

X6 – EXchanging Worldviews, 6: EXamining Organizational Principles for the Human System

Dear: My reason for wanting to consider, again, the Human System as a system follows from a concept that seems important enough and sufficiently validated to be called a general principle, namely: **you'll have a better chance of fixing something if you know how it's supposed to work!** As I'll try to show you (and as you probably know already), the Human System definitely needs some serious repair. Consequently, before trying to fix the Human System, it's a good idea to try to understand how it works. And whereas another way to try to understand how any system works (besides trying to figure out its goals and how it interacts with its environment) is to try to understand how it's organized; therefore, in this chapter, I'll dig to try to understand the Human System's principal "organizational principles".

In X4, I showed you one way to try to understand various systems, namely, by examining their goals. Below is a repeat of my "colorful table", which I used to try to categorize various systems *via* system and subsystem goals.

<i>Type</i>	<i>Objectives & Subobjectives</i>	<i>Examples</i>
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?

Although I think that the above scheme can be illuminating in many cases, yet when applied to the case of the Human System (also known as ‘humanity’), the scheme seems inadequate. Reasons include the following.

- 1) Although humanity is a Type 1 System (i.e., as in the above Table, humanity does have a “sensible overall objective”, namely, to continue), yet humans haven’t agreed on what ‘continue’ means, e.g., most humans “believe” that they continue to live after they’re dead!
- 2) Whereas Humanists reject the idea of continued existence after death (because no data support such speculation), therefore the Human System can also be classified as a Type 2 System (i.e., a system with a “questionable – or debatable – overall goal”).
- 3) Consequently, the Human System can also be classified as a Type 3 System (i.e., one with “no overall goal”, in particular, Type 3c: one with “subsystem goals generally conflicting” – although as I emphasized in X4, maybe we’re evolving into a system with a prime goal (Type 3g), with that prime goal being to solve our many problems more intelligently.

It may therefore seem, from the above, that the attempt to classify the Human System according to goals and subgoals is not particularly helpful.

Yet, I hope you noticed what I consider to be an extremely important (and totally obvious) point, namely: **people’s goals depend on their worldviews**. For example, if your worldview is that this universe is organized and operated by some magic man (or giant Jabberwock) in the sky who’ll reward you with eternal bliss in paradise if you’re “good” (e.g., if you “**go forth and multiply**” or if you blow yourself up as a suicide bomber), then your goals follow. It follows, then, that elements of the human system (viz., people) don’t have a common goal, because people have different worldviews.

In turn, there’s another extremely important (and totally obvious) point, which I’ve described many times: **people’s values depend on their goals**. Thereby, worldviews that people adopt are critical – because crazy worldviews lead to crazy goals and values, and together, crazy values, goals, and worldviews cause humanity a huge number of problems. As Voltaire said: “**If we believe absurdities, we shall commit atrocities.**” Thus, believing in the absurdity that the universe is controlled by a magic man in the sky, Muslim (and some Christian) extremists commit what most people consider to be horrible evils – but what terrorists consider to be “good”, because they’ve been indoctrinated in (and adopt) absurd worldviews.

Which then returns me to points that I tried to make in the “P-chapters”:

The priorities are, first, premisses; then, purposes – and then, principles, priorities, and policies – and finally, plans, procedures, and practices (with perseverance).

Thus, it’s unfortunately the case that the majority of people in the world (i.e., all those affiliated with organized religions) have adopted faulty *premisses* about how knowledge can be obtained, leading them to conclude (usually because it makes them feel good) that a magic man in the sky is in control. Then, that faulty *premiss* leads them to adopt bizarre *purposes*, such as living forever in paradise, with or without 72 “white raisons”! And in turn, their absurd premisses and purposes lead them to promote crazy *principles* for organizing the human system (e.g., the goal of Muslims to establish a worldwide, dictatorial, Islamic “caliphate”). Meanwhile, those of us who still have the ability to evaluate respond with something similar to:

Blow it out your ears, you crazy kooks!

But until later X-chapters, I don’t plan to address the difficult task of how Humanists might be able to get religious kooks to “smarten up” or even address the challenging task of identifying potential methods for organizing the human system if religious people would “smarten up”. Instead, for this chapter, I want to address the already challenging task of “simply” identifying what principles have been used and are potentially available to organize the Human System.

Of course, there are other ways to try to understand the Human System besides attempting to identify goals. For example, in X5 I tried to show you at least a little of attempting to understand the Human System by examining how it operates. Broadly speaking, the Human System (similar to any living system) operates by exploitation. That is, we humans expropriate what we need (and, if we can get away with it, what we want) from wherever we can get it: men exploit women to satisfy their own sexual drives, a substantial fraction of women exploit men’s sexual drives to satisfy their own needs (e.g., for security), leaders of fundamentalist religions exploit procreation to provide growing membership in their religion, and most seriously, a growing population is exploiting natural resources such as water, minerals, arable land, and sources of energy such as coal and petroleum. As a result, as I also tried to show you in X5, the current and expanding rate of exploitation of Nature by humans almost certainly isn’t sustainable.

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Consequently, when the Human System is examined from an operational viewpoint, it again seems to reveal fundamental flaws: there's "no way" that Nature will tolerate so much exploitation by so many people. Stated differently, unless humans wholeheartedly adopt "sustainable development" (which could be accomplished most readily – at least theoretically – if the human population were reduced by a factor of about ten), then with fairly high probability, humanity is headed for economic and environmental catastrophes.

The threat of impending catastrophes is, of course, not entirely derived from religious ignorance. Even without the ignorance of religious leaders urging their followers to "Go forth and multiply" and treating women as little more than as "breeding stock", humans (similar to all life forms) have an obvious desire to populate every available niche – and fill it with as many "goodies" as they can! Humans, however, supposedly excel in their ability to foresee the consequences of proposed actions. Obvious questions therefore include: 1) Are humans sufficiently intelligent to foresee the consequences of their actions? and 2) Is the Human System sufficiently well organized so that behaviors can be modified? Such questions then lead to the subject of this chapter: not to focus on the system's prime goal (as with ants building an ant hill, there may not be a prime goal!), not to focus on how the system operates (which is complicated, but as an overview, apparently the ants are ruining not only the picnic but also the landscape!) but to try to understand the system's organizational principles.

The planned focus on the system's organizational principles is consistent with what I mentioned in **X4**: an alternative way to examine systems (besides *via* goals) is to classify systems according to their organizational principles; in turn, this classification is consistent with the dictionary definition that a system is "a combination of related elements organized into a complex whole." The obvious question is then: If the "elements" of the "human system" (i.e., people) are "organized" into a "complex whole", how are they "organized"? And as I already wrote, if the system's organizational principles can be understood, then maybe methods for fixing the system might be clearer. Before initiating an inquiry into how the elements of the human system are organized, however, it will have been useful to consider some relevant characteristics of "the elements of the human system", i.e., relevant characteristics of people, a topic to which I'll now turn.

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SOME NATURAL ORGANIZATIONAL PRINCIPLES

As I sketched near the end of Chapter U, humans are “self-organizing”, similar to planets, stars, galaxies, and (as I’ve suggested in Chapter A) perhaps our entire universe – and maybe other “verses” as well! In fact, most if not all “life forms” on Earth are self-organizing, certainly including many other animal and insect species, as well as essentially all ecosystems. In addition to self-organizing, however, as I’ll illustrate later in this chapter, organizational structures can be forced upon human societies by other humans, similar to how some humans force organizational structures on some ecosystems (e.g., crops) and on some other animal species.

Before outlining some such forced organizational structures, however, I want to address some natural characteristics of humans that result in their abilities to self-organize. My thought is this: if you’re contemplating how to organize ball bearings or eggs, for example, then it would probably be useful to know that ball bearings are spherical and aren’t easily broken, whereas eggs aren’t spherical but are easily broken. Similarly, when trying to understand and perhaps even improve on the organization of humans (whether its self-organization or forced), it would likely be useful to know some relevant human characteristics.

In general, humans are like other animals – but usually “more so”! For example, one human characteristic relevant to how humans can be organized (perhaps the most important characteristic) is that, eventually and similar to other animals, **humans learn** – albeit not without “kicking and braying” (like donkeys) by many, and unfortunately, seemingly a commitment to ignorance (like mules) by many more.

What humans learn is, of course, significant for our social evolution. Thus, although humans learned a lot of silly ideas (e.g., about Zeus controlling thunder and lightning, or about some god creating the universe), we’ve evolved because **humans have learned to “outsmart” their competitors** (including other animals and the vagaries of Nature, such as floods, droughts, fires, and ice ages). Further, to overcome some of the physical advantages of our animal competitors and the power of Nature’s vagaries, **humans have learned to outsmart their competitors by capturing the benefits of cooperation with others** (again and unfortunately, not without objections and obstructions from many people).

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In addition to engaging in cooperative activities (in which we accrue more benefit that we invest), humans have learned (through hundreds of thousands of years of experience) and put into practice another primary principle and applied it in their self-organization, namely, the detection and punishment of “cheaters” (i.e., “freeloaders” and similar “parasites”). Thus, **humans have learned to outsmart their competitors by capturing the benefits of cooperation while punishing “cheaters”**.

Similarly, many animals punish those who refuse to cooperate. In particular, you might recall from Chapter **J3** (dealing with Interpersonal Justice and Morality) that I quoted another article by Sharon Begley, which was entitled “Animals Seem to Have an Inherent Sense of Fairness and Justice”. In that article, she reviewed recent scientific results showing how chimps and monkeys reacted to “unfair” situations. As she wrote,

Cooperation requires a grasp of fairness. You need to be able to detect (and punish) freeloaders to keep a cooperative society running.

In a recent article,¹ Peter Corning summarized many examples of self-organization and “synergistic cooperation” for other animals and insects:

As shown by the many field studies and laboratory experiments that were inspired by inclusive fitness theory and game theory, the social interactions in nature among members of the same species may be perturbed by free-riders, “defectors”, exploiters, conspecific “parasites”, etc., and yet the fact remains that within-species co-operative behaviors are fairly common and encompass a broad array of survival-related functions, including: (1) hunting and foraging collaboratively, which may serve to increase capture efficiency, the size of the prey that can be pursued, or the likelihood of finding food patches; (2) joint detection, avoidance of and defense against predators, the forms of which range from mobbing and other kinds of coordinated attacks to flocking, herding, communal nesting and synchronized reproduction; (3) shared protection of jointly acquired food caches, notably among many insects and some birds; (5) [mis-numbered] co-operative movement and migration, including the use of formations that increase aerodynamic or hydrodynamic efficiency and reduce individual energy costs and/or facilitate navigation; (6) co-operation in reproduction, which can include joint nest-building, joint feeding and joint protection of the young; and (7) shared environmental conditioning and thermo-regulation.

¹ Corning’s article, entitled “The Co-operative Gene – On the Role of Synergy in Evolution”, is available at <http://www.complexsystems.org/publications/coopgene.html>. By ‘synergisms’ (derived from the Greek word *synergos* meaning “to work together”) is meant that “the whole is greater than the parts”– or as Corning wrote, “it would be more accurate to say that the effects produced by wholes are different from what the parts can produce alone.”

Thus, individual humans (similar to other animals) compete against other individuals (e.g., for mates, in our studies, in a variety of sports against other individuals, to try to get jobs, to “climb in the ranks” at companies or to start our own company, etc.), but we also cooperate (e.g., as friends, in a variety of team sports, marriage, within “our team” at work, as fellow citizens, etc.). Thus, we “mix and match” competition and cooperation, as we see fit – for our own benefit and for the benefit of “our group” (which in turn we usually deem to be for our own benefit and/or the benefit of our “families”).

Importantly and most fortunately for all of us, some cooperative activities are beneficial not only to participants but also to the rest of us. In particular, human social evolution has commonly ratcheted forward by our utilizing what especially “specialists” have learned. As examples:

- The family benefited when the mother learned how to make clothing from animal hides.
- The tribe benefited when the first fellow who made a spear showed the rest of the hunters how to do it, and so on, including the taming of fire, baking clay, and smelting.
- The village benefited when somehow learned how to plant seeds, irrigate crops, domesticate animals, and so on, including the invention of the wheel and through all inventions that have ever been discovered, out to and including benefits from whoever first learned how to search the internet so efficiently!

Thereby, the vast majority of humans has benefited from discoveries and their promotions by a few brilliant inventors, innovators, and entrepreneurs.

As a result, social evolution of humans has depended on the self-organizational principle that **we learn how to outsmart our competitors, by capturing the benefits of cooperation, punishing “cheaters”, and by utilizing the discoveries of relatively few, brilliant innovators.** Such self-organization (which is utilized by all groups, corporations, and nations throughout the world) could be called “capitalistic communism”, “communistic capitalism”, or simply “winning teamwork”.

Incidentally, Dear, that “selfish genes” (in animals including humans) could have evolved to become cooperative (and even altruistic) puzzled evolutionary biologists for many decades during the 20th Century. Addressing this controversy, Corning concludes his article as follows:

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So, why are selfish genes so often co-operative? The answer, it has been suggested here, is that, because of the synergies that may result, co-operation represents an often advantageous survival strategy; it may be a way to compete more effectively. The paradox, however, is that by co-operating in the pursuit of their own interests, co-operative genes may also advance the interests of others. Moreover, invention has become the mother of necessity. Selfish genes have come to be dependent upon one another. And so, a complex organism or “superorganism” also represents a “collective survival enterprise,” a functional unit of survival and reproduction in which the corporate interest of the “whole” becomes a filter or screen that differentially affects the survival and reproduction of the parts.

To see a little of how the “self-organizational principles” of both winning teamwork and punishing “cheaters” seems to have operated in groups of humans (and other animals), consider the following review² of the 2012 book by E.O. Wilson entitled *The Social Conquest of Earth*.

The Harvard University naturalist and Pulitzer Prize winner angered many colleagues two years ago, when he repudiated a concept within evolutionary theory that he had brought to prominence. Known as kin selection or inclusive fitness, the half-century-old idea helped to explain the puzzling existence of altruism among animals. Why, for instance, do some birds help their parents raise chicks instead of having chicks of their own? Why are worker ants sterile? The answer, according to kin selection theory, has been that aiding your relatives can sometimes spread your common genes faster than bearing offspring of your own.

In [his book] *The Social Conquest of Earth*, Wilson offers a full explanation of his latest thinking on evolution. Group dynamics, not selfish genes, drive altruism, he argues: “Colonies of cheaters lose to colonies of cooperators.” As the cooperative colonies dominate and multiply, so do their alleged “altruism” genes. Wilson uses what he calls “multilevel selection” – group and individual selection combined – to discuss the emergence of the creative arts and humanities, morality, religion, language and the very nature of humans. Along the way, he pauses to reject religion, decry the way humans have despoiled the environment and, in something of a *non sequitur*, dismiss the need for manned space exploration. The book is bound to stir controversy on these and other subjects for years to come.

But setting aside (until later chapters) descriptions of such mistakes that humans have made (by adhering to religious ignorance and by despoiling the environment), I should mention another important self-organizing feature of

² This book review was written by Sandra Upson and Anna Kuchment and posted at <http://www.scientificamerican.com/article.cfm?id=recommended-apr-12>, in the 23 March 2012 online version of Scientific American.

especially humans, besides winning teamwork and punishing “cheaters”, namely, our communications capabilities. Many animals (if not most) have applied similar capabilities, but in communications (first with our abilities to speak and then to record and transmit our thoughts) humans obviously excel.

The importance of communications is clear. Thus, in small groups (e.g., families, tribes, and similar), benefits to individuals from cooperation were easily seen, cheaters were relatively easily punished, and innovators were normally rewarded. Generally, the larger the group, the greater the difficulties for an individual to see the benefits of cooperation, for the group to punish cheaters, and for innovators to be suitably rewarded. For all sizes of groups, therefore, **communications are critically important.**

Thereby, not only has group size generally increased in unison with communication technology but also group leaders have always been leading communicators (and many have sought to control communications, as a primary method of controlling the people *via* propaganda). Which then leads to what is probably the most distinguishing feature of the organization of humans compared with other animals, whether it's a case of self-organization or forced:

HUMAN ORGANIZATIONS BASED ON IDEAS.

Similar to herds of sheep, humans can relatively easily be led, and similar to wolves, a human “pack leader” usually identifies himself and seeks powers (and it's usually a male, commonly called “the alpha male”). But different from the case of sheep, wolves, and apparently all other animals, humans can be organized based on abstract ideas (about economics, “racial purity”, imaginary gods, people's fates in some imagined “afterlife”, whatever!) by leaders who establish themselves not only *via* “might makes right” but also *via* skillfully communicating their ideas.

Now, Dear, I expect that this concept (that it's possibly uniquely human for abstract ideas to be a group's dominant organizational principle) is totally obvious to you, but please bear with me while I (once again?!) “belabor the obvious”, because by examining some associated details, perhaps it'll become clear how progress might be made, improving the ideas that future humans will adopt to organize themselves. To start this examination (to aid the future), first consider some ideas adopted in the past, for as Santayana said (paraphrased): **Those who ignore the past are condemned to repeat it.**

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Yet, Dear, even though I appreciate Santayana’s warning, I trust you realize that there’s “no way” that I can adequately review the past to provide a thorough description of how humanity has been (and can be) organized around abstract ideas: not only is the subject enormous (and enormously complex), but given that my training and career were in the physical sciences (not history), I’m ill-prepared to show you details. I’ll show you some details in the “excursion” Yx, dealing with “Your Indoctrination in the Mountainous God Lie”. For here, I plan just to “skim some highlights”, which I hope will be sufficient for you to get a general idea of what I’m trying to describe. I’ll start with:

Leaders Utilizing Communication Skills.

I won’t present a significant amount of evidence to try to justify my claim that most human leaders obtain and maintain their power *via* their communication skills. Instead, I’ll just list the following points.

- In prehistory and early history, leaders of tribal societies may have attained their position mostly *via* the law of the jungle (might makes right), e.g., as I outlined in Chapter **Ix6**, King Gilgamesh.
- Later, brutal leaders [e.g., King Hammurabi who ruled Babylon from about 1795–1750 BCE, Pharaoh Thothmes III (c.1480–1425 BCE, the “Alexander the Great of ancient Egypt”), the maniacal king of Assyria Tiglath-Pileser I (who reigned from 1114–1076 BCE), and many others] may have attained power through force, but almost certainly, they couldn’t have maintained control without having convinced a cadre of “henchmen” to do their biddings. For example, recall (from Chapter **M1**) King Hammurabi’s law:

109. If conspirators meet in the house of a tavern-keeper, and these conspirators are not captured and delivered to the court, the tavern-keeper shall be put to death.

- The Moses described in the Old Testament was probably just a fictional construct by Ezra et al., but notice that these authors described how a skillful communicator (depicted to be Moses but far more likely thereby describing Ezra) ruled by convincing a cadre of “storm troopers” to do his bidding, e.g., from *Exodus 32, 27*:

Arm yourselves, each of you [Levite henchmen], with his sword. Go through the camp from gate to gate and back again. Each of you kill his brother, his friend, his neighbor...

- In the “excursion” Yx, I’ll go to some length to show you the amazing communication skills (as reported by “the world’s first historian”, Herodotus) of Cyrus the Great (king of Persia, 559–530 BCE).

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- As far as is known, neither Jesus nor “Saint” Paul demonstrated any attempt to lead by the law of the jungle, but it seems almost certain that approximately a billion people wouldn’t now be “followers” of Christianity had it not been for the brutality of “the butcher emperor” Constantine.
- Perhaps no leader in history (save Genghis Khan, 1162–1227) was more of a psychopath than Muhammad, but neither of them could have been such successful leaders without their being able to convince a cadre of (bandit, fanatical) followers.
- Similar to Muhammad were Napoleon, Hitler, Stalin, and Mao.

In summary, throughout history a devastating consequence (of an individual with imaginative ideas and effective communication skills gaining sufficient power to organize his followers) is that he and his cadre of supporters gain control over defining and punishing “cheaters”.

Thus, with control of communications, power-mongering leaders are able to define “enemies within”, and with control of (so-called) “security forces” (be they Levite priests or “state-security forces”), power-mongering leaders have the ability to punish (the so-called) “conspirators”, “unbelievers”, “counter revolutionaries”, “parasites”, etc. As examples, consider again Hammurabi’s punishment for “conspirators” against his rule (see the quotation above), the power of Moses (or Ezra) to murder “unbelievers” (in religious balderdash), and similarly with the “butcher-emperor” Constantine, the psychopath Muhammad, and so on, through to the examples of Hitler (murdering millions of Jewish “parasites”) and Stalin and Mao (murdering millions of “counter revolutionaries”).

In particular, the case of Hitler designating Jews as “parasites” could hardly be more inappropriate, given the amazing accomplishments of so many Jewish people who were then living in central Europe (e.g., Freud and Einstein). Yet, as all dictators learned (probably from examples by clerics since the time of ancient Egypt), it’s not necessary for leaders to be honest – just convincing liars.

Fortunately, the days of such dictators seem to be numbered. Perhaps the first leader who had the power to rule by force but chose to let the people rule themselves was America’s George Washington. Currently, “people power” (democracy) finally seems to be spreading worldwide: even many Muslims are now overthrowing their dictators.

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Some Organizational Ideas

Even without organizational structures brutally forced on people by dictators, even as dictators are eliminated and democracy gains ground, questions remain about how “best” to organize societies – and even humanity as a whole. In reality, a substantial quantity of data reveals that human groups are capable of organizing themselves according to a large number of different ideas; therefore, presumably, so could the entire Human System. Nonetheless, from the large number of available and potential ideas for organizing humans, desirable organizational principles for humanity might be identifiable by first focusing on organizational premisses, principles, and policies used by different groups of people.

Different societies (human subsystems) can obviously be organized primarily according to different political, economic, or even religious ideas:

- I’ll be providing illustrations of organization according to different political schemes later in this chapter and in subsequent X-chapters.
- Some societies are similar to natural ecosystems (especially “laissez faire” capitalist societies, e.g., before “social controls” on monopolies were enacted), with the only organizing principle being “survival of the fittest” (the fittest individual or the fittest subgroup within the society, such as an industrial company or, if the Nazis had their way, the fittest “race” – a meaningless concept).
- Other societies (especially those run by clerics of various persuasions) have a clear overall objective, such as to serve their god (or more accurately, the people are to serve the clerics); in such cases, however, if you dig beneath superficial claims of pursuing some “values” (claimed to be conveyed to the clerics by their gods), you’ll find that all people within their societies (including the clerics) are individually pursuing “just” their dual survival goals (including living in some land of “milk and honey”, either before or after they die).

As more specific examples, the USSR was primarily organized (at least in principle!) according to an economic scheme (communism), maybe the US and the UK can be accurately described as primarily organized according to governance schemes (which are different, but both include protection of private property rights, i.e., an economic principle), and currently some Muslim nations are primarily organized according to religious schemes (which includes economic and governance principles). In fact, even for societies in which the organizing principle isn’t advertised to have anything to do with economics (e.g., most theocracies), if you dig beneath the surface, you can usually find some critically important economic organizing

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principle. For example, I suspect that Saudi Arabia's monarchy and Iran's theocracy would quickly collapse if the leaders didn't have control over their respective country's oil wealth.

Economics, politics, and religions, however, certainly aren't the only organizing principle for human (and other) societies. For example, the dominant organizing principle for some societies has been (and is), not for economic protection, but for some type of "physical protection". Thus, from the time of the first human tribes to modern states and nations, the dominant organizing principle for many human societies has been and continues to be, not based on economics, but on protection against "predators", be they man-eating tigers or other groups of humans. Similar is certainly the case for many species: wolves form in packs and lions in prides to attack prey (an organizing principle based on a primitive type of economics), while their prey (such as sheep, deer, and antelope) organize into herds for protection.

Thereby, maybe you see why, earlier, I stated that humans are much like animals – "but more so!" That is, the organization of other animals can also be described as based on ideas (for physical protection, including males protecting their females, and even crude economics and politics), but for other animals, such ideas are concrete, not abstract. Thus, although some animals organize for crude economic and even political reasons, yet as far as I know, animals don't kill over differences between capitalism *versus* communism or over details about how to worship a creator god!

It's equally obvious that many human societies are organized under more than one idea simultaneously, e.g., both economic and political principles as well as for physical protection. For example, during most of my lifetime I lived through the fear of (and terrible waste of resources used to maintain) "Mutually Assured Destruction" (MAD), a madness maintained between the Soviet Union physically protecting its organizing principles and "the West" physically protecting its own. As I'll show you in later chapters, I'm afraid that, during your lifetime, you may need to suffer through similar madness, with Christian and Muslim societies each defending their dreams of eternal life in their respective, imaginary paradises.

Such cases illustrate the sad reality that the dominant organizing principle for many human societies has been the hate from (and for) their enemies. Examples include the Jews during at least the past 2,000 years, Muslims during the past 1400 years, the Nazis, and maybe even our society.

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Such animosities are consistent with what I wrote many chapters ago, dealing with the interconnectedness of opposites: “black supports white” and “every in-group needs its out-group”. Simultaneous with the hate, however, it’s common that there’s been love of one’s compatriots, be they “fellow Jews”, “fellow Christians”, “fellow Muslims”, “fellow Nazis”, “fellow Americans”, “Comrades”, or whatever.

That is, although it’s a vast improvement if the organizing principle of any society is love rather than hate (a principle that, to the credit of most religious organizations, is at least partially applied within their groups), this principle of “mutual help” within a group is commonly coupled with animosity toward people outside the group. Would that all “fellow whatevers” would replace the word ‘fellow’ with ‘fallow’ or ‘shallow’!

In any event, given the diversity in organizational ideas, perhaps it’s understandable why most people seem to shake their heads in confusion, mumble some jabberwocky about some giant Jabberwock (or magic man) in the sky working in mysterious ways, pay clerics for running their con games and politicians for pursuing their power plays, and get on with pursuing their own trio of survival goals. Here, however, I think I should dig a little deeper to try to show you some of the principal organizational principles utilized.

Economics as an Organizing Principle

Most anthropologists (and almost certainly all economists) would probably argue that economics provided (and still provides) the primary organizing principle of most societies, from individual families to nations. More significantly, data support such a suggestion. For example, data from one of the policies of the social welfare system in this country suggest that, without an economic organizing principle, even the fundamental Human System, the family, has difficulty surviving. Closer to home, Dear, if your father were no longer employed and if no “social safety net” were available, then imagine how difficult it would be for your family to stick together.

Almost certainly, “in the beginning” most prehistoric societies were organized first as families and then as extended families or tribes, in which the father and then tribal leaders simply dictated their desires. Illustrative cases include the well-advertised (but probably, mostly fictional) tribe of Abraham and the subsequent tribes of Israel, the tribe of Mormons under Joseph Smith and then Brigham Young, and even today, there are primitive

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tribal groups in many Islamic nations (including Saudi Arabia, Iraq, Iran, Afghanistan, and Pakistan). The organization principles in such tribes (similar to many groups of insects and animals) were (and are) partly derived from economics, partly for physical security, and partly “simply” the force wielded by the tribal leader, punishing “cheaters”.

Additional organization of societies *via* economics no doubt continued when tribes of nomads (each, in turn, both an “extended family” and a single “economic unit”) met with neighboring tribes to barter: one tribe might have excess fish; the other might have excess venison. Over time, trade would commonly lead to tribes amalgamating into a single, larger, economic unit, commonly “governed” by a group of tribal elders or “chiefs”. Recently, similar has been occurring in the formation of the European Union (EU), organized economically and “governed” by leaders from participating nations. In the future, similar may occur in North America, as a consequence of the North American Free Trade Agreement (NAFTA), and throughout the world, as a consequence of globalization of economies guided by the World Trade Organization (WTO) – although (as I’ll address in later X-chapters), certainly there are a huge number of problems that would need to be solved before such amalgamations could be realized.

Such cases additionally illustrate that economic organizing principles can strongly influence (if not dominate) what may appear to be (or what are advertised to be) political organizing principles. Obvious examples are all communist societies (whose prime governance goal, at least theoretically, is to govern the economy) and even “capitalist countries” such as ours. That is, even democracies (including representative democracies or republics, such as ours) can be seen to be primarily organized, not by their scheme of governance, but by economics. Thus, even in theory, democracies can be viewed as methods by which the people decide how to tax themselves to fund joint enterprises, but in practice, taxation and expenditure schemes in such countries commonly reflect not the desires of the majority of the people in the society but only the desires of influential “factions” (such as groups of industries, some religious groups, and various other “special interest” groups), a topic to which I’ll return in a later chapter.

Further, and similar to the case with most (if not all) governments, all organized religions can be viewed as economic enterprises: religious people pay tithes to religious organizations for “services rendered”, which for most religions in our culture include people paying for participation in the

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daydream of eternal life. Such activity is offensive to Humanists, because it's similar to various illegal con games – and perhaps such activity is especially offensive to us not only because we are forced to help pay for it (*via* its tax-free status) but also because the con-artist clerics claim “exalted status” for themselves and their operations. But regardless of those perspectives, it can be seen that all organized religions are subsystems organized economically.

There are, of course, many different types of economic organizing principles, with different advantages and disadvantages. For example, the “constrained capitalism” in this country can efficiently produce relatively abundant goods and services, but similar to a natural ecosystem, its efficiency can brutalize its members. Moreover, as anyone painfully learns by being “marginalized” by our system (e.g., by being unemployed), the advantages of capitalism (bountiful goods and services) are diffuse and normally taken for granted, while its disadvantages (e.g., unemployment) can be acute.

In contrast, various types of communist systems usually provide individuals with advantages that are acute but disadvantages that are diffuse, e.g., they provide more economic protection (such as guaranteed employment), but the inefficiencies of such systems (resulting from individuals not needing to struggle to survive) have led to diffuse disadvantages (e.g., the lack of goods and services, not to dwell on the common disadvantage of constraining freedoms). As Winston Churchill said:

The inherent vice of capitalism is the unequal sharing of blessings; the inherent vice of socialism is the equal sharing of miseries.

In failing limits, in democratic capitalist societies individuals are free to starve to death, whereas in totalitarian communist societies individuals are constrained to starve to death in silence!

As suggested in earlier chapters, a huge problem in attempting to govern communist countries (to protect the economic system) is that relatively few bureaucrats manipulate the millions of “economic levers” that control any large economy. In capitalist countries, in contrast, the decisions of how to operate similar “economic levers” are left to the people – who suffer the consequences of operating them poorly or benefit from operating them well.

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In capitalist countries, the associated freedoms of the people to choose which levers to try to operate (and how to operate them) is rightfully recognized as being fundamental to all their freedoms, but experience has shown that this economic freedom can easily lead to successful attempts to manipulate the government, causing serious problems for the society, constraining the freedom of other citizens. With the collapse of the Soviet Union and subsequent globalization, additional societies are adopting an economic organization principle that can be described as “constrained capitalism”, with people forcing their governments to constrain companies sufficiently so that some “social safety net” is available for the people.

I should also add that, as far as I and many others are concerned, the enduring strengths of the capitalist economic system are not only that it already rewards cooperation for competition but also it already punishes lack of cooperative competition (and inefficiencies and unwise investments). But the weaknesses of the unregulated capitalist system are that it has nonlinear instabilities, leading to monopolies (such as the “robber barons” of the 19th Century and the “oil cartel” OPEC, the Organization of Petroleum Exporting Countries, of the 20th Century) and to irreparable resource depletion and environmental damages (such as those that are now occurring). And as capitalism spreads throughout the world (especially, now, in China, India, and Russia), the need for regulations – for global management – become increasingly imperative.

To address such problems, I should now turn to another obvious organizational principle for the Human System, namely politics. Unfortunately, though, the subject is huge. It’s so huge that I want to tackle it just one “piece at a time”, as I’ll be doing in this and subsequent X-chapters. For this chapter, I want to review “just” some general features of politics, the primary definition of which is given in the New Oxford American Dictionary as

activities associated with the governance of a country or other area, especially the debate or conflict among individuals or parties having or hoping to achieve *power* [italics added].

That definition for politics, however, is incomplete, since it leaves unaddressed the question: ‘power’ for what? Is political power an end in itself (as some maintain) or is it a means to achieve some other end(s)? To address that question, and more, I’ll now turn to:

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POLITICS AS AN ORGANIZING MECHANISM.

Rather than subjecting you to my stumbling attempts to describe models of politics (a subject that I've never formally studied), I'll quote an analysis by an expert, namely, Peter A. Corning. The following (long) quotation is from the introduction to his article entitled "The Evolution of Politics".³ In this quotation, I've tried to make the reading a little simpler for you by adding a few notes of explanation [in brackets] and by eliminating most of Corning's references (replacing them with "..."); unfortunately, the figures in his text are missing from the online version.

2. Defining Politics

[Copied from Peter A. Corning's "The Evolution of Politics"]

2.1 The "Idealist" Model

We begin with the problem of how to define politics, and with the writings of Plato and Aristotle (who in turn may have been inspired by the teachings of Socrates). In his classic dialogue, the *Republic*, Plato proceeded from the core premiss that the *polis* (or *polity*) [from the Greek *politēs* meaning 'citizen', in turn from *polis*, meaning 'city'] is fundamentally an economic association; it is very different in character from an amorphous aggregation of individuals who happen to share a common language, territory, or culture and may, or may not, engage in arms-length exchanges. A *polity* is characterized by a specialization of roles and a division of labor (or, more precisely, a combination of labor) and, equally important, interdependence with respect to the satisfaction of our various needs and wants. As Plato observed:

A city – or a state – is a response to human needs. No human being is self-sufficient, and all of us have many wants... Since each person has many wants, many partners and purveyors will be required to furnish them... Owing to this interchange of services, a multitude of persons will gather and dwell together in what we have come to call the city or the state... [So] let us construct a city beginning with its origins, keeping in mind that the origin of every real city is human necessity... [However], we are not all alike. There is a diversity of talents among men; consequently, one man is best suited to one particular occupation and another to another... We can conclude, then, that production in our city will be more abundant and the products more easily produced and of better quality if each

³ Available at <http://www.complexsystems.org/publications/index.html>. The article was originally published as a chapter in *Handbook of Evolution*, Vol. I (Franz Wuketits and Christoph Antweiler, eds., Wiley-VCH Verlag GmbH & Co., 2004).

does the work nature [and society] has equipped him to do, at the appropriate time, and is not required to spend time on other occupations...⁴

In other words, an organized *polity*, or state, produces mutually beneficial economic synergies; it is quintessentially a “collective survival enterprise” – a functionally interdependent “superorganism”...

However, this is not the only purpose that the state may serve. Plato went on to argue that it should also strive to attain “the good life” (in both a material and moral sense), though he advanced this objective as a continuing quest, not a ready-mix formula. Moreover, and this was one of Plato’s most profound insights, human nature is inherently “at war with itself.” There is a double-edge to the human psyche. Our “lower-level” appetites and urges manifestly serve our needs, but they can also become destructive, both to the community and to ourselves. As Aristotle (Plato’s star student) observed in the *Politics*...: “Man, when perfected, is the best of animals, but, when separated from law and justice, is the worst of all.”

Our prodigious appetites must therefore be constrained by the higher-level dictates of “reason”, along with our social and ethical impulses, and by the collective actions of the community to protect and preserve itself. To Plato, therefore, ethics and “justice” are not primarily derived from some higher metaphysics. Nor is it reducible to a tug-of-war over our “rights” as individuals. Social justice is concerned with equitable rewards for the proper exercise of our abilities and our calling, and our conduct, in a network of interdependent economic relationships. [Dear: please read that sentence again; I’ll be delving into it and other interpretations of “social justice” in a later chapter.]

Aristotle, in the *Politics*, supplemented his mentor’s [i.e., Plato’s] views in some important ways. First, Aristotle emphasized that physical security – both external and internal – is also a fundamental function of the state, one of its principle *raison d’être* (a point Plato also made in a later work, the *Laws*). The collective survival enterprise is not, therefore, exclusively an economic association. Aristotle also stressed that human nature is not an autonomous agency. It entails a set of innate aptitudes that are

⁴ Actually, Dear, in 1776 in his ...*The Wealth of Nations*, Adam Smith wrote something that seems more defensible than the above claim by Plato (see, e.g., <http://www.adamsmith.org/smith/won-index.htm>). In Chapter II of his *Book One*, Smith wrote: “The difference of natural talents in different men is, in reality, much less than we are aware of; and the very different genius which appears to distinguish men of different professions, when grown up to maturity, is not upon many occasions so much the cause as the effect of the division of labor. The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seems to arise not so much from nature as from habit, custom, and education. When they came into the world, and for the first six or eight years of their existence, they were perhaps very much alike, and neither their parents nor playfellows could perceive any remarkable difference. About that age, or soon after, they come to be employed in very different occupations. The difference of talents comes then to be taken notice of, and widens by degrees, till at last the vanity of the philosopher [e.g., Plato’s!] is willing to acknowledge scarce any resemblance.” In Chapter VII of *Book One*, Smith adds that in ancient Egypt (with which Plato was almost certainly familiar): “every man was bound by a principle of religion to follow the occupation of his father, and was supposed to commit the most horrid sacrilege if he changed it for another.”

uniquely fitted for society and that can only be developed in a network of social relationships. Thus, social life involves more than being simply a marketplace for economic transactions. It also involves a life in common; we are all enriched by it. Indeed, a hermit is not only economically deprived; he/she is not fully human and, equally important, has no evolutionary future...

Aristotle also devoted much attention to the fundamental political challenge, well appreciated by Plato, that a society is composed of many different, often competing interests. Indeed, Aristotle seconded Plato's conclusion that the basic, seemingly inescapable cleavage between the few who are rich and the many who are poor is potentially the most dangerous social division of all and the underlying cause of much civil unrest. The key to preserving any political community, therefore, is to strike a balance between the members' conflicting interests. To this end, the law must be "sovereign" and must serve as an impartial arbiter – "reason unaffected by desire." Moreover, there must be moral equality before the law. The law cannot be used as a tool to favor the rich and powerful but must be an instrument for achieving social justice, which he defined as "giving every man his due."

Aristotle also discussed the role of government institutions. Recognizing that Plato's proposal in the *Republic* for rule by specially-trained, benevolent dictators (philosopher kings) was impracticable, if not dangerous, Aristotle proposed that the best alternative was a "mixed state," with elements drawn from a cross-section of the community. (Plato himself conceded the point in his later writings.) The state should strive to achieve social justice, not as an end in itself but as an instrument for preserving, even improving society as a stable, "self-sufficing" community. The objective of the state should be to achieve a "balance" among various interests and factions, and the ultimate measure of its success in doing so is the willing (uncoerced) consent of the citizenry. Another way of putting it is that politics is ultimately concerned with the overarching interests, problems and needs of the collective survival enterprise – the "public interest."

This paradigm [or "model"], which has often been termed the "idealist" view of politics, has many modern echoes. Political theorist Sheldon Wolin... speaks of activities related to or affecting "the community as a whole." Karl Deutch... calls politics "the dependable coordination of human efforts and expectations for the attainment of the goals of the society." David Easton's... definition, though a bit ambiguous, is probably the most widely employed by contemporary political scientists. He termed politics the processes through which "values are authoritatively allocated for a society." But perhaps the modern apotheosis [viz., "the highest point in the development"] of the idealist stance is Larry Arnhart's normatively laden definition...: "the ultimate aim of politics is to form the character of human beings to promote some conception of the best life." This is so, Arnhart says, because "every political debate depends fundamentally on opinions about what is good and bad, just and unjust." These moral opinions, Arnhart concludes, express "a universal human nature."

2.2 The “Realist” Model

Unfortunately many theorists over the years have disputed the claims of the idealists (also referred to as “holists”). What has been called – at times with a supercilious tone – the “realist” (and sometimes “materialist”) view of politics traces its origins back at least to the classical Greeks, including the Sophists, Sceptics, Cynics, and Epicureans... These theorists advanced a radically different, individualist definition of the good life, and of politics. For them, the claims of the community, and the very concept of a “public interest,” were rejected as a chimera, and the primacy of individual “self-interest” was posited as the foundation of social life. Justice, according to the character Thrasymachus in Plato’s *Republic*, is nothing more than “the interest of the stronger.”

Typical of this genre was the Epicurean School, which arose when the Greek city-states were in decline. The Epicureans advocated a thoroughgoing materialism and an individualistic pain-pleasure ethic that long predated the social contract theorists, utilitarians, and other conservative modern thinkers. To the Epicureans, individual self-interest is the driving force in humankind, and the “good life” amounts to nothing more than the satisfaction of our personal appetites and material wants. States are formed primarily to provide security against the depredations of others, and anything beyond this represents, in effect, a set of conditional, contractual arrangements to facilitate our personal self-interests.

In the Epicurean paradigm, moreover, there is no instinctive preference for, or obligation to, society, and justice is solely a matter of expediency. According to the Golden Maxims of Epicurus, the school’s founder: “There never was an absolute justice but only a convention made in mutual intercourse, in whatever region, from time to time... Whatever in conventional law is attested to be expedient in the needs arising out of mutual intercourse is by nature just, whether the same for all or not, and in case, any law is made and does not prove suitable to the expediency of mutual intercourse, then this is no longer just... For the time being, it was just, so long as we do not trouble ourselves about empty terms but look broadly at facts...”

The Cynic school was even more hostile to the community and the state. Rejecting all social life, all rules of social intercourse or conventions, even the benefits of learning, the Cynics’ attitudes ranged from rugged individualism to utopian anarchism and an idealized communism. The modern libertarian novelist, Ayn Rand (much-admired in conservative circles), provides us with a high-decibel echo of these ancient theorists. In her two best-selling novels, *The Fountainhead* and *Atlas Shrugged*, Rand’s protagonists were defiant individualists. “Just as life is an end in itself, so every living human being is an end in himself, not the means to the ends or welfare of others – and, therefore, man must live for his own sake, neither sacrificing himself to others nor sacrificing others to himself...” Rand’s political philosophy seems paradoxical: “Civilization is the process of setting man free from men...”

Needless to say, there have been many variations on the realist theme over the past 2,000 years. For example, in... Machiavelli’s darkly cynical masterpiece, the *Prince*,

politics is portrayed as the pursuit of self-interest clothed in altruistic rhetoric (“who gets what, when, how,” in the words of the modern political scientist Harold Lasswell), and political power is often an end in itself. In Machiavelli’s view, human nature is incurably selfish, aggressive, and acquisitive. Only the raw power of the state can prevent anarchy. (In the cutthroat political environment of 16th century Italy, there was, unfortunately, much truth to this claim...) Indeed, Machiavelli was the very father of the argument that Machiavellian machinations – the use of deception, chicanery, and naked force – were necessary if a ruler hoped to obtain his ends...

Thomas Hobbes, whose outlook was deeply affected by the turmoil of the English civil wars, purveyed an equally dour vision of the political community. If economics is the “dismal science” (in Thomas Carlyle’s epithet), Hobbes was the perpetrator of a dismal political science. In the state of nature, Hobbes claimed in the *Leviathan*... humans are totally, relentlessly egoistic. “I put for a general inclination of all mankind, a perpetual and restless desire for power after power, that ceaseth only in death.” Since all men are more or less equal in strength and cunning, Hobbes asserted, the state of nature is a “war of every man against every man...” Although peaceful cooperation may also be conducive to our self-preservation, fear of punishment is the only reliable way to curb our egoistic behavior. “Covenants without the sword are but words, and of no strength to secure a man at all...” Therefore, the state is primarily an instrumentality for curbing our natural appetites and assuring mutual self-preservation; it amounts to nothing more than a contingent social contract. Furthermore, only an absolute monarchy (a “leviathan”) can be truly effective in preventing anarchy. Hobbes, like the Epicureans, also viewed “justice” as a meaningless term. It amounts to whatever a person can get, and keep, and the good life is merely the sum of our separate self-interests.

The other great English social contract theorist, John Locke, lived in a very different, less turbulent period and pursued a different political agenda. As a self-appointed spokesman for a rising middle class that wanted to curb the power of the monarchy, Locke adopted a sharply contrasting set of assumptions about the state of nature. Whereas Hobbes viewed his fellow men darkly as the slaves of restless, irrational passions, Locke, in his *Two Treatises of Government* (1690), portrayed humankind as fundamentally rational; the state of nature was therefore a condition of peace and mutual aid. Humans are also endowed with certain inherent “natural rights,” especially property rights. Hence societies (and governments) exist to preserve and enhance these rights; in effect, a society is a voluntary association for mutual benefit. According to Locke, the state does not exist to serve some vision of what is good for the community as a whole, or some disinterested concept of justice. The state’s claims to power are circumscribed by its limited, contractual purpose. If this sounds familiar, it is because the fathers of the American Constitution were greatly influenced by Locke’s thinking... As Grady and McGuire point out, modern constitutions are as much concerned with imposing constraints on the exercise of “sovereign power” as with any conception of the “general welfare.”

2.3 The Ethological Model

A new chapter in this ancient debate opened with the emergence of the science of ethology in the 1960s. Although the systematic study of animal behavior [viz., ‘ethology’, from Greek *ēthos* meaning ‘nature’, ‘disposition’, and (plural) ‘customs’] dates back to Darwin’s day – as evidenced in his landmark book on *The Expression of the Emotions in Man and Animals*... as well as the pioneering work of the so-called comparative psychologists during the latter 19th and early 20th Centuries – many social scientists of the 20th Century rejected the evolutionary/biological paradigm as being irrelevant to humankind. Human nature was widely assumed to be a *tabula rasa* [“clean slate”] that was shaped exclusively by cultural influences. In a famous, often-cited passage, the well-known anthropologist of that era, Ashley Montagu... asserted that, except for a fear of falling and of sudden loud noises, human beings have no instincts.

However, support for this ideologically-tainted model began to erode with the publication of various ethologically-grounded books... along with the rise of the biopolitics movement in political science and, somewhat later, the founding of sociobiology and evolutionary psychology. (The origins of ethology predated World War II, but only in the 1960s did its contributions become widely known – and debated.) The new debate over the nature of politics and its role in human evolution was initiated by anthropologists Lionel Tiger and Robin Fox in their provocative popularization, *The Imperial Animal* (1971). What Tiger and Fox did, and with a certain relish, was to equate politics in human societies with dominance competition in the natural world. Thus politics is “a world of winners and losers.” The political system, they claimed, is synonymous with a “dominance hierarchy.”

At first glance, it may seem that Tiger and Fox were promoting the Machiavellian vision (seconded by such modern-day theorists as Hans Morgenthau) that politics is essentially “a struggle for power.” As the character O’Brien put it in George Orwell’s masterpiece, the novel *1984*, “power is not a means; it is an end... the object of power is power.” Yet Tiger and Fox also recognized that dominance competition in nature also has a purpose. It is related to competition for scarce resources – nest sites, food, and especially obtaining mates. Tiger and Fox concluded that “the political system is the breeding system.” Having thus flagrantly caricatured this ancient term, Tiger and Fox were then forced to concede that politics in human societies serves very different purposes. It is more often associated with leadership, the division of labor and cooperative activities of various kinds. It has become dissociated for the most part from breeding functions (with some notable exceptions, like Genghis Khan). Unfortunately, Tiger and Fox did not bring this crucial distinction into focus. In the end, we were left mainly with a loose analogy.

A more coherent case for the proposition that human politics is related to dominance behaviors in other species was developed in a succession of works by the primatologist Frans de Waal, beginning with his *Chimpanzee Politics: Power and Sex Among Apes* (1982)... Drawing on his own extensive research in captive chimpanzees, as well as the many long-term field studies of these animals, de Waal

offered a deeper, richer perspective on the issue. The struggle for power and influence is ubiquitous among these animals, he acknowledged. From the animals' motivational perspective, this may well be an end in itself. And, yes, the dominant animals may gain advantages in terms of such things as nesting sites and breeding privileges. But there is much more to dominance behaviors than this. The competition for status very often involves coalitions and alliances; it is often a group process rather than an individualistic, Hobbesian "war". Indeed, there is much evidence that social constraints on dominance behaviors are common, both in these and other social animals; coalitions sometimes form to thwart the actions of a dominant animal. And in bonobos (or pygmy chimpanzees), a loose female hierarchy seems to form the organizational backbone of the group; females often band together to constrain an aggressive male... (Also relevant is the evidence for what Boehm... calls an "egalitarian syndrome" in small-scale human societies, like hunter-gatherers.)

More important, stable dominance hierarchies in chimpanzees and other social animals also have functional importance for the group – maintaining peace, arbitrating disputes, limiting destructive competition, mobilizing collective action, even defending the group against outside threats. The intense interdependence of social animals like chimpanzees and bonobos also leads to a degree of reciprocity and generosity, such as food sharing. More recent work in chimpanzees, bonobos, orangutans and other socially-organized species also suggests that interpersonal social relationships and interactions can be very complex, and that cultural influences may also play an important part... In fact, there may even be a degree of "democratic" participation in various group decision-making processes... Nor does one size fit all. The dynamics may differ from one group to the next, or even within the same group over time...

De Waal... invoking Aristotle, concluded that chimpanzees are also political animals: "We should consider it an honor to be classed [along with chimpanzees] as political animals," he says. (For the record, this is also consistent with Aristotle's usage, as Arnhart points out. Aristotle applied the term to any socially-organized species that cooperates in jointly pursuing various aspects of the survival enterprise, from honeybees to wild dogs and killer whales. For obvious reasons, Aristotle placed humans at the pinnacle of this category.)

In sum, the ethological model indicates that both the holistic (idealist) model of politics and the egoistic (realist) model have some validity; they are not mutually exclusive. As de Waal... points out, we also need to ask "what's in it for the subordinate?" His answer: "The advantages of group life can be manifold... increased chances to find food, defense against predators, and strength in numbers against competitors... Each member contributes to and benefits from the group, although not necessarily equally or at the same time... Each society is more than the sum of its parts." (In other words, cooperative social groups may produce mutually-beneficial synergies...)

Accordingly, in the modern version of the ethological model, dominance behaviors may take on the functional attributes of leadership, and a dominance hierarchy may provide a framework for organizing various cooperative activities, including a division (combination) of labor... Such organized “political systems” are characterized by overarching collective goals, decision-making, interpersonal communications, social control processes and “feedback”. In short, political systems are cybernetic systems.

2.4 The Cybernetic Model

Political scientist Robert Dahl... has written that a definition is in effect “a proposed treaty governing the use of terms.” The treaty I have long promoted embraces both idealist and realist models, and much more. It defines politics as being isomorphic [i.e., “the same (‘iso’) or similar in form and relations”] with social cybernetics. To be specific: *A political system is the cybernetic aspect, or “subsystem”, of any socially organized, cooperating group or population. Politics in these terms refers to social processes that involve efforts to create, or to acquire control over, a cybernetic social system, as well as the process of exercising control.* Power, in this definition, is essentially a means, not an end. Moreover, political power can be attained in many different ways, including family inheritance, acquired wealth, seniority, expertise, merit, drawing straws, elections, the use of lethal force, and, yes, the often potent influence of amorous love. (Indeed, Mohandas K. Gandhi – and many others since – have shown that political power can also be exerted by withholding cooperation, or through the use of non-violent “civil disobedience”...)

This definition of politics is not original. The term ‘cybernetics’ can be traced back to the Greek word *kybernetes*, meaning steersman or helmsman, and it is also the root of such English words as ‘governor’ and ‘government’. In the nineteenth century, the French scientist André Ampère took to using the term ‘cybernetics’ as an equivalent for politics... More recently, the term has been employed by [many other political scientists]... The cybernetic model is also widely employed by life scientists, engineers, and physicists, and there are numerous books and several scientific journals devoted to this subject.

The single most important property of a cybernetic system is that it is goal-oriented. Consider this problem: When a rat is taught to obtain a food reward by pressing a lever in response to a light signal, the animal learns both the instrumental lever-pressing behavior and how to vary its behavior patterns in accordance with where it is in the cage when the light signal occurs, so that whatever the animal’s starting position, the outcome is always the same.

How is the rat able to vary its behavior in precise, “purposeful” ways so as to produce a constant result? Some Behaviorist psychologists of the 20th Century promoted a mechanistic model in which environmental “cues” were said to be modifying the properties of various stimuli that were acting on the animal, thus modifying the animal’s behavior in a deterministic way. But this model is implausible. It requires the modifying cues to work with quantitative precision on the animal’s nervous

system; these cues are hypothetical and have never been elucidated; and most important, this model cannot deal with novel situations in which the animal has had no opportunity to learn modifying cues. A far more economical explanation is that the animal's behavior is "purposive": the rat varies its behavior in response to immediate environmental feedback in order to achieve an endogenous goal (food), which in this case also involves a learned sub-goal (pressing the lever).

The pioneer systems theorist William T. Powers... has shown that the behavior of a cybernetic system can be described mathematically in terms of its tendency to oppose an environmental disturbance of an internally controlled quantity. The system will operate in such a way that some function of its output quantities will be nearly equal and opposite to some function of a disturbance of any of the environmental variables that affect the controlled quantity, with the result that the controlled quantity will remain nearly at its zero point. [Incidentally, Dear, in chemistry that's known as Le Chatelier's principle (the condition for a system to be in equilibrium), named after the French chemist Le Chatelier (1850–1936).] The classic example is a household thermostat. In this model, "feedback" plays a key role in controlling the behavior of the system. In other words, cybernetic processes are always the result of a system-environment interaction...

Needless to say, more complex cybernetic systems are not limited to maintaining any sort of simple and eternally fixed steady state. In a complex system, overarching goals may be maintained (or attained) by means of an array of hierarchically organized subgoals that may be pursued contemporaneously, cyclically, or seriatim. Furthermore, homeostasis shares the stage with "homeorhesis" (developmental control processes) and even "teleogenesis" (goal-creating processes). But in all cases, cybernetic systems are goal-oriented.

What is the justification for "dehumanizing" politics and converting the multifarious real-world processes to an abstract analytical model? One advantage is that it reduces the many particular cases to an underlying set of generic properties which transcend any particular institutional arrangement, not to mention the motivations and perceptions of the actors who are involved. The cybernetic definition is also functionally-oriented. It is focused on the processes of goal setting, decision making, communications, and control (including the all-important concept of feedback), which are in fact indispensable requisites for all purposeful social organizations. Indeed, cybernetic regulatory processes exist in families, football teams, business firms, and at all levels of government. To quote Dahl again...: "Whether he likes it or not, virtually no one is completely beyond the reach of some kind of political system. A citizen encounters politics in the government of a country, town, school, church, business firm, trade union, club, political party, civic association and a host of other organizations... Politics is one of the unavoidable facts of human existence."

However, in the cybernetic model, relationships of "power, rule, or authority" (Dahl's definition of politics) are not ultimately ends in themselves but the means to various ends (goals). Moreover, these goals can range from very personal and self-interested

– in conformity with the realist model – to public goals that are widely, or even universally shared – in accordance with the idealist model. Or, very often, the system may reflect an admixture of personal and public goals... Needless to say, this model also accommodates a range of alternative decision-making processes, from autocratic fiats to head-to-head (zero-sum) competition among various contestants to “negotiated” decisions, democratic “voting” processes or even entirely self-organized voluntary processes...

In the cybernetic paradigm, the struggle for power – or “dominance competition” in the argot [jargon] of ethology – is relevant and may (or may not) affect the Darwinian fitness of the participants, but this aspect is subsidiary to the role of politics *qua* cybernetics in the operation of any social system. Equally important, power struggles are a subsidiary aspect of the explanation for *why* such systems evolve in the first place. Social goals (goals that require the cooperation of two or more actors) and the anticipated or realized functional outcomes are the primary drivers.

Another advantage of this definition is that it enables us to view human politics as one variant among the array of functionally analogous (and sometimes even homologous) cybernetic regulatory processes that are found in all other socially organized species – from bacterial colonies to army ants and wolf packs – and in all known human societies, including by inference our group-living proto-hominid ancestors of more than 5 million years ago... Though there are great differences among these species, and among human societies, in how political/cybernetic processes are organized and maintained, both the similarities and the differences are illuminating. They are variations on a common theme.

In the rest of this article by Corning, he emphasizes the cybernetic analogy, ‘cybernetics’ being defined as “the science of communications and control systems...” In his analogy of politics within a social system (politics being like the thermostat for the heating system in a house), the important question (which I’ll address in later chapters) is: Who controls the thermostat? or “Whose goals predominate? Options include: a single person (e.g., in a dictatorship or a monarchy), a small group of people (oligarchy), just the rich people (a plutocracy), technocrats (a technocracy), representatives of the people (a republic), all the people (a democracy), and so on, including nobody (anarchy). But setting that question and those possibilities aside for now, Corning concludes his article as follows.

...a cybernetic definition of politics is grounded in a biological – and functional – perspective and is related, ultimately, to the biological problem of survival and reproduction in, and for, organized societies. Politics in these terms can be viewed as an evolved phenomenon that has played a significant functional role in the evolutionary process; political evolution has been inextricably linked to the synergies that have inspired the “progressive” evolution of complex social systems – in nature and human societies alike.

Not only is the cybernetic model compatible with both realist and idealist models (and the modern ethological model) but it fully conforms with Aristotle's (and Plato's) enduring vision. By contrast, Plato and Aristotle – notwithstanding the “idealist” label that some opponents have pinned on them – occupied a middle-ground between the extreme individualist and radical collectivist visions of human nature and politics... Plato and Aristotle recognized that an organized society is based on a division (combination) of labor and various forms of collective action to satisfy human needs and wants. It represents a network of cybernetic systems, from families to factories, markets and perhaps multiple layers of government. Aristotle's famous observation, in the *Metaphysics* (Book H, 1045:8-10), says it all: “The whole is something over and above its parts, and not just the sum of them all.” To reiterate, a society can be characterized as a “collective survival enterprise” – an interdependent “superorganism” that produces mutually beneficial synergies; it is organized to provide for our basic survival and reproductive needs.

However, Plato and Aristotle were also well aware of the fact that there is an inherent tension between the “public interest” and the sometimes destructive self-interests of various individuals and factions. [Dear: Soon, but in a later chapter, I'll return to problems caused by “factions”.] Societies are not, unfortunately, self-equilibrating. (This is precisely why the concept of social justice played such an important part in their political thought.) Accordingly, there is no “standard model” to which all governments conform. In practice, Plato and Aristotle argued, governments can range from a highly exploitative tyranny to a top-heavy oligarchy, mixed democracy or anarchic mob rule. Needless to say, this profoundly important distinction among different types of government – and their political biases – has been overwhelmingly confirmed in the past 2,000 years of political history...

Though politics as we have defined it here often entails the pursuit of narrow self-interests (in accordance with the realist model), it also takes place within a larger context – the purposes and interests of the collective survival enterprise as an interdependent system (in accordance with the idealist model). Both of these classical renderings of politics have merit; they are not, in fact, mutually exclusive. Indeed, there is an inherent interplay, and very often a tension, between them.

The reality of the human condition is that the “superorganism” is the key to our survival and reproduction, as it has been for millions of years. However, this vision of the “public interest” does not negate or ignore our individual self-interests. Rather, it represents an aggregation of those interests into an immensely complex system of synergies based primarily on mutualism and reciprocity. The superorganism serves our self-interests in a multiplicity of ways; it provides both collective goods and corporate goods. And the public interest consists of preserving and enhancing these benefits.

Accordingly, the “state” has evolved as an instrumentality for “self-government” and the pursuit of the public interest – though its overarching purpose is all too often subverted. Plato and Aristotle apprehended the overarching purpose of the collective survival enterprise (and its inherent vulnerability) in their conception of the *polis*, and Aristotle prescribed a “mixed” government under law as our best hope for ensuring that the public interest would be faithfully served. Plato and Aristotle also recognized that a fair-minded form of “justice” is an essential element of the public interest; this is the only way to ensure the long-term stability and “legitimacy” (the willing consent) of the members of the community. Over the past 2,000 years we have added very little to this vision that is fundamentally new, though we have made many important improvements in the “machinery” of self-government.

What is sobering, even dismaying, is that we seem forever to be forgetting and then re-learning this ancient lesson. Witness the former British Prime Minister Margaret Thatcher, who famously claimed that “there is no such thing as society.” The response to her contemptuous remark is that a society exists when people believe it does and act accordingly (or *vice versa*). Plato and Aristotle, and many others since, have stressed that the political order can be what we make of it. To a significant degree, our actions create self-fulfilling prophecies. If honesty, trust, mutual respect, courtesy and the spirit of compromise are the prevailing norms while deviants are ostracized and penalized, a society and its institutions will likely reflect these values, by and large. Conversely, if the cultural climate encourages deception, vicious partisanship, demonizing opponents, and an uncompromising no-holds-barred attitude toward opposing interests, the social and political environment will more closely fit the paradigms of Machiavelli and Hobbes. In the final analysis, our politics is a matter of choice, not a mindless reflection of human nature. Thus, if we choose to remain captives of destructive racial, religious, cultural or economic class divisions, shame on us.

In any case, the bottom-line conclusion of Plato and Aristotle remains valid today. For better or worse, our evolutionary future is dependent upon the goods and services that are provided (or not) by the collective survival enterprise, along with the decisions and actions that we undertake collectively (or not) in the public interest. For this reason, the continuing quest for social justice, and the good life, remains the central challenge for every organized society, as well as for each one of us. It is a goal worth striving for, because our own survival, and certainly that of our descendants, may very well depend upon it. Nothing less than our evolutionary future is at stake. To paraphrase the American “founding father,” Benjamin Franklin, in the long run either we will survive together or go extinct separately.

Dear: To glimpse more of our possible “[evolutionary future](#)” (and to see further into the importance of communications to our evolution), I encourage you to consider the following ideas, given in the summary of John Stewart’s online book *Evolution’s Arrow*.⁵ In this quotation, I’ve added some boldface type for emphasis [as well as a few notes in brackets].

EVOLUTION’S ARROW – Summary

by John Stewart, January 2006

A major evolutionary transition is beginning to unfold on earth. Individuals are emerging who are choosing to dedicate their lives to consciously advancing the evolutionary process. They see that their lives are an important part of the great evolutionary process that has produced the universe and the life within it. They realize that they have a significant role to play in evolution.

Redefining themselves within a wider evolutionary perspective is providing meaning and direction to their lives – they no longer see themselves as isolated, self-concerned individuals who live for a short time, then die irrelevantly in a meaningless universe. They know that if evolution is to continue to fulfill its potential, it now must be driven consciously, and it is their responsibility and destiny to contribute to this.

“The most meaningful activity in which a human being can be engaged is one that is directly related to human evolution. This is true because human beings now play an active and critical role not only in the process of their own evolution but in the survival and evolution of all living beings. Awareness of this places upon human beings a responsibility for their participation in and contribution to the process of evolution. If humankind would accept and acknowledge this responsibility and become creatively engaged in the process of metabiological evolution consciously, as well as unconsciously, a new reality would emerge, and a new age would be born.” Jonas Salk

At the heart of this evolutionary awakening is the understanding that evolution is directional. Evolution is not an aimless and random process, it is headed somewhere. This is very important knowledge – once we understand the direction of evolution, we can identify where we are located along the evolutionary trajectory, discover what the next steps are, and see what they mean for us, as individuals and collectively.

Where is evolution headed? Contrary to earlier understandings of evolution, an unmistakable trend is towards greater interdependence and cooperation amongst living processes. **If humans are to advance the evolutionary process on this planet, a major task will be to find more cooperative ways of organizing ourselves.**

The trend towards increasing cooperation is well illustrated by a short history of the evolution of life on earth. For billions of years after the Big Bang, the universe expanded rapidly in scale and diversified into a multitude of galaxies, stars, planets

⁵ Available at <http://users.tpg.com.au/users/jes999/EvVission.htm>.

and other forms of lifeless matter. The first life that eventually arose on earth was infinitesimal – it was comprised of a few molecular processes. But it did not remain on this tiny scale for long. **In the first major development, cooperative groups of molecular processes formed the first simple cells. Then, in a further significant advance, communities of these simple cells formed more complex cells of much greater scale.**

A further major evolutionary transition unfolded after many more millions of years. Evolution discovered [learned] how to organize cooperative groups of these complex cells into multi-celled organisms such as insects, fish, and eventually mammals. Again the scale of living processes had increased enormously. This trend continued with the emergence of cooperative societies of multi-celled organisms, including beehives, wolf packs, and baboon troops. The pattern was repeated with humans – families joined up to form bands, bands teamed up to form tribes, tribes joined to form agricultural communities, and so on. The largest-scale cooperative organizations of living processes on the planet are now human societies.

This unmistakable trend is the result of many repetitions of a process in which living entities team up to form larger scale cooperatives. Strikingly, the cooperative groups that arise at each step in this sequence become the entities that then team up to form the cooperative groups at the next step in the sequence.

It is easy to see what has driven this long sequence of directional evolution – at every level of organization, cooperative teams united by common goals will always have the potential to be more successful than isolated individuals. It will be the same wherever life arises in the universe. The details will differ, but the direction will be the same – towards unification and cooperation over greater and greater scales.

Life has come a long way on this planet. When it began, individual living processes could do little more than influence events at the scale of molecular processes. But as a result of the successive formation of larger and larger cooperatives, coordinated living processes are now managing and controlling events on the scale of continents. And life appears to be on the threshold of another major evolutionary transition – humanity has the potential to form a unified and inclusive global society in symbiotic relationship with our technologies and with the planet as a whole. In the process, “we” (the whole) will come to manage matter, energy and living processes on a planetary scale. When this global organization emerges, the scale of cooperative organization will have increased over a million, billion times since life began.

If humanity is to fulfill its potential in the evolution of life in the universe, this expansion of the scale of cooperative organization will continue. The global organization has the potential to expand out into the solar system and beyond. By managing matter, energy, and living processes over larger and larger scales, human organization could eventually achieve the capacity to influence events at the scale of the solar system and galaxy. And the human organization could repeat the great

transitions of its evolutionary past by teaming up with any other societies of living processes that it encounters.

“We are the product of 4.5 billion years of fortuitous, slow biological evolution. There is no reason to think that the evolutionary process has stopped. Man is a transitional animal. He is not the climax of creation... We are set irrevocably, I believe, on a path that will take us to the stars – unless in some monstrous capitulation to stupidity and greed we destroy ourselves first.”
Carl Sagan

The great potential of the evolutionary process is to eventually produce a unified cooperative organization of living processes that spans and manages the universe as a whole. The matter of the universe would be infused and organized by life. The universe itself would become a living organism that pursued its own goals and objectives, whatever they might be. In its long climb up from the scale of molecular processes, life will have unified the universe that was blown apart by the Big Bang.

As life increases in scale, a second major trend emerges – it gets better at evolving. Organisms that are more evolvable are better at discovering the adaptive behaviors that enable them to succeed in evolution. They are smarter at finding solutions to adaptive challenges and at finding better ways to achieve their goals.

Initially living processes discover better adaptations by trial and error [or “trial and success”!]. They find out which behaviors are most effective by trying them out in practice. Initially this trial and error search occurs across the generations through mutation at the genetic level. An important advance occurs when this gene-based evolution discovers how to produce organisms with the capacity to learn by trial and error during their lives.

In a further major transition, organisms evolve the capacity to form mental representations of their environment and of the impact of alternative behaviors. This enables them to foresee how their environment will respond to their actions. Rather than try out alternative behaviors in practice, they can now test them mentally. They begin to understand how their world works, and how it can be manipulated consciously to achieve their adaptive goals.

Evolvability gets another significant boost when organisms develop the capacity to share the knowledge that they use to build their mental representations. Imitation, language, writing and printing are important examples of processes that transmit adaptive knowledge. These processes enable the rapid accumulation of knowledge across generations and the building of more complex mental models.

Eventually organisms with these capacities will develop a theory of evolution – they will acquire the knowledge to build mental models of the evolutionary processes that produced the living processes on their planet, including themselves. For the first time they will have a powerful, science-based story that explains where they have come from, and their place in the unfolding of the universe.

“Only after we had absorbed Darwin and recalculated the age of the universe, after the vision of static forms of life had been replaced by a vision of fluid processes flexing across vast tracts of time, only then could we dare to guess the immensity of the symphony we are part of.”

Christopher Bache

“None of the scientists of the seventeenth, eighteenth, or nineteenth centuries knew the larger implications of what they were doing or the discoveries they were making. Yet each of the major figures was contributing something essential to a pattern of interpretation that would only become clear in the mid-twentieth century. Only now can we see with clarity that we live not so much in a cosmos as in a cosmogenesis, a cosmogenesis best presented in narrative; scientific in its data, mythic in its form.” *Brian Swimme and Thomas Berry*

On any planet where life emerges, the trend to increased evolvability is likely to eventually produce organisms who awaken to their evolutionary history and its future possibilities. They will begin to understand the wider-scale evolutionary processes that have produced them and that will govern the future of life on their planet. The organisms will begin to see themselves as having reached a particular stage in an on-going and directional evolutionary process. They will know where evolution is headed, and what they must do if they are to advance evolution on their planet.

“The stories a culture tells itself – and which are told to it – have the capacity to shift mass consciousness profoundly and rapidly. We see this phenomenon in politics, PR, and mass media every day. This fact inspires some of us to work with the framework of the sacred Great Story of Evolution, to make it into a mainstream cultural narrative. It is, by its nature, a story that almost everyone can share and find meaning and inspiration in. We dream of a movement that spreads this story AND supports it in having its transformational impact by waking up millions of people on the edge of evolution, and helping them live into their own 14 billion year evolutionary story and grow into their evolutionary role with others in ways which have actual impact on the fate of humanity and the Earth.” *Tom Atlee*

On any planet which reaches this stage, some individuals will begin to undergo a critical shift in consciousness. Increasingly they will cease to experience themselves primarily as isolated and self-concerned individuals. Instead, they will begin to see and experience themselves as participants and actors in the great evolutionary process on their planet. The object of their self-reflection will change. When they think of themselves, they will tend to see themselves-as-part-of-the-evolutionary-process. Their conscious participation in evolution will increasingly become the source of value and meaning in their lives. Key realizations that will contribute to this shift in consciousness are:

- A life dedicated to the pursuit of narrow desires and pleasures cannot be worthwhile. They will see that their desires are evolution’s way of programming them to be adaptive and successful in past environments. In many cases their desires and pleasures no longer serve evolution’s interests – they often produce behavior that is now maladaptive, and motivate actions that will undermine rather than advance the evolutionary process;
- They have the opportunity to be conscious participants in the evolutionary processes that will shape the future of life on their planet. They can play an important role in the actualization of the next great steps in evolution;

- The successful future evolution of life on their planet depends on their conscious participation. Unlike past great evolutionary transformations, the steps to a unified and sustainable planetary society and beyond are too complex to be discovered by trial and error. They will be achieved only through the conscious efforts of organisms, and not otherwise. Conscious organisms will need to envision the planetary society and design strategies to get there. If it is left to chance, it will not happen – in the past, chance took millions of years and many false starts to produce cooperative organizations such as complex cells;
- Their actions can have meaning and purpose insofar as they are relevant to the wider evolutionary process. To the extent that their actions can contribute positively to evolution, they are meaningful to a larger process outside themselves that has been unfolding long before they were born, and that will continue long after they die;
- The evolutionary perspective therefore provides them with an answer to the great existential question that confronts all conscious individuals: What should I do with my life?
- Their awakening to the evolutionary perspective and the awakening of others like them is itself a critically important evolutionary event on their planet.

The emergence of individuals who undergo this shift in consciousness is the evolutionary process on the planet becoming aware of itself. Through these individuals, the evolutionary process develops capacities for self-reflection, self-knowledge, and foresight. It will use these abilities to continually redesign itself to accelerate its own advancement.

“As a result of a thousand million years of evolution, the universe is becoming conscious of itself, able to understand something of its past history and its possible future. This cosmic self-awareness is being realized in one tiny fragment of the universe – in a few of us human beings. Perhaps it has been realized elsewhere too, through the evolution of conscious living creatures on the planets of other stars. But on this our planet, it has never happened before.” Julian Huxley

Individuals that embrace the evolutionary perspective will set out to align their personal goals with evolutionary objectives. They will attempt to free themselves from pre-existing motivations and needs that conflict with evolutionary goals. They know that this will be essential if their species is to continue to contribute to the advancement of the evolutionary process – the organisms that play a significant role in the future evolution of life in the universe will not be those that continue to stay on the planet on which they emerge, masturbating stone-age desires forever.

Freedom from pre-existing goals will not be achieved easily in the case of motivations and needs that have been deeply entrenched by their biological and cultural past. The individuals will seek techniques and practices – and join together in groups – that enable them to go beyond these pre-existing goals. From our current human perspective, they will attempt to develop the capacity to transcend their egos,

grounding themselves increasingly in the realities and imperatives of evolution. Individuals who succeed in doing so will be able to direct consciousness to wherever it can be most effective in contributing to the advancement of the evolutionary process. The enormous creativity of consciousness will no longer be wasted on the pursuit of self-centered desires and needs established by past evolution.

“From an evolutionary perspective, each of us is the result of a series of continuous living identities stretching back for at least three billion years. And cosmologists tell us that each of us has a story that actually extends all the way back to the beginning of the Universe. We can call the self seen from a personal perspective our “small self”, and our self seen from an Evolutionary Perspective our “large self.” These two views of ourselves, taken together as a pair, expand our sense of identity, of who we are. We are at once our personal selves limited to here and now. We are also life and matter in continuity for 13.7 billion years. The implications of this inclusive view are awesome. Our purpose is to explore these implications and how from this expanded sense of self, our truer selves, we can reframe our understanding of purpose and meaning, find a more lasting sense of happiness, and feel more connected to ourselves and others around us. We will also explore new modes of acting out of this new sense of identity.” Global MindShift Project

Individuals that develop the psychological capacity to transcend these motivations and needs will actualize a further major transition in evolvability. They will be self-evolving beings – organisms that have the ability to adapt in whatever directions are necessary to advance the evolutionary process, unrestricted by their biological and social past. Groups, organizations, communities, and societies will undergo similar transformations which enable them to transcend the constraints of their history and culture.

Individuals and groups that embrace the evolutionary perspective will also work to encourage all other groups within society to reframe their goals and mission statements to align them with evolutionary objectives. Social, political, governmental and economic organizations will begin to re-evaluate their activities and goals to ensure they are consistent with the advancement of the evolutionary process.

As more and more individuals and groups make this transition to an evolutionary perspective, a wave of evolutionary activism will emerge, directed at the unification of living processes on the planet to form a cooperative planetary society.

“The impetus for this will grow as the old social forms continue to poorly manage the accelerating stresses being placed upon them including the deterioration of the global ecosystem, overpopulation, chronic poverty, and racial and ethnic fears. When the old social forms start to crumble, the new forms need to be in place and working so they can enable a smooth evolutionary transition process.

We need to get more people inventing and succeeding with the social innovations of a consciously envisioned future. We need to sell this as the best game on the planet – nothing short of consciously reinventing the world and the future evolution of our species!” David Gershon

Humanity has reached this major evolutionary threshold. The next great step in social evolution on earth is the formation of a unified, sustainable and creative global society. On earth, individuals and groups are beginning to emerge who have decided to consciously contribute to the evolutionary process by doing what they can to

actualize such a global society. They are energized by the realization that their evolutionary awakening and activism is part of a significant evolutionary transition on earth.

“It is as if man had been suddenly appointed managing director of the biggest business of all, the business of evolution – appointed without being asked if he wanted it, and without proper warning and preparation. What is more, he can’t refuse the job. Whether he wants to or not, whether he is conscious of what he is doing or not, he is in point of fact determining the future direction of evolution on this earth. That is his inescapable destiny, and the sooner he realizes it and starts believing in it, the better for all concerned.” Julian Huxley

Humanity will draw on its evolutionary history to see how to build a cooperative and unified global society. As we have noted, evolution has repeatedly organized self-interested entities into new cooperative wholes. Evolution shows us how cooperation can be organized without individuals having to submerge their own interests or to fundamentally change their natures. Humans will not have to become saintlike – a cooperative global society can be achieved without people having to sacrifice or suppress their self-interest.

Evolution produces cooperation by instituting forms of social organization that align the interests of individuals with the interests of the collective. Drawing on these evolutionary examples, humanity can institute forms of organization at the global scale that will align the interests of citizens, corporations, and nations with the interests of the global society.

Entities at all levels will feel the impact of their actions on others and on the collective – they will benefit whenever they benefit the global society, and they will be harmed whenever they harm the collective. Pollution and war will no longer pay. Pursuit of self interest alone will lead all participants in the global society to act cooperatively and in the interests of the global society. All participants will treat the other as self because any impact they have on the other will have a comparable impact on them.

In the past, the emergence of new cooperative organizations gave rise to an explosion of diversity and differentiation within the new organizations. This will be repeated at the global scale. The new forms of social organization will also enhance the evolvability of our existing forms of government. Government will be replaced with far more intelligent and adaptable processes that utilize the dynamism, creativity and energy of properly managed markets. Like effective markets, the new governance processes will harness a diversity of perspectives to solve adaptive challenges.

“... what we are after here is not a static ideal form of society. We want social systems that can change themselves – that can consciously evolve in healthy directions – over and over, in ongoing response to emerging understandings and new challenges. We want to nurture this capacity to consciously evolve together forever.” Tom Atlee

When larger-scale cooperatives of living processes have emerged previously in evolution, they have undergone a process of individuation. The unified global society can be expected to follow a similar evolutionary path. It will progressively develop

internal processes that enable it to act, adapt and relate as a coherent whole – eventually the planet will be able to speak with one voice. For the first time, there will be an entity that other planetary societies could relate to and interact with. There will be an entity at the same level as other planetary societies. If earth is successful in reaching this level, a new universe of possibilities and experiences will open up to humankind.

“Man is in the making; but henceforth he must make himself. To that point Nature has led him, out of the primeval slime... Let him look no more to her for aid; for it is her will to create one who has the power to create himself. If he fails, she fails; back goes the metal to the pot; and the great process begins anew. If he succeeds, he succeeds alone. His fate is in his own hands...”
G. Lowes Dickinson

I apologize for quoting so much, Dear (especially since you could have easily read it directly from Stewart’s website), but I wanted to try to increase the probability that you’d read it (☺), because I think that what he’s describing is so important for humanity’s future – assuming we have one! In the next chapter, I’ll try to show you what I meant by that “assuming we have [a future]”; meanwhile, why don’t you improve the possibility that you’ll have one – by getting some more exercise?!