

Scientism

A system of ethics based on reason without recourse to supernatural belief

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Religion and science are often seen as opposite poles in our understanding of the world. The one seeks knowledge through ancient tradition, passed on through the generations as *revealed knowledge*; knowledge that we take on faith, while the other finds its source from directly observable or verifiable facts; it is a philosophy of eternal skepticism, the polar opposite of faith. The believer *begins* with the assumption that God exists, or that life is eternal, or whatever his faith entails. These are not the end-product of a long chain of reasoning, but rather, they are the starting point that anchors the beginning of that chain of reasoning. They are initial assumptions which are never themselves called into question. Just as we never think to question our own existence, or the fact that we have experience, the believer never thinks to question the existence of God, or of his own immortal soul.

And yet while religion and science are in some sense polar opposites, there is also much in common between them. Both are carefully crafted systems of thought, concerned with establishing the real truth behind the world we see in experience. Both use logic and reason to persuade, and both record their laws, methods, and conclusions in a rich literature that is taught to subsequent generations in educational institutions. They are both concerned with the propagation of knowledge, even if that knowledge is arrived at by different means. In fact, science can itself be seen as a kind of religion, or at least a logical successor to religion, the latest, most reasonable faith, that serves the purpose of providing an explanation of the origins and workings of the world, but without recourse to a supernatural world beyond scientific observation. Science seeks to replace dogma with observation and reason.

There is in fact a certain degree of faith that is required even in science, a faith in the rightness of the scientific method, a faith in the existence of an objective physical world, and a faith in the lawfulness of that world, a belief that it is capable of being understood, and that it generally does not behave in a capricious or miraculous manner. While most reasonable people hold these assumptions as so obvious as to be beyond question, science can never disprove solipsism, it is always possible that this world is just a vivid dream or hallucination in *my* Mind, and my Mind is the only thing in existence, all other minds being mere figments of My imagination. And likewise, science cannot disprove the Berklean notion that the world around us is not a physical world, but is the Mind of God who imagines the universe into existence, a Mind which can be capricious and unpredictable, capable of miraculous or supernatural violations of its own apparent laws. And science can never disprove the existence of an immortal soul, at least as long as that soul is by definition undetectable by physical means. The choice whether to adopt an empirical, scientific view of the world, or a dogmatic faith-based view of reality, is very much a personal choice made on the basis of gut feel, or native intuition, a methodology which does not communicate well from one mind to another.

Scientism is the belief that science and its method of skeptical inquiry is the most reliable path to the truth. In fact, most scientists are already believers in scientism, otherwise they would not bother with science, although this belief is usually restricted to the search for physical truth. But there is a more general, all-inclusive form of Scientism (capitalized here for this meaning) which is the belief that the methods of science are not only appropriate for discovering physical truths, but also for all other truths, including those traditionally treated in philosophy, ethics and morality, political and cultural philosophy, and the rights and wrongs of human interaction. But the term Scientism is most often used pejoratively, as a contradiction in terms, because the belief in this more general form of Scientism is not itself a scientific conclusion but just a belief, as unprovable as any other belief system. To quote Michael Shermer (<http://www.skeptic.com/scientism.html>), "*Scientism ... is the self-annihilating view that only scientific claims are meaningful, which is not a scientific claim and hence, if true, not meaningful. Thus, scientism is either false or meaningless.*" The key point of my thesis is that yes, I acknowledge that Scientism is a religion, in the sense that it is an initial assumption that seems to make intuitive sense to me, but which I cannot prove beyond a doubt, and the readers should decide for themselves whether or not they find this belief credible. So science can be seen in some sense as the latest generation of religious belief, a belief in the triumph of reason over mysticism, as the most proven and reliable path toward the objective truth.

But science has not replaced religion entirely, and that is because there is something that religion offers which is outside the scope of science. Religion offers a system of *values*, right and wrong, good and evil, a code of morality, and that is why even many scientists choose a religious belief to guide their lives. Although science is unquestionably the best tool to answer any question one might choose to ask, science offers no hint as to which questions are important to ask. Questions of value are totally outside the scope of science.

Unfortunately religion snatches its moral imperatives seemingly out of thin air. At some point some enlightened seer somehow *feels* the right moral laws, and like Moses on the mountain, carves them into stone to share with others. And others accept these moral imperatives not because they are carved in stone, but because people instinctively feel the rightness of the code. A good moral code is one that appeals to people's innate sense of justice or fairness, what believers call our *conscience*. These feelings of morality are not completely arbitrary, snatched out of thin air, there is a certain logic to them, they are the rules of behavior that have been found over long experience to lead to a just and harmonious society. The reason why we feel them instinctively to be right, must originate in evolution. People who instinctively followed "good" moral laws generally fared better than those who were lacking in a "good" moral instinct, and thus, natural selection has sculpted our moral instincts toward the types of behaviors that are most beneficial to our survival. If we can understand the principles by which morality evolved, and why one moral code turned out to be more successful than another, then we can devise a *pragmatic moral code* that optimizes those principles, and thus take a step toward transforming morality from a subjective intuitive belief system, to an objective scientific investigation of the dynamic principles of social organization.

But there is an aspect of morality that remains in principle outside of science, and that is the moral imperative for the individual to actually follow the moral code, and to do the right thing even when it is difficult to do so. Moral codes serve principally for the good of society, and there is always a tension between the interests of the individual and those of the society at large, and this tension is most stark in circumstances where the individual is alone and not being observed, when he has a lot to gain and nothing to lose by breaking the rules. The character of a man is seen in his readiness to do the "right thing" even when he

knows that nobody is there to see it. Whenever this determination is contrary to his own self-interest, it is thereby an irrational act, the atheists' dilemma: Why do the right thing when nobody will ever know? Even if we understand the principles of morality, and why a moral code is good for society in general, it takes an act of faith, of irrational determination to commit oneself to a greater cause than one's own self-interest. This is a choice that is made outside of reason, in the realm of primal feeling or moral instinct. Societies whose members have this primal feeling are more harmonious and thereby more prosperous, and that is why the moral feeling has survived and propagated to this day. The moral instinct in humans is a product of natural selection of cultures, not of individuals, and it benefits the individual indirectly, only through the good that it does to the collective.

But the continued presence of selfishness and greed in human instincts is evidence that the dominance of society over the individual is not absolute, it is the product of a co-evolution in a continual dynamic tension between the interests of the individual stacked against those of society, where selfishness and greed serve the interest of the individual, while social control serves the collective good. As long as people and their societies continue to evolve, which will be as long as they continue to exist, there will always be deviant individuals who must be continually be weeded out by society for the sake of its very survival, just as there will always be deviant societies that try to wrest total control of their people, at the cost to the individuals liberty and prosperity. These deviations will always emerge spontaneously by random mutation, and survive briefly, due to the immediate rewards that they confer selectively on their party in the social contract, and they will be continually extinguished some time after they emerge, due to the harm they impose on their counterpart, which ultimately hurts both parties. The successful society is one that remains in a dynamic balance between the centrifugal force of individual rights, and the centripetal force of social cohesion, a tension that we can feel directly in our conflicting drives and motivations.

Are selfishness and greed really evil? Or is this only the way our moral codes have evolved to rein in the influence of the individual? Is there an objective way to assign moral value to anything? How can we possibly determine what is right and what is wrong? I propose a scientifically motivated morality whereby we investigate the principles and influences that guided the evolution of ethics and morality in human society, and trace its origins back to animal behavior, in an effort to identify a more general system of ethics based on scientific principles. The moral systems that evolved were those that were rewarded by success. Furthermore, I propose an unscientific leap of faith, and declare that the system of morality that survived through eons of biological and cultural evolution and thus appears in moral instincts today, is thereby and by definition morally *right*, whereas that which was extinguished from human instinctive behavior, or is in a continuous process of being extinguished, is morally *wrong*, and is wrong for exactly that reason, because it is unsustainable. This *pragmatic moral code* offers not only an explanation for the evolutionary emergence of moral codes, but also an objective methodology for determining the relative rightness of competing moral codes, as well as providing a motivation to adopt the best moral codes in our own civil behavior.

The negative value judgment normally assigned to selfish behavior only makes sense when it is balanced by an equal and opposite selfish tendency. Moral behavior requires this balance of forces, because complete selflessness is just as maladaptive, and thus "evil", as is unrestricted selfishness. The only reason our moral codes typically emphasize only the interests of the collective is because the ego represents its own interests perfectly well already, and thus it must only be kept in check to restore a moral balance. Only one side of the balance is usually encoded in moral law, the other side is provided by instinct, or emotional need. This kind of moral code however can lead to a warped, one-sided view of

the issue of morality in which the instinctive side of the balance is labelled "bad", and the other "good", even though both are required in equal measure to maintain the balance of selfish- versus selfless-ness. Once we understand this balance of interests, we can see that selfishness is not intrinsically evil, selfishness serves an essential function, which is why it survives to this day in human instinctive behavior. Besides its essential role for representing the interests of the self, selfishness is also a fallback strategy that is useful in times of extreme hardship when the normal structures of society have collapsed. Likewise, physical violence, which is usually considered morally wrong, is also instinctively resorted to in times of mortal urgency, because violent times call for violent measures. It is simply suicidal to behave otherwise, and that is why most of us would instinctively resort to violence if absolutely necessary for our own survival. To declare this instinct "evil" makes no sense because this instinct is one which has been found to be successful. To simply surrender in the face of mortal threat is morally "evil" to oneself and ones potential progeny, and that is why that extreme pacifist instinct remains under-represented in our collective gene pool. If the resort to violence and selfishness in extreme conditions is labeled "evil", all that does is to restrict the scope of valid application of the moral code, to apply usefully only in times of peace and prosperity, but that code would be worse than useless in times of war and strife. A more general system of ethics recognizes the fundamental morality of violence and mortal competition under circumstances where they are absolutely necessary, as well as the superior morality of the civil society, when conditions allow for its existence. The civil society is morally superior to the violent anarchical one because it can sustain greater populations that enjoy greater prosperity, and thus we should adopt the rules of civil society whenever we possibly can, over the selfish rules that we adopt instinctively whenever civil behavior is not reasonable.

Humans are thus endowed with two quite different and conflicting programs of instinctive behavior, the aggressive competitive selfish behavior that serves in time of conflict, and the cooperative altruistic behavior that works so well in times of peace and prosperity, and we automatically switch between these two modes of behavior to suit the prevailing circumstances. By considering good and evil in this larger, more impartial inclusive perspective, this defines a more general, objective morality, a morality applicable in times of peace as well as in times of war, and a morality that generalizes to animals, not just humans. We should not apply "humanistic" mores to animals, it is senseless to declare predators evil for murdering their prey, and neither should we condemn ancient Romans or Vikings or Mongols for behaving violently, because they lived in a world with a reversed morality in which violence was "good" (successful) and weakness was "evil" (self-destructive). A more general morality recognizes that the violent dog-eat-dog competition observed throughout the natural world, and throughout most of human history, is the original, primal condition from which we emerged only thanks to the protective bubble of civil society, and it is a primal state to which we spontaneously return when civil society collapses, because to do otherwise would be unsustainable. Significantly, the protective bubble of society does not eliminate violence altogether, but merely displaces the responsibility for it to official law enforcement and military professionals, who are professionally exempt from condemnation for executing their violent function. Society must have the right to justified violence, as must the individual acting in self-defense. And the protective bubble of civil society does not insulate us from ruthless competition, but merely elevates it from a competition between individuals, to a competition between groups, (tribes, kingdoms, nations, political ideologies) where the competitive dog-eats-dog rules prevail to this day. The moral rightness of necessary violence derives from the fact that it works, or at least it works better than abject surrender. It produces a good outcome in social organization, a society that thrives and prospers.

The pragmatic moral code that defines as "right", that which works out best over the long term, clarifies the original purpose of a moral code, which is to define a set of rules that lead to the greatest possible success, however that success may be defined. Of course the exact code that results from this axiomatic definition depends on how broadly or narrowly we choose to define success and thriving. The narrower the definition, the narrower will be the scope of the resulting moral code, and thus the more parochial and exclusive the resulting morality. A moral code that defines success as "my" personal success, and to hell with everyone else, defines a narrow selfish morality which works OK for me in extreme situations, although it does not generalize to anyone else beyond myself, it is not a morality I should preach to others, or even admit to holding myself, lest those others should apply it right back to me. Zooming out to a somewhat broader scope, An apartheid policy that defines success as the success of only one segment or tribe of a mixed society, can never fairly arbitrate between those groups, and thus provides only a narrow, parochial morality permanently poised on the brink of violence. The only "final solution" for this kind of morality, the way to end all "evil" in the world, is for one group, "us", to exterminate the other group "them" by genocide, that would be the only way to achieve lasting peace in the world between irreconcilable philosophies. Zooming out still further, a humanist morality which defines success as the success of human society, is more generally applicable, and thus more useful for resolving human disputes than a tribal, or apartheid morality. However a humanist definition of success also has a limited scope because it excludes non-human or animal intelligence from the moral code, as well as alien intelligence that may have evolved elsewhere, and trans-human intelligence of artificial minds if they are eventually created by humans. Science always attempts to formulate its laws in the most general terms possible, because more general laws are more generally applicable, across a broader spectrum of conditions, and thus are the most useful. The most useful and objective moral code therefore is that which is expressed in the most general, most inclusive terms, and is thus most broadly applicable, because that is the only kind of code that can fairly arbitrate in moral issues across species, and thus it is a moral code that we are not likely to outgrow in the foreseeable future. And this most general formulation is a code that most clearly defines the essence of morality as an object of scientific scrutiny. I propose therefore a morality based on the most general possible definition of success, a measure of success that applies across the animal kingdom and beyond, a morality that is designed to apply to all forms of life in general, to capture the essential morality behind all of life, based on the *viventric* judgment that *Life is Good*. I will demonstrate with a brief review of the history of evolution of life, how this viventric ethic can be picked out and identified in all of life from its earliest beginnings, how it got incorporated into our various codes of human morality, and I will show how that same most general viventric imperative will serve as a useful code to optimize our ethical behavior into the distant trans-human future.

The Primal Origins of Value

Life is a chemical process, a complex system of chemical reactions, and chemical reactions simply occur as a mindless causal chain, earlier events triggering subsequent events like waves propagating across a pond, an endless process of constant shifting change and motion, as long as they are powered by a driving force. There is no ethics or morality in these inanimate systems, they simply occur as they occur, they are what they are, and they do what they do. And the same was true for the first organic chemical reactions that presaged the emergence of the first life. But something profound occurred the moment that the first self-replicating molecule or molecules came into existence. The moment that a molecule emerged that could make copies of its own structure from the raw materials of its environment, there began a biochemical lineage, an endless series of copies of copies of copies, that remains unbroken to this very day. The event itself was no more significant at

the time than was any other chemical reaction, its only significance was the fantastic and extraordinary cascade of consequences that it unwittingly triggered. And the consequences of that first self-replicating molecule exploded across the planet, setting off the most extraordinary sequence of events of planetary magnitude. Life is about the only thing that endures over billions of years and leaves a trail of patterns in its wake, an ever evolving pattern that seems to evolve as if guided by an internal compass, towards greater complexity and greater diversity, and ever greater interlocking webs of interdependent life forms.

Nobody could have predicted the direction that life would ultimately take from its earliest molecular beginnings, unless that is, one had seen life evolve before. With the wisdom of hindsight we can observe a kind of natural teleology in life, a natural tendency to push in certain directions and not others, and the directions that life pushes ever and inexorably are the directions of success, of more life, of thriving prosperity, away from the directions of failure and weakness and death. I propose that these patterns of success, observed even in the earliest stages of life, represent the pragmatic moral imperative, an invisible framework of natural law that comes into existence only when life does, and it seems to guide life invisibly, the way that physical laws govern the physical world, as if life were following the dictates of an underlying moral law, which in fact it is: Life follows the pragmatic moral law that rewards success with success, and punishes failure with failure.

From the very beginning life must have branched and branched and branched into innumerable variants and variations, most of which simply petered out and stopped replicating at some point. In a very short time, there emerged one or more lineages that had the singular property that they were robust, more stable and viable, and they continued to self-replicate at a prodigious rate. Although these molecular replicators had no inkling of it themselves, they were launched on a path of morality that continues to this day. And the morality of the self-replicating molecule is the morality we inherit from them today, and that is the urgent motivation to continue to survive and to continue to self-replicate. It is not that the unsuccessful variants, the countless dead-end branches of the tree of life were objectively any more morally "bad" at the time than those few that ultimately prevailed. It is just that they happened to die out, and thereby they fell back into the primal category from which they had arisen, they became simple chemical processes that just were what they were. The ones that survived were not special in any way at the time, but it so happens that they were very special, as seen retrospectively in the profound and enduring consequences of which they were the initial seed. If you love life, and I, as a living thing, do indeed love life, you cannot help but see these primal chemical replicators as something very special and "good", and their "goodness" is in proportion to how strongly they exhibit the most general properties of life, the urgent propensity to survive and to thrive. This is a relative judgement, a "vivacentric" viewpoint, if you will, a judgment I make as a living creature that living things are good, and the thing that made those original self-replicators good was exactly their capacity to self-replicate. If you join me in adopting this somewhat arbitrary but virtually universally held instinctive moral code that life and living things are "good", then you must also acknowledge the vast "goodness" of these original self-replicators, and their "goodness" was in proportion to their ability to survive and prosper and do those things which are so characteristic of life. There is something in the very nature of life, even at this primitive molecular stage, that carries with it a moral value system that survival is good, even if those molecules themselves had no inkling of the law that they unwittingly follow. This is the original primal axiom of the morality of living things, the foundational axiom of the pragmatic moral code.

Self-replicating molecules gave way to the first single-celled creatures that lived off sunlight or chemical fuel. With a semi-permeable cell wall to package the self-replicating molecules in their own protected intracellular environment, these first living cells must have adapted to a great range of extra-cellular environments, and the "good" ones went forth and multiplied as if in obedience to the biblical mandate, until the oceans were simply teeming with billions and billions of these creatures, so abundant as to form a slimy goo that spread around the whole planet filling every nook and niche, and developing infinite variations of variations and always busy thriving and replicating. This was the primal era of the first and original Garden of Eden, before the emergence of conflict and strife, where peaceful creatures simply soaked up the available energy and self-replicated to their heart's content. The only "evil" of that primeval era was probably over-population, wherever the slimy goo got so thick as to stifle further replication. For the committed pacifists of today who believe that war is always evil, this was the pacifist paradise that might have reigned for eternity, but for the eventual emergence of the first predator or parasite. From the pacifist's perspective, that was the moment that evil first appeared on the earth. Fancy the outrageous gall of a creature that is not content to soak up the abundant sunlight and peacefully coexist, but chooses instead to violently dismember other living creatures and consume their parts as its own. If pacifism were a viable morality, that original sinner would have surely been punished with immediate extinction for its evil deeds. But instead, this turned out to be an extremely successful biological strategy, and one that launched our own ancestral line, because it is cheaper to live off the labors of other creatures than to labor for yourself. There must have been a cataclysmic explosion in the population of the first predator species as they gobbled up their defenseless prey who were totally unprepared for this assault, followed by a catastrophic collapse in the population of its prey, which in turn must have then caused a corresponding crash of the predators population too, until the world settled into a new dynamic equilibrium between much smaller populations of predators surviving on somewhat larger populations of prey, in dynamic balance with each other. If God is interpreted most generally as Nature and all her natural Laws, then God obviously smiled on this predation, and He saw that it was good, otherwise it would have quickly been extinguished from His planet. By the same principle that life is good because life continues and thrives, predation is also good, because that is the next step that naturally evolves in living systems on the way to producing creatures like us. If we, as extreme pacifists, consider predation to be evil, then we ourselves are evil creatures that live on an evil planet ruled by an evil God. What good can it possibly do to maintain so self-critical a morality in denial of our animal heritage? Surely that which happens naturally in accordance with God's law, is necessarily by definition "good". That is the only practical and useful morality to guide our behavior, and that is why pacifism cannot be absolutely right, and in fact, that is why pacifism disappeared as an operational principle from the world with the emergence of the first predators, at least until much later when it found the right protective environment to re-emerge in the human mind.

The Emergence of Cooperation

The principle of cooperation is at least as basic to life as is competition, and cooperation is manifest in the very earliest biochemical processes, where circular chemical reactions powered by some external energy source, can be seen as a cooperative process. Competition only kicked in after the first self-sustaining life had already emerged and split into different variants. Ever since that time there has been an endless dynamic dance between the forces of cooperation and competition, with cooperation occurring within an organism, living system, or social collective, and competition in effect between those systems under the law of natural selection. As social creatures we naturally tend to favor the cooperative side of the balance, our collective moral values emphasize the collective

over the individual, and we even define selfless altruism as "humanitarian", even though there is precious little of such "humanity" to be found in human history. It seems that the principle of cooperation contains a fatal flaw, or Achilles' heel, which is the *problem of the freeloader*. Any cooperation that benefits its members, is open to exploitation by freeloaders who enjoy the benefits of membership without contributing to its costs. The rewards to the freeloader are so great, that the freeloaders will quickly prosper out of all proportion to the useful contributors, and the cooperative will quickly collapse unless it incorporates an active mechanism to continually seek out and eliminate freeloaders from its own ranks. Many of the civil utopias proposed or attempted over the centuries, from medieval monasteries to modern day Socialism and Communism, foundered for failure to take into account the fatal problem of the freeloader. A social organization that does not include a means to identify and aggressively eliminate freeloaders, is an evil rotten organization whose long term survival prospects are grim. This is a primordial principle of organization, a natural law of living systems seen in a million different forms at different organizational levels throughout the evolutionary hierarchy, that dictates the kinds of cooperation that are at all viable.

The earliest collective organisms solved the problem of the freeloader by breeding their own members as clones of a single genetic strain. This is how the first multi-cellular life evolved, most likely by a mutation that caused a failure to separate completely on cellular fission, creating clumps of genetically identical cells that lived together as a community, protected against freeloaders by their members being genetically identical. And that is the same principle by which we ourselves reproduce as multi-cellular creatures, returning each generation to a single parent cell which then spawns all the cells of our body as identical clones. The same basic principle is seen at a larger scale in the social insects, which are also only viable when the members of the collective are genetically related, and the degree of altruism that they exhibit varies with the degree of relatedness. Wasp half-sisters show less allegiance to each other than bees and ants that are genetic clones, and are thus totally selfless in their defense of the hive for the good of their own genes. If this is a manifestation of a larger principle of collective organization, then it is a natural law, a law that a pragmatic morality would declare as "good", that is, organizations that conform to the law are more likely to thrive. In this case the moral law seems to be that altruism is exclusively a family affair, at least for simple organisms that are incapable of coming to more complex terms, and even for us humans, our altruism is most intense and unconditional toward our direct biological progeny.

All this changed with the emergence of more complex brains, capable of more complex perceptual discrimination. A sensory system is useless if it simply presents the world as it is, without moral judgment. The primary purpose of perception is to apply a moral judgment to what is perceived, to suggest that this direction is better than that, or that this stimulus is threatening while that one looks appealing. It is not good enough for a field mouse to recognize that there is a hawk circling overhead, it is essential that that perception should trigger a powerful moral imperative, which is to run for cover as if your very life depended on it. This is a primal moral judgment that clarifies the essential nature and function of moral laws, even instinctive ones in simpler minds (which are not generally considered as such) which is to serve as a motive force to influence behavior in such a manner as to increase the likelihood of a successful or prosperous life. A moral system modulates behavior, and thereby allows for emergent collective behaviors. For example schooling fish feel insecure when isolated, or at the fringes of the school, so they constantly push toward the center of mass of the school, but they also feel uncomfortable so close to other fish as to risk collision, that is, they feel a long range attraction and short range repulsion to other fish, and this is felt by each fish in the school simultaneously, and that moral desire in each individual fish promotes an emergent group behavior as if each fish was under the influence of a physical force of long-range attraction and short-range repulsion. This makes the whole

school move in time-delayed unison, with waves of sudden motion triggered spontaneously and propagating outward from fish to fish through the school. This collective behavior is only possible with a perceptual system capable of registering the perceived distance and orientations of nearby fish, and an instinctive moral or values system that mandates movement in synchrony with adjacent fish. Schooling fish also demonstrate the powerful moral influence of a predator fish when it threatens the school. The school fish all recognize the threat, and respond to it in proportion to their perceived proximity to the threat. This behavior pattern in individual fish has a global effect on the school of fish, that causes them act as if there were an actual physical force of repulsion between themselves and the threatening predator. The school scatters from the threat like leaves from the blast of a leaf blower. The schooling instinct of fish demonstrates how a subjective perceptual and emotional process occurring independently within each individual fish, produces an emergent collective behavior of the whole school that benefits all of the members of the school, by the same general principle by which our individual moral instincts lead to the collective behavior of our societies.

The schooling behavior of fish requires only that fish recognize other fish as either a member of the school, or as a predator, to distinguish "us" from "them". Group behavior advanced again to a new level of complexity with the ability for individuals to recognize others individually, to establish relationships with particular individuals, whether cooperative or competitive, and to keep a running tally of their relations with every other member of the group. This requires an extraordinary amount of sophisticated brain power, but evidently the effort is worthwhile, and the reason why is explained by game theory. Game theory is a mathematical theory of behavior based on empirical testing of different moral strategies in computer simulations. For example a computer might simulate a number of agents that interact randomly with each other. In each interaction each agent can either deal honestly, to their mutual benefit, or cheat the other agent to his own greater benefit, unless they both cheat, in which case they both lose. If agents are randomly assigned a variety of moral strategies, one agent dealing only honestly, another always cheating, a third cheating randomly, or any other pattern, computer simulations reveal the moral strategies that succeed over the long term, and the results are revealing. If the agents cannot recognize other agents as individuals, and thus treat everyone the same, the successful strategy turns out to be dishonest every time, because the cost of being cheated is too great to justify the risk of trust. This is the strategy of the dog-eats-dog world. It is a lose-lose situation. If however the agents are given the ability to identify other agents as individuals, and to develop distinct strategies in dealing with each individual, then the rules of the game change dramatically, and suddenly the optimal strategy turns out to be to deal fairly with a man the first time, giving him the benefit of the doubt. Thereafter, deal with him as he dealt you last time. If he cheated you last time, you cheat him now, if he dealt fairly last time, you deal fair now. In experiments that tested a great variety of different moral strategies, this strategy turned out to be the optimal one in the long term, and thus, by a pragmatic morality this strategy is the one that is most morally right.

Finally the last stage of the evolution of morality occurred with the rise of still higher brains, human brains capable of learning an explicit moral code handed down over the generations to supplement or balance their moral instincts. This allowed for a much more rapid cultural evolution superimposed over the slower biological evolution of instinctive morality. Later, the invention of writing allowed religious beliefs to become much more elaborate and complex, and more stable, more resistant to random mutation over time. This culturally propagated creed is the only thing that falls under the conventional definition of a moral code, animal instincts and replicating molecules are generally considered to be outside the scope of morality. But we gain a deeper appreciation for what morality is and how it works, by recognizing its direct descent from its more primitive animal precursors. This

objective view of the origins of morality reveals for example the natural tension between selfish and selfless behavior, showing how both are morally "right", but only when in the proper balance with each other, and that a "good" system of ethics is one that enables and promotes this proper balance.

The Evolution of Human Morality

The original human tribes must have been similar in size to extended family groups of Chimpanzees or Gorillas, a society where everyone knows everyone else personally. There is not much cheating or thievery that goes unnoticed in the original extended family tribes, and there has always been punishment or banishment to discourage freeloaders who don't hold up their end of the social contract. The basic goodness of all humans surely stems from these early times of the human Garden of Eden, when mankind with new found awareness and intelligence, first spread out into new lands armed with new tools, and picked off the easy prey which were caught completely by surprise by the new human technology. Strangers who meet in the wild, in those early expansionist days of man, would likely have called out to each other in friendship, and exchanged information, to learn from each others' experiences.

But whenever man had been living and thriving in any one area for long enough, their initial success expanded their numbers while reducing the abundant game, so that alternative sources of food had to be sought out, and life became harder for everyone, especially during the periodic cycles of drought or pestilence. And in times of hardship people get mean and angry and violent, following a different ethic of success than that which serves in peaceful times. Actually this violent instinct is the more primitive and animalistic, it emerges first in infant behavior, and is resorted to in extreme circumstances. In this contractionist era of man, strangers that met in the wild would surely shake their weapons at each other and shout threats, to defend their precious hunting grounds from trespass. Strangers were no longer a strange and wonderful curiosity, but a potential mortal threat. The first to launch a sudden attack would be disproportionately likely to prevail, and thus waves of spontaneous violence would break out and sweep back and forth wherever some wealth remained to be robbed. Tribes would attempt to out-do each other in making themselves appear more vicious and dangerous, and they deliberately terrorized their adversaries with ritual tortures and mutilation. All human cultures emerged from this more violent past. And we all seem to bear the scars of this re-emergent violent era of humanity, in the form of our natural angry instincts. Many of us would be perfectly happy to kill or torture a crazed psychopath who had murdered or molested someone we love. This too is an instinct for justice, an extreme reaction to the extreme threat posed by a psychopath in our midst, a freeloader who lives under the protection of society but violates his end of the social contract. Most dangerous of all are psychopathic rapists who instinctively spread their evil seed as far and wide as they can get away with, without any awareness of why they behave this way. It is truly fatal to society to allow such people to live amongst us, and thus this instinct for revenge judged by a pragmatic morality, is morally "good" for the survival of the collective.

We all carry within us traces of both of these conflicting moral codes, and in different eras, under different circumstances, society has tended to latch onto one or the other paradigm, and hold it up as the ideal. But both ethics fail when held up as purist ideals. The dog-eats-dog ethic of the Vikings, that required every leader to keep a sword under their pillow, and take it with them even when visiting the bathroom to secure against assassination, becomes tedious after enough cycles of senseless butchery, and eventually the Viking leaders were only too happy to adopt Christianity and denounce senseless murder, after they had established their power in their conquered kingdoms. The Roman empire was built on

ruthless violent conquest supported by a warrior creed, but they eventually settled into a more stable *Pax Romana*, where they confined themselves to taxation instead of murder and pillage of their subjugated peoples, which was more profitable for all concerned, and the Romans eventually adopted Christianity, a benevolent pacifist ideology because it benefited all concerned. The Mongols, when attacking the wealthy cities of northern China, at first would steal the wealth and massacre the population, but later realized that it was better to simply rob them, so that they could come back and rob them again as soon as they recovered, and thus the earliest form of government emerged, a warrior class that lived off confiscatory taxation of their subject peoples, and defended their people from attack from rival bands. The Shoguns in Japan fought endlessly amongst themselves under the proud warrior creed of the Samurai, until Japan was eventually unified, and the Samurai became redundant. The same sequence has played itself out countless times throughout history all around the globe. Violence and butchery favors insurgents and invaders, and promotes quick and sure conquest. But violence works against a stable society governed by an enduring *status quo*, and thus we see the characteristic pattern of history with longer periods of peace and prosperity interrupted by brief periods of violent conflict and conquest.

Moral Implications

The Christian ethic of pure altruism fails fatally when elevated to a perfect ideal, and it fails due to the ever-present problem of the freeloader. The great monasteries that were set up for Christian charity, funded by taxes to feed the poor and shelter the homeless, quickly degenerated into corrupt institutions because they were dynamically unsustainable, and thus ultimately "evil". The poor and homeless have no incentive to improve themselves as long as their food and shelter are provided for free, so there were always more poor and homeless signing up for assistance. As with our own failing social welfare programs, the "problem" of poverty is not resolved, but actually exacerbated by the charitable institution, because when you reward or fund any behavior, you tend to get more of it, not less. To quote Benjamin Franklin, *"I think the best way of doing good to the poor, is not making them easy in poverty, but leading or driving them out of it. I observed...that the more public provisions were made for the poor, the less they provided for themselves, and of course became poorer. And, on the contrary, the less was done for them, the more they did for themselves, and became richer."* And those who are entrusted with running the charitable institutions are not exempt from the problem of the freeloader. A monk who secretly shirks his work still receives his room and board, and secret collaborations of shirking workers tend to prosper as compared to their naive hard-working colleagues who must work all the harder to carry the additional load. And the clerics and administrators of the charitable institution, being in positions of control, tend to thrive and prosper out of all proportion to their actual contribution to the charitable goal, especially if they divert the charitable funds to their own selfish interests. Although established for the loftiest of altruistic Christian goals, the charitable institution is fatally flawed, because all of its dynamic incentives tend toward bloated bureaucracies that practice ever-expanding waste, fraud, and abuse, while its most devoted and faithful members are effectively punished for their naivete, until the institution collapses entirely under the weight of its own corruption. If a tree is to be judged by its fruits, this kind of government mandated charitable organization is an "evil" institution because it promotes the growth of evil while pretending to do "good".

The free market capitalist idea comes closest to implementing the cooperative / competitive dynamic observed in nature, complete with natural selection that rewards success and punishes failure. The healthy living system is the polyculture, a million different species

locked into interlocking webs of interdependency, with every individual acting in their own self interest. That is the diversity we see in a natural jungle or forest or tropical reef. That is why nations that adopt free market capitalism tend to thrive, at least for a while. But there is a fatal flaw in the concept of free market capitalism, and that is that success feeds on its own success, a positive feedback loop whereby the most successful individuals or organizations naturally tend to grow into monopolies. Therefore capitalism can only survive if it has an active mechanism for recognizing and breaking up monopolies against their natural tendency to emerge spontaneously. But this regulatory function is not one that governments generally perform too well, because there is too much incentive for government to partner up with big business and let the monopolies thrive, a public-private partnership where the government commits to the success of favored businesses in exchange for campaign contributions which serve to continue the corrupt collaboration. This is why capitalist systems tend to decay into oligarchies, with all the wealth concentrated in the hands of a few very powerful people.

By a pragmatic morality, an oligarchy would be fine if it worked over the long term and let its people thrive, in which case it would have become the dominant form of government. But like the monarchy, and other hereditary systems of succession, the oligarchy is basically unstable because it breeds laziness and incompetence in the ruling classes, due to a total absence of competition, or requirement for the rulers to demonstrate any competence, and it breeds laziness and discontent in the working classes if they are not rewarded in proportion to their efforts. The most reasonable strategy for a slave or serf is to do as little work as humanly possible to preserve their health, since they are not working for themselves. The oligarchy is evil because it does not work, and it does not work because it offers all the wrong incentives. It does not have the self-corrective mechanisms that are basic to living organisms and human organizations, the constant culling of natural selection. No living system or organization can last long without a system of natural selection.

But the selection need not be the mortal life-and-death selection seen in nature between predators and prey. In civil societies the selection is for winners and losers, and there are many levels of greater and lesser success and failure between the extreme limits of survival and mortality. We employ a kind of natural selection in our educational institutions, where we teach classes of students the same material, and then select between them based on their performance on tests. We employ natural selection in hiring, and in mating, choosing the best available partner and rejecting the rest, and we employ natural selection in shopping for the best value and rejecting the rest. And wherever we employ this natural pragmatic morality, the result is success and thriving, an endless striving for perfection. And wherever natural selection is absent, we see growing incompetence, waste, fraud, and abuse. It is as basic a law of living nature as the law of gravitation is to physics. The most basic principle of living organisms is an endless diversification due to random mutations, along with a constant and continuous pruning by natural selection. And since there are always many more ways for a mutation to go wrong than right, the random mutations are almost always deleterious, and thus the gene pool begins to slump as soon as the pruning of selection is relaxed.

When people lose the contract, the customer, the potential mate, they move on to other opportunities and rise or sink through the levels of society in stages until they find a place where they fit, exactly as plant and animal species constantly seek out a place in the environment where they can establish mutually beneficial relationships. The result is a highly diverse and constantly shifting population of individuals, with one stream rising continuously upward toward greater perfection, another stream continuously sinking downwards towards greater failure, with most individuals or genetic lines within that

population rising and falling randomly through successive generations and with changing circumstances. The extreme mortal failure of death occurs only at the very bottom of the lowest level of failure. The demise of the worst of the worst losers and failures falling out of the bottom level of society is a natural process that occurs in every living system that lives under the rule of natural selection, and any attempt to preserve and sustain the very worst of the worst individuals that random mutation can produce, to allow them to multiply and spread their genes through the general population, is a system that is doomed to drown in its own evil consequences. If natural selection is what works over the long term, then that is what is morally right, and we would do well to design our rules of society to make use of this natural law, because all attempts to defy it are doomed to failure.

What of the people who inevitably fall out of the bottom of a competitive system, the abject failures? What are we to do with people who just drop out of the bottom of society? The traditional Judeo-Christian morality advocates charity to the poor and less fortunate. Is this consistent with a pragmatic morality? In answer to questions of this sort, it is useful to examine the origins of charity, to reason out why it evolved in the first place, to determine what advantage charity conferred on society, before we decide whether that original motivation still applies to us in our present circumstance, and more generally to our potential trans-human succession. Scientism is not happy with the answer that God said it should be so. God (evolution) gave us an inquiring mind, so the best way to worship God is to study His laws with that inquiring mind, and discover the pragmatic motivations behind those laws of morality, in order to apply their principles most appropriately to our own behavior given prevailing circumstances.

The reason why charity is a good behavior is because most everybody falls on hard times every now and again, and it is good for everyone when those people are helped back up on their feet to become productive contributors again. That is the good of charity, and that is why charity is included in most moral codes. But charity is not always good. For a pragmatic code of morality charity can also turn evil, when it no longer leads to successful outcomes. For example when charity is institutionalized, it tends to attract chronic dependents who are incentivized to idleness. And if there is no limit to the charity, this idle population will continue to grow like a cancer, absorbing resources and producing nothing in return. Charity is only feasible when it is done within certain constraints, the first being that the recipient be genuinely in need, and not just a freeloader. But this is not so easy to establish, especially when the donor agency is a government institution operating by fixed bureaucratic rules to which freeloaders quickly adapt. Charity works much better when the donor and the recipient know each other personally, so the donor can make a personal judgment as to whether the recipient deserves the charity. And charity works well in smaller communities where unscrupulous freeloaders or chronic deadbeats can be more easily identified and banished from further assistance.

As for charity to unscrupulous deadbeats who seek to take advantage of our better nature, that kind of charity is positively evil, because it incentivizes cheats and deadbeats and thus increases their number. It is more than useless to loan money to a man with a hole in his pocket, it is actually evil because it breeds total irresponsibility. Charity works well for people "like us", who just happen to have fallen on hard times. It does not work well for people who have some moral pathology, freeloaders who would never think to return the favor if the shoe were on the other foot. Charity works as a reciprocal agreement, I agree to help you in your need only if you agree help me if I am in need. And thus we discover in our own moral instincts the concept of evil. We feel sorry for the poor and unfortunate, but only contempt for the truly evil, even though evil is really no different than a form of mental illness or criminal insanity. But this particular form of insanity is so dangerous to society

that we evolved the concept of evil so as to recognize it as distinct from mere misfortune, and continually act to stamp it out.

What about charity to those who are in permanent distress through no fault of their own? People with chronic mental or physical disabilities, who would require constant care and support for the rest of their lives? Is it right for charity to be extended to those people? Again, the answer to this moral question is best sought by considering the origin of the moral instinct and the pragmatic consequences of each alternative. We all feel for those in need, and would like to see them cared for, but only the most extreme ideologues would insist that this charity should have no limits whatsoever. For example if every individual, no matter the seriousness of their medical condition, were given the absolute best of medical attention that science can provide, the costs would be prohibitive, and could potentially drain all the surplus resources of society, but to what end? If we invested our collective earnings entirely in trying to keep everybody alive for as long as possible, regardless of the seriousness or hopelessness of their condition, that is an open-ended commitment to a potentially bottomless expenditure. And it provides a dysfunctional system of rewards and punishment, the most useless and helpless are rewarded most richly, although they benefit the least from this largess, while the most productive members of society are effectively punished for their productivity by confiscatory taxation that hurts their own prospects, and that of their progeny, and thus the long term consequences of unlimited charity is to produce ever more helpless people in need, and ever less working people to support them. There simply has to be some reasonable limit to the degree of charity that a society practices, otherwise that society is sure to collapse under its own unsustainability.

The Judeo-Christian tradition advocates charity in the form of *tithes*, each person devoting about a tenth of their wealth to their fellow man. This would mean that about one in ten people in the population can live on public assistance. In the modern Socialist states with graduated income taxes, this proportion has risen to about 50 percent (counting those who pay no income tax), with approximately half the population living at the expense of the other half who have to carry the load. Is this a reasonable balance? Is this a good model for a thriving society? Or is this teetering on the very brink of disaster, the point of no return beyond which society would collapse under the weight of its own dysfunction? The socialist state always seems to evolve toward the point where the people pushing the wagon can just barely move the load of freeloaders riding in the wagon.

So what is the reasonable level of charity to the helpless dependents in society? And what is the most reasonable mechanism for distribution of that charity? The monasteries in the middle ages, and the socialism of our times, demonstrate the folly of making charity the responsibility of a monolithic government bureaucracy, because that system is missing the essential checks and balances that avoid the problem of the freeloader, and the more important checks and balances to prevent diversion of the charitable funds into corrupt hands. The small town church or charitable organization is much better equipped to make a judgment as to who is truly deserving, and to judge where the limited funds can be invested in order to do the most good. And private charities have the free market mechanism of competition between charities, to prevent blatant and ongoing systemic fraud and abuse common in federal bureaucracies. Direct charitable donation from a donor to the recipient is even more ideal. As to how much of one's disposable wealth is best to give to charity, surely that is a choice best left to individuals who can decide based on their own sense of instinctive morality, and assessment of their own financial status. That is the essential mechanism of check and balance, people only pay as much as they can actually afford. When charity is mandated by law, it is no longer charitable but merely confiscation of

wealth, and it is even less charity when a significant portion of the funds are diverted to corrupt purposes, something that happens all too easily in the dark corridors and smoke filled back rooms of massive federal bureaucracies.

There is a peculiar *dogmatic paradox* seen in a lot of moral dogmas that seem to challenge your sense of reason, as if they were designed to be deliberately unreasonable so as to force the believer to demonstrate the strength of their moral fiber. For example the Catholic idea that the sacred host is the body and blood of Jesus Christ, even though to any possible physical test it will register as nothing other than a wafer of bread, seems to challenge the believer to believe in something that is so obviously absurd that it is a true test of faith. Or the orthodox Jewish practice of deliberately inconveniencing yourself on the Sabbath in a million different and bizarre ways, when you know for a fact that that can't possibly make any difference to anyone except to inconvenience yourself. Or even the belief that God is infinitely wise, infinitely good, and infinitely powerful, He always existed and will continue to exist for ever and ever, and that this incredible infinite creature hears your prayers and cares about your tiny life on this tiny pinpoint of a planet. That concept is so immense and so obviously paradoxically incredible that it almost shocks the skeptic into credulity. In the words of Robert A. Heinlein, "*The most preposterous notion that Homo Sapiens has ever dreamed up is that the Lord God of Creation, shaper and ruler of all universes, wants the saccharine adoration of His creatures, can be swayed by their prayers, and becomes petulant if He does not receive this flattery. Yet this absurd fantasy, without a shred of evidence to bolster it, pays all the expenses of the oldest, largest, and least productive industry in all history.*" Our minds are moulded from an early age with stories of Santa Claus, and the Tooth Fairy, which our parents *know* to be untrue, presumably to prepare us to swallow the much bigger dogmas of religion that come later. But our early beguilement by Santa and the Tooth Fairy should serve as a warning of how easily we can fool ourselves into believing some pretty incredible and paradoxical stuff. Jesus himself is supposed to have told Doubting Thomas, "*Blessed are they who have not seen, and yet believed,*" a direct advocacy of dogmatic paradox. When the last desperate Japanese soldiers on Iwo Jima were hopelessly surrounded by advancing American troops in World War II, many of them lived to the last by their warrior creed, and deliberately blew themselves up to avoid the dishonor of surrender, even when that act was completely unreasonable -- it did no good to either the soldier, nor to the Empire of Japan. It is by this same kind of dogmatic paradox that many adhere to an extreme dogma of boundless charity beyond all reason, and think themselves all the more virtuous for that violation of reason, because the violation of reason demonstrates the strength and inflexibility of their commitment to that dogma. Scientism rejects dogma especially when it violates reason, because reason *is* the dogma of Scientism.

If dogmatic paradox is so prominent a factor in our own instinctive morality, does that mean that it is good? The adaptive purpose of dogmatic paradox can be seen in military codes of honor, where the willingness of individual soldiers to risk their lives in battle makes their army a much more formidable force, which can benefit the individual indirectly by the triumph of their collective over the enemy. Surely that is the origin of dogmatic paradox in human moral instincts. But when the situation is so hopeless that even suicidal self-sacrifice cannot save the day, that is the critical point where the virtue turns to vice. It does nobody any good to sacrifice their life for a hopeless cause.

There is a fatal flaw in the idea of the collective utopia, because the closer that a society comes to the goal of a truly selfless society, the more richly it unwittingly rewards the occasional miscreant. In a totally trusting society, where doors are left unlocked and valuables are left unsecured, cheats are so richly rewarded for their thievery that there

would soon be a lot more thievery, and even a small proportion of cheats left unchecked is sufficient to collapse the whole society. The totally altruistic society is like a house of cards, it has no security against the occasional cheat, so in terms of a system of moral behavior that leads to a successful stable society, the totally altruistic trusting society could be considered morally evil, or at least hopelessly naive, and thus unreasonable as a code for the collective. A more reasonable society adopts necessary measures to guard against cheats. Doors are locked, and valuables are secured out of sight, and a system of justice is established to identify cheats and to remove them from circulation. And thus have societies evolved over the course of human civilization, a dynamic balance between altruists and cheats, that can accommodate a heterogeneous population by a system of justice that continuously screens and filters out the cheats from amongst its own ranks. The empirical fact that the laws of society have generally evolved toward this pragmatic state of affairs, suggests that these are the laws of the reasonable society. The reasonable society is one that has an established system of rewards and punishments, that rewards those who conform to the law of the common good, and punishes those who transgress. This is the way that has been found to work, and thus for a morality based on reason, this should be considered to be morally right.

But what of the morality of the individual in a heterogeneous society with such reasonable safeguards? Is it best for the reasonable person to behave altruistically? Or is the individual better served by selfish behavior? The answer to that question depends on the reasonableness of the society in which he lives. In an anarchy in which social rules are rarely if ever enforced, it becomes positively advantageous for the individual to join the ranks of the cheats and thieves, because there is no benefit to altruism if people are simply robbed or killed for their naivety. If morality is that which is reasonable, then it is morally right to be selfish in a society where everyone else behaves selfishly. In a purely altruistic naive society, where doors are unlocked and valuables are left unsecured, the rewards of cheating are so disproportionately rich that it is positively unreasonable not to cheat and steal. The purely altruistic society effectively encourages the cheat by offering abundant rewards in the absence of effective punishment. In fact, the only society where altruism is truly in the interests of the individual is the reasonable society that rewards altruism in its individual members, while protecting them against the few remaining cheats that spontaneously emerge from their midst. So the reasonable society has evolved in parallel with the altruistic moral code, because it is the only environment where that code is reasonable for the individual.

In a mature society whose moral code has survived for any length of time, we find a reasonable social code that rewards civilized behavior and punishes the occasional miscreant, a society that supports a heterogeneous population composed of a great majority of good and decent people, and a tiny minority of cheats and thieves who are continually being filtered and removed from circulation in order that the whole system remains sustainable. This is the steady state system that works over the long term, a large-scale analog of the immune system, that constantly seeks out and eliminates foreign organisms. It is not a static crystalline structure, but rather a continuous dynamic balance that continually fluctuates between two corrective boundaries. Whenever society has been peaceful and prosperous for too long, the proportion of altruists becomes near universal while the proportion of cheats falls to near insignificance, and this triggers the emergence of a liberal society in which the justice system becomes weak and ineffectual from long disuse, and people lower their guard against the cheats because they are so rare. The liberal society in turn disproportionately rewards the few cheats that inevitably arise, and that in turn increases their number until it reaches a critical point where anarchy again poses a threat to society as a whole. The crime and chaos and social unrest, in turn trigger a conservative backlash, where crime is once again punished effectively, and valuables are

more rigorously secured, which eventually restores the original state of near universal altruism and very low rates of crime.

The most reasonable moral code for the individual, therefore, is not a single static code, but one that adapts to the conditions of the society in which he lives. In a liberal society it makes more sense to be the cheat, and reap the rewards of the relaxed security and absence of punishment, whereas in the conservative society it makes more sense to conform to the law and to secure one's property against theft. In fact, a flexible adaptive moral code is the very thing that serves to correct society and steer it back gently to a reasonable median between liberal and conservative extremes. If people adhered to a rigid moral code that they maintained dogmatically regardless of changing circumstances, as required by dogmatic faith, this would cause society to zig and zag abruptly between liberal and conservative extremes. The liberal era would only come to an end when enough liberals had been murdered by rampant crime, and the conservative era would only come to an end when the generation that had witnessed the chaos died out, and were replaced by a new generation that hadn't. A more reasonable moral strategy for the individual therefore is to adapt their morality to prevailing circumstances, the liberal turning more conservative after being mugged only once, and the conservative turning more liberal after only a few years without being mugged. This more adaptive strategy is more advantageous for society as a whole, because it applies its corrective force more immediately but gently, and thus suppresses the painful oscillations between extremes of the dogmatically justified moralities. And since the adaptive moral strategy leads to a more stable harmonious dynamic, that in itself makes that strategy morally right to the pragmatic morality.

In practical reality, no social system is perfect, every society has its moral inconsistencies and contradictions, hypocritical pretensions and irrational dogmatic beliefs. But there is a natural balancing mechanism that tends to return every society to some kind of more reasonable center. The monasteries survived for centuries despite their being hotbeds of waste fraud and abuse, so long as the waste remained within reasonable limits and could be kept out of public view. The oligarchy, and the hereditary monarchies, survived for many centuries because people always found ways to survive even as surfs. The purist ideal of Communism became a giant exercise in mass hypocrisy. The system that supposedly distributed the wealth equally, actually became a vast oligarchy with the most extreme disparity between the working and ruling classes. And free market entrepreneurship sprang up spontaneously under Communist rule wherever it could do business out of public scrutiny, because free market capitalism is the principle by which all societies actually operate underneath all the pretense. No matter what the official political or moral philosophy that a culture officially espouses, all societies tend to evolve naturally toward some kind of reasonable or workable compromise, and the direction of that teleological trend has always been governed by the law of natural selection, we do what works because it works, for the individual and the collective. The problem is that the hypocrisy attendant to espousing some unreasonably idealistic philosophy has enormous costs in the form of waste and inefficiency. The hard labor required of surfs, without compensation proportional to their efforts, disincentivizes hard work, and leads to great inefficiencies. The vast wealth squandered by the corrupt kings, popes, oligarchs, and commissars, could have been invested much more gainfully by the workers whose labor actually created that wealth, on labor saving technologies and efficient practices that emerge in more competitive societies where work is properly incentivized. The trouble with moral hypocrisy of whatever flavor or creed, is that its failure to reflect and exploit the true dynamic principles of social organization cause enormous waste fraud and abuse, and thus a failure to thrive. Thus to a pragmatic morality, those hypocritical ideologies are positively evil, at least relative to a more pragmatic ideology.

An interesting corollary of this line of reasoning is that no moral code can ever be claimed to be the final absolute right code, because it will always be theoretically possible to devise a better, higher order more efficient system, just as evolution produces ever more complex and efficient organizations through the levels of the evolutionary hierarchy. Like science itself, Scientism does not dictate a single final solution, but instead, opens an endless quest for ever better solutions, and an objective, pragmatic measure by which they can be compared. This adaptive, evolving morality driven by a simple, testable guiding principle is the only kind of morality that is sufficiently general to serve our purposes into the distant trans-human future.

Interlocking Webs of Life

If we examine the apparent teleology that has governed life up to this point after four billion odd years, we can see certain trends that must surely continue on into the future. All of life is in constant competition, and that competition is essential to the principle of evolution, which requires a constant and continuous process of natural selection from a genome that is forever mutating in random directions. To expect this principle to stop in human evolution is unrealistic. To decry competition as selfish and evil is to deny biological reality. So whatever system of social organization will eventually arise, it must of necessity include competition. We also see a powerful trend toward cooperation in the higher animals, beginning with multi-cellular organisms, all the way to cooperative behavior within collective societies of multi-cellular organisms. But the teleology of evolution does not dictate a straight progression from simpler to more complex organisms, because some of the simplest creatures continue to survive and coexist along with the more complex organisms as they emerge. In fact, although the large mammals provide the most impressive examples of life on earth, the simplest micro-organisms remain the most numerous, and the most prevalent in terms of total body mass. In fact many of the most primitive creatures are directly indispensable to our own survival, from the bacteria that live in our gut, to the mitochondria and ribosomes, originally independent creatures, that have become incorporated into the Eukaryotic cell. In fact, creatures of our size and complexity could not possibly survive in a world that was not also teeming with mini- and micro-organisms across a wide range of scales, all in a constant and continuous process of dynamic evolution at all levels simultaneously. The pinnacles of the evolutionary hierarchy stand on a larger base of the most primitive creatures, which serve as a backup or safety net against cataclysmic disasters such as asteroid impacts, which always seem to prune from the top of the hierarchy downward, which is then restored again upward from below as the living system recovers from the blow. If the history of life is anything to go by, we can see that the future organization of life on this planet is likely to remain enormously diverse, existing in large and complex webs of mutual interaction, with ever higher order levels of organization emerging from the most complex creatures near the top of the evolutionary hierarchy, but living in a diverse environment along with many levels of much more numerous lower organisms.

We can get an appreciation for the dynamics behind the web of life by examining the progression of life invading a new environmental niche, for example when bats make their home in a dark inaccessible cave. At first the bats are virtually the only living creatures in the cave, and they make nightly excursions out to the living world for food. But as their guano begins to accumulate on the cave floor, it attracts first microbes that decompose the bat poop, and they in turn attract tiny mites that feed on the microbes, which attracts larger insects to feed on the mites, and in mature caves which have been inhabited for a long time, we see the emergence of whole ecosystems that thrive on the energy brought in every night by the bats, complete with shockingly white blind albino snakes and lizards and

fish and frogs, that all eventually find a niche for themselves in the cave, building upward progressively from that primitive base. We also see a curious dynamic when invasive species first arrive in a new environment. At first, since they have no natural enemies, the invasive species tends to propagate seemingly without bounds, overwhelming the local environment with a massive monoculture, a monotonous expanse of the same green weed that chokes rivers and tangles propellers, or multitudes of mice or rabbits that swarm over the landscape in the millions like a horror movie. These invasive species tend to make environmentalists go bezerk, trying desperately to kill off the invaders and restore the "natural" balance of native species. But how do they think those native species ever got so balanced in the first place? The very existence of a giant monoculture of virtually identical creatures sets up a kind of house-of-cards instability, in that any organism that happens to mutate so that it can exploit the invasive species, will itself undergo a population explosion due to the abundance of its food and the absence of competition, and that explosion in the predator species in turn causes a crash in the population of its invasive prey, until the invader and its predator come back into a kind of dynamic balance. Next, some predator or parasite will eventually attack the creature that feeds on the invader, and later another opportunistic creature will evolve to attack that attacker, and so on and so forth until over time you get the kinds of fantastically intricate interlocking webs of life that involve hundreds or thousands of species, all adapted to their very specialized role in that complex web of life. The reason why evolution always evolves toward this kind of complexity is because that is the kind of ecosystem that is stable over the long term, as those environmentalists would discover if they only let nature take her natural course, which she will follow anyway despite their best efforts to thwart her. And since the complex web of interconnected living systems is that which is stable over the long term, for that reason it is also "good". But the web is not a static crystalline structure, delicately balanced on the brink of collapse, as many environmentalists suggest. To the contrary, its stability is a consequence of its ability to shift and change and reorganize immediately in response to changes in any of its component parts. Biodiversity appears to be "good" for living things, it is an end toward which they continually evolve.

The successful society should mimic the diversity of nature, and produce not a monoculture of equal workers as in the Christian or Communist ideal, but a hierarchy of diverse individuals with different specialized skills and talents, and different levels of society, with the rich and successful floating upward toward the top, because there will always be rich and successful people at the top levels of society, just as there will always be a top predator at the top of every food chain. To deny this political reality does nothing to extinguish its truth, but merely hides it under an evil layer of hypocrisy. What is evil in a heterogeneous society is not success and wealth, but artificial barriers established to prevent lower classes from rising through the ranks on their merits, or to prevent the higher classes from sinking lower when they fail. Unfortunately, long-established societies seem to naturally develop these caste hierarchies for the same reason as the emergence of monopolies, because success feeds upon itself, and tries to stamp out competition. A successful society must establish mechanisms to prevent those social barriers in order to encourage a diverse meritocracy that will continually strive for excellence.

The principle of competition obtains not only between individuals, but also between collectives, or cooperative groupings of individuals across a large range of scales, from married couples, to families, to social neighborhood groups, small businesses, larger corporations, trade groups, all the way up to large multinational corporations and national governments. There is a constant and continuous process of cooperation and competition within and between such groups, that split or merge adaptively to fit prevailing conditions, exactly as seen in the natural world, where single celled creatures live amongst multi-celled organisms, that range in scale from microscopic pond life to giant elephants and whales.

The Value of Life

One of the most foundational issues that distinguish moral systems is the value that they place on human life. The more primitive warlike ideologies of our ancient ancestors placed little value on other people's lives. In a dog-eats-dog world you can always kill an opponent when they get in your way. This morality later evolved into a clannish group-based morality in which it is only evil to murder those within your own group, it is OK to kill the enemy, and this was found to be a more cohesive and efficient code, it led to greater success in the competition between groups, and thus it thrived.

On the question of the value of life, Scientism takes a pragmatic position: scientifically speaking there is no such thing as value, we cannot say that life is objectively valuable. As living beings ourselves, however, we can say subjectively speaking that our life is valuable to us, and by *extrapolation and reciprocity*, we can say that other people's lives are valuable to them, and we agree also to value their lives, because it makes for a more peaceful and harmonious thriving society if we choose to respect each other's right to life. It is not that God endowed men with certain inalienable rights, but rather, we find it to be a more peaceful and reasonable arrangement if we endow each other with the rights we would have endowed on us in return, including the right to life, liberty, and the pursuit of happiness. It leads to a more reasonable and thriving society, and thus it is morally right. In times of military conflict, however, it sometimes becomes more reasonable for a nation to kill the enemy in order to protect and defend itself. And in times of total collapse, it may be reasonable to kill your neighbor if necessary for your survival. Scientism is a pragmatic code that tolerates no dogmatic nonsense especially when in violation of reason.

On the issue of capital punishment, Scientism views this as a pragmatic question of whether or not the society can afford to sustain criminals in indefinite incarceration. Under conditions of scarcity it would be perfectly reasonable to execute criminals who would otherwise be a burden on society, or perhaps a civil society might choose to keep convicts alive as insurance against judicial errors, in case exculpatory evidence emerges later. But the reciprocal rules by which we endow each other with a right to life does not apply to those who have themselves violated that agreement. Reciprocity would seem to suggest a certain justice in killing a man for the crime of murder. And that is why we discover in our own moral feelings a natural instinct for revenge, that instinct turned out to be adaptive through our long human history, and that is why it survives in our instincts to this day. We also seem to discover in our own moral instincts a mortal horror of needless killing, presumably because any needless killing inevitably puts our own lives at risk, and that too must be the product of natural selection that we would do well to adopt. However Scientism recognizes no dogmatic mandate never to kill anyone under any circumstances, and there are cases in which that dogma is clearly irrational and unreasonable.

The morality of reciprocity extends also to conflict between states, nations, or ideologies. When civil societies battle each other, as they did in a great succession of European wars, they can come to gentleman's agreements over the taking of prisoners and trying to minimize civilian casualties, which turns out to be beneficial for everyone, because it allows for a faster recovery of civil society after hostilities have ended, no matter who wins the war. These are reasonable agreements between reasonable peoples, but they only make sense if they are reciprocated. When a civil society does battle against an uncivil or barbaric one, one that deliberately flaunts the rules of military decorum in order to instill terror, it makes no sense whatsoever to uphold the civil rules unilaterally, especially when the enemy counts on this gentlemanly behavior and deliberately kills and tortures prisoners and civilians exactly to instill terror. To adhere dogmatically to a higher civil code against a

barbarous enemy, is positively evil because it incentivizes the enemy to use terror against you. A more reasonable morality would be the principle of reciprocity -- you agree to abide by as high a level of morality as your opponent, but not higher. If they refuse to abandon their barbaric practices then it makes sense to reciprocate in kind, and terrorize them and their civilian populations in return, until they agree to relent. This makes sense because it disincentivizes the enemy from continuing their barbaric practices, and gives them a strong incentive to rise to your level of civility even while continuing the war. And thus we find again in human instincts a natural instinct for revenge, an instinct that is morally right because it makes rational sense.

On the issue of abortion, viewed from the Scientismic perspective, the issue does not revert to the dogmatic question of when by definition life begins, but rather to the pragmatic question of whether it is more evil to kill a tiny foetus of the size and complexity of an insect, or to bring an unwanted child into the world. Ultimately this comes down to the question of whether we have a right to control our own reproduction, as we do already any time we choose whether or not to have sexual relations, and whether or not to use contraceptives. The Catholic dogma on life is at least consistent in banning both abortion and contraception, because both prevent the spawning of new life, which should be under the control of God, not man. But that dogma only makes sense if you accept the foundational Catholic dogma, that God creates each individual and that the embryo is endowed with a full human soul. From the scientific evolutionary perspective on the other hand, a foetus is not a full human, but only a potential human in embryonic form, so the question of its disposal is a matter best left to those most intimately concerned, which is the mother and perhaps the father who would have to bear the child to term and care for its upkeep and education. The most reasonable solution would seem to be to let individuals decide this issue for themselves, that way nobody will be compelled to have an abortion if they choose not to, and nobody will be compelled to birth an unwanted child unless they choose to. The reciprocal principle by which I agree not to murder my neighbor if he agrees not to murder me, does not really apply in the case of abortion because the foetus is not a full grown human with whom a bargain can be struck. But if anyone should disagree with this premise, and chooses to bestow full human rights on their foetus, they are free to abstain from abortion, nobody should force it on them against their will, but neither should they interfere with another person's free choice to do otherwise. This is again the justice of reciprocity, a tolerant morality that allows the coexistence of a diversity of competing ideologies.

Shifting the issue of the value of life from the dogmatic to the pragmatic realm subtly changes the debate on a number of related issues. For example what is the right moral code for the case of children born with severe mental or physical disabilities? The dogmatic Catholic morality is simply horrified at the prospect of mercy abortion or euthanasia, because all life is sacred, and thus, the severely disabled should be maintained and supported indefinitely no matter the cost, and no matter the degree of debilitation. This solution is bad for the parents, bad for society at large, and it is especially bad for the disabled person who has to live with a lifetime of helpless disability. The Catholic solution only makes sense if one accepts the foundational Catholic dogma that no life is an accident, each is created deliberately by God and is endowed from conception with a full human soul. From the evolutionary perspective that is fundamentally wrong, every offspring is spawned from the genes of its parents, not God, and is subject to random mutation, and most mutations are deleterious, some catastrophically so. Evolution prunes these errors through the process of natural selection, which can be painful and ugly if nature is allowed to take her course. It seems most reasonable therefore to give natural selection a helping hand in cases where things have obviously gone drastically wrong, and thus avert the misery and cost of bringing a monster into the world, a fate I would certainly not wish upon myself or

my progeny. And thus we find again in ourselves an instinctive horror at grotesque disfigurement and hopeless, helpless infirmity, a righteous horror that Catholic dogma would have us suppress as sinful.

The issue of eugenics triggers a knee-jerk horror in contemporary civil society, because the last time this issue rose to prominence was during the Nazi era, when disabled people were systematically rounded up and exterminated to purify the gene pool. But I would contend that the horror of that particular solution was not the euthanasia itself, but the Big Government approach to that solution. It is truly horrific for government bureaucrats to determine what conditions and levels of disability should be tolerated in society, and to take on the role of natural selection in government run extermination facilities. The evil of that solution is not only the subjective horror that it instinctively evokes, but even pragmatically speaking that solution is wrong, because it places the critical value judgment in the hands of the government, and government bureaucracies are famously incompetent at making good moral judgments, as clearly demonstrated with the Nazi example. As in the case of abortion, the issue of compassionate euthanasia is surely an issue exclusively for the parents of the child concerned. If the parents are Catholic and wish to raise the disabled child to adulthood, that should be their choice, nobody should force them to do otherwise. But if the parents are Scientismists, they may see it as a violation of natural law NOT to terminate what is clearly a gross error of nature, and subject their beloved child to a life as a helpless monster. Even the most loving parent is deeply saddened and horrified by gross deformity, surely that parent should be the one to choose the fate of their own offspring, because they are the ones who have the best interests of their child at heart, and they are the ones who must bear the consequences of their moral choice. Ancient Greek and Roman law recognized the right of parents to euthenize their infants at birth in the face of gross deformity or severe mental abnormality, and this policy was reasonable for all concerned, and thus it was morally right. In any case, even if individual parents make a horrible mistake in either direction, at least they and their offspring are the only ones who need to suffer the consequences, no person nor government should be authorized to take on that mortal judgment to override the parent's wishes. This is surely the best solution also evolutionarily speaking, because in a diverse society, different parents will come to different moral decisions depending on their beliefs, and let the different beliefs coexist in the marketplace of ideas, and we will see in the long run which way turns out to be best.

This Eugenic solution to the question of disability offers a solution also to the larger issue of charity, and what to do with the severely disabled who cannot support themselves. If it is the parents who decide to bring the disabled child into the world, then it should be the parents who take on the responsibility for supporting that person into adulthood, and possibly the rest of their lives. They will then be faced with the true cost/benefit trade-offs involved, rather than pushing the problem on to government to be paid for by the community, including those who chose to abort their own severely handicapped foetus, thus rewarding the bad choice while punishing the good. Parents who believe that society should pitch in and share the costs of such biological errors, are free to join up with other like-minded believers who share their faith, and contribute to a common fund to that end. This allows a diverse society with heterogeneous sub-groups that can try out a variety of moral strategies in parallel. Free market solutions to these thorny moral issues ensure that people bear the costs and the consequences of their own moral choices, and that is a natural and reasonable way to control the cost to society. Dogmatic or big government solutions to moral issues spreads the load of irrational and unsustainable choices on to others who were not involved in that choice, and thus hides the cause-and-effect relationship between moral choices and their consequences. If people are horrified at the prospect of poor people aborting their offspring because they cannot afford to raise them, they should be free to contribute to charities devoted to raising such unwanted children. And since the charity is

voluntary, it will never grow beyond all reasonable limits into the kind of unsupportable burden as typically fostered by a government welfare state. The principles of free markets and individual choice, inherited directly from the dynamics of the natural living world, offer the most rational and pragmatic solutions to many of the thorniest moral dilemmas, with the powerful advantage that since people make their own moral choices, they never have to submit to choices imposed on them by others against their will. It also has the powerful evolutionary advantage of disincentivizing irrational or unreasonable moral choices.

A similar argument holds on the issue of health-care. Liberals argue that the government should tax everyone and pay for universal health-care. But this policy is unsustainable, and thus unreasonable, because it installs all the wrong incentives. If a man is born with good health, why should he not benefit from his good fortune and superior genes by negotiating a lower health insurance rate? By charging more for those who cost more, the true costs of health-care are passed on to those who incur them, and this rewards and thus promotes good health, which makes evolutionary sense. To do otherwise would be to incentivize expensive sickness and disease, and that will have the direct consequence of promoting more sickness and disease in the long run. The free market solution takes government out of the equation, and pits man directly against nature by the laws of natural selection. Health insurance can always be purchased to spread the cost of catastrophic illness, with different individuals being free to choose different degrees of insurance based on their preference, a diverse social welfare system that sustains different degrees of security based on individual choice.

Another thorny moral issue is the question of overpopulation. In nature, population is controlled naturally by natural selection. Our ancestors died of disease and accident at a much higher rate than we do, thanks to modern medicine and hygiene. But whenever population became too dense, it was thinned out by periodic warfare, and thus we find in ourselves also a natural territorial instinct, we get angry and hostile when forced to live in conditions of scarcity and overcrowding. Historically, wars have always served the purpose of thinning out the population whenever it gets too dense, and animals have a territorial instinct to protect their home territory against interlopers. If we are to eliminate violent conflict, we must replace the vital function that it has always served with something that has the same effect. Again, this issue always makes people uncomfortable thanks again to the Nazi solution of systematic extermination of people deemed unfit. That Big Government solution is evil again because government is famously incompetent at making such value judgments, and is sure to end up exterminating political opponents or convenient scapegoats instead of the truly unfit. The Chinese government policy of restricting couples to having only two children, is far superior to the Nazi solution since at least it treats everyone equally, but it has the dynamic evolutionary disadvantage that it restricts everybody equally, thus nullifying the mechanism of natural selection. But there exists a simple free market solution to the problem of overpopulation that would preserve the mechanism of natural selection to favor those who succeed. If a government should determine that its population has reached a practical limit, it should issue a *birthright medallion* to every living person in the population, that entitles that person to give birth, just as cities issue taxi medallions to authorize the operation of a taxi. Each birthright medallion entitles that person to have one offspring, so that a married couple can pool their medallions and have two children between them, and the parents pass on their medallion to their children when they are born, and this would maintain the population at a fixed level. People who want to have more than two children can purchase additional medallions from people who wish to remain childless, paying that person (not the government) whatever price the market will bear, by the law of supply and demand. Childless couples can thus profit from the sale of their birthright to others. Those who are wealthy and successful can afford to spread their seed farther than the poor and indigent, who will be more likely to

exchange their medallions for cash. If people are concerned that the poor will be under-represented in subsequent generations, they are free to purchase additional medallions from charitable contributions from others who share their concern, and distribute them to the poor to help fund their procreation. The punishment for bearing unauthorized children without an official medallion need not be violent or draconian, the unauthorized children will simply be sterilized, so that they can live a full and happy life, but they cannot themselves procreate, and thus the population remains constrained. This is a free market solution that installs all the right incentives to promote procreation amongst the most fit, without having to establish a government agency to determine who is most fit. The most fit select themselves by their willingness and ability to fund their own procreation. If you find this solution a bit draconian, and somewhat Nazi-like for your taste, consider the alternatives, which are either government controlled systems like the Chinese birthing policy, or the absence of any policy, which will eventually lead to overpopulation and violent wars to thin out the population again.

When Society Goes Bad

Just as individuals, as a result of random mutations, sometimes go terribly wrong and must be removed from circulation by society, so too do societies in their continuous evolution sometimes take a turn in a deviant direction and violate the whole purpose of the social contract by doing harm, instead of good, to their members. There is a sure sign that an ideology has gone wrong when the degree of *dogmatic paradoxy* begins to rise, because the abandonment of reason is a violation of a pragmatic morality. We see the most extreme examples of society gone bad in cults like Jim Jones' Peoples Temple, and the Heaven's Gate cult, that exhort their members to commit mass suicide in order to be "saved". There have also been castration cults, such as the Russian Skoptzy sect in the 1700's, whose members castrated themselves as a way of renouncing the sins of the flesh. Somewhat less drastic, but equally damaging to one's evolutionary prospects, are the many cults of celibacy, from the medieval monks and nuns who took a vow of celibacy to more fully devote their lives to God, to the 17th century Shakers who denounced sex altogether, and maintained their membership rolls by conversion and adoption alone. Of course these sects only make any kind of sense if you reject the evolutionary explanation for the origin of humanity, which is another example of dogmatic paradoxy, at least now that we know more of our real origins thanks to science. For anyone who understands the function of sex in the procreation of humanity, so obviously an essential part of the natural order, it is a pretty extreme dogmatic paradoxy to declare sex to be actually evil. What is truly evil about all these cults is that they are totally unsustainable in the long run, because those who voluntarily submit to their suicide or celibacy rules also thereby remove their genes from the gene pool, so these cults often died out almost as fast as they arose.

Another form of deviation to which societies often succumb is a kind of *viral religion* in which the faith exhorts its believers to spread out and conquer new territory by military force, and compel the subjugated peoples to either submit to the new faith or be put to the sword. Examples of this kind of viral religion are seen in the religion of Islam (which translates to "submission to God"), and medieval Christianity during the crusades. This kind of viral religion is the collective's counterpart to the psychopathic rapist, who instinctively spreads his evil seed as far and wide as he can get away with. The evil of these religions of conquest and submission, besides the direct martyrdom required during the hostilities which is obviously bad for the martyrs, is that they foster a submissive passivity in their populations even after the hostilities have ended, and a tolerance of an extreme dogmatic paradoxy, which is actually maladaptive in normal everyday life. Total submission to religious authority also fosters a theocratic ruling class that wields the monstrous power of

the collective under the guidance of dogma instead of reason, a powerful dangerous monster that is impervious to reason. A healthy society thrives on a diversity of cultures and ideas, and profits from an inquisitive yet skeptical pragmatic attitude, a thirst for exploration and experimentation of novel ideas and different ways of doing things, traits that are generally discouraged in dogmatic faiths. Free diverse societies tend to prosper relative to strict dogmatic theocracies, and that is why they are morally superior.

The Catholic church's rejection not only of abortion, but also of the use of contraceptives, can be seen as a viral feature of that religion, that serves to propagate the faith in great numbers of poor and ignorant offspring, some portion of whom are hoped to continue the faith. The emphasis is not on quality, but on the quantity of children spawned in this manner, because individual children generally fare better when they do not have to share resources with uncontrollably large numbers of siblings. But the interests of the church is not in their individual welfare, but in insuring its own survival and growth, a society run amok serving itself at the expense of its members. The many and varied examples of dogmatic paradoxy infused throughout Catholic dogma reveal the ultimate duplicity unwittingly propagated by the faith, from the "mystery" of the Holy Trinity (God is not one person, nor is He three persons, but God is BOTH one AND three persons all at the same time), to the mystery of the Sacred Host (which is both a piece of bread, and at the same time the body AND blood of Jesus Christ; No, it is not that the bread is the body, and the wine is the blood of Christ, but both the bread AND the wine are each BOTH the body AND blood of Jesus Christ), to the absurdities of the rules against contraception (sex is permitted for a married couple only when there is a chance of procreation, and thus contraceptives are banned, although the "rhythm method" of contraception is permitted, and parents who are infertile are allowed to enjoy sex without the chance of procreation) to the doctrine of free will (our body, mind, and soul are all created by God, who knows our whole life history even before we are born, and yet when we sin it is OUR fault not God's, because we have a mysterious "free will"), to the effectiveness of prayer (despite its total failure to influence any outcome in controlled, double-blind experiments) and so it goes on and on. It seems that Catholic doctrine is a rigorous mental training program that serves to stamp out and eliminate all tendency toward rational thought in favor of strict and inflexible dogma that must be accepted uncritically.

There is an interesting parallel between the characteristic dynamics of the spread of these viral religions and the typical spread of infectious diseases. New diseases generally arise from a random mutation of an earlier disease, the most disasterous ones, like the AIDS virus, are typically those that jump from one species to another. When they first emerge, these diseases tend to spread like wildfire, expanding outward rapidly into new populations that are totally unprepared for the assault, but they kill off so many of their hosts that they tend to flame out after the first epidemic wave. The few people who survive these plagues generally have a higher resistance due to the accident of their genes, but the virus also mutates continuously, and any strains which become less lethal to their hosts will prevail for longer and expand farther, and eventually, after many generations these diseases tend to evolve into a benign inconvenience, like the common cold which has perfected its means of propagation through coughing and sneezing, but is rarely lethal. So too have we seen the co-evolution of religions and their cultures. The first waves of a viral religion of conquest tends to be catastrophic to the people it subjugates, but the people and their religion tend to co-evolve over time toward a symbiotic state where the religion actually helps the success and thriving of its adherants, as seen in the more moderate strains of Catholicism and Islam.

The modern social welfare state is another example of a pathological ideology that takes advantage of our good and natural moral instincts of sympathy for the poor and unfortunate in society, and distorts them to a dogmatic paradox of unlimited generosity funded by confiscatory taxes that keep ratcheting ever upward until the tax base can just barely support the burden, which is the only limit to further growth. The funds collected through taxes are accumulated in a central pool of vast federal wealth, which is then disbursed by a monolithic multi-level bureaucracy through a labyrinth of overlapping and interlocking agencies and bureaus, following inscrutable rules and regulations rife with ambiguities and internal contradictions. It is an opaque system that is fraught with the most massive waste, fraud, and abuse, and it always tends to grow out of all control like a cancer, because it incentivizes the politicians and bureaucrats who are supposed to administer this government-mandated "charity" to spend more every year lest their funding be reduced, and to seek to discover ever new populations of "needy" recipients, (victims of poverty, joblessness, homelessness, poor education, malnutrition, poor medical care, racism, sexism, homophobia, global warming, bank failures, obesity, auto company failures, and weak economy, you name it!). Not surprisingly, the effect of these government programs is always to make the problems they are designed to solve actually *worse*, not better, because they always have the wrong incentives, because the common theme is that government rewards failure, and that is why there is always more of it. It is telling that these government mandated "solutions" always seem to have the property that there is no choice or competition allowed between different providers of these "charitable" services, and there is never an option allowed for individuals to opt out of this system of "charity" even if they agree to forgo its supposed "benefits". The social welfare state has to be mandatory, because otherwise nobody would join. Social welfare programs also always seem to evolve from local community services, to state agencies, then to federal bureaucracies, and now on to international agencies administered by the United Nations, where they can hide more effectively from oversight by the ordinary people who would otherwise vote them out of existence. The reason for this predictable trend is that all of the incentives drive them in that direction, because like the medieval monasteries, it makes no difference what the official mandate of the social welfare agency, the natural teleology of the government service agency is always to grow in size, power, and scope. The dogmatic paradox of the social welfare state is expressed well by Albert Einstein's definition of insanity, doing the same thing over and over again and expecting different results. The paradox of "affirmative action", or institutionalized racism designed to eliminate racism is another glaring example. Big government is a giant monopoly that offers no alternative choice, for all its supposed promotion of "diversity" of skin tones, big government is opposed to diversity of ideas, values, and choices.

The real problem of the social welfare state is that it is not really government as such, but government posing as religion, serving the charitable function that has traditionally been the role of religion, but doing so in a manner that allows no choice or diversity of values. It turns charity into a mandate, not a voluntary choice. The problem is that people differ in their degree of charity, some dogmatically insist on boundless charity for everyone regardless of the cost, while others, including Scientismists, advocate a voluntary charity moderated by reason. That diversity of moral choice is the very essence of our freedom of religion, we should each be free to set our own flavor and degree of charitable contribution, and to select our own moral causes to which to contribute. Isn't that what freedom of religion is all about? And a diversity of moral values expressed across a multitude of different voluntary organizations is exactly the kind of diversity seen in the natural world, with different value systems freely competing in the marketplace of ideas. There is a big fuss made these days over the issue of separation of church and state, whenever crosses or Christmas symbols appear in government schools or public buildings, but the biggest violation of the separation of church and state, the elephant in the room, is the growth of a

massive social welfare state attempting to take over all the charitable functions traditionally served by religion, in a single effectively state mandated secular religion under government control. Liberalism is the modern secular religion infused with its own brand of dogmatic paradoxy.

The solution to all these problems of social pathology was discovered two centuries ago by the Founding Fathers of the American republic. The Founding Fathers designed a federal government with very restricted and enumerated powers, a minimalist government that provides only the bare minimal function that is absolutely essential for a government to provide. All other powers devolve to the states. The states were also designed originally as minimalist governments, all other functions devolving to local communities, and the local communities were also supposed to be minimalist governments, all else devolving to the individual. The individual, having free choice, is supposed to be able to choose their own degree of education by private schooling, their own degree of health insurance through private insurance companies, to provide for their own food, housing, and other needs as they can afford through their own earnings, and the individual who feels the moral imperative to help his fellow man is free to donate to private charities of their own choice to a level that they can afford, based on their assessment of their own finances. The beauty of this decentralized system of government is that it has all the right incentives for maximal efficiency, thanks to the freedom of choice at the various levels of organization to provide the pruning dynamic of natural selection to prune back the waste, fraud, and abuse that inevitably arise spontaneously in any organization. And to keep everything in check, the Founding Fathers advocated a free press run by private news providers in free competition with each other, so the people themselves would vote with their pocketbooks for their sources of information.

Unfortunately in the last hundred years or so we have seen the entire system slowly devolving toward corruption, for the same reason that free market capitalism tends to devolve into oligarchy, because success feeds on its own success, and the successful government bureaucracy is the one that garners the most federal funding and hides its ugly realities in the most opaque bureaucracy. The corrective measure of public oversight is hampered not only by the growth of government ever farther from public scrutiny, but there is also a bias due to the fact that our public schools are now also massive federal bureaucracies, our children's teachers are now all essentially federal employees living off the government nipple, whose every move is micro-managed by federal regulations, and thus they unwittingly indoctrinate our children in the liberal philosophy under which our schools operate. The government institution is the first example our children see first hand of how the world operates, where the solution to any social problem is a knee-jerk call for big government solutions. The principles of free-market capitalism are no longer taught in our public schools, instead capitalism is decried as an unfair system that promotes a disparity of wealth, even though a far greater disparity of wealth is seen in the social welfare oligarchy, or the "public-private partnerships" whereby government, not natural selection, picks the winners and the losers.

The solution to this unfettered growth of an evil monster government is the solution proposed by the Founding Fathers under the guidance of the enlightenment. Shine the clear light of truth on this growing evil monster so that we, in a free democracy, can vote it back out of existence, and restore the freedom of individual choice in our religious and charitable functions. The solution to this progressive cancer in the structure of our social institutions is to establish an alternative ideology, a new secular faith based on reason instead of mindless dogma, a belief in Scientism in which the only true evil is ignorance, and the unreason of dogmatic paradoxy. It is the noble goal of Scientism to promote a deeper understanding of

the principles behind ethics and morality, so as to devise a more rational system for doing good as a society based on the dynamic principles of the natural world, because by a pragmatic code of morality, what is right is that which is reasonable.

Conclusion

The moral conclusions drawn above are not presented here as the dogma of Scientism, those conclusions are my own, and are open to criticism or correction. The intent is to demonstrate the kinds of thought processes or logical arguments that can be used to work out the implications of a totally rational system of morality with a minimal component of faith. I acknowledge that others will come to different conclusions even from the same initial assumptions, and those alternative conclusions, if supported by logic and evidence, would also belong to the literature of Scientism, just as competing scientific theories are an essential part of science. Neither does Scientism necessarily dictate a single moral code. The code that is right for micro-organisms is clearly not right for higher organisms, and the code that works in times of crisis is not the best in prosperous times. The only essential dogma of the Church of Scientism is a belief that a pragmatic morality is the best one, and that logic and reason and pragmatic outcomes are the best methodology to identify that pragmatic morality. If a scientist had to invent a religion, as I believe a scientist must even just to practice his science, this is the kind of religion that scientific thinking would produce.

Scientism has often been criticized as a contradiction in terms, a mis-application of science to fields where it does not apply. The key point of this proposal is that *YES* Scientism is a belief system that is arrived at by essentially unscientific means, although virtually all scientists, whether they realize it or not, are also closet Scientismists at least to some degree. They have to believe in the rightness of science if they are to devote their lives to its pursuit. Scientism is *not* a contradiction in terms as long as we understand that it is a belief system, not a scientific conclusion, and that is exactly why we are careful to distinguish science from Scientism. But everyone, even scientists, need a belief system of some sort to believe in, and Scientism *IS* the most reasonable and rational belief system that can possibly be devised, because it is a belief in reason itself, even if the act of belief is beyond reason. And it is a belief system to which virtually all scientists already implicitly subscribe, a belief in the triumph of reason over dogma.

There are certain general guiding principles that are typically observed in living systems, which have served as the inspiration for the moral reasoning presented above. First and foremost is the foundational evolutionary principle of endless replication with random mutation, continually pruned by natural selection. If we refuse to adopt this principal as central to our systems of sociopolitical organization, that will do nothing to abolish that primal principle of life, it would serve only to establish a layer of hypocrisy to shield us from reality, and that layer of hypocrisy will lead inevitably to massive waste, fraud, and abuse, and will serve only to extend human suffering until we finally learn to acknowledge the dynamic laws of nature in our moral codes as they actually are, instead of how we, in our dogmatic ignorance and naive world view, might *wish* them to be. Another guiding principle is freedom for the individual, and freedom for organizations of collectives of individuals, to allow them to enter freely into relationships of mutual benefit with any partners they may choose, without interference by church or state to attempt to pick the winners and losers. Government should not try to play the role of God, that role is played by God Himself, in the form of natural law.

Another general principle is that policies that attempt to cure the problems of poverty and homelessness by giving money to the poor, will inevitably have the opposite effect, and

produce more of that which they reward. The harder you try to squeeze a balloon, the more it will bulge out between your fingers. A system that allows for success to succeed, must also allow for failure to fail. To deny this basic dynamic of all natural living systems will do nothing to abolish its truth.

The political ideology favored by Scientism is the one manifest in nature, and that is the law of free market capitalism and the survival of the fittest. Perhaps if our educational institutions taught the secular religion of Scientism, instead of the naive liberal dogma and idealistic twaddle that currently dominates the discussion in government and academia, perhaps our democracy will finally work as intended by the Founding Fathers, as a check and balance against the natural tendency for a capitalist system to degenerate into a corrupt and wasteful oligarchy. It is telling that the liberal policies are always intolerant to diversity of ideas -- individuals are not permitted to opt out of the social security, welfare, or universal health-care systems even if they agree to forgo their "benefits", the liberal welfare state is imposed on everyone whether they like it or not, whereas in the free market system individuals are free to choose their own level of life insurance, health insurance, and private charitable contributions, and nobody is ever coerced into buying insurance they don't want either for themselves or for their neighbor against their will. This is a system that works, because it promotes a diversity of different strategies, and may the best insurance companies or charitable organizations, or schools or corporations or individuals win, based on their demonstrable results. This is the way that nature works, success is rewarded by success, failure is punished by failure. The liberal welfare state, and the public-private partnerships of the Federal Reserve, Freddie Mac and Fannie Mae, and now the major banks and automobile manufacturers, are the beneficiaries of monstrous government largess, and they return the favor by campaign contributions that ensure the continuation of this oligarchic scheme. We know that things have gone too far when the average taxpayer pays almost half of what he earns in taxes, hard working people are indentured slaves who labor for half of their working lives to support the other half of the population who pay no income tax at all.

I dream of a day when Scientism and reason will finally triumph over dogma and ignorance, and become the dominant philosophical belief or religion of our culture. One day a Church of Scientism will collect charitable donations from contributing members, to fund the establishment of educational institutions at home and around the world, to compete directly with the religious schools and madrasses around the world, to spread the good word of science and reason, and make the world a better place for everyone. I dream of a day when the Church of Scientism will be wealthy enough to fund space exploration, beyond government control, to expand humankind, and our trans-human descendants to spread throughout the solar system and beyond, to extend the tendrils of vibrant life out beyond our ancestral home planet. We expand into space not only as an essential back-up copy in case of global disaster, but also by the missionary imperative to expand life upward and outward as far as it can go, as life has always done. Because we believe that Life is Good, and that is the most noble and lofty goal that we as living creatures can pursue. If Scientism is morally right, that truth will eventually be proven so objectively, by the forward-teleology of future generations who will find that it works and helps them thrive and propagate to the farthest reaches of the universe. Those future generations will hopefully look back historically at this birth of the faith of Scientism, and declare that it was good.