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by

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Democracy, Rationality and Morality

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Abstract. The fundamental, underlying assumption in economics, public choice, and increasingly in political science and other branches of the social sciences is that individuals are rational actors. Many people have questioned the realism of this assumption, however, and considerable experimental evidence seems to refute it. This paper builds on recent findings from the field of evolutionary psychology to discuss the evolution of rational behavior in humans. It then goes on to relate this evolutionary process to the evolution of political institutions and in particular of democratic institutions.

Democracy is generally thought to be the best form of government for advancing the interests of the citizens of a state. If citizens can express their preferences for public actions, and the democratic institutions are responsive to these preferences, the welfare of the citizens is most likely to be advanced. Despite this wide-spread belief that democracy is the best form of government, its use throughout history has been rare. Even today, when there are more democratic countries in the world than at any other time in history, at best only a half of the world's population can be said to live in democracies.

An often implicit assumption in the argument for democracy is that citizens are rational actors, that they are *capable* of deciding for the community. This assumption also underlies the public choice approach to studying political institutions. Unfortunately, there is a good deal of empirical and experimental evidence that puts this assumption into question. Most pertinently, a truly *rational* citizen in a large electorate would never vote, since the probability of her vote

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affecting the outcome is infinitesimal. Yet millions of people do vote, which implies either that they are *not rational* or that they have some other motive for voting.

One explanation that has been put forward is that citizens regard voting as an ethical act – democracy functions better if all citizens vote, therefore, it is a civic or moral duty for a citizen to vote. This argument links the efficacy of democracy to civic morality of the citizens. It implies that there are two important conditions that must be fulfilled for a successful democracy – citizens must be sufficiently intelligent and rational so that they are *capable* of making good collective decisions, and they must be sufficiently ethically motivated that they are *willing* to devote time and effort to become informed about collective issues and to participate in the democratic process. These links among democracy, rationality and ethics are the focus of this essay.

I begin by describing the *psychology* of individual decision making, and the extent to which it can be characterized as rational (Section I). Section II describes how human psychology has evolved and with it human capacities for rational thought culminating in the development of scientific method to explain natural phenomena. Section III describes an alternative theoretical structure for explaining natural phenomena, namely superstitions and religions. These alternative theoretical structures characterize modern and traditional societies and are contrasted in Section IV. Section V reviews how modern, theoretic cultures came to triumph over traditional, mythic cultures. With this background, we take up in Section VI the relationships among morality, rationality and democracy. Section VII discusses why religion and democracy are incompatible. The question of whether religion benefits society by underpinning morality is addressed in Section VIII, with the conclusions of the essay being drawn in the final section.

I. The Psychology of Individuals

A. Behavioral

Perhaps, the simplest of all models of human psychology is that of *behavioral* psychology or operant behaviorism.[1] Operant behaviorism provides a theory of learning that is quite similar to the selfish gene account of natural selection. This theory assumes that nature randomly distributes genes across individuals. Genes that increase fitness and reproductive success are selected over those that do not. Operant behaviorism assumes that individuals randomly undertake actions. Actions followed by rewards increase in frequency, actions followed by punishments decline in frequency. In the one case the environment selects for genes, in the other for actions. Operant behaviorism takes the assumption of narrow self-interest to the extreme. Individuals are assumed to be pure hedonists seeking rewards and avoiding pains. In this regard, the premises of behavioral psychology are quite compatible with those underlying the philosophies of Hobbes and Bentham.

Operant conditioning relies on a rather primitive cause and effect association in people's minds. Action *A* is followed by reward *B* and the action is associated with the reward and repeated. When action *A* does in fact *cause* reward *B*, this behavior is functional and thus accords with what we would expect a rational person, as conventionally defined, to do. Thus, well-conditioned individuals might behave *as if* they were *choosing* actions to maximize an objective or utility function. The well-conditioned consumer buys more of a good at a lower price, because she has been rewarded for such actions in the past. Rats in the laboratory behave as if they were maximizing a utility function that includes water as an argument. Rats, like humans, have negative sloped demand curves (Staddon, 1983).

Correlation does not always imply causation, however, and some actions are followed by

rewards that they did not bring about. This possibility can explain why some habits are not functional or even harmful. A football player unconsciously dons non-matching socks on a day when he scores three goals, and from then on consciously chooses to wear non-matching socks. Millions of people consult the horoscope sections of their newspapers everyday to see what the stars have in store for them. On any given day, some of them will experience the good fortune forecast for them in the morning paper. They will "thank their lucky stars," and the habit of reading their horoscope will be reinforced and sustained.

Thus, operant behaviorism offers a plausible account for much animal and human behavior. Its explanation for why people cooperate in prisoners' dilemma situations would be that they have been rewarded for such cooperative behavior in the past. The most successful strategy to induce cooperation in a repeated prisoners' dilemma appears to be the TIT FOR TAT strategy (Axelrod, 1984) – reward cooperation in one period by cooperating in the next, punish non-cooperation in one period by not cooperating in the next. The TIT FOR TAT strategy might have been developed in one of B. F. Skinner's laboratories.

B. Cognitive

Operant behaviorism does not appear to be able to explain all human actions, however. Although climbing a tree to escape a grizzly bear would be rewarded by staying alive, how would the first person who confronted a grizzly have known to climb and not to run? Many actions appear not to be the result of past rewards, but a result of a reasoning process in which the actor *foresees* the consequences of the action. An individual learns not to hold her hand in a fire the first time she does so. But how does she know to run, or to move her camp when she sees smoke from a brush fire in the distance? She seems to deduce that the smoke is caused by a fire, that the wind is

blowing the fire in her direction, and that she had better move if she wishes to escape the fire. Humans are capable of cognitive processes far more complex than those presumed under the operant behavioral model. Any model of human behavior must allow for these cognitive processes.

C. Evolutionary

The most dramatic difference between humans and other animals – even other primates – is the relatively large size of the human brain. "The brain is a biological organ just like the pancreas, the liver, or any other specialized organ" (Ramachandran, 1990, p. 24), and like these other organs it has evolved to serve specific functions (Tooby and Cosmides, 1992, p. 7). Its main function is to process information, which could be used to help humans survive during the Pleistocene (Tooby and Cosmides, 1992, p. 66). It owes its size to the fact that during its evolution it has added one functional capacity to another – the ability to see and to recognize depth of field, the ability to sense danger (approaching a precipice, a snake), to recognize faces, to imitate and learn from others, and numerous more.[2] Thus, both its size and the way in which it functions are the products of natural selection.

An extremely important cognitive development was the ability to understand complex causal relationships, and to generalize about them. The advantages for survival from such an understanding are obvious. The first person who stuck a stick into a desert cactus and obtained water must have been quite surprised. The action of piercing cacti to obtain water would be positively reinforced, and beneficial for survival. But so too would the capacity to generalize and deduce that if cacti contain liquids, so too probably do other plants and trees, and that some of these might also be tapped and put to good use.

An important complement to the brain's development was the development of language. The ability to communicate complex thoughts and commands with other individuals must have greatly facilitated cooperation among tribe members in hunting and warfare. Those with the biggest brains and the most sophisticated powers of reasoning would have had the highest probabilities of survival, and thus natural selection would favor large brains and genetically determined processes of reasoning within these brains.[3]

Of course, the reasoning processes that would have been favored would have increased survival chances in a hunter/gather society. Much has been written about a human proclivity to cooperate being partially, genetically determined. Cooperation in hunting large animals, or fighting other tribes could obviously increase chances for success and probabilities of survival. A genetic disposition to cooperate has been given as an explanation for individuals' seemingly "irrational" proclivity to cooperate in prisoners' dilemma situations.[4]

Unfortunately, not all mental processes that aid survival in tribal societies on the African savanna have positive value in a 21st century. An instinctive reaction to a pickpocket's taking your wallet is irate rage. Many people give chase to pickpockets, risking their lives from either a heart attack or a knife or bullet wound, even though the financial loss from the theft is rather modest. "It's not the money, but the principle of the thing." Having one's pocket picked or apartment burgled sets off in most people a violent reaction. They feel personally "violated," and they often react with violence. They often overreact. For people living on the edge of survival, theft can be very costly, and overreactions might well deter theft, free riding and other non-cooperative behavior thereby increasing survival chances. Such instinctive and uncontrollable reactions to theft are likely to be genetically triggered.[5]

A willingness to fight for, kill for, and if need be die for one's tribe would have increased

the probabilities of the tribe's success in battle with other tribes, and to the survival of its members. Loyalty to one's tribe and animosity toward members of other tribes is also in part genetically determined. But of course before one can defend one's fellow tribe members, one must be able to recognize who they are. This would have been easy 50,000 years ago on the savannas of Africa, but is less so in our polyglot societies of today. Race is an obvious clue, as is language and religion, and history is replete with wars between societies that differ on the basis of race, language and religion. But even more subtle differences between groups can lead to strife. Dividing boys attending a summer camp into two groups for the purpose of sports and other activities can lead to animosity and violent confrontations between those who were arbitrarily assigned red jerseys and those assigned blue. Even separating people by a coin flip can lead to strong loyalties among "the heads."[6]

Most students of politics are familiar with James Madison's discussion of the evils of "factions" in *Federalist 10*. Madison's analysis was preceded, however, by David Hume.

> As much as legislators and founders of states ought to be honoured and respected among men, as much ought the founders of sects and factions to be detested and hated; being that the cause and influence of faction is directly contrary to that of laws. Factions subvert government, render laws impotent, and beget the fiercest animosities among men of the same nation, who ought to give mutual assistance and protection to each other. And what should render the founders of parties more odious is, the difficulty of extirpating these weeds, when once they have taken root in any state. (Hume, 1758, p. 55).

Hume goes on to say that,

> Factions may be divided into PERSONAL and REAL; that is, into factions, founded on personal friendship or animosity among such as compose the contending parties, and into those founded on some real difference of sentiment or interest. (Hume, 1758, p. 56).

As examples of factions based on personal differences, Hume cited "the remarkable dissension between two [Roman] tribes, the POLLIA and PAPIRIA, which continued for the space of near three hundred years (p. 57)," and "the civil wars which arose some few years ago in MOROCCO,

between the *blacks* and *whites*, merely on account of their complexion ..." (p. 59, emphasis in original). Anticipating experiments conducted more than 200 years later, Hume noted,

> When men are once enlisted on opposite sides, they contract an affection to the persons with whom they are united, and an animosity against their antagonists: And these passions they often transmit to their prosperity. (Hume, 1758, p. 58).

In addition to a psychological identification to a group, Hume listed the following motivations and passions to which humans are susceptible: "the intolerant adherence to abstract principle, inherited animosity, love of imitation, psychological infatuation with a leader ... craving for approval, anger, envy, fear, grief, shame, depression, melancholy, and anxiety."[7] Virtually every item in this list is likely to be in part genetically driven.

Our genetic heritage can thus be regarded as somewhat of a mixed bag. On the positive side, we find our evolved big brains and cognitive abilities. We *are* capable of reasoning in a manner that justifies the assumptions of rational actor models, and the accumulated miracles of science attest to the scope of these abilities. Further on the plus side, are our innate tendencies to cooperate and behave altruistically. But our genetic baggage also has its darker, more problematic side. Group loyalties, cravings for approval, love of imitation and infatuation with leaders make us prone to racist and bigoted behavior; willing to follow a leader who tells us that we are better than others and to march off into war to prove our superiority. The challenge humans face today is the same one that they have always faced – how to harness the creative powers of the brain to make our lives better, while at the same time avoiding the self-destructive impulses that we all share? Social mores play an important role in constraining destructive behavior, and religion is often thought to provide the foundation for social mores. Thus, we shall devote considerable space to examining the main characteristics of religions. But, first we briefly sketch the evolutionary stages of human psychological development.

II. The Evolution of Human Psychology

Merlin Donald (1991) divides the evolution of "the modern mind" into four stages.

A. Episodic Culture

All primates, including humans, live in groups. To survive in groups, primates must learn when a particular action is likely to bring forth a hostile response by another member of the group, and when it will bring forth a friendly response; which chimpanzees will reciprocate acts of grooming and which will not; what the male hierarchy is, and so on. Migratory groups would have to learn when certain trees would bear fruit, when water holes would be dry, and so on. The power to recognize and respond to these situational clues Donald (1991, ch. 5) calls episodic culture. Both birds and mammals have these capabilities, and they are most highly developed in the great apes.

The learning process that characterizes episodic culture is well-characterized by behavioral psychology. Animals respond to stimuli and learn what actions will be rewarded and punished. The advantages of acquiring this kind of knowledge for survival are obvious. *Some* human behavior resembles that of the great apes and can be classified as part of the episodic culture. Characteristics that are useful for survival do not disappear as a species evolves, they get complemented by additional useful characteristics. Humans evolved beyond the stage of apes by acquiring greater cognitive powers.

B. Mimetic Culture

Prior to the invention of language, humans acquired the ability to communicate with one another by *acting out* their thoughts. Donald refers to this as *mimetic skill*.

> Mimetic skill or mimesis rests on the ability to produce conscious, self-initiated, representational acts that are intentional but not linguistic. These mimetic acts are

> defined primarily in terms of their representational function ... mimesis is fundamentally different from imitation and mimicry in that it involves the *invention* of intentional representations. When there is an audience to interpret the action, mimesis also serves the purpose of communication. However, mimesis may simply represent the event to oneself, for the purpose of rehearsing and refining a skill ... (Donald, 1991, pp. 168-69, emphasis in original)

Mimetic culture appears during the period in which *homo erectus* lived, starting roughly 1.5 million years ago. Mimesis would have been used to coordinate actions in hunting and fighting with other groups; to teach making fires, huts, weapons, and tools; to teach fighting and hunting; and in ritual dancing and game playing. Thus, by the end of the period in which homo erectus lived, his communities would have many of the characteristics that we associate with human society except for an elaborately developed language. Felipe Fernández-Armesto (2004) argues forcefully that homo sapiens cannot be separated from other primates like chimpanzees and the great apes, because they too make limited use of tools, engage in coordinated activities, and even make various sounds to communicate with one another. Although this is true, the cognitive achievements of homo sapiens and the complexity of their social structures have far surpassed those of the other primates making it legitimate to claim that the other primates alive today live *largely* within an episodic culture.

C. Mythic Culture

Somewhere between 200,000 and 100,000 years ago modern man, *homo sapiens,* appeared. Homo sapiens possessed several important evolutionary advantages over homo erectus, most importantly a 20 percent larger brain than homo erectus's, and a supralaryngeal vocal apparatus, which contained a soft palate and a highly flexible tongue. This vocal apparatus differentiated homo sapiens from both homo erectus and the Neanderthalers, who existed alongside of homo sapiens until their extinction around 35,000 years ago. Both homo erectus and the

Neanderthalers must have possessed some capabilities for oral communication. Indeed, the selection process that resulted in homo sapiens must have built on these capabilities. The Neanderthal brain was comparable in size or even slightly larger than that of homo sapiens, but the shape and positioning of their larynx and other features of their vocal apparatus would have made oral communication much more limited than that of homo sapiens, and one surmises that this may have been a contributing factor to their extinction (Lieberman, 1975, 1984; Donald, 1991, pp. 115-19, 204-08). Once again Fernández-Armesto (2004) underplays this difference between the Neanderthals and homo sapiens.

Speech gave humans a tremendous evolutionary advantage over their predecessor, homo erectus. Although homo erectus had succeeded through the use of mimesis to engage in a great deal of coordinated social activities – hunting, gathering, tool making, etc. – speech made "humans ... better and faster at everything: social coordination, tool manufacture, systemic war, finding and building shelter, gathering and hunting food" (Donald, 1991, p. 210).

> Simultaneously with the appearance of speech there appeared a whole constellation of thought skills that are associated with language and are, broadly speaking, linear, analytic, rule-governed, and segmented. Semiotic cultures also triggered completely new forms of information processing and storage: semantic memory, propositional memory, discourse comprehension, analytic thought, induction, and verification, among others. (Donald, 1991, p. 212)

The increasing complexity of social life, and the difficulty of expressing complex thoughts through mimesis must have spurred the invention of language. Each word is a symbol for some thing, action or attribute, and thus language's invention also entailed the invention of many symbols. "The invention of a symbol requires a capacity for thought," and their existence extends the boundaries for rational thought (Donald, 1991, p. 219). The invention of language thus brought with it a great expansion in humans' capacity to *reason*.

As Mokyr (2002, p. 16) observes, "curiosity [is] an essential human trait without which

no historical theory of useful knowledge makes sense." Of particular importance for the acquisition of knowledge is curiosity about causal relationships. Within the episodic culture, an understanding of causal relationships could have been acquired through the recognition of sequences of events. Act *A* is followed by reward *R*. The expansion of humans' cognitive powers that accompanied the invention of language expanded their ability to recognize more complex causal relationships.

It is natural to assume that every event has a cause. The fire cooks the meat; water extinguishes the fire. When obvious causes are unavailable, more remote causes must be sought. It is in this way that myths and superstitions first arose in the early homo sapiens who invented languages. Donald describes the role played by myths for the !Kung of Africa.

> As in most early religions, their god myths are closely tied to their idea of causality: gods cause pain and death, create life and the heavens, cause rain and thunder. The eland, identified with moon through the creation myth, was also important in the ceremonial celebration of a young girl's first menstruation, since they knew of the correlation between the duration of the menstrual cycle and the lunar cycle.
>
> Their mythical thought, in our terms, might be regarded as a unified, collectively held system of explanatory and regulatory metaphors. The mind has expanded its reach beyond the episodic perception of events, beyond the mimetic reconstruction of episodes, to a comprehensive modeling of the entire human universe. Causal explanation, prediction, control – myth constitutes an attempt at all three, and every aspect of life is permeated by myth. (Donald, 1991, p. 214)

All known hunter and gatherer communities possess such myths, all possess language. An important function of language in early homo sapiens societies was to allow them "to construct conceptual models of the human universe." Donald (1991, p. 215) claims that this use of language was initially more important than its role in creating new social technologies and organizational structures. So important is the role of myth in the cultures of the first talking humans that Donald names this stage in human development, the *mythic culture*.

D. Theoretic Culture

While all human groups developed speech and language, only a few societies succeeded in inventing writing. The Sumerians appear to be the first with the earliest written symbols dating back about 10,000 (Donald, 1991, p. 285). The first use of writing was to record transactions – numbers of sheep traded, quantities of wheat and barley stored. Eventually, however, humans learned how to express words and ideas through writing, developed mathematical symbols, geometry, maps and other ways of storing information.

The advent of writing greatly expanded humans' capacity to store data and information. Although its invention was not accompanied by any further expansion of the brain's size, the use of visual symbols would have required changes in human cognition at least comparable to those accompanying the invention of language (Donald, 1991, ch. 8). The advent of writing also allowed humans to extend the length of a chain of reasoning. Written ideas can be examined one by one, modified or replaced, supplemented, their order changed, and so on. Such manipulations without the aid of visual representations of the ideas is severely limited by the mind's capacity to retain and recall ideas. Thus, the invention of writing and other means of visual representation of ideas allowed humans to expand their ability to reason. They facilitated the construction of abstract models of natural phenomenon and eventually the development of what we now call scientific method, which is why Donald names this phase in human evolution, the *theoretic culture*.

III. Superstition and Religion

A. Religion and Causality

Two tribesmen are chasing an antelope across the planes of Africa. It is hot and they have been running a long time. Suddenly, one of them falls to the ground clutching his chest and complaining of pain. In a few minutes he is dead. What caused his death? There must be a cause. People do not simply fall over dead for no reason. The deadman had not eaten or drunk anything just before dying, there is no sign of a deadly snake or spider. The surviving hunter has seen men die when a spear enters their chests. Since the dead hunter clutched his chest in pain, something must have entered his chest and caused the man's pain and death. But what could have entered it, there is no cut or hole or other sign of anything entering? Something invisible must have entered his chest – an evil spirit. But why did it choose to enter his chest and not that of the surviving hunter? Ah, the survivor donned a necklace that morning made of the horns of an antelope that he killed last week. The necklace had protected him from the evil spirit. Our surviving hunter is well on his way to inventing a theory about spirits that kill hunters of antelopes, and a protection against these evil spirits.

This example illustrates how myths and superstitions can arise. Our minds are always seeking causal explanations for events. Had the hunter been bitten by a poisonous snake, or attacked by a lion, the cause of his death would have been obvious. But lacking such a visible cause the second hunter invents an invisible cause. His first thought was of an evil spirit, but he could have hypothesized many other causes. If he had seen a blackbird watching them from a nearby tree, he might have hypothesized that the bird killed his companion with an evil look, or perhaps by launching an invisible, internal organ that penetrated the chest.[8] The number of possible causes of death that the surviving hunter could imagine is quite large, and thus we might

not expect any two hunters to hit upon exactly the same cause. This superabundance of possible causes helps explain the many varieties of religion that are found. In some cases, the invisible spirits and gods take on a human form, in others they are animals or birds. One thing we can say with considerable certainty, however, is that the hunter would not have hypothesized that a nearby stone killed his companion. Stones are inanimate objects. They do not move, are not alive, and presumably do not think. Events like the death of a companion must be caused by some *intentional being*, like a human or some other type of animal, an intentional being that *wanted* to kill the hunter. Someone – some invisible one – intended that the hunter die, and the second hunter must guess who or what this invisible someone was. This example also illustrates the importance of language in the propagation of religions. The two men would have been able to coordinate their actions in hunting during the mimetic period, and the same event might have taken place then. The surviving hunter might have suspected that something entered the other hunter's chest, but it would be difficult to communicate this belief to other tribe members. He could have acted out what happened, but it would have been difficult to convey his hypothesis about the cause of the hunter's death in the absence of language. With language he could describe the suspicious looking blackbird, and his hypothesis that it killed his companion. A myth about evil blackbirds would be started. If another misfortune occurred in the presence of a blackbird, the myth would be reinforced. With enough such coincidences, a belief in the evil powers of blackbirds would become part of this tribe's religion.

B. Religion and Death

The ritualization of death appears even to predate language (Boyer, 2001, p. 203). Losing someone dear is a traumatic emotional experience, and has presumably always been so. Our

minds recognize other people as both living animals or beings, and as unique persons with specific personalities. When someone dies we recognize that this person has stopped breathing, stopped living and soon will begin decay like all other animals. Our built in aversion to pollution tells us that the deceased's body must be disposed of before it begins to rot, but at the same time our mind finds it difficult to accept that the *person* we knew is no more. Our mind tells us that the *spirit* of this person must still exist somewhere. Thus, arises the notion of *dualism* – that we possess a body and a soul, and that they are two separate things. The body dies but the soul lives on forever. Souls of the dead are the most common form of supernatural agents across all cultures (Boyer, 2001, p. 227).

In many communities, the souls or spirits of the dead are assumed to watch over the community and intervene in its daily activity. In these communities, religion takes the form of ancestor worship. Prayers and sacrifices are offered to the ancestors to induce them to intervene for the benefit of the community or for specific individuals. These prayers and sacrifices always must be performed in particular ways to be effective. Thus, arises the need for intermediaries – shamans and priests – who are experts in performing the rituals.

Ghosts of the dead, other forms of spirits like angels and devils, and gods all share common characteristics. They are conscious, intentional agents and thus as it is possible to make inferences about what they are thinking, their intentions, what it takes to please them or offend them. Unlike ordinary intentional agents, however, spirits and gods inevitably possess some supernatural property – they are immortal, omniscient, invisible, can pass through brick walls, and so on. The combination of their being both familiar agents whom we can understand and communicate with, and at the same time having wondrous attributes makes a vivid impression in the mind, a lasting impression.

C. Religion and Morality

No one has recorded how notions of gods and spirits developed among our earliest ancestors. Did someone first hypothesize the existence of an invisible spirt to explain a perplexing event, and later the tribe hit upon the idea that these spirits were the ghosts of deceased tribe members, or did the tribe first imagine that people's souls lived on after their bodies died, and these living souls were the invisible causes of puzzling events? Conceivably, spirits were invented for one reason in some tribes for another in others. Once invented, however, the spirits take on an active role in all tribal societies. They intervene in the daily lives of tribal members. Individuals believe that they see the spirits occasionally, communicate with them, and do things that please or anger the spirits.

The challenge of surviving in the Pleistocene placed a premium on cooperative behavior. As in all communities, children would learn from their parents and elders which actions are right and which are wrong. Guilt feelings from doing something wrong, and pride from doing good, appear to be part of our inherited emotional response kit (Boyer, 2001, ch. 5). All people thus grow up believing that their elders know right from wrong, and that they punish and reward our actions. It is quite natural, therefore, to assume that our elders remain concerned about what we are doing after they die. Thus, we find that the spirits of ancestors are preoccupied observing the behavior of tribal members. Moreover, unlike parents and living elders, ancestor spirits see everything that we do, and thus it is impossible "to get away with" an immoral act without being caught. Thus, it is that the link between religion and morality arises. Although spirits and ghosts were perhaps invented for other reasons, once invented they take up the task of monitoring the behavior of the living to ensure that they behave morally, that they behave in ways that benefit the community and not just themselves.

To the untrained in mathematics the concept of chance is difficult to comprehend.[9] Why did *my* daughter get struck by lightening during a summer storm, and not a tree, or my neighbor's son, or me? She must have done something wrong. But she is too young and innocent to have done something wrong. *I* must have done something wrong.

The need for a causal explanation for every event, a lack of understanding of the concept of chance, plus the belief that our ancestors or the gods are watching our every move, combine to produce the belief in a direct link between our actions on earth, the spirits' and gods' responses to these actions, and subsequent events on earth. The fear of punishment (hope for reward) from the spirits leads people to behave morally, and to interpret good fortune as a reward for good deeds, and misfortune as a punishment for wrong doing.

D. Religion as an Exchange Relationship

Humans are endowed with intuitive notions of fairness. Our tribal ancestors would have had a good understanding of fairness and would, like we do today, have known that you usually do not get something for nothing. It would be natural for tribe members to think, therefore, that their spirit-ancestors would want something in exchange for doing them a favor – the performance of a prayer, a dance, the sacrifice of a lamb.

All religions have this exchange-relationship characteristic. The community facing a drought prays for rain, the expectant father for a healthy baby, the terminal cancer patient to be taken into heaven. A tribe sacrifices a goat for success in battle. If the spirits and gods could not "deliver the goods," there would not be much point in praying to them.

Religious rituals always have a particular goal behind them – success in battle, success in love, success in the hunt, a happy afterlife. To be effective, religious rituals must typically be

performed in certain ways. The ancestors would not be pleased to have just any old goat sacrificed. It must be a white goat washed three times by a virgin, and so on.[10] The complexity of the rituals often required certain persons to perform them – a shaman, witch doctor, or priest. Each shaman had to have a certain bag of "wizard-of-oz tricks" to impress his clients. Since religious rituals require a belief in the supernatural, shamans, witch doctors, and priests must themselves be *un*natural in some way. When an epileptic has a seizure, he behaves in a most unnatural way, as if perhaps he were seized by a spirit. Epileptics frequently became shamans. Others became shamans because they could put themselves into a trance, or feign entering one. As religions evolved, shamans were replaced by priests who obtained their "powers of magic" through training and performing certain rituals.

E. Summary of Local Religions

Rather than use a possibly pejorative term like tribal or primitive religions, I call early religions *local* religions in contrast to the universal religions to be discussed next. Early religions were truly local in that the nature of the spirits and gods, and a tribe's beliefs about them would typically differ from one tribe to the next. Some beliefs were common to almost all local religions, however, and are also found in modern states (Boyer, 1994, p. 5).

1. The belief that "a nonphysical component of persons can survive after death and remain an intentional being."
2. The belief that "certain people are especially likely to receive direct inspiration or messages from extra-natural agencies, such as gods and spirits."
3. The belief that "performing certain ritual 'recipes' in the exact way and order prescribed can bring about changes in physical states of affairs."

These beliefs arise as attempts to explain events that cannot be explained with the information and knowledge at hand. Once again the chance juxtaposition of events may lead to an inference of causality. A tribe has good luck hunting by a full moon and begins to pray to the moon. Hunting tribes frequently have had moon gods. Since hunting was carried out by the men, moon gods were male. Tribes dependent on farming had sun gods, since the sun is more important than the moon for growing plants. Since tending crops and gathering grains and berries was carried out by the women of the tribe, sun gods have been female.[11]

F. Universal Religions

Local religions are oriented toward the present life. They explain certain events, help people cope with the trauma of death, reinforce the mores of the community. Although a tribe's members may expect to join their ancestors when they die, they typically have vague ideas about what this afterlife will be like. The ancestors are not presumed to have a particularly happy afterlife, and the actions of tribe members are not motivated toward rewards in the afterlife.

In contrast, universal religions are heavily focused on the afterlife and the rewards and punishments that await one there. The first of Buddhism's Four Noble Truths, for example, emphasizes human suffering (*dukha*). All humans are caught in a cycle of life and rebirth that entails much suffering. The second Noble Truth deals with the *cause* of human suffering. Here we see a direct correspondence with local religions. The spirits and gods of local religions offer explanations for certain, often tragic, events. Buddhism offers an explanation for why we have been chosen to suffer. The third and fourth Noble Truths, however, offer hope. The cycle of suffering can be broken by following the Eightfold Path of (1) right views, (2) right intentions, (3) right speech, (4) right conduct, (5) right livelihood, (6) right effort, (7) right mindfulness, and

(8) right concentration. Following this path is no easy thing, however. Besides faith (*saddha*), one needs training in concentration and meditation (*samadhi*), and various ethical and disciplinary practices (*sila*). Those who follow the Eightfold Path successfully are able to break the cycle of suffering and enter into *nirvana*.

Christianity's Ten Commandments are also a set of proscriptions forbidding certain actions on earth with the promise of Heaven for those who obey the Commandments. Much speculation and theorizing in Christianity has centered on life in Heaven – or in Hell. At first glance, Islam might be thought to be an exception in this regard, since the Koran is not other-worldly oriented, but rather is minutely focused on life on this earth and what we should do here. The word *Islam* means *submission,* however*,* and the Koran describes in great detail what each individual should and should not do in her daily life. Many of its proscriptions from praying five times a day to fasting during the Ramadan require the sacrifice of certain earthly pleasures with, as with Christianity and Buddhism, the promise of rewards after death. In this respect, Islam is like the other major universal religions.

As knowledge advanced and societies became more complex and sophisticated, understanding of causality increased and the need to invent supernatural causes for events declined. As trade and communication expanded, individuals came into contact with other religions, and began to notice the strange if not bizarre beliefs of some other groups. These developments favored the invention of universal religions.

A universal religion must, by definition, be essentially the same in every community where it is practiced – in farming as well as in hunting communities. A universal religion cannot easily accommodate local peculiarities and conditions, therefore. It could not offer a female sun god to a farming community, and a male moon god to a hunting community. Replacing the

multitude of gods and spirits with a single or small number of gods is thus a necessary step in the creation of a universal religion.

Heterogeneity across communities also makes it difficult to orient a universal religion toward providing rewards and penalties in this life, since the needs of communities differ greatly. It is also likely, as knowledge and understanding of causality and chance grew, that individuals in more complex societies became skeptical about the powers of shamans and priests to cure diseases, chase away evil spirits and bring success in battle. Thus, another logical step in the development of a universal religion is to reorient exchange relationships between gods and humans away from providing rewards on earth to providing them in the afterlife. This shift in orientation also has the advantage of making verification of the receipt of the rewards impossible.

Although universal religions are less concerned with explaining inexplicable events in daily life than are local religions, they too have their miracles that account for certain wondrous events on earth, many of which occur when the religion's founder lived. But, universal religions place much more emphasis on explaining the causes of more momentous events – like the creation of the universe, and of man. These religious claims again have the advantage of being unverifiable.[12]

Thus, universal religions have all of the salient characteristics of local religions. They provide answers to puzzling questions; proscribe certain immoral actions, and prescribe certain moral actions; contain rituals, which allow individuals to obtain rewards and avoid punishments; and they are greatly concerned with death and the passage into the afterlife. Equally important, however, is the way in which universal and local religions differ. Universal religions provide answers for different sorts of questions – who created the earth? They replace all-knowing ancestors and spirits with an all-knowing god. Where rewards and punishments meted out by

the ancestors alter individuals' lives on earth, a universal religion's rewards and punishments are experienced in the afterlife.

The death of a founder of a universal religion – Buddha, Christ, Mohammed – creates a crisis for his followers – how to continue and to spread the teachings of the founder. Compilations of his teaching are then put together, and his followers set out to convert others to the religion. Out of this group of initial missionaries emerges a set of experts on the religion, which Boyer refers to as a *guild*.[13] Guild members become the official interpreters of the religion's doctrines and performers of its rituals. Like all guilds, religious guilds abhor competition, and thus set out to eliminate it. It is no accident that the First of the Ten Commandments prohibits belief in "false" gods. Each universal religion claims that it alone can provide salvation, nirvana, or other forms of eternal happiness, and thus encourages people to join the *true* faith and discourages defection.

Local religions' shamans and priests are assumed to be born with mystical powers, or receive them from the spirits. The priests of universal religions acquire their powers through study, on the other hand. Since in principle *anyone* could study and become a priest,[14] guild members are very vulnerable to entry and competition. Thus, religious guilds inevitably seek protection from competition by teaming up with the state.

One effective way to protect a monopoly is to create a *brand* image. Religious brands take the form of specific doctrines. Thus, doctrine plays a great role in universal religions, while being largely absent from local religions. Religious doctrines are easier to standardize and promulgate, if they can be written down. Thus, the emergence of both universal religions and writing and literacy in more complex societies is not an acciedent. Without a written version of a religious doctrine it would not be possible to guarantee that it was the same in every

community. Passing a religious doctrine on by word-of-mouth would inevitably lead to alterations in content. With writing one can ensure that the same doctrines are taught and the same rituals performed in every community. Thus, universal religions can be regarded as the first form of brand creation and franchising. Just as a McDonald's customer can expect the same size and quality of a Big Mac in China, Austria and California, a Catholic can expect the ritual of the mass to be the same in China, Austria and California.

Although all universal religions seek to be monopolies, none has succeeded. One reason for this is that no founder of a universal religion had the time of inclination to codify his teachings. Codifications came *after* a founder's death, and were undertaken by his followers. Since different followers had different recollections and interpretations of the founder's teachings, disagreement over the exact wording of the religion's authentic doctrine was inevitable. *All* universal religions have been plagued by schisms, therefore.

In addition to competition from within, universal religions also face competition from without – from other universal religions and from local religions. Many religious doctrines are rather abstract – think of the doctrine of the Holy Trinity, that there is one God, but he consists of three parts, two of which have a father-son relationship. Although accounts of events in the lives of Buddha, Christ and Mohammed are inspiring when first heard, these too may lose their power to excite over time. Behavioral psychology teaches us that habits are more easily established and maintained when rewards immediately follow actions than when they are delayed. A problem all universal religions face is that their greatest rewards are delayed until after death. The rewards individuals perceive that they get from local religions, on the other hand, occur here on earth. Thus, it is that universal religions often have to bend to accommodate local religious customs. Boyer gives the following account.

> ... many Hindu scholars contrast what they call *shastrik* elements of the religion, the belief and practices supposed to be the definition of Hinduism, with the *lautik* or local, popular and contextual versions. The *shastrik* elements should apply everywhere .... People always add to or distort doctrine. The same phenomenon is found in Buddhism, where scholars are scandalized by the many pagan practices they must witness, tolerate and in which they are sometimes forced to participate. The history of early Christianity also includes many difficult conflicts between the competing claims of a still fragile Church with considerable political backing and a host of local cults that somehow deviate from doctrine ... In some ways, Hinduism achieved a more balanced equilibrium between the general, literate version and the inevitable local variants and additions. This was realized mostly through the convenient division between great gods of cosmic significance and local deities, more generally goddesses, that were mainly relevant at the local level. More or less every settlement has its own goddess who is specially concerned with the inhabitants of that special place. (Boyer, 2001, pp. 281-82)

Today many Italian towns and cities have their particular saint whose birthday is celebrated each year with a parade and festival. According to Na Honoun, a voodoo priestess, Christians in Benin go to church on Sunday, but visit the voodoo priests and priestesses the rest of the week (*Economist*, Jan.28, 2006). In Benin, day-to-day exchange relationships with the spirits appear just as or even more important than the relationship with the more remote Christian God.

IV. Contrasting the Theoretical Systems of Modern and Traditional Societies

In an interesting essay, Robin Horton contrasted the theoretical systems of "modern" and "traditional" societies. Modern societies make considerable use of scientific methods to achieve an understanding of causal relationships, while traditional societies rely to a great degree on abductive methods. Both modern and traditional societies, however, possess "theoretical systems whose basic *raison d'être* [is] the extension of the magnificent but none the less limited causal vision of everyday commonsense thinking" (Horton, 1982, p. 201).[15]

Both types of theoretical systems can be divided into two parts. *Primary* theory refers to the commonsense causal relationships people infer from the close juxtaposition of natural events, what Boyer (1994) refers to as abductive theory. *Secondary* theory consists of mental

constructs to explain those phenomena that cannot be explained by primary theory. While primary theories are similar across cultures, secondary theories "possess startling differences ... between community and community, culture and culture" (p. 228). In one important respect they are similar, however – both types of secondary theory rely on entities and processes that are "hidden" to the human observer, while these entities and processes are directly observable in the primary theories (p. 229).

The hidden entities in the secondary theories of traditional societies are ghosts, spirits and gods and thus are *personal* in the sense that they are assumed to be intentional beings like humans and animals. In contrast, the hidden entities in the secondary theories of modern Western society are inanimate objects and thus *impersonal* or *mechanistic,* for example, atoms, electrons, sound waves and gravitational forces (p. 229).

Horton also notes the following important differences between cultures: traditionalist versus progressive; consensual versus competitive (pp. 238-48). In a traditionalist society, people believe that wisdom was discovered by the ancients and has been passed down to the present. This wisdom provides a true picture of the world, first because it has the authority of the ancients behind it, second because it has "withstood the test of time." Its account of events is not so out of line with experience as to call the wisdom of the ancients into question. Edmund Burke, awkwardly born into the Enlightenment, was the perfect embodiment of a traditionalist.

Progressives place little stock in the teachings of the past. We know more today than we did yesterday, we will know more tomorrow, than we do today. Thus, progressives are inherently optimistic about man's ability to acquire knowledge and about the future. Immanuel Kant's (1795) *World Peace* captures this optimism perfectly.

A consensual society reinforces the conservatism of a traditional society. With all

members of society sharing a common set of beliefs, a common *Weltanschauung*, there is no one to point out inconsistencies in these beliefs and failures to account for certain phenomena. Where belief systems and theoretical models compete, proponents of one system will be continually pointing out the inadequacies of their competitors, and all competitors will be striving to improve the performance of their theories in explaining and predicting events. A more rapid accumulation of knowledge can thus be expected in a progressive and competitive system than in a traditionalist, consensual system. Horton goes on to claim that cultural homogeneity, as existed in pre-colonial Africa and medieval Europe, is more conducive of traditionalism than the kind of melting pot, frontier societies that existed in 6th century B.C., Greece or the Netherlands at the beginning of the Scientific Revolution (pp. 254-56).

Horton's traditional societies belong to Donald's mythic culture. They possess language and the capability to reason, but lack writing and thus are unable to store and accumulate knowledge to the same degree that modern societies can. "Theories" of traditional societies about the origins of humans, life after death, whether dead people reappear as ghosts, and the like are stories made up to fill in gaps in their knowledge of the world. The invention of writing and symbols allowed humans to replace these myths and stories, with hypotheses involving abstract concepts like gravity. Models of nature could be constructed and predictions made and verified. Scientific theories of the modern age could replaced the mythic stories of traditional societies. In some places, this development led eventually to wealth and prosperity, and to the rise of democracy, but not everywhere.

V. The "Triumph" of the Theoretic over the Mythic Culture

A. State and Religion – the Sumerian State

At some time during the 5th or 4th millennia B.C., the Sumerarians migrated into Mesopotamia, "the land between the two rivers," where they established the first known state. One might expect that its bureaucracy, being the first in history, would be loosely organized and inefficient. Such was not the case. In the Sumerarian city-states, bureaucracy developed to a high degree, and controlled nearly every aspect of economic and social life. The entire society shared a set of morals and beliefs, which were determined by the religion as interpreted by the class of priests. The priests had evolved from being shamans who claimed to be able to predict the future by reading the stars. The state was an absolute monarchy with religion for an ideology. The king was god's representative on earth, and immediately beneath him were the priests. Together they ran the state with the help of a fairly large bureaucracy and a small number of scribes. The role of the masses was to serve god, which in effect meant to serve the king, since he was god's representative on earth. The power of the king was absolute.

The economy was based on agriculture. The class of priests with the help of the bureaucracy directed the planting and harvesting of crops. Harvested crops were taken to the temples to be stored and redistributed. Outside of the class of priests there was no private ownership of land, or much in the way of other private property, and little trade. The economy of the Sumerarian city-state was what we would today call a command economy.

Carroll Quigley (1979, p. 193) described the Sumerians as "the most important group of humans who ever lived." There is much evidence to back up this claim. In addition to writing, the Sumerians either invented or made important advances in agriculture (irrigation, the plow, wheeled carts, draft animals), metallurgy (brass and copper smelting), pottery manufacturing (the

potter's wheel), transportation (the sail boat), astronomy and, of course, the state. These inventions largely constitute progress at the level of *primary* theory – observations made about natural phenomena. The secondary theory of the Sumerians was still based on religious beliefs, and thus can be said to have been largely personal as in less developed, tribal societies.

The Sumerarian city-state survived anywhere from 800 to 1500 years depending upon one's choice of starting an ending points (Finer, 1997, pp. 127-28). Finer (1997, p. 29) attributes longevity in a state to a congruence between a society's belief system and its social and political structure. In the Sumerarian city-state this congruence was as close as it could possibly come. "In no other antique society did religion occupy such a prominent position ... the religious ideas promoted by the Sumerians played an extraordinary part in the public and private life of the Mesopotamians, modeling their institutions, colouring their works of art and literature, pervading every form of activity."[16]

B. The State without Religion – the Greek City State

The salient characteristics of the Sumerarian city-state were also to be found in Egypt, Persia and the other states of the ancient world – innovations in metallurgy, farming, engineering and the practical arts coupled with an autocratic and bureaucratic state in which state leadership and religion were fused. While knowledge of the causal relationships that govern the natural world progressed and were exploited, fear and awe of the supernatural world remained strong and were exploited by the state's leaders who often claimed to be gods.

The great and unexpected rupture with this pattern occurred in ancient Greece. A society emerged around the Aegean Sea at about 800 B.C. that was unlike any that had come before and in many ways unlike any that has come since, a society which "had a totally new conception of

what human life was for, and showed for the first time what the human mind was for" (Kitto, 1957, p. 7). They organized themselves into city-states, but accept for their territoriality, they bore no resemblance to the city-states of Mesopotamia. They were democratic to a degree unknown until that time and almost unknown since.

1. Importance of rational thought

A distinguishing feature of the Greeks was their "firm belief in Reason" (Kitto, 1957, p. 176). In ancient Greece, rational thought moved to center stage. We can identify the development of two, quite different variants of rational thought processes. The first approach places great faith in the power of *a priori* reasoning. Truth can be found by reasoning alone, and "knowledge" gained from the senses, from observing the real world, would only lead one away from the truth. Underlying the apparent complexity and variety that one observes in the real world lay a few, simple, universal laws which, when understood, would explain the workings of the universe. This line of reasoning led to the development of the fields of both metaphysics and mathematics and to major contributions in each field. One need only mention the names of a few proponents of this approach – Euclid, Zeno, Pythagorus, Socrates and Plato – to realize the extent of its development and the importance of its achievements.

The other variant of a rational thought process that can be attributed to the Greeks is what we call today scientific method – a succession of hypothesis formulation, testing, reformulation and further testing – logical inference informed by observing and gathering data. The first name here would be that of Aristotle.

The "Greeks, practical men that they were, had a passion for asking useless questions" (Kitto, 1957, p. 178). Where did we come from? What is the world made of? What is virtue?

Truth? Although other peoples had posed such questions before, none had posed so many or pursued the answers as far as the Greeks. Moreover, they did not seek answers to these questions through hypotheses about spirits and gods. Greek society can be said to have had the first *modern* system of thought in that the elements in their secondary theories were inanimate objects and forces from the natural word, not spirits from a supernatural world. To cite one example, Thales posed in typical Greek style the question, "what is the world made of". His answer "was based on nothing but abstract reasoning ... [completely free] from any form of religious mysticism, such as one might reasonably expect from a thinker whose predecessors had all expressed themselves in mythological terms" (Kitto, 1957, pp. 179-80). Although Thales's answer – water – has not withstood the test of time, the way in which he approached the question certainly has.

The Greeks had religion, of course, a form of polytheism. Its form stemmed from the fact that the Greeks were an amalgam of different peoples who had simply taken over the various gods of the peoples absorbed into their culture. Greek myths and gods offered answers to questions concerning the origin of the Greeks, the sun, the sea – questions that cannot be answered by simply observing nature, and for which the supernatural has often been invoked. At the beginning of their history these answers might have satisfied most Greeks, but as their powers of reasoning developed, they proved less and less satisfactory, and the Greeks began to offer mechanistic explanations based upon their reasoning about nature.

Greek gods were not Supreme Beings who did no wrong and had to be obeyed unquestioningly. They were "bigger than life" humans with human passions and foibles. Being human-like their actions could be measured by the same powers of reasoning as applied to man. "This form of religion induced the thinking Greek into something that Egyptians, Sumerians,

Babylonians, Assyrians, and Jews were incapable of: applying rational and indeed secular calculation to nature and to man himself" (Finer, 1997, p. 328).

Greek religion reflected human weaknesses. It provided the Greeks with a theology of sorts, but not with a morality. The Greeks did not turn to the gods, therefore, for moral guidance, for they were incapable of providing it. Nor could they turn to an organized priesthood, for there was not any. Answers to the great moral questions they had to provide themselves with the help of their great thinkers like Homer, Aeschylus, Socrates, Plato and Aristotle. In this respect it is legitimate to call Athens a *secular* state for religion played no role in its public decisions. The Greeks would turn to the gods for help in battle *after* they had decided to go to war, but the decision to go to battle they made themselves in the assembly in which all citizens could and which a majority did participate.

2. The invention of democracy

The Greeks' penchant for asking questions helps to explain why it was they who invented democracy. Prior to the Greeks "states had just evolved ... [and] it was natural that authority should be 'traditional'. In the latter [Greece] nothing was less obvious, and every change was questioned and its legitimacy challenged. The *polis* was an artifact and man was its measurer" (Finer, 1997, p. 329). This confidence in man's ability to be the measurer of all things, to be capable of answering the questions that a society must answer is an essential presumption underlying democracy. No people have ever had greater confidence in man's ability to fulfill these demands than the Greeks.

The Greeks thought of themselves as different from all other peoples, different not in the sense that they had a privileged relationship to God, as the Hebrews thought they had, but in the

sense that they had a privileged relationship to one another – they were Greeks and not barbarians (non-Greeks). And what was distinctive about being a Greek? He was a free man, free not necessarily in living in a democracy, but in the sense of being a citizen who had certain rights, who was ruled by laws. "Greek Tragedy is built on the faith that in human affairs it is Law that reigns, not chance" (Kitto, 1957, p. 176). Moreover, the laws that reigned were not dictated from above by a God or a sacred king, but arose from the collective decisions of the citizens themselves. The Greek citizen was free to seek redress from the courts if he felt that he had been injured, and defend himself in front of the courts if he was accused of injuring someone else. And there he would be tried by juries of his citizen peers.[17]

3. Appraisal

"This [the Greek] polity is extraordinary. It was a miracle of ingenuity and design, one of the most successful, perhaps the most successful, of political artefacts in the history of government" (Finer, 1997, pp. 367-68). It is difficult not to share Finer's judgment. Cleisthenes' constitution was one of the great "political artefacts" of all time. When one contemplates the additional contributions that the Greeks made to architecture, astronomy, mathematics, philosophy, science, sculpture, arts in general, and theater, one stands in awe. All of these can be explained by the fact that for the first time in human history, man's mind was freed to follow whatever path it chose free from the constraints imposed by superstition and religion. Of all the Greek contributions to human history, the most important was the demonstration of the potential of rational thought, the power of *reason*.

The Athenian society personifies the modern society in its progressiveness and competitiveness. The Greeks were optimistic about the potential of man to reason and about his

potential for self-government. Today the United States epitomizes in many respects the triumph of Western modernism in its democratic and capitalist institutions, in its scientific and technological progress. Yet, the suggestion that the knowledge of political institutions possessed by the present generation should allow it to write a better constitution than the Forefathers wrote over 200 years ago is generally greeted with much scepticism – *particularly among political scientists.* For the Greeks, the novelty of Cleisthenes' constitution was, if anything, a point in its favor, such was the confidence of the Greeks in the creative powers of the human mind, and enthusiasm for that which was new (Kitto, 1957, pp. 106-07).

The progressivism of the Greeks was equally matched by their competitiveness, particularly in the realm of ideas. The Platonists, Aristoteleans, Stoics, Epicureans, and Skeptics all competed in offering answers to the great questions of who we are and how we should live. The practitioner of pure, abstract reasoning competed with the empiricist in trying to explain the natural world. The vibrance and innovativeness of intellectual life in Ancient Greece is symbolized by the fact that so many of our words for these bodies of thought – metaphysics, stoicism, empiricism – are of Greek origin.

C. The Rediscovery of Reasoning

During the first millennium following Christ, Christianity became the dominant religion in Europe. Like all religions, Christianity is animistic. Its souls, saints, angels and devils replaced the evil spirits, ghosts, fairies, cherubim, demons and jinni of early religions. Its three gods rolled into one replaced the multiple gods of the pagan Greek and Roman religions. The celebration of the mass with the distribution of the Eucharist and wine replaces the animal sacrifices and redistribution of food in early Judaism (Harris, 1989, p. 441).

Christianity's secondary theory is animistic and personal like that of all religions, and thus with its rise the kind of reasoning introduced by the Greeks disappears. The Europe of the first millennium is a traditionalist society looking backwards at the wisdom of the Bible, Christ, and the Apostles. There is no competition among schools of thought. One ideology – Christianity – dominates. Such reasoning as took place, as for example, among the Scholastics of the Middle Ages, focused not on how to improve life on earth, but on the nature of life in heaven.

Then, around 1200 A.D. an awakening begins to take place. The writings of the Ancient Greeks are rediscovered. Scholarly attention shifts to understanding nature and life on this planet. Technological advances, like the development of the telescope, reveal glaring disparities between what can be observed and Church dogma. Undoubtedly, the intellectual awakening of the Renaissance was fueled in part by the spread of commerce and increasing mobility in Europe. Venetian, Genovese, Portugese, and Dutch traders were sailing to all corners of the globe and being exposed to new technologies and ideas. Representatives of different religions were coming into contact in southern Spain.

Naturally, the Church resisted this onslaught against its dogmas. Copernicus' theory that the earth circles the sun was opposed by the Church, and Galileo famously was forced to recant this theory. But, once released, the onslaught of intellectual activity could not be held back. Eventually it even entered the realm of metaphysics. One scholar after another – Descartes, Spinosa, Berkeley – offered up a new proof of the existence of God. Descartes' contribution was truly revolutionary. If a thinking man sitting in front of the fire in his bedroom could prove to himself by logical reasoning that God exists, then God exists. No appeal to a holy book or the wisdom of a long-dead holy man was needed.

Once competing theories of God's existence began to appear, it would not be long before

proofs of his non-existence begin to appear. By the Enlightenment, Hume, Voltaire and its other great thinkers were using their analytic powers to cast doubt on virtually all of the teachings of the Church – the existence of miracles, angels and devils, saints and souls.

The Enlightenment has also been aptly named the Age of Reason. At no other time in history, and no other place than Europe and the North American colonies, has trust in the powers of reason, trust in the potential of the human mind been so strong – except perhaps for Ancient Greece. Although democracy first reappeared appropriately enough in Renaissance Italy, it was not to take firm root again until the Enlightenment. The boldest break with tradition and clearest assertion of man's right to and capability for self-government occurred in revolutionary France. But it was the Americans, of course, who actually designed and implemented a set of political institutions that allowed citizens to govern themselves.

It was also during the Enlightenment that the systematic application of scientific methodology to the study of human behavior can be said to have begun with the writings of David Hume and most importantly Adam Smith. Once launched, economics developed rapidly during the 19th century and was eventually joined by the other social sciences.

The Enlightenment can also be said to have given birth to *liberalism*, although some of the great contributions to liberal thought, like Mill's essay *On Liberty*, came after the peak of the Enlightenment. Once the belief is established that humans are capable of rational thought, capable of transacting in the market place, capable of participating in the democratic process and making collective decisions for the community, it is a short step to the belief that humans should be free to do what they choose, so long as it does not harm others.

VI. Rationality, Morality and Democracy

In 1785, the Marquis de Condorcet published a proof of a remarkable theorem. It rests on the following assumptions. A community must make a binary choice, as for example whether X has committed a particular crime. All members of the community have the same goal – to find X guilty if she committed the crime, innocent if she did not. No one knows whether X is guilty, but each person has a probability p of being correct in deciding guilt or innocence, $p > 0.5$. The theorem states that if the community decides guilt using the simple majority rule, the probability that it makes the correct choice approaches one as the community's size increases.[18]

The theorem obviously is a defense of the simple majority rule, but it can also be regarded as a defense of democracy itself. In this context, the assumptions underlying it are very important. All citizens are assumed to have the same goal – correctly deciding guilt, improving the welfare of all citizens. Moreover, the probability that any one citizen makes the correct choice is greater than ½. Citizens do not simply flip coins to decide how to vote. They gather enough information to raise the probability of being correct above a coin flip.

All successful democracies require that similar conditions be fulfilled. Since all citizens consume the same set of publicly provided goods and services, their provision is more likely to improve citizens' welfare, if they agree on the ends of the state. If individual preferences are diametrically opposed, collective decisions benefitting all will be impossible. All successful democracies require that citizens take their duties seriously by participating in the process as voters, but also by becoming sufficiently well-informed to contribute to the community's making *correct* decisions. Outputs from a democracy cannot be any better than its inputs.

The importance of these conditions is illustrated by the histories of the most successful democracies.

Athenians believed that "the *polis* exists to express and secure the good of its citizens,"[19] and thus had the same normative view of the state as public choice scholars like Wicksell (1896) and Buchanan (1986) have had. Moreover, no people have ever taken citizenship more seriously than the ancient Greeks.[20] The same word in Greek, *politeia*, stood for citizenship, the body of all citizens, and the constitution. The state and its citizens were synonymous; the quality of the state (polis) depended on the quality of the citizens. This symbiosis between citizenship and constitution was to Isocrates the *soul* of the polis.[21]

Citizenship was cherished by the Greeks and was not bestowed lightly, at least when Greek democracy was most vibrant. Citizenship could be withdrawn in toto or in part by taking away some of a citizen's rights. Thus, several levels of citizenship existed, with the highest level carrying with it the right to participate in the public assembly *and* to hold public office. Sons of Greek citizens would generally become citizens in time, but this was not automatic. Foreigners could acquire citizenship by service to the state. Even slaves sometimes were granted citizenship in exchange for fighting in a war. Citizenship carried with it the obligation to serve in the army, and to equip oneself for battle.

Thus, in Athens obligations to the state and benefits from it were closely entwined. Being a Greek meant being a citizen with all of the rights and obligations that this involved. This aspect of Greek citizenship is nicely illustrated in the following passage attributed to Pericles by Thucydides (1943, II, §37).

> For our government is not copied from those of our neighbors: we are an example to them rather than they to us. Our constitution is named a democracy, because it is in the hands not of the few but of the many. But our laws secure equal justice for all in their private disputes, and our public opinion welcomes and honours talent in every branch of achievement, not for any sectional reason but on grounds of excellence alone. And as we give free play to all in our public life, so we carry the same spirit into to our daily relations with one another. We have no black looks or angry words for our neighbor if he enjoys himself in his own way, and we abstain from the little acts of churlishness, though they leave no mark, yet cause annoyance to whoso notes them. Open and

> friendly in our private intercourse, in our public acts we keep strictly within the control of law. We acknowledge the restraint of reverence; we are obedient to whomsoever is set in authority, and to the laws, more especially to those which offer protection to the oppressed and those unwritten ordinances whose transgression brings admitted shame.

What is particularly striking in this paragraph is the way Pericles intertwines a description of the democratic institutions of Athens and the cultural traits that, by implication, foster and are fostered by them. No distinction was made between a citizen's private and public life, the "man who holds aloof from public life" was regarded as "useless". (Thucydides, 1943, p. 113).

Contained in this notion of citizenship was the assumption that a citizen was *capable* of exercising his public duties. This assumption was explicit in the obligation to serve in the military and to be able to equip oneself for battle, but was also implicit in the obligation to serve in the assembly or the Council of Five Hundred – *and to do so intelligently and conscientiously*. Thus, implicit in the notion of Greek citizenship, and the creation of Greek democracy was an assumption that citizens had the capacity to not only make decisions for themselves in their private lives, but also to make decisions for the community, decisions that would "express and secure the good of its citizens." Thus, it is no coincidence that democracy first appears in the society, which was first capable of engaging in the kind of rational thinking that we associate with modern scientific thinking, and that this society invented an alphabet, which extended to a far greater fraction of the population the power to read and to reflect upon what one has read. At its zenith, Athenian democracy came as close to embodying the fundamental attributes of democracy as any political system has. What we should learn from this first flowering of democracy is that good government does not come cheaply. It requires the active participation of a body of citizens who possess the mental capacities to carry out their responsibilities as citizens, and who are willing to bear the costs in time, money and energy of discharging these

responsibilities.

By today's standards, Venice was not a democracy, since the voting franchise was restricted to a group of aristocratic families making up only ten percent or so of the population. Nevertheless, the Venetian city-state "*was* the best [government] in the world" (Finer, 1997, p. 1016). Its citizens possessed rights to association, mobility, free speech and religious tolerance, and enjoyed equality before the law, aristocrat and commoner alike. "The justice of Venice was famous throughout the whole of Europe" (Finer, 1997, p. 1017). It was one of the richest states in Europe and its government was popularly supported. Although uprisings of the citizens against the ruling aristocracies were common in other European city-states, they did not take place in Venice, and the government needed no standing army or large police force to maintain order. If the goal of a democracy is to protect and advance the welfare of its citizens, then Venice with its limited franchise fulfilled this goal to a measure that few if any other states have accomplished – and it did so for some 500 years.

How come? An important part of the answer lies in the fact that the voting franchise was restricted to a minority of highly qualified people, who had not only their own interests in mind, but those of the entire community. "The high offices in Venice were regularly occupied by men who were peers both socially and economically" (Martines, 1988, p. 159). Although the electorate constituted a small fraction of the total citizenry, it was far too large to mold easily into a tight coalition bent on exploiting the non-voting population. Large numbers of the Great Council must have always existed who would have opposed such moves. On the other hand, the Great Council was small enough to overcome the psychology of free-riding. The fate of Venice lay in the hands of a permanent group of families, the physical scale of Venice was such that they would have known most other members personally. Here one must add in the Venetian's "civic

sense, ... tenacious patriotism, [and] ... sense of solidarity under the laws" (Finer, 1997, p. 992), which would supply the *intrinsic* motivation to govern wisely and fairly for all members of the Venetian community. These qualities of character existed in Athens at the height of its democratic republic, and in Rome at the height of its republic, they are essential qualities in a citizenry for creating a successful democracy.[22]

It is also worth emphasizing that Venice was essentially a secular state. The Venetians were Catholics to be sure, but they did not let their religious beliefs color their judgments on civic matters, a fact of which Pope Pius II lamented, "they [the Venetians] are hypocrites. They wish to appear Christian before the world but in reality they never think of God and, except for the state, which they regard as a deity, they hold nothing sacred, nothing holy."[23] The separation of church and state was also a key feature of the US Constitution, and was a central feature of the Enlightenment program. We shall argue that it is an essential element of every successful democracy.

VII. Religion and Democracy

In an ideal liberal democracy, citizens are well-educated and sufficiently concerned about the welfare of the community to become informed about public issues and participate actively in the democratic process. The issues confronting us today – global warming, the spread of Aids, possible other world epidemics, terrorism, how to finance the needs of the elderly in aging societies – are complex and may require complex solutions. If citizens are to decide these issues, either directly or by selecting representatives to decide them, then they must possess sufficient intelligence to understand the issues, and be willing to acquire sufficient knowledge to make the correct choices. Much of this knowledge is of a scientific character. Here we confront the first

clash between religion and democracy. Religions substitute beliefs in religious doctrines for scientific knowledge. Throughout the last two millennia Christianity has doggedly questioned and opposed scientific advances. To give but one, current example, aids is perhaps the greatest health problem facing the world today. A simple and effective preventative is the use of condoms, yet the Catholic Church opposes their use, because its interpretation of the Bible implies that God forbids the use of birth control devices. In its opposition to the use of condoms the Catholic Church is joined to an importent degree by the current US government, which, for religious reasons, has stressed abstinance from sex rather than the use of condoms to solve the HIV/Aids problem in Africa.

The constitution of an ideal liberal democracy both *allows* its citizens the maximum liberty to pursue their own goals and lifestyles in the private sphere, so long as this pursuit does not impose significant costs on the rest of the community, and *protects their rights* to do so. It also protects the rights of citizens to think and say what they choose. Here we confront the second clash between religion and *liberal* democracy. Studies going back to the 1950s have found a negative correlation between tolerance and religion, a correlation that gets weaker the more education a person has.[24] Unquestioning fundamentalism appears to be particularly antithetical to democratic values.

> ... prejudice and anti-democratic sentiments are not associated with religion *per se*, but with certain aspects of religion that are bound up with intellectual rigidity, closed-mindedness, and social conformity. (Klosko, 2000, p. 94)

It, of course, would be possible to have democratic institutions in a religious community. If all members were of the same belief, they would agree on what actions should be banned or required, restrictions on dress and speech, and the like. If, however, religious beliefs dictate these preferences, there is really no reason to vote, since one can consult the holy books that underlie

these preferences or, in cases of doubt, the holy men who interpret them. For a devout religious community, theocracy has to be the best form of government.

Where religion comes into the most conflict with liberal democratic values is when *different* religious groups are present in the same community. When a religious group is in the minority, it demands the right to practice its religion including dressing in certain ways, celebrating certain religious holidays, and the like. If the same religious group is in the majority, it demands that *everyone* in the community follow its dress codes, celebrate its religious holidays, and so on, all in the name of morality.[26]

VIII. Religion and Morality

One can argue, of course, that the community is better off if all members follow the same dress code, refrain from working or shopping on certain days so that they can reflect upon God, and so forth. More generally, the argument is often made that religious beliefs underpin morality, and thus provide a form of public good for societies by making all members better behaved. Support for this argument is weak, however.

A. Religious Wars

Local religions have there own myths, spirits and gods. One tribe does not find it surprising, therefore, if its religious practices differ from those of a neighboring tribe. Each has its own ancestors, its own shamans and its own history, and thus there is no reason to expect them to share a set of religious beliefs. Moreover, it did not matter to one tribe that its religion was different from another's. Each tribe's members were concerned with making their own lives better, and prayed to and engaged in trade with their own set of ancestors and spirits. Tribes

would go to war over cattle, women or territory, but not over religion.

As urban societies replaced tribal societies and the state appeared, a single, state religion replaced the many local religions. The earliest state religions shared many of the characteristics of the local religions, however, as, for example, pantheism and animal and other food sacrifices to the gods. As with local religions, the animals or humans sacrificed in the great religious ceremonies were consumed by the population, and these ceremonies with their accompanying rewards of food and drink were one way the leaders of the early states maintained the loyalty of their subjects. These sorts of *killing* religions as practiced by the Sumerians, Egyptians, Persians and Greeks were eventually replaced by the great non-killing, or universal religions, which forbade the killing of humans and animal and human sacrifices.[27]

Since they forbade killing, one might have expected that the spread of the non-killing religions would have brought an end to interstate warfare. But the non-killing religions were soon coopted by the state. They benefitted the ruling classes by substituting rewards in heaven for comfort and sustenance on earth, and thus did away with the need to hold great festivals *and* supply great amounts of food to the people. Although they forbade killing, the non-killing religions allowed exceptions for just wars. The first *militant* Buddhist kings appear as early as the 2nd century B.C. in Sri Lanka (Harris, 1989, p.449). Wen, founder of the first Buddhist empire in China, the Sui Dynasty (589-618), remarked that "Buddhists made excellent soldiers, because of their faith that death in battle would only draw them closer to paradise" (Harris, 1989, p.450). Much the same can be said for Islam. Where Christianity's symbol is the suffering Godhead, Islam's symbol is the armed Prophet (Finer, 1997, p. 666). Mohammed urged his followers to spread Islam around the globe, and martyrdom in the pursuit of this cause was supposed to increase one's chances of going to heaven (Esposito, 2002, p. 33). This belief along

with the belief that the Day of Judgment was immanent played an important role in getting Islamic fighters to kill and die for Islam. Moreover, each victory on the battlefield provided evidence of Allah's greatness, and the knowledge that He was fighting on the Moslem side stimulated further acts of courage (McNeill, 1963, p. 426). McNeill (1963, p. 428, n.) also notes that even the ritual of praying to Allah five times a day in a carefully prescribed way tended to develop discipline in the army just as marching drills do today. Thus, the non-killing religions produced better warriors, because they reduced the fear of death through the promise of heaven. "Indeed, were it not for their ability to sponsor and encourage militarism and harsh measures of state control, there would be no world religions in the world today" (Harris, 1989, p. 448).

Thus, instead of bringing an end to wars, the non-killing religions introduced a new kind of war – the religious war. Hobbes in his lament about the English civil war, noted that no such war existed in the ancient world. One needed Christianity and the goading of Presbyterian preachers to produce a civil war over religion.[28] But Christianity is not alone in this respect. Hindus kill one another "over whether Shiva or Vishnu is the higher Lord (Dennett, 2006, p.97). More generally, universal religions, with their claims that only their followers can have access to Heaven, have proved to be effective means for identifying the members of one's tribe and stirring the instinctive loyalties and hatreds that such tribal associations engender.

B. Religion and Capital Punishment

In a tribal society, stealing, fighting, killing another tribe member would be very costly. Immediate and severe punishment of such crimes would improve survival chances for the tribe, *if it effectively deterred these crimes*, which presumably it did. Indeed, the intense desire of relatives of a murder victim for revenge against the murderer may also be genetically driven

(Pinker, 1997, pp. 413-149). Thus, the reason why all societies punish crimes and many punish them severely is to deter future crimes. Deterrence is presumably also the reason why punishment has traditionally been meted out *publicly* – stonings, crucifixions, hangings, being chained to a pole in the town square.

The treatment of criminals today is much less public. Indeed, in some countries like Austria even the name of someone accused of a crime is typically not made public. The result is that the deterrence effect of punishment has been weakened, and with this the justification for it. To see this, consider the following example. X has never drunk a drop of alcohol until today when he joins in the celebration of his best friend's wedding. When driving home X runs over an old woman without friends or relatives killing her. He is filled with remorse and vows never to touch a drop of alcohol again. By chance no newspaper has reported the event, and thus no one knows of it. Should X's life be taken in exchange for that of the old woman? Should he spend ten years in prison for manslaughter? No one would gain from either of these punishments, and X would obviously be much worse off. A utilitarian morality would let X go free. More generally, a utilitarian morality would only sanction capital punishment if it effectively saved lives by deterring murders.

Whether capital punishment effectively deters murders is an empirical question, and one filled with much controversy in the United States. For our purposes, whether it does or not is of no importance. What is important is that a citizen's judgment about the answer to this question should be based on her reading of the empirical evidence, not on her religious beliefs. The probability that a person is in favor of capital punishment should be independent of one's religion, *if* one bases this preference on scientific evidence. A 2002 survey by the Pew Forum on Religion & Public Life found, however, that only 17 percent of white evangelicals in the

United States opposed the death penalty, up from 13 percent in 1996, while 32 percent of those classified as secular opposed the death penalty, up from 17 percent in 1996.[29] If we assume that the seculars' position on capital punishment is based on their judgments about its efficacy as a deterrent, then the evangelicals would appear to be using an alternative criterion – most likely a version of an eye for an eye. From the perspective of a utilitarian morality, their position is difficult to defend.

C. Moral Behavior

Just as the tribe member engages in exchange with his ancestors to obtain a better life on earth, members of universal religions engage in exchange with their Gods to obtain a better afterlife. They give money to their church, attend religious ceremonies, pray regularly and so on, in exchange for the promise of entering nirvana or heaven. Each universal religion has its own recipe for obtaining a happy afterlife, and the devout believers follow these recipes to the tee. As Dennett (2006, pp. 305-06) points out, to the extent that the devout believer devotes his life to getting into heaven or reaching nirvana there is little that is laudatory or moral about it. The Buddhist monk who whiles away the day meditating and praying is just as selfish as the lout who spends his time watching football matches on television and drinking beer. Each is the sole beneficiary of his actions.

Of course, some devout believers do devote their lives to helping others, and they can be said to lead ethically exemplary lives. But for every Albert Schweitzer sacrificing his life to serve others, there is also a suicide bomber sacrificing his life to serve God, or so it seems. The distribution of evangelicals, moderate believers and atheists occupying prison cells is about the same as it is in all of society. I know of no evidence suggesting a positive correlation between

social well-being and church attendance.[30]

IX. Conclusions

The biological evolution of humans has consisted of an expansion of both brain size and the functional capability of the brain to process information and understand causal relationships. Over time theoretical models of the relationships of inanimate objects have displaced early theories that postulated animate causes of events like spirits, ghosts and gods. Scientific reasoning has displaced myth and superstition.

The institutional history of humans has witnessed the creation of the state – at first dictatorial and oppressive – and, with many reverses and false turns, eventually the at least partial triumph of the democratic state. The two developments are related. Successful democracy requires an educated citizenry sufficiently capable to make collective decisions that improve the welfare of the community. It also requires a civic ethic that induces citizens to carry out their civic duties responsibly.

Within the evolutionary baggage that humans possess is an instinct to be loyal to one's tribe and to defend it against other tribes. Such instincts can strengthen democratic institutions, if they can be channeled in such a way that citizens identify with their polity and are loyal to it and to their fellow citizens. Such an identification existed in ancient Greece where being an Athenian meant first of all being a citizen, and there was no higher status one could obtain. It existed in Venice with its strong "civic sense, ... tenacious patriotism, [and] ... sense of solidarity under the laws" (Finer, 1997, p. 992). And it exists today in Switzerland. Like the Greeks, the Swiss expect much from the citizen – repeated trips to the polls to vote on referenda, a preparedness to fight for their country if called. Like the Greeks, the Swiss are fond of direct

democracy. I know of no other country in which the outcomes from the democratic process come closer to matching citizens preferences than in Switzerland.

The triumph of reason and democracy has been no where near complete, however. Although most Europeans do not attend church regularly, a majority expresses a belief in God and claims membership in some religious sect. In the United States, 94 percent of the population claims to believe in God, and nearly a third expects Jesus to descend from Heaven and take them back there with him (Harris, 1989, p. 462). Many Muslims await "the twelfth imam" who is supposed to do the same for them. In Iran the state and religion are fused, and the state's leaders use religion to maintain control over the population. Iran is a traditional society whose people have little freedom to choose their leaders or even the clothes that they wear. Iran today resembles more closely the Sumerian state that existed nearby over 3,000 years ago, then it does a modern Western democracy.

In this essay I have stressed the tension between democracy and religion. Religion can be another clue as to a person's tribe. When different religions coexist within a country, they can be a source of conflict, which undermines civic mindedness and loyalty to the state. Northern Ireland has been torn apart by religion since it came into existence. Religious differences in the United States have polarized its society and poisoned its politics. The inept intervention of the United States in Iraq has unleashed a sectarian civil war between Shiites and Sunnis.

Religion cannot cause such civil strife in a country with only one religion, but it can nevertheless arouse tribal instincts that lead one country to attack another over religion. European history over the past millennium has been filled with religious wars; religious differences within India led to its breakup and the creation of Pakistan, and have contributed to the wars and tensions between India and Pakistan ever since; the struggle between Shiites and

Sunnis in Iraq today may soon engulf the entire Middles East in a religious war.

What lessons can we draw? Political correctness today requires religious tolerance. Religion is good, and all religions are equally good. In Europe, such political correctness risks allowing – indeed encouraging and subsidizing – fundamentalist religious groups to exist, which threaten its liberal, democratic societies. In Europe the chief danger is Islam. "About a third of French schoolchildren of Muslim origin see their faith rather than a passport or skin colour as the main thing that defines them. Young British Muslims are inclined to see Islam (rather than the United Kingdom, or the city where they live) as their true home" (*Economist*, June 24, 2006). Such divided loyalties pose a threat to democratic institutions and civil liberties in Western Europe. Given a choice between acting as a good French or British citizen or as a good Muslim following the call to *jihad.* The train bombings in Madrid, underground bombings in London, assassination of movie director Theo Van Gogh in the Netherlands, and protests over newspaper cartoons all are warning calls that radical Islam and Western liberal democracy are incompatible.

Many Western European countries collect taxes for churches, offer religious instruction in public schools, and subsidize religious schools. Such policies might be defended, *if* fostering religious beliefs had benefits for society. But, as we have seen, this is doubtful in general, and certainly false with respect to fundamentalist beliefs that are strongly at odds with Western culture and values. A liberal democracy cannot ban the printing of horoscopes in newspapers, but at the same time it should not subsidize them or make astrology courses part of the science curriculum. The same holds true for religion.

In the United States, parents are allowed to send their children to private schools rather than public schools and even to educate their children themselves. The overwhelming majority of parents who choose these options do so to ensure that their children receive a religious

education. Contributions to churches are tax free, and churches are typically freed from paying taxes. Once gain such policies *cannot* be justified on the grounds that they produce benefits for the entire society. Teaching young children that Darwinian evolution is just a hypotheses about how humans came to be, and no more plausible than the Book of Genesis is not likely to create intelligent citizens.

Things are much worse in the rest of the world. Large fractions of the populations in African countries are illiterate. Sixty percent of Benins believe in voodoo (*Economist*, Jan. 28, 2006). Before Robert Mugabe decided to destroy the economy and democratic institutions of Zimbabwe, he surveyed the population concerning its preferences for the content of a new constitution. A great concern to many Zimbabweans in rural areas was the political role that witch doctors would play under the new constitution. With such levels of education among potential voters, one cannot expect great achievements from democratic institutions.

Illiteracy rates are also high in South American countries like Venezuela, Equador and Bolivia. Today, however, full-fledged democracy is equated with 100 percent enfranchisement of the population. The result is that millions of people in these countries vote for candidates who make promises that are impossible to fulfill, and they stagger from one mismanaged government to another.

But, perhaps, the most tragic mistakes in introducing democratic institutions without careful attention to the question of suffrage have occurred recently in the Middle East. Relatively free and fair elections have taken place in Iraq, Palestine and Lebanon. The election in Iraq was hailed with great fanfare by the American government, which believed that it would demonstrate the benefits of democracy to the rest of the Moslem world, and pave the way for its spreading throughout the Middle East. The Iraqis themselves had great expectations and participated in

great numbers despite the physical risks that such participation entailed. But many Iraqis are poorly educated, and almost none have any experience with democratic institutions. There is no civic ethic to draw upon. The Iraqis thus voted along religious or ethnic lines. Shiite and Sunni clerics were elected who were more interested in advancing the interests of their religious factions than of the Iraqi people. Not surprisingly, therefore, Iraq's fledgling democracy has met the expectations of neither its American sponsors nor the Iraqi people as the country has plunged deeper and deeper into sectarian violence.

Elections in Palestine and Lebanon brought extremist religious parties into their respective governments, parties more committed to their own agendas of terrorism against Israel than to adopting policies that might bring about peace in Palestine, and maintain the peace in Lebanon. As in Iraq, the collective interests of the entire community have been sacrificed for the narrow interests of small groups of religious extremists.

The lesson to be learned from these examples is that simply putting out ballot boxes, holding fair elections and allowing everyone to vote is no guarantee that the outcomes of the elections will produce representatives and policies that advance the collective interests of the community. These collective interests will be advanced only if participation in the political process is limited to people who themselves are committed to this goal and can identify which persons and parties are capable of achieving it. These conclusions have implications for education policy, immigration policy, and the conditions for citizenship. Any democratic country that treats the conditions for citizenship casually risks undermining the main justification for democracy – that it produces outcomes that improve the welfare of all of its citizens.

Endnotes

1 Operant behaviorism is the term used to describe the branch of psychology launched by B. F. Skinner. See, Catania and Harnad (1988).

2 See, Tooby and Cosmides (1992, p. 113) and Pinker (1997, pp. 183-84, 193-94).

3 For discussions of the brain's evolution see, the essays in Barkow, Cosmides, and Tooby (1992), and again Pinker (1997, 175-86).

4 See, Dawkins (1976/1989), Axelrod (1984), Trivers (1985), Tooby and Cosmides (1992) and Pinker (1997, pp. 502-06).

5 See, Trivers (1971, 1985), and Pinker (1997, pp. 404-05).

6 See discussion and references in Pinker (1997, pp. 513-17).

7 I have taken this list from Holmes (1995, p. 55), who cites several of Hume's works from which the list was drawn.

8 An African tribe called the Fang believes that some people possess an internal organ called an *evur*, which allows them to launch invisible attacks on other people (Boyer, 2001, pp. 66-67).

9 Boyer (2001, pp. 195-96) challenges the idea that tribal societies do not understand the concept of chance, "anthropologists know that people the world over are rather good at detecting statistical regularities in their environment." He then goes on, however, to give examples indicating that individuals *do not* in fact understand pure chance. The African tribe Fang, for example, understands that people die of biological causes like tuberculosis, but still want to know why a particular person "was chosen" to die of this disease (Boyer, 2001, p. 196). Dennett (2006) observes that people have difficulty with the concept of pure chance.

10 See discussion in Boyer (2001, ch. 7). Boyer (2001, p. 238-39) notes the similarities between the behavior prescribed in religious rituals and the behavior of people with obsessive-compulsive behavior (think of Jack Nicholson in "As Good as It Gets"). In both cases there is often a great fear of pollution, and thus ritualistic washing of the hands; a mindless repetition of certain actions; and a fear of great danger should the acts not be performed properly – the goat has not been washed three times, the obsessive-compulsive steps on a crack in the sidewalk.

11 See, Quigley (1979, pp. 176-77).

12 Dennett (2006, p. 164) stresses the importance of propositions in religion that cannot be refuted.

13 See discussion in Boyer (2001, ch. 8).

14 In several religions, this anyone must be a male.

15 All page references in this section are to Horton (1982) unless otherwise noted.

16 Roux (1980, p. 91) as quoted in Finer (1997, p. 115).

17 See, Kitto (1957, pp. 7-9) and Finer (1997, pp. 354-57).

18 See, Young (1997) and Mueller (2003, pp. 128-33).

19 Farrar (1992, p. 17).

20 The discussion in the next few paragraphs draws heavily from Ehrenberg (1969, pp. 38-48), and MacDowell (1978, pp. 67-83). See also Kitto (1957).

21 Isocrates (1929, VII at 13, 14).

22 On the similarity between Venice and Rome, when "the [Roman] Republic was at its best," see Finer (1997, p. 993).

23 Taken from Finer (1997, p. 1019), original source Gilbert (1968, p. 467, n. 3).

24 See, Stouffer (1955, ch. 4) and discussion and references in Klosko (2000, pp. 44-50).

26 Surveys in the late 1970s found that "high percentages of sampled populations were willing to curtail other people's rights on moralistic grounds" (Klosko, 2000, p. 75).

27 The distinction between killing and non-killing religions is taken from Harris (1989).

28 See, Hobbes (1682, pp. 63-64), and discussion and references in Holmes (1995, pp. 88-89).

29 http://pewforum.org/docs/print.php?DoelID=29

30 For a thorough discussion of whether religion produces moral behavior, see Dennett (2006, ch. 10).

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