of religious kooks) at least 10% of us are Humanists, and if to those are added larger percentages of Europeans, Russians, Chinese, and Japanese, then we humanists probably sum to at least 20% of all humans (i.e., at least a billion people). Further, the remaining ~80% of all humans (Hindus, Yahwists, Christians, Muslims, etc.) disagree about how to "serve god" (and seem never to tire either of trying to cram their ideas about how to "serve god" down other people's throats – or cut them).

And I admit to the possibility that we Humanists might lose this battle and that all the religious fools and con artists of the world will unite, agreeing on how to "serve god" – but I doubt it. History is on the side of science. I am confident that, eventually, all humans will be Humanists – save for those being helped to cure them of their delusions, to comprehend and contend with reality, to apportion their beliefs consistent with relevant evidence.

Yet, even when all religions are eventually junked in the trashcan of human mistakes and all epileptics and schizophrenics are cured, it doesn't necessarily follow that humanity will be able to discern or agree upon a prime goal for the entire "human system". As far as is known, there's no prime goal for humanity: all life appears to exist as a "fluke" of nature – and the rest of the universe appears singularly unimpressed by our presence! Consequently, if a prime goal for humanity is identified, humans will need to identify it by themselves. As Sartre said for the individual, "existence before essence"; so, too, for humanity as a whole – although most humans have yet to identify (or recognize, let alone define) our essence!

To be sure, humanity doesn't need a prime goal – and I admit to being partial to the idea that we would be better off without one! I maintain a principle that I mentioned in an earlier chapter without much justification and still won't provide adequate justification (except to say that a lifetime of experience supports it – as you'll learn "when you're older"!), namely: if in doubt, let the system go free. Applied to the case of the entire "human system", the principle recommends that humanity adopt no "universal" goal other than the goal that people should be free to choose their own goals – subject, of course, to the obvious restriction that no one's freedom to pursue his or her goals should impinge on someone else's equal right.

But I'd be hard pressed to argue that freedom to adopt one's own goals has been adopted as a prime goal by the majority of humans. In fact, it would be easier to argue that the vast majority of humans have specifically rejected such a goal and, instead, eagerly adopted goals specified by others. For example, the word 'Islam', itself, means 'surrender' (to Allah), and in fact, all "isms" (Judaism, Catholicism, Protestantism, Mormonism, Nazism, Communism…) involve some type of surrender. Thus, whereas so many people have adopted so many "isms" (or "ideologies), it's hard to argue that the prime goal of such people is freedom to choose either one's own prime goal or the prime goal of the group with which one is affiliated.

But as critical as I am of adopting goals prescribed by others, I certainly agree that human groups can make amazing progress toward a prime goal, once it's identified. As examples, consider the pyramids of ancient Egypt, all temples of the ancients, roads of the Persian and Roman Empires, churches of Christianity, mosques of Islam, gas chambers of Nazism, ventures into space by Communists, the military might of little Israel, and even the "beehive industriousness" of the Mormons of Utah. But 5,000 years of historical records (from the ancient Sumerians and Egyptians, through the bloody history of all religions, to 20th Century Communism, Fascism, Nazism, and other crazy "isms") show some of the idiocies that can result when groups of people adopt some "holy cause" as their prime goal. If we can learn from history, the lesson seems to be: avoid system-wide prime goals like the plague!

In spite of the atrocious records of groups adopting idiotic prime goals, I'll move on past my second point (dealing with the desirability of adopting a worldwide goal) by saying that I expect better for the future. For reasons that I'll detail in a later **X**-chapter, I'm optimistic (~70% confident) that humanity's subobjectives will slowly evolve into a sensible prime goal within the next ~10 to 100 generations. I assign the other possibilities roughly as follows: ~10% probability that theistic ignorance will win out (i.e., that essentially all humans will adopt the prime goal of trying to placate some imagined magic man in the sky), ~10% probability that humanity won't adopt a sensible prime goal but something just as dumb as theism (Communism, Nazism, or some-as-yet unidentified "stupidism"), and ~10% probability that my estimate of the speed of evolution to a sensible prime goal is too pessimistic (e.g., a stimulating "butterfly" might destroy religions much more rapidly ☺).

As for what I expect humanity's "sensible prime goal" will be, I'll introduce it by giving you reasons for my suggestion, which follow from trying to understand what humanity has always been doing, i.e., our "essence". And yes, Dear, I'm aware of the dangers of narrow interpretations of history. The classic example is Marx's assessment that [paraphrased] "the history of the world has been the history of class struggle." Closer to reality is that the history of the world has been the history of stupid assessments of the history of the world! Nonetheless, I'll suggest an assessment of "the history of the world" that I think is so defensible that it's essentially a tautology: whereas humans are problem-solving animals (and because humans make mistakes, we're also problem-generating animals!), *the history of the world has been the history of humans trying to solve their problems!*

To try to see what I'm getting at, Dear, please consider the following "whirl-wind tour" of human evolution. All animals have always tried to solve their problems; those that weren't successful are extinct. If you want evidence to support the claim that all animals are problem solvers, Dear, then watch your fish in their tank trying to find their food, watch your cat trying to catch a bird or similar, watch your dog trying to solve his problems (protecting his territory, finding a dry spot to sleep, whatever). Similarly in the case of the first humans – who evolved to stand upright probably because, as they emerged from the forests, they needed to be able to run faster to get to the safety of the nearest tree. And so on it went:

- Although early humans probably wanted to eat meat, probably most four-legged beasts were difficult to kill and others were dangerous; so, humans tried to solve those problems by inventing spears and bows and arrows. Unfortunately, though, there were unintended consequences, namely, better weapons to attack other humans.

- Death of humans was definitely a problem; so, a solution was sought in pretending that there was life after death – a solution that unfortunately led to seemingly unending speculations about the supernatural.

- Belching volcanoes, angry storm clouds, devastating floods, and so on caused major problems; so, solutions were sought by trying to placate the mountain god, the sky god, and so on – solutions that led to even worse problems, because the people who claimed to be spokesmen for the gods (the damnable priests) gained enormous power over the people.

- Food supplies couldn't keep up with expanding populations; so, people sought solutions in herding, planting, and irrigation – solutions that led to overgrazing, salinization of soils, crowded cities, etc.

And so on it went, continuously, for the past ~10,000 years, up to an including the present day: problems arise and humans try to solve them – in many cases, unfortunately causing still more problems.

I therefore suggest that, in the future, the overall prime goal for humanity will be the same as it's always been for all animals: our prime goal will continue to be to solve whatever are the most pressing problems! Furthermore, though (and where I think that there's reason for hope for humanity) is that:

1) the "well of knowledge" from which solutions to our problems are drawn will become increasingly deep and reliable, and

2) our problems are becoming worldwide (e.g., stratospheric-ozone destruction, species extinction, resource exhaustion, over population…) leading to the need for worldwide solution, involving all humanity.

Consequently, the prime goal for humanity (which I see hints that humanity is beginning to adopt) could be described as something similar to: *to expand and apply knowledge to solve human problems more intelligently.*

As Robert Ingersoll said in his last public address (in Boston in 1899):

> Man has a little intelligence, and he should use it. Intelligence is the only lever capable of raising mankind.

And in case the distinction that I'm trying to make is too subtle (between what humans have always been doing and what I hope that humans will adopt as their prime goal), then let me elaborate. Ever since humans learned to use stone tools and control fire, humans have been trying to solve their problems – and so long as there are viruses to fight, asteroids to deflect, stars to abandon, and black holes to avoid, then I expect that humans will continue to try to solve their problems. Also, ever since the Stone Age, humans have usually applied the best available science to solve their problems (i.e., they learned by experimentation) – but not always. Therein lies the subtle (but extremely important) change that I expect for the future: to try to solve their problems, humans will apply principles that are scientifically sound.

Let me illustrate what I mean. As an example, everyone now agrees (as far as I know) that it's silly to try to "convince" a volcano not to erupt by

applying the once-acceptable "scientific solution" of trying to placate it with the life of a young girl. And yes, Dear, I do mean "scientific solution" – because such was the state of science of savages. Probably the prediction of that hypothesis (that the volcano wouldn't erupt if a virgin was pushed into it) was validated at least once – which is more than can be said for other silly speculations that passed for "science".

As another example, surely essentially everyone now agrees that the Old Testament's "scientific method" of trying to placate the sky god with animal sacrifices is dumb. What data supported such stupidity?! The same goes for the New Testament's "scientific method" of curing people of diseases by "laying on of hands" or "driving out devils". Such were the "scientific approaches" employed by people a hundred-or-so generations ago to solve health problems, but thanks to the scientific method, most humans (save some Jehovah's Witnesses and similar kooks) reject such approaches as idiotic.

Currently, most people accept that knowledge is gained by the scientific method and that, until predictions of any hypothesis have been validated experimentally, it's dumb to use mere speculations (the bases of all religions) to try to solve human problems. In fact, looked at from a different perspective, religion is now one of the major problems that humanity must solve; it's one of those infamous "cures" that's worse than the disease; it's a peculiar mental-health problem; it was promoted as a solution by primitives, but it has caused far more problems than it was introduced to solve; it should be withdrawn from the market; in fact, I would heartily approve if its peddlers were prosecuted for malpractice!

Consequently, Dear, although I'm not saying much by claiming that humanity's prime goal is to solve humanity's prime problems (because that's always been the prime goal of all humans), yet I think it's important that we can now describe the prime goal more perceptively: *to expand and apply knowledge to solve human problems more intelligently.*

This expansion should certainly be in depth (especially in the "social sciences" *via* collecting more data, interpreting the data, developing hypotheses that summarize the data and have predictive abilities, developing models to quantify the predictions, and then collecting more data to test the predictions), but perhaps more importantly, this expansion needs to be in breadth.

It's already perfectly clear to approximately a billion people in the world that all organized religions are organized ignorance, but it's critical that the other five-or-so billion people who are engaged in collective delusions of their religions learn the facts of life: there's no magic man in the sky, and there never was! It was all an illusion concocted by savages, and it's still promoted by con-artist clerics for their own profit, power, and perceived (but fake) prestige.

Of course, there's a huge range of problems now facing humanity, and I'll get to some of these in subsequent **X**-chapters (especially those dealing with expanding social justice and seeking peace and prosperity). And certainly it's not simple to determine (validated) scientific principles to guide our finding solutions to such problems. As Einstein said: "Politics is more difficult than physics." Nonetheless, progress toward solutions does seem possible – provided that we also solve one of humanity's pressing problems: to rid itself of all defunct science that pretends to deal with the nonexistent "supernatural", i.e., rid ourselves of all religions.

Illustrative of religious idiocy is that most major religions (Hinduism, Christianity, and Islam), as well as most minor religions such as Mormonism, set themselves the task of solving the problem of an individual's death. Without a scrap of data to support their speculations, they constructed elaborate schemes and rituals claimed to lead the follower to "life after death". Only since Darwin, however, has it been clearly seen that death of an individual isn't a problem – it's the solution (for the species to evolve). Thereby, most major religions are based on bogus solutions to a nonproblem! If that's science at all, it's science at its worst!

For contrast, consider the following description of secular (or "scientific") humanism (or just "Humanism") written by Fritz Stevens, Edward Tabash, Tom Hill, Mary Ellen Sikes, and Tom Flynn:[5]

> Secular Humanism is a term which has come into use in the last thirty years to describe a worldview with the following elements and principles:
>
> - A conviction that dogmas, ideologies and traditions, whether religious, political or social, must be weighed and tested by each individual and not simply accepted on faith.

[5] Available at http://www.secularhumanism.org/intro/what.html.

- Commitment to the use of critical reason, factual evidence, and scientific methods of inquiry, rather than faith and mysticism, in seeking solutions to human problems and answers to important human questions.

- A primary concern with fulfillment, growth, and creativity for both the individual and humankind in general.

- A constant search for objective truth, with the understanding that new knowledge and experience constantly alter our imperfect perception of it.

- A concern for this life and a commitment to making it meaningful through better understanding of ourselves, our history, our intellectual and artistic achievements, and the outlooks of those who differ from us.

- A search for viable individual, social, and political principles of ethical conduct, judging them on their ability to enhance human well-being and individual responsibility.

- A conviction that with reason, an open marketplace of ideas, good will, and tolerance, progress can be made in building a better world for ourselves and our children.

Now, although I heartily agree with the above description of Humanism given by Stevens et al., I must admit to being a little disappointed that they didn't take the opportunity to attempt to explicitly state a consistent prime goal for humanity. In my view, such an attempt would have led them to something close to what I've been describing, i.e., *to expand and apply knowledge to solve human problems more intelligently*. Once again Feynman summarized the situation beautifully:

> We are at the very beginning of time for the human race. It is not unreasonable that we grapple with problems. But there are tens of thousands of years in the future. Our responsibility is to do what we can, learn what we can, improve the solutions, and pass them on.

But be that as it may be, I'll set aside further comments on humanity's prime goal until later **X**-chapters (e.g., dealing with education) and conclude this chapter with a question for you: If the prime goal of humans has always been to solve their most pressing problems, if you agree that the prime goal of humans should be to try to find intelligent solutions to their problems, then intelligent child that you undoubtedly are, how about trying to find an intelligent solution to the pressing problem that you're doing too much reading and not getting enough exercise?!