

03 Evolved Human Nature

PART 1: Introduction.

This chapter can be short (30 pages) if you need only the basics of evolved human nature. Portions that you may skip are noted. "State" means a large political unit, usually a nation such as France, not a single state in the United States.

We need an honest realistic view of human nature to: (1) blend the ideals of Jesus with practicality and Western values, (2) assess stances from any source, (3) blend ideals from any source with practicality, and (4) build a just enduring state.

For an honest realistic view of human nature, we must accept that human nature evolved. We can't see human nature truthfully if we don't accept that we evolved sentience, intelligence, much of our character, and our abilities for religion, morality, art, social life, and political life. If we do not have an honest view of human nature, one that accepts evolution, we will make bad mistakes in government and religion.

As of 2016, what we know of human evolution is not enough on which to build good enduring economies and states, or to say why any religious stance feels right or wrong. We have to rely on wisdom from the past, experience, and our evolved ability to think. Still, knowing evolved human nature helps. What we learn of evolved human nature goes well with empirical-practical-yet-hopeful views.

This chapter gives some background on human evolution. This chapter does not find biological reasons for every quirk that makes us inept or adept citizens, able to see a particular religious vision or not. You have to fill in details. You have to use your evolved mind.

This chapter and this book assume: (1) (a) evolution is real, (b) humans evolved; (2) (a) God exists, (b) God created this world (through the Big Bang), (c) God made natural laws such as gravity, (d) set values for the laws such as the gravitational constant, (e) used evolution to create life on Earth, (f) used evolution to create people on Earth, (g) and used evolution to create life and sentient-moral-religious-aesthetic beings on other planets too. You can use most of my conclusions about human nature without sharing my view on God or evolution but it is up to you to say why human nature is as it is.

Morality and religion are part of our evolved human nature; they were not added on to our evolved nature. God did not reach down magically to make us moral and religious. God used evolution to give us genes for sentience, morality, religion, and art. God made sure evolution, and it alone, would be enough to give us the needed genes. After having set up natural selection, God did not reach down magically to override natural selection to add specific "super" genes for morality and religion. God would not interfere, and did not need to interfere, after he had set up a beautiful arena – Earth - in which life naturally evolved genes for sentience, morality, religion, and art.

I focus on the evolved capacity for morality and I touch on religion. “Natural selection” and “evolution” are the same here. I do not explain how they work. If you do not know how natural selection is an automatic process, then please read about it. A “Darwinist” is anyone who uses evolutionary theory, including most biologists and some anthropologists. Any account of human evolution needs much hedging. I give most of mine on the Internet rather than here.

Immanuel Kant (1724 – 1804) and David Hume (1711 – 1776) are relevant here and worth reading in the original. Both wrote clear short books summarizing major points. For specialists and for people who want to “really get into” the role of ideals in human life, please read Plato’s “Parmenides”.

Prolog on Evolution and Human Social Life.

People evolved genetically based capacities for morality and religion in general; people did not evolve the genetic basis for any specific moralities and religions such as the warrior code, Taoism, feminism or right wing ideology. We evolved few particular features of morality or religion “ready-made” or “hard wired” such as the desire to worship a Golden Calf. It is not useful to argue here about which features might be almost “hard wired” or almost entirely plastic (learned).

Some features appear often and are important in morality and religion such as the idea of a person, the Golden Rule, “applies equally”, giving back and forth, the idea that many things have “spirit” or “life”, and “us versus them”. Usually their scope is not the same between moralities, religions, cultures, and periods of history. Before and after Jesus, the West saw the Golden Rule, “applies equally”, and “us and them” differently. All groups have ideas about borrowing from neighbors but groups have different ideas about what you can or can’t borrow, what you have to give back, and when. Instead of deciding whether any feature is hard wired or is the product only of a particular culture, I write about features in whatever terms suit the case, and don’t worry about that issue.

Rather than say people evolved to show features, it is more accurate to say people evolved to learn them. Genes give a general framework, some general features, a push to learn, and guides for learning; then learning fills in specifics. Learning “fulfills adaptive potential”. Genes guide learning. Genes and learning cooperate. Specifics come from a blend of learning and genes, such as the Lord’s Prayer, sharing open meals with first cousins but not second cousins, holding stories about the hearth to be sacred but not holding stories about the sky to be sacred, animal sacrifice, and giving gifts to water spirits so they return the favor. I do not explain why both genes and learning are needed, how they work together, and which is more important when. Rarely does one totally override the other.

Although some motifs run through most morality and religion, and we have genes for religion and morality in general rather than genes for any style, still we don’t learn general morality and religion. We always learn a particular style of morality and religion such as Taoism or the warrior code. We evolved to learn particular styles. Learning religion and morality is like learning language. We have a general ability to learn languages and we can learn any particular language but, except for a few gifted people, we learn only one language at a time. We get any particular style of morality or religion only by learning it on the basis of our evolved ability to learn styles. A particular style tells us when, with whom, and to what extent, to use motifs such as the Golden Rule, sharing, etc. A style gives us the ideas, attitudes, and behaviors typical of that style such as “don’t cheat on taxes”, “you can kiss a second cousin but not a first cousin”, or

"there is only one God and he is good". Which styles we learn usually depends on how we grew up. We can change the content of a style, or switch to another, through learning, reflection, and choice. We can learn more than one style but not often at the same time. Learning morality or religion is less like learning to "stand up and self-move using two legs" generally, and more like learning to strut, OR sprint, OR run a marathon, OR power walk, OR stroll casually – but not all at once skillfully.

Human genes evolved in a social context. Most learning occurs in society. A strong lesson that people learn is a particular culture, with particular rules and values, such as American, French, Thai, or Yoruba. Even so, learning a particular culture does not simply override genes any more than any learning simply overrides genes. Genes are still important.

For a well-rounded full view of evolved human nature, we should see how genes, learning, culture, and society interact to form distinct styles of morality and religion under particular conditions. I can't do that here. I do not untangle nature, nurture, learning, culture, society, and conditions. I focus on how morality and religion work in light of evolution. If we can't do the whole task about genes, learning, culture, and conditions in one big blast, then we have to begin somewhere more limited, and it is useful to begin by taking evolved human nature seriously.

Mostly I use the short phrases "morality (or religion) evolved" instead of the following long phrases: (a) "the general capacity for morality (or religion) evolved"; (b) "the capacity for morality (or religion) results from a mix of learning and genes, evolved in a social-cultural context, and morality (religion) is learned socially-and-culturally"; (c) "the general capacity for morality (or religion) evolved but we learn specific styles of morality (religion) depending on how we grew up and what we choose". The short phrase does not imply I do not know about genes, learning, culture, and situation.

"Do unto others" is short for the Golden Rule: Treat all people as you wish they would treat you, hope other people treat you as you should be treated (wish to be treated), and hope everyone treats everyone like that. "Applies equally" is short for: Treat everybody the same, with some provisions for age, social role, and ability; and rules apply equally to all people including you, your kin, friends, group, neighbors, and people outside your circle. If you wish to do something, you have to allow other people to do it, such as vote. If you wish other people to do something then you have to do it too, such as share and act honestly. If you wish other people not to do something then you have to accept that you can't do it either, such as lie, cheat, and steal. Treat everybody, and frame rules, as if everybody was a free adult person, who is valuable in him-herself, and can make up his-her own mind. Frame all rules as if they followed these guidelines. Act as if you follow rules that have to apply to everybody equally. I consider "do unto others" and "applies equally" to be aspects of the same basic idea. When a rule is framed along these lines, it feels like a moral rule. A rule can feel moral over the long run only if framed along these lines. "Do unto others" and "applies equally" require a fair amount of empathy and sympathy. They require that the doer be a person and imply that most of the others with which the person interacts are persons too. Ideas about "applies equally" came mostly from Immanuel Kant.

I am an anthropologist who uses Darwinism to explain human social life. But I do not write in that role. I write as a believer in God, follower of Jesus, Westerner, man, and one who accepts Darwinism. Because I believe in God, I differ from current official agnosticism in science, so don't take all I say as orthodoxy. The Bibliography cites works that represent current agnostic and atheistic thinking.

Repeat: The fact that the capacities for morality, religion, and culture evolved does not mean the content of any particular morality, religion, or culture is in our genes. No genes code precisely for pacifism, British fair play, French Rationalism, bargain hunting syndrome, fascism, Christianity, Buddhism, Shinto, Thai culture, or American culture. Some genes code for the general abilities to learn any of those as specific abilities. Our general ability to play games evolved but the ability to play golf, poker, football, chess, "thrones", serious flirting, or any particular game, did not evolve. Usually we learn and play one game at a time – nobody learns games in general or plays basketball-chess-golf-poker. Likewise, our general ability for culture evolved but the ability to act specifically Thai or American did not evolve. It is learned. People vary in ability to learn particular games. People vary in how well-suited they are to particular moralities, religions, and cultures and in how well they learn particular moralities, religions, and cultures. In this chapter, I do not assess any particular moralities or religions. I do later in the book. In this book, I do not assess any particular cultures but, in my real life, I do enjoy American, Northwestern European, Thai, and East Asian cultures.

Grant that people are animals, as I do. Yet still people are unique. We really aren't just another animal. It is natural to (try to) say what is unique about people and to (try to) give a biological explanation for how our unique features arose. I do not do that here. Some human features are qualitatively distinct although I do not argue what those are. Most distinct human features differ from other animals in degree rather than kind. Even so, the extent in humans can amount to a difference in kind. Honest pet owners and honest students of animal behavior know that some animals - dogs, horses, apes - have a modest sense of morality but a sense of morality that is less than among people. The deep loyalty of some dogs is not evidence for full human morality; nor is chimpanzee abilities for offenses, grudges, revenge and make-up. Animals cannot learn all the styles of morality that people can learn and they cannot play all the moral games that people can play. Still, it is worthwhile studying morality in animals, and all abilities of animals, not only because the abilities are interesting in their own right but because they shed light on how our sense of morality evolved and how it works. I suspect we will not appreciate human abilities until we have a sense of animal abilities. All I can do here is point out what is important about human morality and how morality might be based in human evolutionary history.

Two Important Warnings, Repeated Often.

(1) Where an idea came from doesn't matter. We can't dismiss an idea because it came from another group or religion, old spouses, your opinionated brother, academics, or "them". We can't dismiss an idea as invalid, false, illusory, delusory, or stupid just because we evolved the ability to think the idea, including ideas such as "rocks are hard", "trees are pretty", "God exists", "eagle sight is an adaptation", scientific method, and morality. We should assess each idea on merits alone, including its likely truth and overall usefulness. Such assessment is not mechanical although there are guidelines. We have a valid tradition in the West for how to assess ideas; we should learn that tradition and use it.

(2) Avoid explaining away as "nothing but", as when old psychoanalysis explained away sports, cooking, doing math, music, and yard work, all as nothing but sex in disguise. Explaining away as nothing but usually depends on reducing one thing to other things which are easier to explain, usually by seeing a big complex thing in terms of its parts, in terms of other things that we already know, and in terms of laws such as for gravity and electricity. Biologists reduce by explaining all features of organisms in terms of

how they serve success in natural selection. I favor adeptly done reduction yet I am leery of nothing but. Reducing is useful and often the only way to make progress, as when physicists explain a star in terms of particles. But reduction opens the door to explaining away as nothing but, and those mistakes can lead to traps, to seeing a thing only in terms of how it serves evolutionary success rather than also in terms of how it works, what it is, and its own logic. Reduction leads us to overlook the important features of things, and to overlook the independent reality of things.

Biologists, including some anthropologists, tend to reduce and explain away as nothing but evolutionary reproductive success these aspects of human life: morality, religion, friendship, cooperation, competition, culture, and society. Without doubt, we evolved the capacity for these things and they were shaped by natural selection. But they also have their own character, and we have to know each character, or we lose proper sight of how they work and of how they arose in evolution and were shaped by evolution.

Bonus: (3) (A) The opposite mistake to explaining away through reduction is explaining away as nothing but through “the whole is greater than the sum of its parts”. This error is more common now with ideas of self-order, complexity, links, systems, fractals, and nets. This explanation is a reduction too despite that it is about wholes, the people who use it do not see it as reduction, and it works sometimes. (B) Some anthropologists reduce and explain away human life as nothing but society, culture, or a system. They reduce and explain away even though they think they keep the whole, fight reduction, and fight explaining away. I don’t deal with (3A) or (3B).

We have to avoid two parallel opposite mistakes: (1) Since the 1920s, some social analysts have said: “Science is nothing but another social belief system, another ideology, determined entirely by society and only by society. Science is no more real than magic, superstition, or religion.” Messy human life does affect science practice but the idea is false that science is only a social belief system. Science really can approach truth. You can’t make a cell phone with magic or social rules. To avoid the second mistake, we need to keep in mind that: (A) Some ideas have an evolved basis yet (B) sometimes the ideas are still true. So, the assertion is false that (2) “Having an evolved basis automatically discredits an idea. Any idea with an evolved basis is nothing but a delusion or illusion, especially ideas of souls and God”. Both assertions are false reductions. Both are misused to avoid sincere debate about what is real, true, and useful. I think evolutionists who assert (2) don’t always see they act like social analysts who assert (1). Ideas with an evolved basis need not be like social “brain washing”. We cannot assess the reality of God as we do theories of gravity, and we can’t come to a definite conclusion about God, but still we can think and choose. The idea need not be like magic. Don’t be fooled by either camp. Use your head, and your intellectual heritage, to decide about particular ideas.

Ideals and Evolved Nature.

Some ideals evolution likely created as tools for evolutionary success, and the ideals do not exist apart from their use as tools. These ideals are illusions, or even delusions, but they can be important in human life, and we can cherish them. Evolution gave us ideals for family life, success, surpassing neighbors, wealth, power, and how great are me, my spouse, my children, and my group; but those ideals are not real apart from me and my imagination. It is not fully correct to reduce them to nothing but evolutionary practical success, but we don’t go too far wrong that way in these cases.

Some ideals and their objects exist apart from us. Evolution gave us the abilities to see them. Examples are scientific method, truth, logical accuracy, and the Golden Rule. We have to not reduce these ideals and their objects to nothing but anything, including nothing but culture, society, or practical evolutionary success (direct reproductive success and indirect reproductive success through adaptation).

Some ideals seem in-between such as Justice, honor, the Great American Novel, abstract painting, a good family, wonderful neighbors, true friends, and the perfect symphony, pop song, and sonnet. Likely there are real ideals for some art but not real ideals for romance novels, pop songs, and ethnic art. Luckily I don't have to handle this in-between case here.

Just because evolution led us to see an ideal does not mean evolution also led us to reach the ideal. Human acts are almost never perfect. People have to balance the success offered by the ideal against other kinds of success, and other success lead us to act against the ideal. We can rarely achieve perfect Justice not only due to accidents of life but because we seek other goals, such as security, wealth, power, dominance, and fame. Academics seek Truth but get confused because humans also seek security, power, fame, glory, etc.

We have to use our evolved intellects, and our long Western tradition of assessing ideas and ideals, to decide which ideals are merely useful illusions and which are real although the basis for us to see them evolved. We have not done a good job of this sorting lately.

Morality is an ideal that exists apart from us, which we cannot reach fully, but which is not unreal simply because we cannot reach it fully and-or because our basis for it evolved. Evolution gave us the capacity to see morality and follow it, but evolution did not make us able to follow it perfectly. Other needs compete. The pattern of how we actually do and do not follow morality can be explained well by referring to how morality evolved and how it served evolutionary success in our past. The pattern of how we follow morality cannot be as well explained in any other way. The facts that (1) we can't follow morality perfectly and (2) how we actually do follow it can be explained by our evolution, (3) do not mean morality does not exist apart from us. If we want to decide how real morality is, we have to use other grounds than whether we follow it perfectly, and that we evolved the capacity for it. We have to see morality in other ways than that we evolved a capacity for it. On the basis of my small skill with ideas, I conclude that morality is real apart from human sentience. I repeat these points.

What the Task Should Be and What It Is.

Suppose we had a list of human traits that affect us as citizens and affect our religious and moral stances. Ideally, I should relate traits to how humans lived when we evolved, and show how we still think and act accordingly. I can't do this task here. Instead, below, in Parts 2 and 3, I give traits that are rooted in our evolved nature and affect stances and citizenship. I do not justify my assertions much. In other writing, I hope to do more of this task and to give reasons.

Optional technical paragraph: (1) Some traits are intimately tied to sentience and likely are needed for sentience such as self-awareness, and the abilities to think logically, give reasons based on cause-and-effect, and stop a train of thought that is logically unbounded. (2) Some traits are tied to sentience but might not be needed for sentience such as abilities to imagine other sentient beings, sympathize, and

empathize. (3) Some traits are usually found with sentience but are not needed for it such as abilities for mathematics, music, and oratory. It is not clear which traits needed for sentience also have to evolve with sentience. (4) Some traits likely evolve with sentience whenever it evolves and they might be needed for evolved sentience even if not logically needed for “pure” sentience such as abilities to form intent, to read intent from cues, for generative embedded language, and for morality. Think of robots that are not given these abilities but still might be sentient. (5) Some traits likely evolved along with sentience whenever it evolves but are not needed even for evolved sentience such as sexuality, gender, and one-to-one-mostly-monogamous pair bonding; life on gas planets. (4 and 5A) Some traits that evolve with sentience might be needed for real sentience and might not be practically separable from sentience such as morality, the Golden Rule, and Applies Equally. (4 and 5B) Some traits that evolved with sentience might not be needed for sentience, even if they are often found with real evolved sentience, such as the ability to enjoy beauty. Much the same breakdown can be given for other important features such as the abilities for language, art, and morality. Ideally, I should be able to do all this with sentience and morality, and show how the various kinds of associated traits affect citizenship. This task is not even close to possible yet. So I skip it. Hopefully talented people will make progress on parts-or-all of this task.

Remaining Parts of the chapter are:

- PART 2: Some Basic General Lessons
- PART 3: Optional: Aspects of Evolved Human Nature.
- PART 4: Optional: Lessons from Nature and Evolution about God.
- PART 5: Optional: The Semi-Whole Self.
- PART 6: Optional: More Implications.
- PART 7: Optional: Evolution of Religion.
- PART 8: Optional: Evolution of Morality.
- PART 9: Optional: Needed Ideas about Morality.
- PART 10: Optional: Darwinian Explanation of Morality.

PART 2: Some Basic General Lessons.

This Part repeats from Chapters One and Two. Little is new. That is as it should be if evolved human nature accords with common sense and we really can mix the ideals of Jesus with practicality. For some people, this material is all you have to read. I mix facts and guesses.

Original Groups.

Humans diverged from our common ancestors with chimpanzees and gorillas about 5 million years ago, in Africa. From then, we lived largely by: scavenging meat; hunting small game; gathering fruits, shoots, and nuts; and digging roots. We lived as “hunters-gatherers” or “foragers”. We used fire by one million years ago. Over time, hunting overtook scavenging. We started hunting big game maybe 500,000 years ago. Modern fully human people appeared after 500,000 years ago and before 40,000 years ago. We have had horticulture (gardening) for about 15,000 years and have had full-blown agriculture, especially of grains, for about 6000 years. Farming is not the traditional human way of life. (See Internet for more accurate dates based on recent evidence).

While we were hunter-gatherers, we lived in small groups of 10 to 60 adults and children, mostly kin and friends. Small groups contacted other nearby small groups. People could move from one small group to another, usually as families but also as young adults or adults. Small groups formed clusters. Clusters overlapped (small groups could belong to more than one cluster) and interlinked to form nested networks. Boundaries likely were not rigid. I don't explain why we lived in groups at all instead of wandering about as individuals or small families, and why we lived in groups of particular sizes.

People usually married within their small group or between nearby small groups. People finagled for spouses from within their networks.

About as often as fights happen in big city neighborhoods now, individuals fought then, usually men on men and women on women, usually in the same small group. A guess: Less often than gang fights in cities, but still sometimes, groups raided other groups, usually out of their cluster and network. After we hunted big game, groups, clusters, networks, fights, and raiding got larger. True war did not happen until after the rise of gardening and agriculture with their concentrations of wealth and people.

People formed subgroups within small groups, or within adjacent small groups, for work, play, romance, friendship, trading, drawing, music, storytelling, dancing, sport, socializing, gossip, politics, moral suasion, and religion. Subgroups were made of kin, friends, and solid acquaintances. Subgroup members were both friends and rivals with other subgroup members. People could belong to more than one subgroup but not many. The situation might be like an old style small town or urban neighborhood. Evolving people had to deal with group dynamics from the beginning, at several levels, often with overlap and cross-cutting.

Natural Selection Shapes Behavior and Minds.

Natural selection shapes behavior-and-minds as well as bodies. This idea is hard for some people to accept but it is important that you do. Cats, dogs, mice, bears, bats, and people have different typical characters due to distinct evolved ways of life. This view does not discount differences due to particular genes and to learning; this view does overlook culture for now but does not discount culture; and this view does not remove legal responsibility. "Minds" and "behavior" mean "minds and behavior".

Our minds were shaped by our long evolved past as hunter-gatherers and our minds are suited to that evolved life. Our minds have not changed much in at least 40,000 years. Our minds were not formed to live in the world of agriculture, industry, capitalism, nations, bureaucracy, big business, big government, jobs, TV, movies, pop songs, processed food, the World Wide Web, identity theft, smart phones, media stars, and glamour. Our minds are quite adaptable but not infinitely adaptable. Nobody knows how much we still see the world as did our forager ancestors and how much their minds, our minds, shape how we live now. Although bodies changed since gardening and industry, minds did not. There is no "gardener mind". Gardeners use forager minds to make a gardener mindset. The same is so of the mindsets for tribal person, "working stiff", farmer, academic, business person, civil servant, and pop culture follower.

In part, our minds were shaped by the needs to make a living, defend ourselves, and build a shelter. In larger part, for at least 2,000,000 years, our minds were shaped by social interaction such as the need to find a mate and find friends. Human social life is deeply complex. It is harder to succeed as a social

human than as a forager. The bases for the skills do overlap. Hunters and social people need to assess if an organism is alone or in a group, how the group coheres, group strengths and weaknesses, how the group spreads or clumps over space and time, the intentions of various group members, who are leaders, who followers, who young, old, male, female, and other roles. Still, some tasks are harder in social life, such as judging coherence and intent. In 2016, no scientist knew definitely what skills were needed for what aspects of human life, what parts of our mind evolved to deal with material life or social life, and how much of our mind evolved what way. While our mental roots are in physical life, most of the evolutionary growth of our mind as humans had to do with social life.

What Counts as Success.

Success in evolution can be measured by “reproductive success”, by the number and quality of offspring, in particular the offspring that go on to reproduce, to have their own families. Some people have trouble thinking in terms of reproductive success and linking features of life to reproductive success. If you have trouble with the idea of reproductive success, then think of “practicality”, especially practical successful family life. Include social and marital success in practicality. Success in natural selection depends on practicality. What is practical, works; the impractical does not work nearly as well or fails. Reproductive success is practical family success; and whatever aids reproductive success is practical.

Success is measured by a practical outcome. Darwinists explain everything in terms of a measurable practical physical outcome. Darwinists reduce everything to nothing but a measurable practical physical outcome. I say often: this technique is not often bad and it usually leads to huge insight but it can also lead us to oversights and mistakes.

Darwinists explain traits by reference to reproductive success. Traits that led to more success in the past are typical of a population (species) now while traits that led to less success dwindled. Eagles with farsighted eyes became typical of what an eagle is. Penguins that could swim well but could not fly well in air became typical of penguins. Penguins that insisted on flying in air disappeared. Eagles that insisted on pecking seeds disappeared. Darwinists assume that, if a trait matters in the life of a species now, then the trait likely led to reproductive success in the past, and likely still does now. Again: this way to explain is quite effective in its arena but it also can explain away and reduce traits to nothing but evolutionary practical reproductive success.

We are the Heirs of Automatic Natural Selection.

We people now are the descendants of humans who reproduced well in the past. Humans who did not reproduce well did not leave descendants to carry on whatever traits they might have had. The traits that are now human led to greater practical reproductive success in our past and often still do now. We walk upright now because those of our ancestors who walked upright well did better, and now the people who walk upright without too much back pain or too many hemorrhoids still do better. We now think in terms of right and wrong, spirits, beauty, and power because our ancestors who thought this way adeptly in the past did better than their fellows who did not.

Quality and Quantity of Spouses, and of Children and other Descendants.

Among people, quality matters as much as quantity. During our forager past, a woman had about five children over her life, of which two survived to have their own families. When you have only five children, and only two survive, you put a lot into those two. The same attitude reappears among modern people who worry about education, security, and activities for each child, and so have small families.

Although our ancestor mothers usually had only five children, sometimes they responded to conditions by having more, and sometimes more of the children survived. Our ancestor mothers had more children by: (a) shortening the time between births, (b) starting to have babies earlier, and (c) having babies later in life. Also, (d) grandparents helped their children to rear their own children (the grandchildren), so their children had more children (grandchildren), and so more grandchildren survived. (1) People have more children when food is abundant and danger low, especially when women walk less. These conditions lead to rapid population growth and so eventually undercut themselves; but, while good conditions last, families are big. (2) People also can have large families when life is insecure, and people have many children to make sure some survive. (3) People have large families because they need groups for labor, and/or to protect against uncertainty, and their children are the best source. (4) Social pressure to have large families. (5) People need a gang to insure safety, and the gang is best recruited from family. (6) People need to secure large resources intact, such as big parcels of land, and need a gang to do so. (7) Families that are large can secure large resources intact, the large resources require a large family to hold, the large intact resources can support a large family, and so on, in a feedback process. (8) The state picks up the cost of having and raising children, as with health insurance, paying for school, and welfare. (1, 2, 3) Sometimes people have big families because conditions are good, then conditions turn bad because of overpopulation, then people continue with big families because conditions are bad and insecure and they use big families to make sure some children survive.

People have smaller families (revert to smaller families) when: (1) It pays in the long run to invest a lot in each child, as when education secures children a steady high-paying job with benefits. Investment in one child precludes investment in others. (2) Women have to delay reproduction, for example to go to school. Women go to school for many reasons. (3) Women cannot continue to have children late in life because they have other needs such as a job, especially women have to protect children they already have. (4) Women cannot have children every few years because they have to work to provide for the children they already have. (5) The life of each child is fairly secure, so women don't need five children, or ten children, to make sure two survive. (6) Successful people have only small families and other people imitate them (usually rich or successful women have only two children but rich or successful men have more by other "wives" that do not appear in public and so don't influence society as much). (7) Social pressure to have small families. (8) Large families are not needed to keep large blocks of wealth intact, and, beyond a certain point, large blocks of wealth do not help much in producing many children. A woman can have only so many offspring in a lifetime regardless of how rich and a man can have only so many mistresses; even when we consider succeeding generations. (9) The fact that the state picks up some of the costs of children can also work to reduce family size but I cannot go into how that happens here.

People often use wealth, power, and fame to have big families when they can. The push to reproduce, and the urge to have multiple spouses, both shaped social life when conditions allowed. In our forager past, both men and women often had more than one spouse over a lifetime due to death or divorce but rarely more than one spouse at a time. Even in later (agrarian and industrial) societies that allow multiple spouses - usually multiple wives for men - the large majority of people have only one spouse at a time.

Usually only rich, powerful, accomplished, or conniving men have more than one “wife” at a time. The push, usually by only some men, to have more than one spouse at a time, and through the spouses to have big families, shaped social life when conditions allowed. In jargon, humans “have reproductive skew” both within and between sexes and humans are “serial monogamists generally with mild polygyny and occasionally with stronger polygyny”.

Now, with class society, different socio-economic groups can have different family strategies even within the same society. Middle class people and rich women have small families even while rich men and poor people have large families. Where socio-economic class is tied to ethnicity and religion, then family size, ethnicity, and religion can all overlap.

Often under horticulture, farming, and industry, people had big families because one-or-more conditions prevailed for big families. Immigrants to the US still have large families because they feel the bounty but do not yet feel the costs per child. In the long view, big families were a recent change due to horticulture and industry, and hopefully will be a passing trend.

The state can use attitudes toward children to guide us to a family size that suits world ecology. I strongly favor zero growth of world population. So, for example, the state can make people pay for school and health care for children after the second child, the state can limit welfare to women with only one or two children, and the state can refuse support to any woman who has children before the age of twenty three. I do not favor the state setting an upper limit on the number of children, as China did, until our world grows even more polluted and short of resources.

Focus on Individuals and Individual Self-Interest; No “Good of the Group”.

Reproductive success is the success of individuals. What counts in evolutionary success and natural selection is reproduction of individuals. Evolution happens through the success or failure of individuals. The reproduction of small groups of kin counts a little but not nearly as much. Reproduction of a whole extended family, small group, a cluster of groups, population, or species usually does NOT count. The small local group, and the local network of small groups, can matter a bit in the evolution of morality but that fact does not change the basic importance of individual reproductive success.

Natural selection does not directly protect the species; evolution is not about the good of the species; natural selection has no direct way even to see the good of the whole species; natural selection has to work through individuals. (I do not write about the importance of variance at several levels.)

Sometimes individuals do things that are good for their own reproduction but harm the species overall. A male langur (monkey) tries to kill all infants when he takes over a group of females, wasting years of work by the females in their children. Male Hamadryas baboons herd about half-a-dozen females in a personal “harem”, and sometimes the male assaults a female to control her, wasting large time, energy, food, and water, for him and the females. Biologists can explain such traits only through individuals each seeking his/her own self-interested reproductive success regardless of the group.

By using only individual reproductive success, Darwinists can explain very nearly all features of all life, including social groups such as bands, packs, herds, hives, and colonies.

This focus on individual reproduction comes from natural selection as an automatic process. This focus has been so successful for explaining that we have to accept it as the right view.

Even so, a focus on using individual reproduction to explain can lead Darwinists to overlook the intrinsic character of traits such as morality and can lead Darwinists to reduce features to nothing but individual reproduction in disguise. Individual reproductive success can explain most of how traits arose, are used, and are sustained in a population. It does not explain what traits are, their character, their logic, and how they work in themselves. What traits are etc. influences how a trait arose, is used, and is sustained. Of course, trying to explain what traits are can mislead us into metaphysics. But, still, as thinking humans, it is usually worth the risk. It is worth trying to think in both ways.

Because successful reproduction depends on individuals, organisms evolved to think and act in terms of themselves and to think and act strategically. The focus is on me, my reproduction, and what I do. Get the job done, do it as benefits me, work effectively and efficiently, don't worry too much about others, and don't waste much time or energy trying to hurt others. This biological focus on the self includes people. People are self-interested, as in economic theory.

It is important to see that self-interest does not prevent considering others, empathy, sympathy, or, even sometimes self-sacrifice. All these things can be part of self-interest, and all of them can occur as a result of traits in human nature that helped self-interest in our past, and still help self-interest now. People join a work team or join the Scouts out of self-interest, at least in large part.

Social groups arise out of persistent interaction between self-interested individuals. In a successful long-lasting social group, adept self-interested individuals see how their welfare depends on getting along with other self-interested individuals. Sometimes, for a while, the group can dominate the individual and force the individual to remain even at some cost. But, over the long run, among foragers, groups that harm individuals do not cohere and the group cannot dominate the individual so as to prevent individuals acting in self-interest. In our past, if the group did not help the individual and/or the family, the individual or the family simply left to join another group. Since the rise of gardening, and especially since class society of agriculture and industry, the situation is different.

The fact that individuals think in terms of self, and think strategically, is not the same as full-blown short-sighted silly un-strategic selfishness. It is better to say we are self-interested than selfish. Yes, there is a difference. Self-interest leads us to see when our interest and the interests of other people coincide, and leads us to cooperate for mutual gain and protection. Self-interest leads people to trade labor for food, or apples for meat. Self-interest gets people to cooperate to keep the hyenas, lions, and bad neighbors out of camp. People who insist on always getting the upper hand and controlling every interaction, selfish people, do not have partners, and so do not fare well. People leave them alone in the wilderness to fend for themselves, and they die, their families die, and their genes die.

Even with as much as we know now about our evolutionary past and about life before horticulture, non-biologists still romanticize pre-modern and non-modern life as peaceful, cooperative, never competitive, full of sharing, never selfish, not self-interested noble, kind, spiritual, in tune with nature, never greedy, never taking more than is needed, and always playing out in a comprehensive happy ecological-social-

economic system. That is not true. I would guess that foragers were not that different from us now when we are not in harsh situations that promote conflict or tyranny. Don't romanticize or demonize.

Competition and Cooperation.

The strongest driving force in natural selection is competition, especially between individuals of the same species, and this effect holds for humans. Wolf females compete to be dominant mother in a pack, and wolf males compete to be dominant father. Competition is between individuals. Competition focuses natural selection on individuals and competition gives natural selection much of its tone.

Our ancestors competed for food, water, shelter, mates, dominance, alliances, reputation, and leadership. People competed to show skill levels such as who could make the best spears or sing the best songs, and competed over good looks, forming cliques, greatest moral rectitude, religious knowledge, and ability to forge relations with spirits – much as we do. Besides direct competition, we competed indirectly by conniving, grudges, backbiting, gossip, lying, politics, framing, cheating with someone's spouse, cheating on my spouse, not helping, and excluding from groups. Natural selection and competition together left their marks as tendencies in our character. We often do our best when we compete and when we seek success and glory for ourselves and/or our team.

People also cooperated in finding food, in cooking food, sharing food, sharing tasks such as cleaning up, tending sick and injured people, doing tasks together that could not be done alone such as defending a large body of meat to be scavenged, finding allies, finding mates, protecting against predators, protecting against violence in the group, protecting against violence between groups, fighting people in the group, fighting other groups, participating in rites, rituals, ceremonies, and holy days, and encouraging morality. This cooperation too left its mark on our character. People are amazingly able to share and get together to do things. No other animal comes remotely close. Cooperation is what allowed us to conquer the world despite being puny humans. Cooperation depends on mutual self-interested benefit. Cooperation is a better way to compete.

Sadly, cooperation is plagued by cheating, lying, stealing, and slacking. If everyone else goes out looking for food, and shares what they bring back, why should you work? If other people will face off lions that come sniffing around camp, why should you be in the front? If your neighbor leaves dry meat hanging behind the hut while he-she goes off to arrowhead making class, who is to say the dog didn't take some? It is impossible to make sure everybody works hard every time at every task. Still, if people are to benefit from cooperation, people need ways to make sure others do almost their fair share of the work nearly all the time and other people can cheat only a bit.

So, not only do we need sanctions against cheaters, we also need to get other people to cooperate with us to sanction cheaters – we also need sanctions on people who merely tolerate. Not only do you have to (1) do your part, you have to do your part in (2) getting other people to act well, and you have to do your part in (3) getting other people to do their part in getting other people to act well.

Organisms, including people, compete directly and fairly for food and mates such as by getting to the food first, showing off, "showing skin", and fighting. Organisms and people also compete unfairly by hurting competitors. When a male lion takes over a pride, he kills off the young cubs already there, the children

of his predecessors. Male bower birds build big nests to attract females, often lined with shiny trinkets such as bottle tops and shells, and colored by fruit juices. Some male bower birds destroy the nests of other males, steal trinkets, and steal colored straw. At least one female chimpanzee, with her daughters, murdered the children of rival females. People mostly use the tools of social life to hurt competitors, such as slander, betrayal, spite, and backstabbing. Inflicting this kind of pain is most of the “action” in movies about mean girls. So, of course, humans also have to defend against spite. A lot of “keeping up with the Joneses”, being cool, hip, and up on trends in fashion, politics, art, religion, church, academia, and pop culture is about making sure others can’t slander us, our children, friends, and allies. Even more, humans imagine that others have committed unfairness against us so we have an excuse to commit against them. We also convince stooges that someone, actually our enemy, has wronged them so they will do the dirty work for us. That, too, takes up plot time in movies about mean girls. Some bugs and squishy animals have amazing ways to hurt rivals, too much to describe here, but, still, I would guess that humans have the greatest diversity of unfair competition. I am amazed at how people can think of all the scams that we see on TV news, and how writers can come up with devious ways for one character to hurt another or to get twisted revenge years after the initial badness. From now on, the words “cheating” and “lying” include unfair competition.

Unlike the modern state, foragers cannot appeal to a central authority, courts, and police to control liars, cheaters, thieves, slackers, and thugs. Foragers had to rely on local group dynamics. Scientists have developed a few ways to see how local people might solve problems for themselves. My favorite way is “game theory”. I cannot review methods. Because people do control cheating enough to cooperate, we did evolve some methods that did work in the past and still work now, even if not perfectly. Darwinists are not sure what methods worked in the past and what did not, what abilities we inherited, and how that still affects our thinking and doing today. Certainly we are sensitive to cheating. This issue figures large in theories about morality, to which I return later.

Mixed Human Nature and Societies.

Because cheating, lying, stealing, and slacking worked in our past, they left in us a few genes for those behaviors. We all have a sleazy bad potential as well as a good potential. Thankfully, most of the time, for most people, good overcomes sleazy bad. But, for all of us, sometimes, the bad sleazy does win out. Who has not committed petty theft, slacked off, cheated, or lied? We tend to be opportunistic. We do it when we can get away with it, and we have a hard time not doing it when we can get away with it. We are susceptible to temptation. We have to keep this fact clearly in mind for state programs.

(0) To fully appreciate the following idea requires a technical background that I cannot give here but the idea is important so please accept it. In the complex human social situation, many strategies can work partially, at the same time, even mutually conflicting strategies. No one strategy is best always. Think of a strategy as a character type. No one type always succeeds and so always eliminates all other types. For example, sometimes it is better to cooperate and sometimes it is more successful to let other people do the work while you gain from their effort. Sometimes it is better to tell the truth while sometimes lying succeeds. Sometimes it is better to respect property and sometimes more gainful to steal – with quick fingers, a six gun, fountain pen, or computer.

(1) As a result, in any society, different people have somewhat different characters partly due to genes. Some people are more honest and some more prone to lying. Some are reliable in a fight while others tend to run. Some people love risk while others hate it. Society is a mix of types.

(2) Likewise, inside, ALL of us have blended characters. Except for a few sociopaths and psychopaths, ALL of us have a bit of the stand-up guy, liar, Boy Scout, Girl Scout, cheater, seducer, thief, embezzler, sneak, good girl, bad girl, risk taker, security seeker, etc..

(3) ALL of us are morally imperfect by evolved nature, and people have been imperfect through all of human history. NONE of us was ever perfect, not in all human history. There was no perfect original Adam and Eve. Most of "it" is in there in all of us, including good stuff and bad stuff.

(4) Which characters prevail in a society, and which character traits prevail in each of us, depends on a lot of factors. Literature, movies, and TV do a good job of explaining the factors. Good moral education and other education can help make people and society better if the education is realistic, and is realistic to the times and situations of real people.

(5) We cannot be made perfect, holy, totally compassionate, etc. We cannot love our neighbor as God loves us and as we love ourselves. We can have glimpses. Whether a few people can achieve some version of perfection does not matter because the vast majority of us cannot. In other places, I say "no harangue can make us perfect".

(6) Do not work for perfection, do not lament human imperfection, and do not lament that we cannot be perfect. Instead work to be better and more useful. Fight badness in yourself and in general. Religion can help, as can other kinds of education. Do what you can with what you've got.

(7) As far as I can tell, slightly imperfect people are more interesting, and often more useful, than perfect people; but that is no reason to wallow in, romanticize, or cultivate, faults and naughtiness. All people have enough faults so we can do pretty well with the faults that we already have. See comments on morality below.

(8) Because most of human nature already is "in there" in varying mixes in all of us, you can get more in touch with bad parts if you want. If you have never felt all the bad parts, or the depth of bad parts, then getting in touch with them can be a thrill. But that doesn't mean it is good in the long run to dwell in bad parts – even for you. Feel it, and get it over with. If you feel the need to dwell in the dark side, ask why, and what good it is. See chapter on Romanticism.

Use common sense about human character and avoid superficial stereotypes. Basically, all the common traits that you see, excluding mildly bizarre traits, have an evolved basis. People modify evolved potential through learning, especially social learning. Social learning does not end genetic influence. We can change our character through choice and education. We can get better. We can't be perfect.

Cooperation does not automatically end all individualistic competition. Likewise competition does not require only isolated individuals out against all other isolated individuals. People can cooperate to better succeed, as in cooperating to do tasks or in trading; and, in that case, cooperation is best seen as a way

to compete. A team consists of people who cooperate so as to better compete. People who cooperate with little obvious competition in one arena, such as gathering fruit and nuts, compete strongly in other arenas, such as for mates.

Contrary to myth, big nasty people, who are ready to beat the crap out of anybody, did not do well in our past, and our minds are not evolved to seek that tactic consistently. People like that did not have many friends, could not do well enough on their own, and mostly died out. Bitchy conniving manipulative back-stabbing people also did not have friends and mostly died out.

With both sexes, likely the person who did best got along well, led by example, did not criticize harshly, and could form teams to do things. This person had good ideas, ideas that did not strongly favor him/her over others. This person brought out skill in others. Sometimes he/she inspired, as with Jesus, Gandhi, Churchill, and John Kennedy.

Once some good people get good things going, then bullies and connivers can take advantage, and so bullies and connivers never totally disappear. Force and conniving can have a role but are they only two abilities among many.

Sometimes in hard situations we need forceful people but not all the time. In the movie, "The Man Who Shot Liberty Valance", what works is a mix of Jimmy Stewart (lawyer) and John Wayne (honest tough guy), and what doesn't work is Lee Marvin (sadistic bandit). Maybe Ben Cartwright from the TV series "Bonanza" is more accurate. We should ask why we now in the 2000s glamorize big nasty dominators, or bitchy connivers, rather than admire people who really were most useful in our past and still are most useful now.

Contrary to more myth, foragers did not often fight hand to hand, and the "winner" of conflicts was not the one who "had the strongest kung fu". That kind of fight did not happen even in the American West or old China. If two people had serious problems, they moved away from each other if they could. If two people knew a fight was coming, one ambushed the other in the back. This action is not honorable and romantic but it worked. It worked in the Wild West too but it was usually done with a rifle or shotgun and a shot to the back – not pistols at four paces. In old China, likely it was arrows in the back.

Contrary to yet more myth, girls, lasses, and women all compete, sometimes nastily. That is what "Mean Girls" and "Bring It On" are about. Also, boys, lads, and men all cooperate. That is what team sports are about. That is what military units and business units are about. What is typical of male cooperation and/or competition, typical of female, and common to both, is a big touchy subject, is plagued by myth and PC of Right and Left, and so I don't open it here. Even Darwinists get confused.

There is no consensus for how cooperative, competitive, honest, cheating, hard working, or lazy people are in general; of where the balance lies in general.

How much, how, and when people cooperate, compete, tell the truth, do as they say, and work hard, or instead people cheat, lie, steal, slack, etc., depends on culture and society, conditions such as availability of food and mates, and the history of cooperation and grudges. In a group with a good history, the good continues; in a group with a bad history, the bad continues. When food is gone, people eat neighbors, as

when Jerusalem was besieged. When America boomed in the 1950s and 1960s, we all loved each other. In modern states, usually the balance depends on institutions such as whether you live in a democracy or tyranny, have many political parties or a few or one, belong to a particular ethnic group or religious group, depends on ethnic and religious relations, whether you are an owner or worker, are in a labor union, your in-laws deal drugs and have police records, etc.

Limits of Human Foresight, the Greater Good, and Useful Institutions.

People are self-interested. As hunter-gatherer-foragers, our social horizons originally ended about at our cousins, local group, speakers of our dialect, and respecters of similar spirits. Our ideas of common tasks were picking fruit and vegetables, a small cooperative hunt, gossip, and some shared moral fervor, some anger, some scheming, and some fear. The whole world was fifty miles (eighty kilometers) across. The world changed too fast to think in frames larger than a few weeks for "now", and larger than a few years for an "average". Modest cooperation usually coincided with self-interest but self-interest rarely led our ancestors to heroic self-denial for the greater good. We did not think grandly except in myth and religion. Anyone who thought grandly as a habit likely did not take care of business close to home and did not leave enough descendants. This is our nature, developed over millions of years, and a few thousand years of civilization and science have not changed it.

For these reasons, not because people are rabidly selfish, people now struggle to put the greater good above self-interest except in obvious cases. Even when we hear valid arguments about common good, and how a little sacrifice now can help all children later, we don't take the chance. We prefer to get ours soon in ways that we can see and feel. We see that; we just don't see anything bigger. This view is not irrational, stupid, selfish, nasty, demonic, fallen, or perverse. It made sense for hunter-gatherer-foragers. It made fairly good sense in gardening, herding, and agricultural societies. It worked in a lot of situations in industrial and capitalist societies. It does not work well in enough situations now and it is not enough now on which to build good societies.

We can make institutions to help us see farther, and to help cooperation while reducing competition and cheating; but we cannot make everyone Abe Lincoln or end competition and cheating. We do a lot better when we accept real human nature and we build on that rather than see humans as horribly depraved or see them as able to deal instantly with every issue of politics, economics, and ecology.

We don't want to end competition. Competition provides great benefits and competition helps people sort themselves out by ability, training, and character. We can channel competition to mostly good ends. We cannot force all competition into only good ends. Competition creates some badness in human character and human life but not all the badness, and likely only a small share of the badness. Most of the badness is there in itself because it succeeded in our past. Competition can create huge benefit.

Despite the great ability of people to cooperate, modern institutions that depend on good will and good social feelings rarely succeed well, and the oversight needed to make them succeed well is so expensive that it undermines the total of good that we get from the programs. Institutions that accept competition and self-interest, and harness competition and self-interest, do much better. Idealized socialism and communism don't work. Welfare for individuals can work but has to be managed, and it has to accept that people connive for self-interest regardless of society. Welfare for business firms does not work.

Fascism can work because it blends competition and cooperation but fascism hurts humans. Modern state programs for children can work because they are usually low cost for the benefit, and competition can be managed by adult supervisors. Sesame Street, Head Start, and breakfast and lunch at school are bargains. But even here, programs for children don't work if the programs ignore natural competition between children. Capitalism works well when it approaches the ideal: competition leads to lower prices and better goods, people earn according to ability and effort, no collusion between business firms, no one firm or group of firms dominates a market, there is enough so everyone can get by, world ecology is not in peril, the system does not cause increasing gaps in wealth and power, wealth is not a force in politics, and the whole is well regulated. If all these conditions hold, we can be quite lucky. If we can preserve them, we are wise.

Institutions that rely on intense competition and strong order can work during times of hardship but not for ordinary life, and they warp our nature too much. Sparta worked but it was a bad place for most people. Fascist capitalism and market-only capitalism can work but they distort humanity and society too much, and market-only capitalism is not really that but really fascism in disguise. Stalinism and Maoism were intensely competitive despite the ideology and so were bad on both sides of the coin – unreal ideals of cooperation with rigid state order and tacit intense competition.

Biologists tend to see cooperation as a roundabout way for individuals to compete. They see groups in terms of interacting competing individuals. Groups form and persist because they serve the self-interests of competing individuals. Individuals cooperate and they care for other individuals so as to serve their own self-interest. That does not mean there is no cooperation or caring, but cooperation and caring are not the primary reason for groups, and are not tied up intimately with the essence of group life. However much goodness arises, however we see goodness, depends on particular cases. Biologists usually don't judge goodness in non-human groups.

In contrast, anthropologists and sociologists too often see individualism and competition as unusual, even deviant and bad. From the 1960s through even now, anthropologists and sociologists saw competition as entirely due to a social complex based mostly around capitalism and the domination of White Men over all genders and ethnic groups. Caring cooperation is the typical human way in standard society. Living in a non-capitalist society automatically leads people to follow social rules and those social rules automatically promote coordination, cooperation, caring, and welfare. Anthropologists and sociologists see individuals in terms of a place, a role, in social wholes; they see individuals as made by social wholes. In contrast to human social life for most of human history, modern capitalist society is deviant and bad, and it makes all individual people deviant and bad.

I don't have to argue out this issue here but I do fall on the side of biologists.

Success is Comparative.

Success is comparative. Competition is comparative. It is not a matter of how well we do by ourselves, it matters how well we do compared to others. If Betty always gets one rabbit a day but Sally gets two deer a week, then, in the long run, Sally does better than Betty. If Rose has 4 surviving children while Kate has only 2, then, over the long run, all the people will consist of Rose's descendants.

On the other hand, if Rose has 4 surviving children, the children could have more trouble finding food and mates, so have only 1 child each, and Rose will have only 4 grandchildren. With 2 survivors, all Kate's children all find food and mates, so have 2 or 3 children each, and Kate will have maybe 5 grandchildren. In the long run, Kate does better than Rose. It is better to do a little better than others but we have to be careful of ruining our own success.

As a result of comparative competition, we evolved to watch how other people do, and we evolved to compare us to them. We evolved to notice, seek, and imitate successful people. We "keep up with the Joneses". We evolved to imitate the trappings of successful people, so that if they use un-marbled flint to make tools, we use un-marbled flint. We evolved to look down on people who do less well than us and less well than the average, and to not do what they do. We evolved to make sure we are not associated with losers. We evolved to adopt or eschew clothing, trinkets, mannerisms, and other markers so we (think we) look like winners and we (think we) don't look like losers. We follow what others call winning and losing, rather than make our own standards. The comparative aspect of competition and success can put an edge on competition and interaction. Likely, comparative competition is the strongest weapon of the advertising industry. It can lead to fads such as fashion and to runaways over big houses, big cars, big boobs, big penises, and big business firms.

Means and Ends.

Reproduction does not happen by itself. Successful reproduction needs food, warmth, clothing, housing, mates, sex, friends, partners, helpers, safety, and a good social life. Emotions and intellect both play their role in the right proportions that work. Art, including telling stories, sports, religion, morality, a good name, appealing looks, and achievement all can help get us a good social life, food, etc. They are means to greater reproductive (evolutionary) success. As such, natural selection would keep them around, and they are a part of us. We seek them. We are susceptible to them. Natural selection would keep them around to the right extent that they help us without hurting us. We seek the right amount of expression and we seek the right balance between all of our means.

We evolved to seek means to successful reproduction in themselves even when we do not see the link between them and reproduction. They take on a life in themselves. Ordinarily in our forager past, people kept them in perspective and did not get side-tracked into them too much for their own sake. Anger can be useful but not too much. Thinking out can be useful but not so much that we never act. In present life, we can get side-tracked into means-to-and-end and forget their role in contributing to successful family life. (In technical jargon, inclusive fitness (reproductive success) is the ultimate goal while the various means to inclusive fitness are "proximate mechanisms" or "proximate goals".)

In the modern world, wealth, power, fame, and glamour (beauty) still can lead to reproduction, and it is clear that people seek them. Regardless of reproduction, people often seek the goals for themselves. Yet in our forager past, people could not amass wealth or power. Few material goods lasted long. Power was getting other people voluntarily to go along with you; people did not order or dominate. Modesty was as important as fame. Beauty was short lived. Still, modern lusts for power, wealth, fame, and beauty are so strong that it is hard to believe they did not play a role in our evolutionary history. It is hard to believe lusts for power, wealth, fame, and beauty do not have a strong genetic basis. I think they do. Darwinists are working on the issue. Because the issue is not clear, I don't make more of it here. I do stress that

people lust for power, wealth, fame, and beauty in themselves regardless of reproduction and of effects on family life and community; and the lusts often lead us astray.

A good way to see the means that help reproductive success is through acts, attitudes, and ideas to which humans are commonly susceptible. What-we-are-prone-to likely worked in the past and likely left in us genes that make us prone to it. We are susceptible to fatty foods, sweet foods, burned meat, clean huts, good smells, handsome people, beautiful people, pulchritude, sex acts, promises, promises of sex, promises of support and fidelity, gossip, art, stories, religion, morality, conniving, coalition forming, coalition busting, power, fame, some wealth, lies, flattery, intimidating, getting intimidated, trains of valid logic, and trains of not-so-valid logic. We are tempted by all those. People can talk us into them. We can talk other people into them. If you don't like the term "susceptible" then you can use "enjoy" but the term "enjoy" doesn't get across what happens when we buy an unreal political promise because we want to support it for other reasons or take a drug because we want to be "out of it" for a good while.

Susceptibility and Control.

Because we are susceptible to beauty, power, wealth, artistic ability, etc., people can use these things to control us to their advantage and we can use them to control other people to ours. We are susceptible to words, so people can successfully lie. We want sex, so other people can use offers of sex to control us. We want to be on the winning side, so people can use offers of "join us to tip the balance" to control us. We do the same to them. People evolved to use the susceptibility of others to their own advantage regardless of advantage of others, and often to the harm of others. People evolved to manipulate other people by using natural openings.

For most of the things to which we are susceptible, we also have resistance. The amount of resistance varies. We do not have much resistance to things that we would have met rarely in our forager past, yet had a high value, and, during our forager past, had little downside. We evolved to get as much of those as fast as we could, such as fatty foods, sweet foods, and sex. We resist things that had a big downside and that we met often enough, such as lies, sexual cheating, and power grabs.

We resist being controlled. We want to gain as much from being led as we would gain if we did nothing or did something else. Yet because the original thing has both value and dis-value, such as words and lies-as-the-misuse-of-words, we cannot get rid of susceptibility, using susceptibility, or resistance.

It is reasonable to ask "which side wins" but there is no constant answer. It depends on the people and the situation. In the modern world, fatty food, burned meat, and sweets win "hands down" over meager intellects and stern doctors. In lying, people that want to know the truth as it relates to them usually are a little ahead of liars, but not much. Human lie-detecting is a little ahead of human lying, but not much. As we see during every political election, liars still do well enough so we need not fear that lying will vanish from the human gene pool. People usually can tell, eventually, when a romantic partner is cheating but not always and not always fast enough to head off damage.

It is reasonable to ask whether, overall, people are more honest or more conniving. Do we tell the truth more often than we lie? Does our truth-telling overall cause more good than our lying causes harm? As far as I know, there is no measure. I guess that people are overall much better than worse, and do more

good than harm. Of course, if you have been the victim of harm, or have led a hard life, or you like all the fashionable “noir” in pop culture, then feel free to disagree.

Self-Deception.

People that use the susceptibility of others to control them do not always know that they do so. We lie to ourselves too. When we pledge undying love, we think we actually mean it. When we fake interest in the work of a would-be paramour, we think we actually mean it. We talk ourselves into cake or chasing our neighbor as much as our gracious host talks us into eating cake or our neighbor lets us chase her-him. Because self-deception is so common in the game of susceptibility, using, and resisting, we cannot get rid of it either. We cannot be fully honest and open even to ourselves.

Keep in mind that the game is played over morality and religion. We evolved to yield to moral argument and religious visions. We evolved to produce moral argument and religious visions not only from direct experience of truth but also to control the ideas and acts of other people. We evolved to be skeptical of moral arguments and religious visions – from other people. We evolved to be very confident of our own moral argument and religious visions. I suspect we evolved to assert our moral and political opinions often, loudly, regardless of evidence, and regardless of much real logic. We evolved to spout. Often the producers of moral argument and religious ideas do not know themselves whether they produce visions and arguments out of belief in truth or out of compulsion to say something that people will listen to and act on. I think we more often want to assert ourselves than we witness for the truth. Out of this game, we have to find the most accurate and useful morality and religion.

The game of being susceptible, using susceptibility, resisting, and self-deception, was a strong force in the evolution of the multiple talents that we label by the one simple term “intelligence”.

Because of the role of this game, including self-deception, I return several times to the ideas, especially with religion, morality, and politics.

More on Limited Horizons; Us and Them.

Natural selection is a short term process and it is focused on individuals and-or small groups. In our past, all the reproduction that mattered happened within three generations at most, usually one generation, and took place in our small group and its near neighbors. People did need a few other people to help find food, feel safe, and reproduce but didn’t need a lot of others. Key players were self, spouse, immediate family, near family such as siblings and grandchildren, and close friends who helped us and to whom we gave help. Still now, people think in terms of me, my family, and near group. The typical time horizon is weeks. The typical distance is the neighborhood. People have trouble thinking of next year, the next decade, the next century, general humanity, economies, states, all the groups within states, ecosystems, and planets. We need good honest capable practical leadership to be able to think this way.

We tend to think: if it is going well now, it always will be like this, and we should exploit good conditions as hard as we can as fast as we can. We think: if it is going badly now, something is wrong in our group relations, with our leaders, or in our relations to the spirits; we have to act now to make it all better again. We have trouble assessing causes and their scope. We reject leaders that tell us what is true but that we

don't want to hear. We accept leaders who tell us what we want to hear even when it is false. Prosperity is always just around the corner. Again, we need good leaders and good ideas to get us over this constant yearning for silly pie in the sky. Because this kind of yearning is not realistic, it seems evolution would have selected it out of us long before now, yet it is still common. Many such unrealistic thought patterns remain in humans such as glamour. Among the remaining open questions in theories about the evolution of human character is the persistence of silly obviously impractical ideas.

People tend to think in terms of "us and them" on several levels as the situation warrants: individual me against other people; my family against other families including the families of my siblings; my extended family including the families of my siblings against the other families in the group; my group against other similar groups; and a few groups made up of related people and friends against other groups within which we have few kin or friends. Within "us" relations should be kindly, that is, people should act toward others as they act toward kin: "we are all family now". Toward "them" the quality of relations depends on what is at stake, what the risks are, the balance of power, any ties between groups such as marriages, and on the history of relations.

Now, people can extend "us and them" to cover relations between ethnic, religious, or political groups but usually in a selfish way rather than friendly way. Sometimes, people can extend "us versus them" to large blocs such as in elections.

In our past, people thought in terms of groups but likely not in terms of groups based on religion, ethnicity, and region. People lived on too small a scale for religion, ethnicity, and region to matter much. Modern people are able to extend group thinking in those ways. Yet people still tend to activate group thinking mostly in arenas of small groups of us against them or us with them, as when gay bashers go after one or two "queers", one clique goes after another as in academia or in the movie "Mean Girls", a few terrorists attack a school bus full of defenseless children, or our church gets together to help victims of a flood. The media have helped both kinds of extension.

(In my version of human evolution, which I do not stress here, differences in wealth, power, class, area, ethnicity, and religion came into play. Modern people put them into play now because, when we evolved, they were relevant, and we keep the ability to work with them. They are part of our character. I think fully modern humans evolved in a situation more like the tribes and chiefdoms of the Pacific Northwest Coast of the United States than like the foragers of the Kalahari.)

Competition, or lack of competition, between groups is not the only large force that determines if groups have good or bad relations but it is one of the biggest forces. It might be the force about which the state can do most by reducing it as much as possible.

If people think the pie is limited, and the pie is not enough, then people form groups to compete to make sure they get enough. If you can succeed only by being in a gang, even a gang as big as a whole race or religion, then you join a gang and you stay in. You also make sure all others are in a gang even if they don't want to be, so you know enemies and friends. Once groups form this way, it is hard to disband. The situation can be worse if people believe the piece is not enough not because it really isn't enough but because some people take a much larger share than they need or deserve, that is, when comparative competition is intense. We had enough group antagonism in our evolutionary past so that humans are

adept at this group thinking. This bad competition between groups happened with race relations in the United States since the middle 1970s.

In contrast, if people feel the pie is big enough, and will be shared roughly according to merit, so even if not everybody gets equally even the people who get little get enough so their children can get more, then people don't feel the need for a group and don't stress groups. Because competition is comparative, it can be hard to make sure the pie is big enough to make people relax, but it can be done. This condition prevailed in America in the 1950s and 1960s, and led to improvement in group relations and to advances in civil rights. States cannot make sure that all people and all groups get an equal share of the pie, and states cannot make sure sharing is fully fair. But states can make sure that everyone feels his/her efforts are rewarded and his/her efforts lead to enough gain so children can do better, and differences between groups don't accumulate and grow dangerous. States can assure an almost-fair playing field but states cannot assure an equal outcome. In our evolved past, definitely the outcome was not equal. The same comments apply to socio-economic classes as to ethnic groups and religious groups.

We are Not Smart Enough for Everything.

People are amazingly smart, especially considering we formed our nature by chasing rabbits, picking apples, and wrangling among cousins. But we are not smart enough for everything now, not even for situations that we made. Many of us are not smart enough to find decent jobs in modern technological capitalism. Many of us are not educated enough. Many of us are not smart enough or educated enough to be adept citizens. Even if smart and educated, we have quirks that make us bad citizens: we do not seek evidence, do not know real capitalism with its real strengths and weaknesses, cannot judge when some power is really a threat, cannot stop thinking in terms of "us and them", don't know who our real "us" or "them" is, cannot see past the promises of demagogues, expect the state to make everybody better off than average even as we rail against the state, and expect the state to enact the morality of our group so we can feel justified, saved, and worthwhile. See Chapter Two. We did fairly well until after World War Two but have not done well since. Nobody knows how to overcome the limitations of our evolved minds to make us adept enough citizens.

If you think people are smart enough to deal well with the modern world, then why does advertising work so well despite being so obvious? Why are we so susceptible to fun crap? Why do pretty young people sell cars? Why do hipsters think they are different and better? Why do action movies and silly romances work so well although the characters, dialog, and scenes have not changed in decades? Movies are the same now as in 1935. Turn off the sound on the TV; then watch ads, a police show, medical show, and romantic comedy. See how silly and obvious they are. Then ask again why you are so susceptible. Do the same with political ads – they are scary. Even if most people are smart enough, such as, of course, you and your friends, enough people are not smart enough so that we all have a real problem.

In a democracy, not everybody has to be smart enough to figure out all the problems and their solutions. That is what leaders are for. The large majority of people have to be smart enough to choose leaders who understand true problems and offer realistic practical long-term solutions. This choosing leaders is what we have not been able to do. We are not that smart. Our inability to choose good adept leaders has been evident in the United States at least since Reagan. It won't get better. We won't get smarter. We can't make us any smarter than five million years of evolution already has.

Education could help but it hasn't helped enough, certainly not in proportion to how much we spend. Even if we spent more, it is not likely that education can make us smart enough in general to do the job. We have limits.

I had a hard time learning that people can make good decisions although they do silly things. People can make good decisions even when: they are not in my political party, put on makeup, worry about hemlines, wear shorts that show the bottom of their butts, spend money on hair, play fantasy sports, binge drink, brag, check email often, talk loud, think they are good athletes, think they are tough, smoke, listen to crap music that is really bad political sermons set to bad rhythm, obsess over business trends and conditions that they can't understand, spout PC bullshit rhetoric, send pictures of food on the Net, groom their lawns, stalk "the next big thing" in art, crusade, or are prejudiced by gender, race, nation, creed, or age. Even people with these behaviors can show insight.

But people can't make good decisions when all they do is the above, never learn facts, never learn how big important things such as capitalism really work, and never practice making good decisions. Activities such as listed above are important not because, by themselves, they disqualify a person as able to pick good leaders but because they show that a person has stopped thinking. Our evolved past made it far too easy to retreat into self-indulgent solace.

We tend to think that not being up to the job of citizen in a modern democracy somehow disqualifies us as people, makes us less men and less women. This view is not true. Even people who are not smart or not adept as citizens can be great as people. People can be amazingly brave and generous regardless of any ability for citizenship. The bravery and toughness of average people amazes me. If we required that all soldiers also had the obvious ability to serve with honor in the Senate, our country would soon end. Not everybody can be John Kennedy, John McCain, or John Kerry. I find the courage of ordinary people far beyond me. I am stunned by people who were physically or mentally wounded and fought back. I know I am not up to their standard. I find people a great joy most of the time. It is not clear why we could have evolved the ability for greatness of humanity and soul during our past as hunter-gatherer-foragers; but we did. I am thankful we did. I would like to see people who use evolution to explain human character explain how our ancestors did that. It still does not automatically make us adept citizens.

Quick Summary in Transit.

The common behaviors of people have an evolved basis, and they are learned. We have good instincts about how to deal with the mix of evolved basis and learning, and mostly we can go with our instincts.

We should accept human nature as it commonly is. On that base, we should build institutions within which people can learn to be better, in which good behavior reinforces good institutions. We should not try to force people to be better than they can be. We will see ordinary people sometimes to do great things in unusual conditions such as earthquake or disease. We cannot build a good state by expecting people to be great.

We also can expect people to be more than half-way decent most of the time. If people want to think of themselves as decent then they have to act decently, even, sometimes, in the face of other people who act badly. We evolved the ability to do this.

We can expect people not to be indecent and thuggish. We can expect people not to respond to a bad situation by crime, nastiness, acting like a thug, acting out, or terrorism. Especially in a plural democracy, we can and should expect people to respond to a bad situation through rational means. We can expect people to look at themselves to see how much they add to badness. We can expect people to look at their groups such as ethnic, religious, class, and gender groups, to see how much of the bad situation starts there. We can expect people to work to make their groups better. People evolved the ability to control their bad acts and to better their own group, and we can expect it of them. We can and should fault people when they act badly. We have to not enable bad acts. We don't have to tolerate thugs and terrorists even when they have a grievance. We can and should punish criminals and thugs. We evolved to do this too.

After some wildness in youth, most people want a good family life. That usually worked in our past, that is mostly what we evolved to do, and it usually works now. We can understand most of what people do if we think of their behavior as aimed at a good family life in the context of their economy, history, society, and culture.

People seeking a good family life can build a good state when conditions are not too odd. Sadly, modern life is too hard for ordinary people seeking a good family life to gracefully build a goo state. Now we need something more. Chapters One and Two give a sense of what we need, and I go into the topic further elsewhere.

Many abilities and goals helped a good family life in the past: to make all kinds of art, to appreciate all kinds of art, work, finding the right mate, avoiding people who might not be right, cooperation, showing off, wealth, moderate power, friends, alliances, beauty, athletic prowess, shrewd thinking, rationality, religion, morality, etc. This is how most people succeeded in starting and raising families. People still seek these goals in themselves and as means to successful family life. In the first third of life, people often seek these goals largely for the goals themselves, such as wealth and fame. Still, in the last two thirds of life, most people learn to subordinate these goals to a successful family life and community life.

The modern version of these goals usually is getting an education, finding a mate, getting the best job you can that gives you some satisfaction and income with the least heartache, living in a safe clean neighborhood, and participating in community, religious, and political life. This package includes working for causes such as gay rights, national parks, or against abortion, if you believe so.

Evolution gave us the ability to enjoy many things that contributed to family life but now also have value in themselves. We should be free to seek these things as long as we don't hurt other people or hurt society as a whole too much. We should be able to have a few drinks, chase a few people of the gender that we prefer (if they allow), or ride a motorcycle.

Some people now get caught up in what used to be means-to-an-end in our past, such as wealth and power. These people are not necessarily bad although we might see some as sad. We need to insure they do more good than bad in their striving. Too often they do more bad than good.

Some people should not primarily seek family life but should work for art, science, politics, commerce, or religion. A few great musical composers, such as Beethoven, or philosophers, such as Plato, Thomas Aquinas, Hume, and Kant, did not have good family lives but still did much good. Jesus thought following God and following him were far more important than family life, wealth, or power. The Buddha thought that thinking clearly and assessing life correctly were more important than family life, wealth, or power. Here I do not explain where these people come from and their relation to human evolutionary history and our genetic base.

There are basic differences between men and women, differences rooted in our genes and evolutionary history. The differences are not nearly as important as we make them. Men and women overlap in all the key traits that make us human. The overlap is much bigger and more important than any difference. Still, the difference can be crucial and it is a big part of what makes life fun. Although there are two biological sexes, there are more than two genders, and at least some of the more-than-two have genetic bases. Homosexuality (gayness) likely has a firm genetic component. The same person can feel and act like more than one gender although not usually at the same time. Even gay activists often are confused about the variety of genders. The various genders can have a lot of fun discussing this topic. I don't go into gender any more here.

I overlook the roles of learning, culture, society, history, economy, ecology, material conditions, etc.

Morality.

I don't explain what morality is. Use your evolved moral intuition. See Parts 8, 9, and 10 below.

For Darwinism, morality is a puzzle. On the one hand, morality is an ideal. Morality tells us to be as good to others as to ourselves, to love our neighbor as we love ourselves. But loving your neighbor as yourself can thwart self-interested reproductive success and thwart potentially self-beneficial competition. Yet morality evolved from the self-interest of individual people interacting. How can "rise above self-interest" evolve from "follow only self-interest"? Sometimes people live up to the ideal, even against self-interest, as when people help children that they don't know out of a crashed bus. Most of the time, the ideal and practicality go along pretty well. People don't steal from the police station. We give to our neighbors who are likely to give to us. Still, nobody lives up to the ideal fully. All of us fall far short every day. Usually when evolved ideal and basic self-interest conflict, in a big enduring arena, then self-interest wins.

How we meet the ideal or fail to meet it shows a pattern, the pattern makes sense in light of the fact that we evolved, and the pattern doesn't make much sense any other way. (I skip cultural rules and social organization, which overlooking doesn't undermine what I say here.)

A simple observation about the pattern of following the ideal and failing it gives us some hints. The way in which we follow or fail goes along well with common sense practicality. The pattern goes along with what succeeded in our past and what usually succeeds now. Take "kind" to mean "morally good to" and

"nasty" to mean "morally bad to". We are kind to our kin. We are kinder to near kin than far kin. We are kinder to people who live with us, such as in our house, than to people who live farther away. We are kinder to people who live around us, as in our neighborhood, than to people who live far away. We can be kind to strangers but we don't feel too bad if we are not. We can be nasty to people who have been nasty to us. We are nastier to people in another school than to people in our school, and likewise with neighborhood, church, and city. We are nastier to foreigners and people in other countries than people in our own country. We are nasty to people who we know have done bad things such as molest children or defraud the teachers' pension fund. We shoot burglars.

Biologists explain the pattern in this way:

- We are nicer to people who are likely to be nice back to us.
- We are nicer to people according to their degree of kinship with us, mixed with the kind of relation we have with those particular kin.
- We sometimes take advantage of people that we don't expect to have relations with, when we can get away with taking advantage.
- We are nasty to rivals that we know about.
- Briefly, we are kind to people that benefit our reproductive success. We are nasty to people that harm our reproductive success if we can get away with it.
- Sometimes we make mistakes as when modern urban dwellers help a stranger even though the stranger is never likely to help the reproductive success of the urban dweller. Once evolution sets into motion a strong emotion such as the feeling of "us and them", sometimes the emotion makes a mistake just as sometimes we eat a fruit that looks ripe and sweet but is really sour.
- Usually we do better when we cooperate than not. Cooperation requires some risk, in particular risk of cheating. We have to be able to overcome the risk to gain the benefits of cooperation.
- Even though we can see the benefits of cooperation, see that that the benefits overcome the risks in the long run, see the risk of cheating, and see that we could benefit in the long run if we could suppress cheating, this practical assessment is not enough to overcome the risks and get us to cooperate enough. We need something emotional as well.
- Morality allows us to gain the benefits of cooperation, to overcome the risk, and to suppress the risk of cheating. People who are moral to each other cooperate better among each other than people who are not moral. Moral provides the emotion needed to cooperate and benefit.
- Morality is an indirect means to gain the benefits of cooperation, both directly by getting moral people to cooperate with each other, and indirectly by getting moral people to punish and eliminate cheaters and slackers.

-Feelings of morality likely developed as extensions of feelings that we have toward kin, trading partners, work partners, and neighbors. We originally had the feelings for other reasons that make sense in terms of natural selection (I don't explain more here) but are easily turned into morality and incorporated as part of morality.

-Once feelings of morality arose and spread among a group, and people who felt morality were good to each other and bad to cheaters, then natural selection would sustain morality well enough.

-What matters is that overall moral thinking and moral acting, both kind and nasty, help our reproductive success, that is, that morality serves practicality.

I take this account to be very largely true. No other account is nearly this true. What follows is comments on this sketch. Part 8 below explains in more detail.

Not all people are smart enough to figure out all the provisions in a modern mortgage but people are not all stupid. People can figure out practical needs and what serves practicality. If morality largely serves practicality, and we can figure out practicality anyway, isn't morality redundant? Why do we need an extra level of force, morality, to tell us to do, or not do, what we can figure out anyway? As of 2016, there was no definite answer. All I say is that morality did succeed as an extra level of force in our past, and so natural selection kept it.

First, we benefit from people with whom we have consistent exchange relations, especially trading of help in work, food, child care, and marriage. They also gain from us. As part of this mutual gain, while the relation persists and does well, we have good feelings for each other. However, if the relation goes bad, we also have bad feelings toward each other, as in a divorce or when roommates start feuding. Second, kin also help each others' reproductive success not only in the same way as do other exchange partners but just by being kin and by doing a few special things that only kin do. I do not here explain how kin help each other's success just by being kin. See Part 3. Kin also have good feelings most of the time but the feelings can turn rancid.

Morality needs feelings for its force. The feelings that power morality likely originated as modifications of the feelings that we have for partners and kin. Once the feelings were used in the moral arena, they took on a life of their own, and morality took on a life of its own. At that point, morality worked overall to help reproductive success, so natural selection kept morality. We are the descendants of people who had moral feelings and did well.

(I think the feelings that power morality have to follow the logic of the Golden Rule and "applies equally". We have to think that morality is fair. Mainstream Darwinism differs from me in this regard. Mainstream theory does not think the feelings have to follow any particular logic, they only have to serve reproductive success. Natural selection can attach moral feelings to any act that benefits reproductive success such as helping a work buddy and can insure moral feelings do not attach to an act that might hinder success such as helping a suspicious stranger. See Parts 9 and 10.)

The acts that come out of mutual benefit and kinship are fairly strong, and people figure practicality pretty well. Again, if so, why was the extra emotion of morality needed? First, sometimes the feelings we have

for kin are not enough to hold us in the big groups that we need for big projects such as hunting a bear or a herd of deer, or protecting the whole local group. Second, likely nothing else solves inevitable problems of cheating, especially when cheating often makes self-interested sense in the short term. Cheating is a strong acid that dissolves good relations, as most of us find out some time in our lives. Simply seeing the benefit of a mutually helpful relation, and-or simply being kin, are not enough to stop cheating so we can cooperate. We need something emotional and strong. Morality can work. It can suppress cheating, and cheaters, enough to keep the benefits of cooperation, mutual help, and kinship.

Another way to say this is that morality is the strongest, and the one absolutely necessary, "social glue" of human social life. Without morality, we could not have cooperated enough to evolve into humans. This is why I like to see evolved human nature through the lens of morality.

Once humans evolved moral feelings and moral acts, natural selection made sure they did apply where they usually serve practicality and did not apply where they harm practicality, as much as possible, even if the fit is not perfect. In our past, natural selection successfully made sure that the fit was good enough so the benefit of morality always was greater than the cost.

Morality requires not only good relations with friends and group mates but also requires that moral people (a) punish bad people, (b) urge other moral people to punish bad people, and (c) stigmatize or punish the otherwise moral people who do not help enough to punish bad people. Morality requires that sometimes we are moralistic and nasty. Sometimes we have to treat usually good people as if they were bad. This issue of punishment and being moralistic is troublesome, so I leave it at this for here.

Morality is not fully rational. Morality is a mix of judgment and irrational emotions. Even so, it works.

We need the ideal of morality to have the strong feelings that get us to work together, to stop cheating in ourselves, and to punish cheating in others. But, if we really followed the ideal, then ideal morality would undermine itself. Cheaters would be able to take advantage of all the blindly moral people, all the stupid suckers. Morality would self-destruct. Paradoxically, to work, morality both has to be an ideal and has to be somewhat selective. We have to think of being good to everybody but really we have to be good to others who are reliably good to us, and we have to be bad toward others who are bad to us, especially others who are consistently bad.

Because our moral nature evolved, despite the ideal of morality, we do not feel morally equally toward all people and we do not act morally equally toward all people. We know the ideal but we do not follow the ideal, and we cannot follow the ideal. We are susceptible to morality as we are susceptible to sweets, fat, burned meat, power, good dwellings, handsomeness, beauty, pulchritude, sex, ceremonies, religion, and temptations to lie, steal, and cheat. We have to find the ideal through the susceptibility.

Because our moral nature evolved, moral harangues don't work. We can't make people generally better, and better citizens, by carping, ideology, dogma, threats, promises of heaven, fear, or promises of being great contributors to some great cause. Harangues don't work even if they come from parents, teachers, priests, politicians, demagogues, or politically correct people. Moral instruction can work a little, but it is not like a harangue, and I don't go into the difference here. Men do not treat women well or ill depending mostly on moral climate but do so depending on conditions of home life, work, work life, and politics. The

same is true of relations between ethnic and religious groups. If times get tough, usually we can't badger ourselves so as to stop people in other ethnic or religious groups badly. No matter how much I point out to people that seeing problems clearly, and thinking them out to a realistic practical solution, is the moral duty of a good citizen, my admonition almost never works. People learn their morality more from art such as TV and from looking around to see what other people are doing and what works. Likely that is how our forager ancestors learned their morality too, how they learned who was "us" and who "them", and how to treat us and them. "Do as I say, not as I do" never works. Saint Francis of Assisi insisted that we preach constantly and that sometimes we even use words when we preach.

What does work is: good institutions; the fact that important people are realistic, recognize how society and socio-economic classes really work, recognize real problems, work on realistic practical solutions, can explain what is going on, and can explain what to do about it. When that happens, then morality, religion, and practical life can go together well. Then, people can relax enough to get more religious and moral in ways that are more in line with what the great religious leaders wanted. The world has had very little practical realism since World War Two, not even in America, not even with your favorite leaders such as Ronald Reagan, Bill Clinton, George W. Bush, and Barack Obama.

People range from evil, bad, immoral, naughty, amoral, neutral, modestly moral, fairly good, strongly good, naturally genuinely good, naturally genuinely sweet, moralistic, annoyingly moralistic, zealous, to crazy zealous. People can be concerned more with positive kindly helping morality or with condemning morality. All people are a mix, in different ways, in different situations. There is no sure-fire formula to say where the balance lies; it varies with individuals, and with societies, cultures, conditions, and history. We can make people better, and make them somewhat into the people that we want, through training and institutions. Bad situations stay bad, good situations need constant care.

I said that modestly flawed people are more interesting than "goody two shoes" people. Slightly naughty people can be interesting, and we are more relaxed around slightly flawed people than around moralistic people. We get more done working with slightly flawed people. We trust them more. People who are annoyingly moralistic and zealous usually are not actually more moral. As books, stories, TV shows, and movies have said, often they are hypocrites who just use morality to manipulate even if they themselves don't know what they do. Moralistic conniving worked in our evolved past so we all have some evolved basis for it and some of us have a strong tendency for it. On the other hand, conniving happened often enough in our past so people also developed a kind of "radar" or "immunity" to it, as with cheating and lying. Beware the people who seem too good and who call to arms too often. That is one reason why we are more comfortable with slightly flawed people and why they get more done.

We should not make the modern mistake of thinking that people are better because they are worse. Bad people are still bad. We should not indulge our moral flaws or cultivate moral flaws because we feel that makes us morally superior or existentially superior. Everybody has enough moral flaws so nobody needs to cultivate any more flaws. Go with what you've got already; it is enough. Beware of people who have cultivated a morally flawed bad boy bad girl persona just as much as you beware of moralistic hypocrites. Often bad boys and bad girls are bores, boors, and hurtful.

Sometimes the carping moralists are correct, and even the thundering zealots are correct. We do need to learn to recycle. We should not dump motor oil down the drain. We do need to use re-usable bottles and

cans. We should give to charity. We should not support demagogues. "No" means "no". The character Gandalf in "Lord of the Rings" was modeled after Clive Staples (C.S.) Lewis, a call-to-arms zealot who was far more right than wrong. Even those damn PC people of Left and Right are right a lot of the time in what they say if not in what they do. You have to grow your own good judgment.

Don't be afraid to go a little overboard sometimes in sweet simple goodness or in zeal. A little craziness sometimes is good for us and the people around us.

Religion.

Some of what is true of morality is also true of religion. Religion seems little relevant to practical issues, was not much more relevant in the past, people can figure practicality adeptly without need for religious guidance, sometimes religion gets in the way of practicality, so people often ignore it, and people mold religion to serve practical ends. So why confuse ourselves with added questions about what spirits, gods, saints, Jesus, God, the Buddha, or the Dharma might want? Why is there religion? I go into this topic in later optional parts of this chapter, and it is not useful to go into it much here. Briefly, religion is social glue, it works with morality so they reinforce each other, it lets us know who is in our group and who not, It lets us know who we can trust and not, how much, and in what ways. Also, religious thinking is inevitable in an evolved being with a lively mind such as ours and which uses categories to think as we do.

Without thinking of why religion might have evolved in the first place, and what religion might be in itself, instead think of how religion and practical life shape each other, and how they get along. I think practical life influences religion as much as religion shapes practical life, at least after practical conditions get going and get the upper hand. Religion reflects a way of life, and way of life how people make a living. Once capitalism becomes the dominant economic system of the world, middle class people who began as Buddhists, Hindus, Christians, Jews, or Muslims will act more like each other, and, in truth, have religious beliefs more like each other, than their distinct religious origins now lead us to expect. Hunger-gatherers who insisted staunchly on worshipping spirits of the wet cool jungle and the river after their band moved to the dry hot savannah and had to depend on water holes, did not do as well as fellows who discovered a new world of spirits who took care of water holes, rain, and hot weather. We inherited a similar ability to shape our religious beliefs to validate our way of life now and to validate what we want for success in our way of life such as finding a big stand of nut trees or finding a good job.

Religion does make a difference. Democracy and good capitalism did develop among Western Christian countries and did not develop among Hindus or Buddhists. It is not clear to me exactly how this power of religion to make a difference is rooted in our forager way of life, and how this power stems from abilities that developed while we were foragers. So I leave the issue mostly alone.

A few other religious features have roots in our evolved nature but the link is not clear now. Although I have ideas, it is not worth reviewing them here. It is worth mentioning the features.

(1) People want to feel their lives mean something, count for something. People wish they could do amazing things and be amazing people like Newton or Gandhi, and so make their lives count. That hope is not realistic for most of us. Instead, we want our daily lives, personal, family, community, career, and

business lives to mean something, to count. If our own lives are not so successful through our own direct reproduction, we want to feel that our contribution to our kin, friends, and neighbors counts.

(2) People feel something “bigger than me”. I think this is God. Other people use other names and other people have a different sense of the bigger. We want to connect to the bigger than me. We want to feel that the bigger than me approves of us and helps us.

(3) People want their ordinary lives to connect to the bigger than me. People want the bigger than me to approve of their ordinary lives. People want the bigger than me to make their lives meaningful, to make their lives count.

(4) People did not start out with an idea of a single ethical God. People started with many spirits, usually good, but not all entirely good. These spirits are part of the bigger than me, or, collectively, they make up all of the bigger than me.

(5) People feel that, if they have good relations with the spirits, then things will turn out well. The crops will grow. Food will be abundant. Nobody will get hurt. Families will do well. Lives will feel meaningful. On the other hand, if things go badly, then relations with the spirits must be bad. We need to make amends, however it is the spirits have suggested for doing so.

(6) Perhaps before, but especially after people began to do agriculture and to live in state societies, and continuing into industrial and post-industrial societies, people had leaders who would make good relations with the spirits. If things were bad, people expected their leaders to do something to improve relations with the spirits, and to make things good again. If things don't get better, or if a disaster strikes, even a disaster over which modern scientists would not expect leaders to have any control, still the people blame the leaders.

(7) Perhaps before, but especially after people began to do agriculture and to live in state societies, and continuing into industrial and post-industrial societies, people want a hero (“hero” includes women). The hero has tasks-roles: (A) Mediates between the people and the spirits. (B) Makes all big things alright. “Things” includes food, shelter, safety, security, wealth, and control of natural disasters such as floods. The state makes sure that our state prevails in conflict with other states. (C) The hero makes people feel that their lives are meaningful and count.

(8) People want a mediator between the spirits and themselves. They want somebody who can talk to the spirits for them. They expect the spirits to send such a hero. Moses, David, Jesus, Mohammad, and the Buddha are examples of the hero.

(9) Perhaps before, but especially after people began to do agriculture and to live in state societies, and continuing into industrial and post-industrial societies, people seek cosmic principles, and they seek to identify persons with cosmic principles. People don't want only good and bad, people want goodness and evil, and they want particular supernatural persons to embody goodness and evil. People want not only to see the Spring come every year, they want a principle of Regeneration, and they want to see a person embody Regeneration. In common form, this tendency is simply personification of natural forces and-or common events such as lightning or war. I wish to get across the people seek something deeper, more

pervasive, and important. People see maleness and femaleness but they also want GENDER to be a cosmic principle and want embodiments. People want WISDOM to be a cosmic principle and they want a goddess of Wisdom to embody Wisdom. People want Dharma to be a principle and they want avatars to embody not only specific instances of Dharma coming to straighten out the world but they also want avatars of the general depth and pervasiveness of Dharma. Even academics treat their favorite theories as cosmic principles and treat their heroes as embodiments of Science, Rationality, Progress, or Art. Even Darwinists and anthropologists do this.

(9) I don't know exactly why people seek cosmic principles like this and why they want super persons to embody them. I can speculate but it would do little good here.

(9 continued) Perhaps not most early Christians, but certainly orthodox Christians after the Gospel of John, made Jesus into the embodiment of several cosmic principles. That was a serious bad service to Jesus and his followers even if Jesus is the personification of cosmic principles.

(10) People are superstitious and only about half-rational. People believe in super natural force. People believe the spirits reward morality and punish immorality. People believe that spirits reward people for following orders (laws) and punish people for breaking orders. People need the supernatural, and usually need spirits, saints, mediators, wizards of all genders, spirit doctors, rites, ceremonies, civil ceremonies that are like religious ceremonies, festivals, etc. People believe in luck and fate at the same time. People need to believe that spirits watch over them. People need to believe there is a close connection between the state, family life, and the supernatural.

(10 continued) All this superstition need not be harmful and need not lead all people into stupidity. We need to recognize what is bad now, attack that, and leave harmless stuff alone. Most superstition does little harm and a lot of it does some good by bringing people together. A lot of it is fun.

(10 continued) We cannot make people fully rational, rational enough, or even much more rational, with harangue, threats, or shame. Trying to do so is like American Prohibition against alcohol or the War on Drugs.

(10 continued) We have to think seriously how rational people have to be, and in what ways, for particular kinds of government to succeed, especially for self-governing democracy. We have to think whether we can make enough people rational enough. If we think we can make enough people rational enough, we have to think how. I don't think our modern populist style of democracy has faced this issue at all.

(10 continued) It is up to particular individual people who think they are sufficiently smart, rational, human, well rounded, and irrational, to sort out what is good and bad in rationality and irrationality, sort out what is likely to be true (such as God) from what is likely to be false (animal spirit companions) and harmful (fear of witches), and to teach other smart receptive people. This sorting and teaching does not necessarily involve diatribes against the masses and their bad ignorant superstition. We have not done a good job of sorting and teaching lately.

The fact that religion and practicality often meld makes it easy for me to give advice. I repeat what I said in Chapters One and Two. The best ideals for modern states come from the teachings of Jesus, mixed

with Western ideas of the individual and state, and mixed with practicality. Every religion can adopt them fairly easily. All people can learn them. All religions can adopt them with little damage to the historically key ideas of the religion. We can shape institutions to go with them. We can do all this without offending any major religion. If these ideals are not acceptable to any religious group, then too bad for them, and that group has to change or has to live apart from nearly all the modern world.

If you want to see how evolution prepared us to be nice, think of good relations in a large extended family or in a small group such as the supporters of Little League. From the old TV show "The Waltons", think of the family and its neighbors. To see nasty, think of bad relations in the same arena, in the family and with neighbors – even around Walton Mountain. Think of modern TV shows about set-up wronged women and cycles of revenge. Thinking of how a church, neighborhood, or academic department can go good or go bad is a useful exercise. We are like that because we evolved to be like that, good and bad.

Natural People Again.

(1) Morality is an ideal. As an ideal, morality tells us to care for other people as much as we care for ourselves. Yet morality evolved out of self-interest. How can an ideal that tells us to transcend self-interest arise out of self-interest?

(2) Morality is a combination of both irrational emotion and considered rational judgment.

(3) Morality largely serves practical self-interest. It helps people do practical things that they could not achieve without morality. People are adept judges of practicality most of the time. So why do people need irrational emotional morality to get them to do what is in their own practical self-interest? Why can't people reap the benefits of practicality, especially of cooperation, without irrational emotional morality to push them and bind them?

(4) Ordinarily we think that rational strategic consideration best serves practical self-interest. Yet people cannot achieve full practical self-interest without irrational emotional morality. People need irrationality to achieve supposedly rational practicality.

(5) Morality works as an ideal only because it doesn't work as an ideal. If people were fully moral, then their moral society would fall apart, for many reasons. People need apply morality selectively to keep the ideal of at least some morality. People need to be good to some people, indifferent to others, and bad to yet others, so people can keep the ideal of morality and be good to the select few.

(6) Imperfect people are often more interesting than really goody people.

(7) Nobody can be morally perfect.

(8) Somewhat paradoxically, we are often better people when we are less morally perfect, or at least when we try less hard. We often do more overall good even if we do a little damage along the way. Society often achieves more benefit when people are not as concerned with goodness.

(9) We get nervous around strongly moralistic people. We appreciate a little urging but don't like being told we are piles of shit (Martin Luther), and we will go to hell if we don't straighten up right now and do what a zealous moralist tells us. While morality is an ideal, it seems to work best when it is not extreme. Can an ideal be an ideal but not be absolute?

(10) The West has opposed emotion to reason since at least Plato, 2400 years ago. The Hebrews had their version of this dichotomy and preference in "personal indulgence versus God-given Law". The two versions fused after Jesus and the early Church Fathers. Previously, the West extolled reason above emotion. Since 1800, the West, and, now perhaps most of the world thanks to Western pop culture and Romanticism, extols emotion above reason. Which view does morality support?

It is easy to have a metaphysical "field day" with some of these points but I urge you not to. Figure out what might have happened in our evolutionary past and what is going on now with morality. See why it is a good idea to keep the ideal of morality and to live up to it as much as you can. I take up a few of these points later in optional Part 8.

One point I wish to linger on here because of its role in Western pop culture since about 1800, the idea that emotions are better and more reliable than reason, except the emotion of morality. Maybe the most obvious version of this theme is "All You Need is Love" but the idea is more general. It is the idea behind "I never felt so alive". It is the idea of "taking a leap". I have nothing against good emotion, in fact, I like it. But that is not what this theme leads to. It leads to indulgence, confusion, crime, and mistakes such as discussed in the Chapter on Romanticism.

Because morality needs strong emotion, a Martian might think people would indulge morality as a way to find cosmic satisfaction, to feel really alive, and to "Say Yes to Life". In fact, in the ideology of "feelings are better" and "trust your feelings", bad mere morality usually is put alongside bad mere reason. Morality is not put along with bad reason because morality has a rational component but is put with bad reason for other motives that are too much to go into here.

Be aware what you do when you extol emotion above mere reason yet also look down on mere morality. This is a bad move. Figure out why you do it, and stop. Instead, figure what is good and bad, practical and impractical, realistic and unrealistic. Then dare to be as morally good as you can.

Emotions, Reason, and Biological Explanation.

Please see Part 3.

PART 3: Optional: Aspects of Evolved Human Nature.

This part gives more background so non-specialists can read popular books on the evolution of morality and the evolution of religion, and so non-specialists can follow the comments on the evolution of morality and evolution of religion given below. I repeat a little from above.

Groups Again.

Remember that we evolved as hunter-gatherer-foragers. Social life came in several levels:

- (A) Bands composed of several small extended families, with maybe 10 people per extended family, about 20 to 70 total people in a local band. Our ancestors carried out their daily lives in this setting.
- (B) Groups of about 150 people, composed of several nearby bands, with whom members of local bands consistently interacted (“Dunbar’s number”).
- (C) Clusters of about 500 people (up to 1500), composed of many bands and-or several groups of (B). As members in (C), people in (A) and (B) met irregularly but likely spoke the same language, shared religious ideas, and considered all the people at their level (C) as “us”.
- (D) Larger groups about which little is known, and which could be “us” or “them” depending on situation.
- (E) People who were seen, or who left tracks, but were not known very well and with whom we did not interact much. These people would be considered dangerous, and we would be nervous around them. The line between (D) and (E) is not distinct. In fact, the lines between (C), (D), and (E) might not be very distinct.
- (F) Rivals could arise at any level but were more likely at medium levels such as the good hunter, “pretty youth”, or great singer who lives a group or two over - not unlike, now, the athlete, good looking person, or hot-kid-in-a-band in some high school across the city or county.

Families moved between bands (A) and groups (B) according to needs and whims, in fair safety. Likely, the lower the level, the more important it was in evolution and shaping our nature. All levels could have played some role in our evolution but that topic leads to a controversy into which I don’t go.

The small extended family of our past was NOT the idealized extended family of the Bible, some religious ideals, or TV shows. It was made of a woman and her current spouse, surviving children, and sometimes surviving grandparents, usually parents of the woman. A woman had about five children over her lifetime, of which two survived to make their own families. When children got old enough to have a spouse, they did not have to live in the same camp as parents, and often for a while did not. Likely, girls came back to mother for help in birthing. It is not clear how many spouses a person might have over a lifetime, due to death of a spouse or separation of spouses, but, judging from current foragers, likely at least two, maybe four. People were “moderate serial monogamists with mild polygyny”. Families were more like what now we call “blended”. This is what our minds are set for. This is not always what succeeds best in modern economic life or what makes the best environment for children in modern life.

Kin Selection and Inclusive Fitness.

Successful reproduction includes not only your own children but also reproduction through kin, such as nieces, nephews, grandchildren, and cousins. What you do for them affects your success, what they do for you affects your success, and vice versa. We have to take kin into account to count success. If we help our brother, nieces, and nephews to succeed, such as by sharing food with them when we make a large kill or find a big apple tree, that success counts almost as much – but not quite – as helping our

own children. Likewise, if we hurt nieces and nephews when we do not share or when we punish a group as a whole for moral badness, hurting them hurts us too. The fact that relations between kin can affect reproduction is called “kin selection” or “inclusive fitness”.

Reciprocity.

Animals can help each other. Sometimes animals of the same species help each other, and, when they do, often they are kin, as when sister monkeys groom each other to clean each other and feel better. Yet animals help even when they are not related and even when they are not of the same species as when mongooses and birds both watch for predators and both heed each other’s warnings. This action is called “mutualism”, “reciprocal altruism”, and “reciprocity” depending on details that are not useful here. It is “you scratch my back and I’ll scratch yours”. Reciprocating is risky and can be plagued by cheating but it does work often enough. In social animals such as monkeys and wolves, it is hard to separate effects of reciprocity, kin selection, and individual selection.

We are Them and They are Us.

In small bands of people, everybody knew his/her children might marry the children of anybody else in the group. We succeed only through other people. If we treated other people well or badly, indirectly we treated our children and ourselves well or badly. When we helped other people, as by sharing food and tasks, chances were they would help us later, so, indirectly we helped ourselves when we helped others. When we treated other people as we wished to be treated, indirectly we did treat ourselves as we wished to be treated. Along with kin selection, this effect is one of the roots of empathy and sympathy. It is part of inclusive fitness.

Of course, our children are not exactly ourselves, other people are not exactly like us, other children are not exactly like our children, many other people are not our kin, and exchanging with other people is not quite the same as making do for ourselves. So, people did not act fully in accord with idealized empathy and the Golden Rule.

Social animals, including people, live in groups for many reasons: safety from predators, safety from others of the same kind (as when tom cats kill kittens), to accomplish large tasks that cannot be done by one person such as kill buffalo, find food, defend food, share food, share tasks, share childcare, find mates, and help heal. Social animals usually depend on their groups. Even so, it is still better to look at groups in terms of individuals than to think of individuals in terms of the group.

As part of group life, we have a sense of “us” and “them”. “Us” and “them” is not absolute but varies with circumstances and needs. “Us and them” is not always evident in obvious social units. It is built through interaction. We have “our” family versus other families. We also have “we boys” which can cut across families and might override family feelings. We have “our band” and “we who speak the same language and think of similar gods” in contrast to “other bands”. We have “us who want to live near this water hole” and the “them who can use the water hole anytime they want but don’t really live here”.

Thinking in Categories.

Normal people have natural categories that they use to order the world. It is easier to deal with the world if we come predisposed to think things in the world come in natural types, for example: dead stuff that usually doesn't move, such as dirt; hard dead stuff such as rocks; moveable dead stuff such as water, air, and clouds; plants; animals that move but don't have much of a personality or will, such as slugs; animals that have some will (intentions) but aren't very smart, such as toads; animals that have a will (intentions), recognize natural categories, and can vary their response according to the situation and their past experience, such as deer; animals that recognize the intentions and personalities of other animals, such as dogs and monkeys; humans; us and them; and things in the world that don't have a material basis but can influence us, such as wind and the spirits.

Although we come with a few built-in natural categories, most of our ideas about the world, most of our categories, we learn. After we are more than about four years old, our natural categories do continue to operate in the background but we live mostly in a world that we learned and that is built up from made-up learned categories. We always have the category "physical thing" but that is less important than specific ideas of "car", "house", "smart phone", and "TV set". We always have the category "place" but it is less important than "home", "school", "mall", "bar", "restaurant", and "downtown". We always have the idea of "person" but that is less important than "mom", "dad", "sibling", "teacher", "girlfriend", "girl friend", "boss", "co-worker", and "police officer". Repeated reminder: We learn these added categories in the context of social life but that does not mean the social group determines the world and our actions.

Intentions.

People not only do, they intend to do. Intentions, including motives, are important.

In addition to having our own intentions, people evolved the ability to read intentions in other people and even in animals. We can read them, and we assume many of them can read us.

People have also evolved the ability to hide intentions or to send out misleading indications (lie about) intentions. This leads people into games, gamesmanship, confusion, and complexity. I don't have the space to go into it much here. See any movie about revenge.

The ability to manage intentions is important. It includes our own intentions, the intentions of many other selves, and intentions that we impute to groups as wholes. The ability to manage intent is the key to alliance. Humans are unusual in being able to manage many levels of intention: "Suzy said that Johnny knows that Emmy had a fight with Tommy because Emmy thought that Tommy likes Amy but really he likes Jenny and Emmy lied to Sally who told Karl that Tommy likes Amy". Most humans can handle about five levels of intention but are only comfortable through three. As a sexist, I think girls can handle more than boys. My ability is quite limited. I get antsy after one and dizzy after two. I am far below the ability of the California Cow in the TV ads. The ability to manage intentions is often taken as an important sign that an organism has a mind, and indicates the level of its mind. When we see that dogs can read the intentions of other dogs, sheep, and humans, we credit them with a pretty good mind.

Exchange.

An important relation among people is a continuing “back and forth”, an augmented kind of “reciprocity”. This relation often uses the exchange of gifts and services. If John gives Jack a Swiss army knife, both John and Jack expect Jack will give something back someday. It need not be the exact same thing. In fact, in this case, to give back the exact same thing would be odd. Maybe Jack gives John some wild mushrooms. If Jack and John give back and forth like this, it shows they have a relation. The nature of the giving reflects the nature of the relation. If they give the exact same value every time, and the return a gift in a fairly short time, then the relation is a careful relation among equals. If sometimes one gives more and sometimes one gives less, and the same person is not “less” or “more” all the time, then they have a warm relation between friends. If Jack gives service such as tending the garden while John gives protection, it is a relation between a higher more powerful “patron” with his/her “client”. Changes in the nature of the relation are reflected in gifts. If Jack and John grow friendlier, they give gifts for the whole family. If they grow cooler, they give more evenly and they start leaving hints about overdue returns. Likely the most important kind of exchange was in marriage, and in giving your children to another family in marriage so that they would give their children to your family.

People exchange not just as individuals, or as particular families, but also in groups and as groups. It is called “indirect reciprocity”, “delayed reciprocity”, or “generalized reciprocity”. People give one thing and get another thing in return. We share food and tasks such as childcare. We give now and get back much later. We give to one member of a group both as an individual and as a representative of a group. Then we get paid back by another member of the group or by the group as a whole. Our group as a whole gives to another group as a whole. Think of circles of friends and neighbors holding barbecues and dinners, or hosting at various houses while watching “the big game” of the week.

Useful Distortions.

It might seem that the more accurately an animal can know the world, the better it will do. Mostly this is true, but not always. Usually getting an accurate picture takes time and mental resources, and animals don't always have that luxury. Sometimes animals have to act on the basis of imperfect information or have to act quickly. Sometimes it is better to have a basis for action even if the basis does not exactly reflect the world. When a deer hears rustling leaves, it has to decide to stay or to leap away, before it can investigate to find out for sure if the rustle is the wind or a wolf. When two male bears meet, they have to decide to fight or to run away, usually fairly quickly, and usually without a “middle ground” option. A cat pounces on a moving spot before it knows if the spot is a beetle, cricket, toad, or mouse; in that way, at least usually it gets something for dinner. A slightly inaccurate view of the world can be more useful than an exactly accurate view. I recommend the educational TV show “Brain Games”, which I saw on the National Geographic channel but might be on other channels too.

People also have to see the world slightly inaccurately sometimes. We see ourselves, spouses, children, siblings, friends, neighbors, fellow parishioners, co-workers, boss, and employees in a far better light than objective reality; and it helps all of us to do so. Seeing myself as better than others see me give me a big confidence boost, and helps things turn out as I hoped rather than as others guessed. If we did not see our spouses as beautiful, handsome, and really good, divorce would more common and reproduction would be less common. We see our rivals as much nastier than they really.

Misperception also can lead us to error and even down dark paths. I don't go into this aspect here.

Life, finding a mate, and successful reproduction, require some irrationality and commitment. We can see irrationality and commitment as a variation on not perceiving the world exactly as it is but helpful anyhow. A rapid response to rustling leaves is irrational because inaccurate but it is useful overall. Every man and woman in a group wants to make sure nobody messes with his/her spouse. I strut around to make clear that anybody who does mess with my spouse will face a fight. My strutting around offering battle is an irrational commitment. Even if both fighters lose that particular fight, still, few people will mess with my spouse, fewer than if I did not threaten violence, and so I gain in the long run. All the other people learn to strut too. In this irrational committed situation, everybody has to strut around and so waste effort, but everybody is fairly secure in his/her relation, and so everybody is better off in the long run even at the cost of some short-term strutting.

In learning how to use fire, my child, the little demon, burns down the hut that we had just built and that was not yet full of vermin. It might be about as easy to make another child as to make another hut, but, if I took this attitude toward every child, especially toward every child every time he/she made a mistake, I would never keep any children. So I irrationally with strong commitment love this child. Thus through my irrational committed love I get past the occasional issues with children, I irrationally commit to love every child, and so I succeed in long-term reproductive success.

Seeing the World as Lively; Seeing A Lot of Persons.

As part of seeing the world inaccurately for benefit, we see the world as more lively than it really is. Seeing the world as more lively is a better mistake than seeing the world as not lively enough or even as trying to see the world just exactly as lively as it really is. A classic example makes the point. A man is walking along a path in the fields when he sees a wiggly line a few feet ahead. If the wiggle is a stick, but the man takes it for a snake and jumps backward, he feels foolish, but also he lives to walk again another day. His genes for his lively imagination reproduce. If the wiggle is a cobra, and the man strides along thinking it is foolish to jump at shadows that are likely only sticks, he dies, and his genes for a stodgy realistic non-imagination die with him. In a world of uncertainty and danger, we are often better off seeing the world as lively. Humans see the world as very lively, far livelier than a robot might see the world. We tend to see life, action, will, intent, goals, groups, coalitions, conspiring, and conniving much more than are really there. Children take as obvious that animals can think talk. We give our cars personalities and names ("I named him 'Brad'"). We talk to our computers. We see spirits. Our lively world was important in the evolution of religion.

Among the most useful misconceptions is thinking of a group as if it were one big individual person with the appropriate collective abilities to act, have intentions, manage intentions, and have relations. It is easier to treat most individuals in a group as if they had a similar collective personality and abilities. We do that by thinking of them all as part of the giant individual that is the group. This could be one way that groups dominate human members but it is also simply a useful way to think about group-and-members without entailing the conclusion that the group is always above the individual.

When we deal with groups, we create a "generalized other", a big generalized person that stands for a group, and with which we can think about groups, especially the several groups to which we belong and the groups with which we (and our group) have important relations. A big group is an "other" because it is

not exactly us, and we use it as an external reference to assess our thinking and where we stand. In the modern world, we have several generalized others. They include the firm or school that we work for, our occupation and the people in it such as farming or music, our socio-economic class, our nation, and our religious group.

Sometimes “other” refers to people and groups not in our group. They are “other than us”, and we tend to treat them as if they different from us in important ways and alike in being different. We tend to divide our social and natural world in various “us” and “them” according to situations. We have our gender and the other genders, our age group and other age groups, our family and other families, our foraging group and other foraging groups, we who are like wolves and other people who are like ravens. Common cases in the modern world include other schools, ethnic groups, religions, genders, socio-economic classes, etc.

To help ourselves deal with groups, we split ourselves in two internally, into two “persons”. One of the internal people represents us as an individual while the other represents the group-as-a-whole that we are thinking about now. For example, I think of the “I” that I am as a distinct person in the family and the “me” that I am as a member of the family and by relating to other family members, especially by taking on the common identity of our family, and by taking on the common identity of our family in distinction to other families. By having both an internal distinct “I” and an internal distinct “me” to represent groups, we can think “in our heads” about the intentions of groups and our relation to groups. We can play out scenes “in our heads” about what other people might do, what we might do in response, what they might do in response, and so on. One of the people in our heads acts like a conscience. It helps to keep moral standards and a moral record. These mental games can lead to dizziness, and sometimes to illness, but most of us have evolved the ability to control them as we play them and to use them well.

We belong to several groups at the same time; and there are other groups that we don’t belong to but that we have to relate to. We belong to a family, a neighborhood, congregation, work situation, area group, gender, hunting buddies, etc. The group under current consideration is a “reference group”. People have many reference groups depending on context and situation.

Means and Ends Again.

The “ultimate” goal in evolution is family success (reproductive success and inclusive fitness). To achieve family success, we need to meet other goals along the way and develop various abilities: good relations in the family; good relations with other families; friends; allies; reciprocal relations with other people; good relations with the spirits; reputation; food; security; sex; prestige; wealth; and power. These “goals along the way” and various abilities are called “proximate goals” or “proximate mechanisms” to contrast with the one ultimate goal.

In the modern world, most of our proximate mechanisms are not actions that people did throughout most of human history but actions derived from more basic abilities. Most people do not walk around looking for fruits, vegetables, and small game but instead get in a car that takes them to work. In the modern world, usually we meet proximate goals through one major derived proximate goal: our paid work. We get money from our job with which we acquire mates, food, housing, children, power, etc. In the modern world, men don’t impress a woman by bringing home a dead deer but by driving a big fast car; women

don't impress men with their ability to fill a gathering bag with apples and rabbits but by taking care of an apartment and working as a realtor at the same time.

People do not have to be aware that proximate goals serve family success for the proximate goals to do their job. People have sex because it feels good and not only to have exactly the right number of children to achieve long-term family success. People eat because it tastes good and makes our bellies feel good. People tell stories because it is fun and not necessarily because they know it impresses members of the opposite sex.

Proximate goals can take on a life of their own, as when people enjoy hunting so much that it gets in the way of a good family life, or enjoy sex so much that they seduce a neighbor's spouse and get killed for it. Evolution made sure that proximate actions always served family success over the long run, at least in the context of our evolutionary history. People enjoyed sex but just the right ways, and in just the right amounts, to make sure they reproduced well.

Mental Modules.

When a wolverine meets a badger, buckeye, lion, or bear, both have to decide right now to fight or to flee. There is no time to carefully assess the overall situation. The wolverine and bear can't stop to consider the weather, what they had for breakfast, if they need to pee, the footing, and if the other animal looks normally tough or really tough. To make sure to act, sometimes it is better if action is controlled by an independent "module" that is triggered off when the situation arises. Animals don't stop to consider the whole world when they see a piece of ripe fruit. They just grab that piece of fruit and eat it. When male animals see a female animal in heat, they go after her. "Going after sex" is a good candidate for a distinct mental module that gets triggered off in the right situations almost regardless of anything else. Many behaviors are better seen in terms of activating modules than in terms of some large overall rational program making all decisions in all conditions. If we consider all the modules together as the mind, then animals have "modular minds". If animals have modular minds, then humans likely do too. Many of the same modules that activate in animals are in humans too, such as sexual arousal and the smell of good food. Of course, modules don't operate completely in isolation. During rutting season, a deer has to decide between sex versus avoiding oncoming wolves. How modules relate is not very well known yet. The fact that modules connect still does not mean the mind is one connected rational system. Modularity is currently a hot, and fun, topic in evolutionary studies.

Imitation.

People don't have to fully understand a successful strategy to act successfully; they just have to do it. If people can recognize other successful people and imitate them, they can be about as successful as the original people without understanding at all. Imitating might be an example of a group of related mental modules. A lot of learning begins first as imitation. Imitation is an example of a complicated module that "goes off" in the right situations.

Comparative Competition.

Evolutionary success is almost always comparative. If Danny-the-buck-deer has three does in his family, it seems Danny has done well until we know that Benny-the-buck has five. If Emily-the-doe has two healthy fawns every three years then it appears she has done well until we learn that Doris-the-doe has four healthy fawns every three years. Once every three years, Doris has a set of twins, both of which survive. Over time, the offspring of Benny and Doris will become the deer population. Benny and Doris comparatively out-compete Danny and Emily. Over time, the ancestors of Benny and Doris are what a deer is.

In human terms, comparative competition is “keeping up with the Joneses”. It doesn’t matter how much we have; it matters how much we have compared to them. A big problem with comparative competition is that it has no intrinsic stopping point. When the goal is not “x” amount but “more than them”, then there is never “enough”. Comparative competition is the source of much grief in human life. It is also the source of some progress as a spur to action and development.

Manipulation.

Recall our susceptibility and recall that people use susceptibility to advantage. We don’t like to admit that we manipulate others, especially other people in our group, because that makes us not “good guys”, and can even get us cut out of the group. We hate to accept that we get manipulated. Yet we do manipulate other people, even within our group, and we let them manipulate us.

Manipulation is a mutual game. Manipulation does not have to be all bad. Almost nobody manipulates others without also getting manipulated. We are not too suspicious of people who do a little manipulating as long as we can see that they also get manipulated from time to time. People allow themselves to be manipulated a bit because everybody does it. If we didn’t let other people manipulate us, then they would be very strict about not letting us manipulate them. Manipulation is part of the “little white lies” that let people get along and get their own way while other people get their way too. As with other abilities, some people are more adept at manipulation, and so benefit more than others, but that does not stop the game as long as the adept people are not too much more adept.

Seeing the world inaccurately, susceptibility, and manipulation go together. We are susceptible when we see the world inaccurately, even when we usually do so for our benefit. Our susceptibility makes us easier to manipulate, or, alternatively, the susceptibility of other people makes it easier for us to fool and manipulate them.

“Seeing” is a metaphor here for all kinds of perception and mental activity including thinking. Thinking something is so when it is not, or not quite so, also is seeing the world inaccurately for our benefit. Wolverines and honey badgers think they can “take on” animals that are much larger and stronger than themselves such as bears, hyenas, and lions. Because they think so, often they can – but not always.

Self Deception.

Thinking about the world inaccurately can also be “fooling ourselves”. We fool ourselves about our own abilities, the abilities of our spouses, children, and other kin, and the abilities of our rivals. We fool

ourselves about our own moral rectitude and about how vile our rivals are. When we fool ourselves, we are susceptible.

Evolution made sure that most of the time, when we fool ourselves, we gain more than we lose, as when we think we have the moral high ground, and so gain courage. But sometimes we fool ourselves and lose. No adaptation is perfect. Not every time that a David goes up against a Goliath does David win. Not ever every time we think we can outrun a lion, or outguess the stock market, do we win. Sometimes fooling ourselves can lead to mental illness.

Even if we did not fool ourselves, other people would still have some ability to lie to us and so manipulate us. The fact that we do fool ourselves widens the door for others to fool us and manipulate us. Flattery really does work. Men want to think they are big, strong, and shrewd, and women, among others, use that self-deception to manipulate men. It is not PC to say that women want to think they are pretty, so I will just say that women also have qualities that they want to think apply to them, and men, among others, can use those qualities to manipulate women. Parents often use the desire of children to be more grown up than they really are to fool them. Children use the desire of parents to be more wise and authoritative than they really are to fool them.

Resistance is not Futile.

If we were too easily duped, we could not reproduce. Natural selection made sure we have resistance to being fooled and manipulated by others. We cannot completely disbelieve everything everybody says (“all clients lie to their lawyers, and to detectives, all the time”) because then we would lose the benefits of information and of group life; we have to trust red lights; but we also have to be wary. Evolution gave us the ability to filter. Our ability to filter is good but not perfect. In our evolutionary history, we have run an “arms race” between the people that lie versus finding out lies. Believe it or not, we are usually better at finding out lies, at least over the long run, than people are at lying.

To fool somebody is to put your thoughts in his/her head. See the old movie “Angel on His Shoulder”. We are susceptible to having thoughts put into our heads, both by people that want to share information with us and by people that lie to fool us and use. Groups (made of individuals) also can put thoughts into our heads, both as part of sharing beneficial knowledge in the group, such as where the berries are, and as part of fooling us. The fact that we can fool ourselves makes it easier for a group to put thoughts into our heads and to manipulate us. Our wife’s kin can fool us into thinking her children are our children, even though they are not, so we will take care of her and her children. Everybody in the group “just knows” that the gods will punish you if you eat meat on Friday. As with the battle between liars versus finding out liars, our evolutionary history featured a battle between the ideas that we hold because we think they are true versus the ideas that the group puts into our heads. Often we accept the ideas of the group, especially when they help us to succeed, or when they are neutral. If the group can show me how to kill deer or appease the gods with a cucumber, fine. Sometimes we don’t accept the ideas, especially when they hinder our success or allow other people to dominate us. Yes, some of us do jump off bridges because our cool friends do it but most of us don’t.

The idea (1) that the group can put ideas (2) into our heads leads quickly to the idea (3) that we are just a part of the group, the group controls us, and the group is more real than we are. It reinforces the idea (4)

that, as social scientists, we better understand individuals in terms of group ideas and group organization than in terms of individual ideas and individual pursuit of success. While the first idea (groups put ideas into our heads) is true, the third idea (we are a mere blob in a dominant group) is only partly true at best. Group dominance is a topic of much contention among social scientists. For this book, I accept that the group can put ideas in our heads, and we get a lot of ideas in our heads through our cultural heritage; but I also assert that we can think if we need to, and we do not accept for very long ideas (5) that damage our ability to compete and to reproduce. I cannot here go into details. I return to this topic in various ways in several places.

Rank.

People rank each other in various ways for various reasons: health, body build, symmetry, memory, smell, talking skill, intelligence, imagination, strength, beauty, speed, memory, artistic ability, geniality, family size, size of social group, social connection, hunting ability, gathering ability, fecundity, skill with children, prestige, etc. The standards for ranking do not all coincide so people can rank high in some ways but low in others. Some features can make up for others, as, for example, social graces can make up for being a bit tall and skinny. Although not hunter-gatherers, among the Thai, I found social prestige and social connections to be quite important, and able to make up for some differences in wealth. Even so, aspects of rank do tend to coincide so some people tend to rank generally high while some people tend to rank generally low, with a lot of people in the middle.

Contrary to current political correctness but coinciding with what people do anyway, people use rank to sort out marital partners and sex partners. A “4” might seek a “10” but does not really expect to marry one. A “6”, man or woman, is afraid of being a mere sex toy for a “10”. A “9” seeks a “10”, and might get one, depending on whether enough “10s” are readily available for them to seek one. The “9” might have to settle for an “8”, and be glad to do so. In the modern world, people tend to rely on external appearance for rank and for choices about marital partner and sex partner, but traditionally, family, social connections, social rank, prestige, temperament, wealth, ability to earn, diligence in work, age, and ability to give security likely ranked higher; they are still quite important.

Categories of People and Mating.

Because people tended to marry and have sex according to rank, age, religion, language, and culture (“[positive] assortative mating”), the group and the people in it tended to separate into segments, a bit like modern socio-economic class but not exactly so. A few families might commonly intermarry and maintain themselves at the top of a socio-economic-prestige-beauty hierarchy. Because life was so unsteady in our evolutionary past, these strata likely were not stable for more than two generations. A few setbacks, or windfalls, could completely change the hierarchy in small groups. People could “marry up” and “move up”, and they actively looked to do so. People feared falling, and acted to keep their station.

Gossip.

People evolved to gossip. Contrary to current popular ideas, gossip in our evolutionary past likely acted more like a social glue to keep people connected than as a weapon to divide people, although it could be both (see Robin Dunbar in the Bibliography). Secrets might have been part of gossip but likely were not

limited to gossip and included aspects of life such as hunting, power blocs, relations to other groups, and religion. I can understand cherishing some secrets but I don't know why people evolved to relish secrets so much. People put a metaphysical "spin" on their secrets. Still, the taste plays a role in religion, ideas about "us and them", and group relations.

Among our proximate mechanisms, evolution gave us ways to do things and not do things according to their likely impact on our success: pleasure and pain, imitation, many emotions, rational consideration, advice from other people, beauty and ugliness, moral feelings, and religious feelings. These ways cannot be reduced to pleasure and pain. Usually what felt good was good for us in the original environment in which we evolved. Eating fatty food usually was helpful when we had to walk five miles a day to get any food at all. All animals feel pleasure and pain, many animals have emotions, and many animals imitate, but few animals have the other methods that evolution developed to get us to do or not to do. It is not clear why evolution developed so many methods with people, or needed so many methods, and I can't go into the topic here, other than what I say briefly about religion and morality. I comment briefly more on beauty toward the end of the chapter.

PART 4: Optional: Lessons from Nature and Evolution about God.

Violence, Good, Bad, and God's Plan.

Nature is beautiful, good, ugly, and bad. We are all familiar with the beauty and goodness, so I skip over that except for one point. Unless (1) natural laws (such as about gravity, electricity, radioactivity, bonding in atomic nucleuses, etc.) are set almost exactly as they are now in our universe, within a narrow range, and (2) are set together exactly as they are so they interact as they do within that narrow range, then (3) life-as-we-know-it could not have evolved. This fact does not prove some far-sighted intelligent planner set natural laws that way, but it is strong circumstantial evidence. Indirect evidence for God can be based on this idea of natural laws and their settings, and the case is strong (see chapter on atheism). This issue is what I had to leave out in this chapter, regrettably.

On the bad side, Nature contains a lot of violence and chaos. Half-a-dozen times, the Earth has been nearly covered with ice or has been ripped up by volcanoes. From time to time, nearly all life on Earth goes extinct, only to be replaced by other orders of life, which in turn perish. Meteors strike Earth, and totally change the climate for thousands of years. Sometimes one kind of life itself causes these great changes by polluting the Earth and killing off its fellows. New kinds of life could not flourish unless old kinds die off sometimes, as when the death of the dinosaurs opened the door for mammals. Some things that happen in nature seem not just violent but bad or even evil. Bugs eat other bugs while the other bugs are still alive, paralyzing their prey, and devouring their prey slowly over a period of weeks; one kind of bug enslaves another kind; parents eat their young; baby birds steal food from each others' mouths; sibling bugs eat each other; sibling mammals kill and devour their siblings in the womb; and cancer eats children from the inside for no apparent gain to anybody.

On the one hand, nature seems to say there is a very intelligent God who planned everything within close tolerances, could see a long way ahead, wanted life, wanted sentient-moral-aesthetic beings, and loves beauty. On the other hand, nature seems to say God puts up with chaos, violence, upheaval, poison, life eating life, badness, and even evil. Rather than value all life for itself alone, God seems to use one kind

of life simply as a tool to set the stage for other kinds of life. God does not mind sacrificing innocent life on a large scale. God likely uses bad and evil, not because he has too, but just because he does. That is not the kind of behavior that any major religion wants to see of God.

When we see badness in nature, and know its role in evolution, we tend to think that natural badness is an inevitable by-product of evolution. We have to put up with one thing to get another. We could not have males without females and vice versa. We could not have flowers without bees. We could not have hawks without sparrows for them to eat. We could not have interesting life without germs, parasites, age, decay, and death. Nature could not evolve humans without a lot of bad, and some evil, along the way. The same process that gives us sentient-moral-aesthetic beings insures that some natural evil persists. Still, we have to wonder why God could not set up nature so sentient beings evolved without natural badness, or at least without a lot less than we see on Earth. Either God is limited in his ability to set up nature or else God doesn't mind some badness and some evil.

I do not know what to make of this situation. If God has a plan for life, it seems the plan is bigger than my simplistic ideas of morality, duty, honor, decency, and kindness. I have to accept the situation, and move on. Although badness exists, sometimes wins, and seems to be a tool of God, it also seems goodness outweighs badness overall. The fact that goodness usually dominates is the fact that we have to work with. It seems God went to a lot of trouble to make sure sentience and morality arose in creation, so they must be important to him. I can't see anything more important. To act morally must be to act in accord with God's wishes. We come closer to "playing God" when we act morally than when we act nasty or when we act for power. We cannot become "little gods" by acting "above" morality through acting badly or through indulging our selfish wishes. We do have to mix practicality with morality but that does not mean we abandon morality or somehow rise "above" it.

The idea that the universe shows signs of being designed to produce sentient-moral-religious-aesthetic life is called the "anthropic principle". The name is off a bit because "anthropos" means "human" yet the idea applies to all sentient etc. life even on other planets. The idea cannot be proved or disproved, so it is not scientific. Most people who think about it understand that it is not science. As far as I can tell, most people who entertain it share many of my attitudes. I think the idea is common among physical scientists although not often stated or discussed. Enlightenment thinkers likely would approve it.

Me as Machine.

When people see that we have evolved, and that many of our mental abilities are evolved such as our ability to like other people and to assess justice, they get upset. They think it robs them of their soul; it makes God and everything interesting not needed. They think it makes us mere scribbling or aimless whistling. From the outside, I understand that point of view, but it puzzles me that people are so upset by it. Suppose I am a merely evolved very clever machine. Because I learn, I am both the hardware of my genes and development, and I am the software made up of things that I have chosen and learned. That is all that is needed for God to assess me and do something with me that suits his needs. I have a form and I have content. Whatever has a form and content can be assessed. Likely it can be reproduced in another medium and the reproduction can be assessed. When I die, my body decays, and a lot of what I was here on Earth while alive decays away forever. So what? If, after I die, if God wants, God can reproduce my form and content in whatever medium pleases him, and assess that. That is close enough

to me so that I don't worry over any difference and any metaphysical implications. The mind of God is a suitable medium. Maybe God assess the memory of me that still lingers in his mind. That also is close enough to me so that I don't worry about it. Wanting more is wanting too much.

Suppose you had an amazingly complex car that had learned things such as the most efficient way to avoid the police when you had been smoking "weed". When the car died, couldn't you still assess it? Wouldn't you still assess it? Wouldn't your assessment affect what cars you bought in the future? Can't you assess computer programs and assess what they have learned and done? Can't you assess an animal and what it has learned and done? There is not enough difference between me, the car, the computer program, and an animal for me to worry over.

Optimal Expression; Right Balance; Inner Logic.

"Abilities" includes physical abilities such as running, intellectual abilities such as to play music or do law, and emotions such as anger at neighbors and love for our own children. To "express" an ability (trait) is to show it to a certain extent. Some people run faster; some run faster in games such as soccer; and some run faster when pursuing a game animal. Some people sing a lot while some sing not at all. Some people sing well while others sing badly. Some traits (abilities) are under strong genetic control such as eye color but they are not of much interest here. The abilities of interest here have some genetic control but also are learned and depend on choice and desire, such as abilities for golf, singing country music, or getting along well with neighbors. People vary in natural aptitude for abilities and in the extent to which they express abilities. Part of variation in extent is due to underlying natural (genetically based) variation and part is due to differences in learning and choice. I don't sort out this issue. If you want a strong version of the argument here, limit the arena to our evolutionary past as hunter-gatherers. The ideas also apply now to a large extent but I can't argue the issue here.

The fact that we have an ability means that, overall, the ability had value in evolutionary (reproductive) success or else natural selection would not have kept it and shaped it. Not all the abilities that we see were obvious in natural selection but instead result from other underlying abilities that were important in natural selection in our hunter-gatherer past. There were no concert pianists in the plains of North Africa but there are concert pianists now based on what did happen in Africa. Natural selection might have kept the ability to argue persuasively but natural selection did not keep the ability to go to court every time the neighbor's dog pees on our sidewalk roses. We can misuse abilities from how natural selection originally shaped them, especially in modern life that is removed from our hunter-gatherer past. We evolved to flirt but not in "meat market" pickup bars. I can't sort out these issues here. Accept that abilities have a natural evolved basis but also are learned and depend on choices.

In our original environment, we expressed abilities as a way to get evolutionary reproductive success and we still often do now. We express any one ability to the right extent, at the right times, in the right places, in the right social context, in a balance with all our abilities. Trees do not send out leaves at all times of the year but only when to do so does the most good for reproduction. Most flowers don't bloom full tilt all year. Lions do not prowl hungry and ready to kill all the time even after they had a big meal yesterday. People don't talk politics and religion all the time; if they do, they soon have no friends and fewer family members. People talk politics and religion when it matters and it works. People don't run to every place they have to go nor do they walk – sometimes even in cities in the era of smart phones they still do walk

and run. Hopefully even stereotyped women don't cry with every minor disappointment. Hopefully even stereotyped men don't hit every man who doesn't step out of their path. We don't "put the moves" on every person we see, male, female, young, old, married, or single. Except in Hollywood and Bollywood musicals, people don't sing and dance their way down the street but they do sing and dance and play the guitar sometimes. Whether man or woman, playing guitar well usually makes you interesting and often helps you "get laid".

It is hard to give a sense of a balance of abilities in a few lines so all I can do here is point out that we do have to trade off some abilities for others, and I can suggest a balance. We love each of our children but we cannot love them so much that we stay with them all the time and we don't go get food, shelter, and clothes. We can love hunting but we can't love it so much that we never bother to bring back what we kill, or we never come home to make love to a spouse or display love to children. We can love a pet but not usually more than our children. We can love figuring out the weather because to do so is useful but we can't spend so much time figuring weather that we don't use the information to go hunt and gather in the right times and places and we neglect social duties. In modern times, students need family life, social life, love life, entertainment, sports, hobbies, art, and many intellectual pursuits, all in the right doses. Exactly how much that we show (do, feel, or think) is not rigid but is partially learned.

In our past, natural selection set the correct extent of expression and the balance automatically for us. In our present, we have to use more of our judgment but we still rely heavily on the tendencies and general balance that natural selection set for us about 200,000 years ago.

To see abilities more clearly, think of the most useful extent of expression in given situations. Expression can be underdone and overdone. Think how any given ability balances with other abilities. Just right, underdone, and overdone usually only make sense in context. It is more useful to think of human traits-abilities in these ways than to take them in total isolation as just a quality that we have or don't have, such as that we have religion or don't have abilities to digest wood or fly. Looking at abilities this way is useful when facing dilemmas about human nature such as the standard quandary of emotion versus reason.

To get a better sense of abilities, expression, and balance, it helps to develop the ability to see the inner logic of particular abilities, such as, for example, the logics of seeing, hearing, anger, and morality. Most traits do have some logic. I cannot here go into the logic of any particular abilities or how to cultivate the feel for the logic. I do discuss the logic of morality. Without a feel for the logic of particular abilities, likely we make mistakes in how we understand them, in terms of evolution or otherwise.

Emotions and Biological Explanations; More on "Nothing But".

Not only the West, but maybe especially the West, has been caught in a false dilemma between reason versus emotion. You had to choose one or the other. Until about 1800, usually reason was good while emotion was bad. After 1800, they reversed status, although there are still bad emotions and emotion can serve bad ends. Usually emotion is crazy and demonic while reason is sane and angelic. Reason is rational while emotion must be irrational by definition. Men are sanely rational while women are crazily emotional. All this caused needless confusion and mistakes. I see the distinction between reason and emotion, and sometimes it can be useful, but not often. All this confusion can be reduced by thinking that we have several abilities to reason and many emotions, and all of them usually are expressed to the right

extent in the right situations, are part of a balance, but can be misused. The problem cannot be made to vanish by seeing it this way but you will worry about it less.

Emotions are like religion and morality. Emotions usually are productive, as when we love our siblings despite small faults, and so help them to live past the faults and grow up to reproduce nephews and nieces. If emotions weren't productive most of the time that we show them, natural selection would not have kept them to the extent that we have them. Some emotions are unproductive, as when we sock the boss or chase our neighbor's spouse. Natural selection would have changed those in the past.

We can think too much and we can think in the wrong ways. Should I use my intellect to figure out how deer move and feed in this valley or should I do something else such as listen to the advice of all the old men, wander aimlessly, or follow a grid? Should I spend a week figuring out deer patterns given that my wife's cousin just killed a big buffalo and we all will eat well for a week? Should I spend a week figuring out deer tracks given that nobody in our band has killed in a week and my children, siblings, cousins, nephews, and nieces are hungry now? In the past, natural selection would have shaped how much we use reason in particular situations.

The Darwinian account of the emotions is 80 percent correct. The remaining 20 percent, when filled in eventually by theorists and field workers, won't contradict the current 80 percent.

The Darwinian account is a rational (strategic) account of seemingly irrational behavior. It seems reason does trump emotion after all. Yet to insist on this dichotomy here is really a philosophical prejudice and shows the confusion that arises when we insist on a dichotomy between emotion and reason.

Because we practically define emotions by their irrationality yet the Darwinist account is rational, it can help to look more at the Darwinist account. The best presenter of this view is Robert Frank, an economist with a keen sense for the logic of situations and for evolutionary logic. Sometimes what seems like the best short-term strategy really is not best over the long run. Over the long run, this strategy bleeds us in little bits and actually hurts us overall. The long-term bleeding more than erodes any short term gain. In that case, we need to give up what seems like the best strategy and to adopt another strategy that might not seem as rational (effective) but really is more effective. A classic example is the school bully with the stereotyped fatherly advice to stand up to him/her. If we have to pay the bully 3 dollars a day for 200 school days per year for 10 years, then we pay \$6000 over the time in school and we don't get the lunch that we need, thereby stunting our growth, our intellect, our school work, our pride, feeling of self-esteem, and whole future. If we stand up to the bully, we might get hurt for a short while, but we stop paying, if only because the authorities see the situation. So we gain back all we might have lost, and gain respect from comrades. Even if we lose at fisticuffs, we gain in other ways. All we have to do is screw up the courage to get hit. In real life, the situation is not this simple. Don't stand up to bar bullies or street thugs unless you have been well trained and have talent. Still, the logic makes sense once we think it out fully over the long run and we see that a short term stand can yield long term benefits.

In this episode of passion, we show as much bravery and commitment as needed for the situation. We don't show bravery and stern commitment in all situations, or to this extent. Passion and commitment are closely tied. To understand emotions, you also have to study commitment including the lack thereof. I

don't make much of this connection here but I mention it because it is important if you read more about the subject.

Fine; Darwin takes this field and all fields; everything supports reproductive success over the long run; and everything is strategic practicality in disguise. We can see everything entirely and only in terms of reproductive success. We can reduce all human life to nothing but that. If this way is the only way we look, we are like the old Freudians who saw sex behind everything, like old existentialists who saw a commitment to personal being behind all, or like ethnologists who see cultural rules as the overwhelming dominant force in human life.

In fact, anger, love, jealousy, threats, courting, friendship, deep friendship, etc. are not the same even if they all do have the overall effect of increasing reproductive success. They all have a different internal logic, a different internal feel. They also each have a distinct way that they fit together to form a whole field. They are both distinct and overlap. How they fit together depends on their internal logic, and their internal logic depends on how they fit together.

In practice, Darwinians intuitively use their feel for emotions and for the logic of emotions when they think through how an emotion works and how it helps reproductive success. I cannot go through how thinking-through-with-the-help-of-an-intuitive-feel happens other than what I gave above. It would be very hard to work through how an emotion helped reproductive success if we did not also have an intuitive feel for its inner logic and for how it fits in with other emotions.

All this would be fine too if there was a theory of the internal logic of each emotion, and a general theory of emotional logic, how the emotions worked as a whole set, how they interact, overlap, and are distinct. Psychologists have made considerable progress but there is still no such general theory.

As long as there is no such general theory, Darwinians have to explain each emotion separately in terms of how it aids reproductive success, in that way alone; and Darwinians have to use their intuitive feel for the structure of each emotion to help them do that.

Just because do Darwinians succeed so well, Darwinians become less sensitive to the need for a general theory of emotions, the need to see the internal logic of each emotion, and the need to see how emotions interact. Darwinians lapse into a mostly successful but also limiting reductionism and “nothing but”.

Without a clear view of the logic of each emotion, sometimes we can get confused about how any given emotion helps reproductive success even if we are not biased against the idea that emotions are mostly about helping reproductive success. If we did not understand how love differs from “mate guarding”-though-coercion then we would not understand either love or mate guarding. Quick success in seeing how an emotion might have served reproductive success ironically can block long-term greater insight into how this emotion and all emotions evolved. It helps to think in terms of plausible obvious ways to serve reproductive success, the internal feel (logic) of the emotion, and how that internal structure might have affected how this emotion evolved.

Despite that Darwinists overlook the logic of emotions, overlook relations between emotions, and lapse into explaining away as nothing but, I still prefer them to critics who doubt that evolution shaped behavior,

mind, and emotions, and doubt that emotions still serve reproductive success. I still prefer them to critics who assert that society, culture, or a socio-economic-political-adaptive system, creates all emotions and determines all the content and objects of emotions. It is easier to escape mistakes of Darwinist reduction than to escape from self-imposed blindness to evolution or blindness that reduces all mind, behavior, and emotion to society, culture, system, economics, or hegemony.

In the long run, Darwinists will use their intuitive feel for emotions combined with their commitment to the idea that emotions help reproductive success to make a more general theory in which each emotion has a place in the total constellations of emotions. Then, a more explicit view of the logic of each emotion will arise along with the general theory. I look forward to that.

Much the same comments about emotion apply to other fields such as all the arts. Yes, the ability to blow a horn, bang a drum, sketch a deer, or dance, all can lead to greater reproductive success. But, if those are the only terms in which we can think of melody, rhythm, drawing, moving, and any art, then we will not be able to fully see how they work in reproductive success and fully see how they evolved, or appreciate them apart from evolution as they deserve.

Please keep these comments in mind for the Parts below on the evolution of religion and morality.

PART 5: Optional: The Semi-Whole Self.

This Part of this chapter is needed for later chapters in optional Part Two of the Book, and for chapters in Part Four of the book on Buddhism, Taoism, Zen, and Hinduism. Part Two of the book has a chapter on the self that makes many of the same points as here but some people will not read Part Two.

Both Together and Separate.

Any evolved organism, including a human person, is both a unified whole and a fragmented grab bag of separate genes, organs, chemicals, structures, events, acts, traits, processes, modules, and learning. I explain “fragmented grab bag” below. It is impossible to declare categorically that persons are either a simple unified whole or merely a fragmented grab bag with no unity at the center. (I ignore essentialist thinking and the basis for essentialism in our evolved past.)

People hold different views on the unity or fragmentation of the human self according to the needs of the people holding the view. For example, people want the self to be one unified simple metaphysical whole, a soul, or like a soul, if they believe in Christianity, Islam, most kinds of Hinduism, Platonism, and most “New Age”. In contrast, people who want to avoid responsibility say “my genes for that one particular bad trait made me do it but otherwise I am a good guy so don’t send me to jail”.

People who oppose traditional religions sometimes stress the fragmented self as a way to argue against the soul so as to argue against traditional religions. People who defend traditional religions stress unity of the self as a way to defend the eternal soul so as to defend traditional religions.

The psychological, legal, political, evolved, rational, or emotional self is not the real issue but is only a means. I am not concerned with attacking or defending traditional religions or the soul. I do not use the

self as a way to get at the soul to get at traditional religions one way or the other. I do not use the self as a means to another end. I focus on the evolved self. Try to see through arguments that use the self as a way to argue other issues.

For the purposes of this book, I don't have to decide categorically. Even without being a single unified whole, even without being an eternal soul, and even if the self has a lot of loosely associated parts, still the human self is unified enough for God to do with us what he wants when we die. The self is unified enough for the legal and political systems in a democracy. The self is unified enough for morality, as, for example, to learn good and bad, and for praise and blame. The self is unified enough for the Golden Rule to make sense, and for us to know the legal implications of "applies equally" and "rule of law". The self is unified enough for parenting and schooling. I like to think about the unity and fragmentation of the self but, for me, this activity is mostly for fun and scientific curiosity.

Children often first see the non-unity of the self when they realize that people change over time. Is your 10-year-old naïve childish self the same as your 13-year-old experienced "mature" self? Is the geeky self of high school the same as when you are a parent, employee, business person, or professional? Could your parents once have been cool? The same idea applies also to dogs, cats, houses, cars, and chairs. In a later chapter in this book, I show how this insight is used to "pick apart" almost any object and many ideas, sometimes fairly, often unfairly.

We simply have to work with the selves (or self) as they arise in particular arenas - and we can do that. We evolved abilities to do that. We have to argue among our fellows and change our minds sometimes, and we can do that too.

Likely the natural evolved "fallback" position of most nearly-sentient organisms or fully sentient organisms (cats, dogs, apes, people) is simply to assume the self is one whole nearly-unified thing despite changes. Likely we evolved to see selves this way. That is a good short-term strategy and there are few reasons to think about the long term. Our paramour is the same person over the space of a few months and there are few reasons to dwell on whether he/she is the same person over a few years. We deal with that self when it develops. We can deal with changes of heart too, like falling in and out of love, and we don't think of those changes as undermining the unified selfness of me, my girlfriend, or boyfriend. If a bully intends to beat me up then likely he/she intends to beat me up in the morning and afternoon. If the bully "finds God" and doesn't beat me up in the afternoon, then I don't worry if he/she is the same. If Joe is my friend today then likely he intends to be my friend next week too.

We find it easier to think of mental abilities, especially intentions, if we think of them as coming from one single fairly unified person. We know that people have various intentions, and that intentions can conflict, but we hope we can unify it all on a higher level. Otherwise, it is hard to deal with other organisms (other people). It takes a lot of time and energy to think of them as bundles of distinct intentions. It is easier to think of them being as unified and consistent as possible. We like to think Joe's generosity works with his reserved dignity because Joe is overall a standup guy. We see how our dog can protect our children but bark at neighbor kids when we recall that dogs evolved for pack life where packs were composed of one large family and that different packs were often rivals. We evolved to see this way.

Humans hold on hard to the natural fallback position of one single unified whole person despite changes. We want to think of ourselves and fellow humans that way. We want to think of animals, plants, rocks, mountains, rivers, oceans, storms, and stars that way. This way of looking has a basis in evolved human nature, which likely means that it had strong success value in our past.

Just because unity is the natural evolved fallback position does not mean we are each an eternal soul, either as distinct individuals (Christianity and Islam) or as parts of an eternal system (some Hinduism and Mahayana Buddhism). Just because unity is the natural evolved fallback position does not mean the self is not at all unified and is simply a mixed jumble. Just because we evolved to see selves and to think of selves as largely coherent does not mean either that selves are totally incoherent or simple eternal souls. What we evolved to see does not force us to conclude. We can use a variety of evidence, including what we evolved to see, to decide what we think about the coherence of human selves.

For here, it is more useful to dwell on how modern Darwinism has come to see the human self not quite as unified as religious people and philosophers previously thought of the self. Most marked points below describe a mental trait that needs to be taken much on its own regardless of what else is going on in the self. Because these mental traits would have supported success, natural selection made sure we had the means for these traits almost regardless of what else was going on in the self. Evolution supported the creation, maintenance, and distinct operation of separate mental "modules" made of genes and learning to make sure these mental traits happened when needed. When we think of the self this way, it is easy to think of the self as nothing but an accidental collection of useful behavioral modules, a fragmented grab bag. We should not go that far.

-A mental "trait" and mental "ability" are the same. If human individuals are one whole single self-person, and all humans are human, then all our various mental abilities should not vary too much from individual to individual, and various mental abilities should come together. Everybody should be able to reason and talk, everybody should be able to reason well enough and talk well enough, and reasoning and talking should come together nearly all the time. The abilities to reason, talk, enjoy music, recognize a few birds or cars, and wear clothes should all come together.

A little variation in mental abilities between people is part of what makes us individual as persons, and is charming. But too much variation undercuts the idea that people are one whole single self-person. This problem with variability is one reason why mentally handicapped people make us uneasy: not because they are creepy, hard to be around, hard to work with, or require extra care, but because they undercut what we think of people in general and of ourselves as a person.

In fact: 1) Many mental abilities are distinct from other mental abilities (they vary independently).

(2) Individual people vary in mental abilities. Particular distinct traits vary from person to person. People vary in the extent to which distinct mental abilities are developed.

(3) Mental abilities don't all come together as a whole unified set, especially not one set that is typical of all human person-selves. All mental abilities are not all found in all people. All mental abilities are not developed to the same extent in each person.

Some people can sing well while most of us can't carry a tune (singing is more a mental than physical ability). We can hear in-tune or out-of-tune singing without being able to sing in-tune ourselves. Some people can reason quite well while most of us struggle. There is not only one kind of reasoning but several kinds. People vary in their abilities to reason; some people can reason well about mechanical things but not about the law while some people can reason well about the law but not about finance. Some people have fashion sense while others don't, and the degree of fashion sense varies by individual. The degree of fashion sense varies within the same individual even about different styles; some people can pick a shirt but not shoes. Some people easily figure out what a rabbit will do, or where to find wild berries, while most of us are happy to tag along with the clever ones. Having fashion sense, the ability to sing a tune, the ability to appreciate a painting, the ability to hunt, the ability to shop, and the ability to do math and science, do not all come together.

Here is not the place to decide if distinct mental traits, so much variability in distinct mental traits, so much coming together of distinct mental traits, or so much separation, supports the idea that nearly all humans are single whole person-selves, or undercuts that idea.

Rather, the points are: (1) There is a real issue. There is space to argue on these grounds. We cannot assume that all variation is merely part of the charm of being individuals. We cannot assume that we are whole single person-selves just because we want to be. (2) We have to think in terms of (a) separate mental traits, (b) variation in mental traits, and (c) how traits do or don't come together. (3) Then we have to decide if our assessment supports or denies the idea that humans are each whole single person-selves or are merely accidental grab bags of distinct traits.

-Humans share mental abilities with animals. I don't go into what those are.

People also have abilities that (we think) are found only with humans, such as the abilities to speak well, make art, and appreciate art. For this issue of the whole person-self, of course we should focus on the abilities that make humans distinct.

Still, important mental traits that we share with animals are distinct, vary, and do not come together reliably. That result leads us to doubt humans are simple whole single person-selves. If our underlying animal nature is made of a lot of distinct parts, the parts vary a lot, and the distinct variable parts do not always come together consistently, then it does not make sense to think we can build a single whole human person-self on that shifting sand.

Again, here is not the place to go into the issue. I am not saying this observation undercuts or supports the idea that all people are single whole person-selves. I am only saying there is an issue, even with the important traits that we share with animals. We do have to think about even our animal mental traits if we are honest in assessing people as whole single person-selves or as fragmented grab bags.

-Some people have a hard time thinking of mental abilities as traits. People more easily think of physical abilities as traits such as hair color and fingers made for grasping. It can help to think out this issue (distinct traits, variation, and not coming in a whole coherent set) first in terms of physical abilities found only among some animals, then with physical abilities that humans share with animals, and then with physical abilities that are human only (such as full upright posture, full upright posture on two legs, ability

to run distances on two legs, and full precision grip). Then extend the insights from physical traits onto mental traits. I will try to put on the Internet an essay that walks people through from physical traits to mental traits, and the issues.

-It was useful in our evolutionary past to think of the self as the center of intentions and it is still useful to think of whole single person-selves in this way, both our self and other selves. Really what matters are the distinct intentions, not any supposed center location where intentions live and out of which intentions come. We can see intentions (or their effects) but we do not easily see the center. Intentions are often distinct. We can have distinct intentions even without a central place from which they spring. The fact that we think of intentions as unified does make them unified and, in contrast, leads us to suspect that they are not unified. We over compensate with the idea of unification to make up for a distinct lack of unity.

-The idea of a unified single self need not be entirely true to be more useful than harmful. We can hold to the idea of a unified self even if the idea is not entirely true. We can repress questioning the unity of the self if questioning undermines an otherwise useful idea. If questioning the unity of the self leads us to treat other people in ways that hurt our success, such as by leading us to be nasty to neighbors, then we have to stop thinking that way. If questioning the unity of the self leads us to doubt the soul, to doubt the mainstream religion of our group, and so hurts our success, then we should repress such thinking. On the other hands, as scientists, we need to (temporarily) rise above this evolutionary limit. We should not think about the unity of the self as a metaphysical given but as an evolved idea with strategic benefits. Whether it is true or not is another issue. When not thinking as scientists, we think it is true because it is useful and because we evolved to think it is true. Thinking of the self as a soul is one way to use the idea of a self usefully and to prevent undermining the idea. Still, as scientists, we do have to get over evolved biases sometimes.

-Running every idea through a unified self before acting can take a lot of time and energy, and sometimes we can't afford the time or energy. It is better to have specific mechanisms for specific situations, and to set those off when the need arises. This is one reason why we see the world as lively. When hiking, if we see a snake, it is better to stop in our tracks and to slowly go backward. If we have to think about this situation, and process it through our gigantic brain, then we would die too often. If something sticks in our throat, we spit it out without thinking. We can see these mechanisms at work even when the situation now is not exactly like what the mechanism originally evolved to serve, as when parents stick their arms in front of children when parents brake the car.

-To make the absolute best decision often requires much information. Sometimes we don't have as much as we would like but we have to act anyway. After a certain age, it just comes time to either get married or settle down to single life. Most of us decide to get married even though we don't know nearly as much as we should. Most of us know far less about our spouse than we should, especially in the modern world where everyone knows everyone else for generations. Even with the Internet and dating services, we don't know enough. But we "take the leap" and get married anyway. Almost the definition of a good entrepreneur is being able to make good guesses on limited information. You can't sit on a pile of money forever and you can't let great chances keep passing by. Sooner or later, we have to leap for a business venture not unlike we used to leap to catch rabbits. We have evolved mechanisms to deal with less-than-perfect-and-needed information but it is not useful to describe them here. They support the point.

-A lot of the information that we get is not certain in the sense of “the sun will rise tomorrow” but likely in the sense of “probably it will rain lightly tomorrow” or “probably that red car will stop at the stop sign by where the children are playing”. Probable information is like incomplete information so that I don’t go into the difference. The point is that we have to act and we have to do it in ways that are peculiar to this kind of situation. The way we act in this situation is under the control of different methods (mechanisms) of deciding than how we decide whether to wear the green shirt or the blue.

-We can’t think of, assess, and decide a lot of stuff or we would go crazy (breathing, chewing, digesting, beating of our hearts, etc.). While it might not seem exactly the same, thinking is not really all that different from just doing bodily acts. We have to do a lot of our thinking in a similar manner such as going through a yellow light or stopping, buying red apples or green apples, wearing a light coat or a medium coat, using this word or that, etc. You just have to make up your mind fairly soon.

-Some acts, ideas, attitudes, etc. seem to “get our goat” and we act on them “without thinking” such as someone cheating at cards, election fraud, idiots making loud noise coming out of their cars. We feel the same way but in the different direction for good acts such as one child sharing with another or a politician telling the plain honest truth.

-Morality does involve judgments and facts but morality does not involve judgments and facts such as in the issue “are extra large eggs worth the price increase over large eggs?” Morality involves decisions about the quality of acts and ideas, decisions that do not necessarily rest on pure information of any kind. Suppose two people argue and then one hits the other (I recall pictures of brawls at speeches of Donald Trump). We can argue whether there was sufficient provocation but the decision does not come down to knowing exact words and exact tone. The decision comes down to what we consider provocation and how much is sufficient to do what. That is a different kind of assessment than considering the price of eggs, and requires a different kind of thinking. It might require different pathways in the brain.

-Emotions often commit us to a way of acting rapidly and even when we do not have all the information that we might like. When animals are familiar with the emotions typical of a species, then emotions help the animal to know what this animal is likely to do regardless of the first animal might assess the situation, and so the first animal can respond appropriately. As people, we know the stock of emotions typical of people, and that helps us know what will happen if somebody slaps somebody even in a mall. When we learn the emotions typical of dogs, we know what will happen when a strange child wanders too near the dog bowl at feeding time.

-Contrary to how people tend to think of “emotion” when they think in terms of “logic versus emotion”, emotions are not all one thing and they might be about as distinct from each other as love is from geometry. Emotions are a bundle of jumps.

-When we have fungus on our toes, doctors give us an anti-fungal cream to apply directly to our toes. Doctors don’t treat our souls. Doctors cut out specific parts of our body that have cancer. Doctors give us chemotherapy for cancer.

-I mentioned in Part 3 above that we sometimes misperceive the world because a misperception is more useful than accuracy. Many features that I described just above are variations on this theme. One of the most important variations is that we see the world as more lively than it is. We see more intention than is really there. We see intention where really there is none. We see more meaning than is really there. We see meaning where there is none. Almost all of us think more of ourselves than we should. Some of us think too little of ourselves, leading to sadness. Most of us over-value our spouses, and that is a good thing. Without all this mis-thinking, the worlds of opera and soap opera would not be possible.

-We deceive ourselves, usually so we can deceive other people. Every time we deceive ourselves, we fragment ourselves. We make little compartments where the real truth has to be locked away to protect us. We don't put all suppressed truths in the same compartment, and usually we have to keep one suppressed truth from knowing about the others, so we can have many dozens of little mental "cysts". Each mental cyst is potentially another self in our total bundle. Usually, sane people can handle the fragmentation. Sometimes we get lost and lose our sense of self. Nobody is immune to this breaking of the self due to self deception.

The fragmented self is not the bad horrible creature that Tom Riddle makes of himself when he breaks himself into pieces (horcruxes) so as to become Voldemort, but, then neither is it the simple good soul we wish we were.

On the other hand, consider these images that make us reconsider the place of independent modules in the construction of persons:

-When confronted with something like an angry dog, we have to either fight or run, right away. We cannot hesitate. There is no intermediate solution. The "flight versus flight" mechanism is a "module" that makes us do one or the other right away. But the module does not, and cannot, stand alone.

Your family, including your children, goes camping in the deep woods with another family including their children. You have bologna sandwiches for lunch. Some bear cubs happen to be nearby, and wander into camp looking for the source of the meat smell. Of course the children think they are cute. Their mother follows them into camp, sees all the foreigners near her cubs, and gets really angry. You have to act quickly. Who do you save? Do you run away to save yourself regardless of your children? Do you save all your children but not the children of the other family? What if you can only save some of your children? Which do you save? Do you save your favorite? If you can, do you try to save all the children from both families? I won't tell you how natural selection might solve this problem.

-We can control our emotion with logic, other emotions, or through faith. We can control our emotions with practice.

-A friend steals some money from your purse. You discover the theft and guess who did it. But before you can do anything, the friend tells you about stealing and pays back the money. You should, can, and do put this in a greater context and evaluate a whole person.

-People who meditate, such as some yogis (including female yogis called "yoginis") can control bodily functions to some extent such as by breathing very slowing or changing their heart rate.

-Even ordinary people can control some usually automatic processes such as the need to sneeze or to gag.

-Doctors have known for a long time of the relation between will to live and ability to heal, attitude and recover, a relation between mind and body. The mind and body are one. If we neglect the mind, too often we cannot heal the body alone. If we damage the body, usually we damage the mind. Soldiers cannot be treated for PTSD or other problems if we ignore these links.

It seems as if there is a higher level of control that can sort out when to trigger a module or not. When two modules might need to be triggered nearly at once but are incompatible, the higher level of control can decide which module to trigger. This higher level of control is not likely a similar module itself such as "fight or flight" or "get really angry at cheating friends".

Does the possibility of some high level centralized control mean that we really are one unified self with a soul after all? No. It means we have to think through the issues carefully but we still should not jump to any conclusions, especially to support our views of religion, morality, or science.

Integrated Person.

I value integrity in people. I do not define what integrity is. Most religions also value integrity, and think that integrity goes along with being a good person and-or an adept person, in religious views. Think of integrity as lack of contradictions. Contradictions undermine integrity, make us feel bad as a person, and make us act worse. Each lie, theft, cheat, or missed promise is a contradiction and it eats away at us. While usually we do not reach the level of Voldemort or the Emperor Darth Sidious, on a smaller scale, each contradiction is like Tom Riddle creating another horcrux and so becoming Voldemort.

Ideally, we would like to be completely free of contradiction. Ideally, we would like all parts of ourselves to know what all other parts are up to, and harmonize the parts. We do want the right hand to know what the left hand is doing.

While there seems to be a high level of control in humans, that high level likely does not lead to smooth total integration.

Do these facts mean I can never be fully integrated? Does the fact that I can never be fully integrated mean I can never achieve enough religious success? Is the simple truthful life of Christian, Taoist, or Zen hopes completely out of the question?

I think the realities of how people evolved do mean that we can never be fully integrated. We will always have conflicts in us. We will always be somewhat the slave to our modules, and we never can be fully in control. We can never live totally without self-deception. We always hide some truths. We can never see the world simply as it is, and so can never see ourselves simply as we are. Very few people learn to speak simply from a clean whole helpful heart. Just as we are always morally mixed, so we are always never simply whole persons. We can increase our integration, can diminish our contradictions, just as we increase our moral level, but we can never achieve full integrity.

The failure to achieve full integrity does not mean we are doomed to religious failure any more than the failure to be morally perfect means we are doomed to religious failure. Whether we are deep down really one or are a fragmented bundle is not our problem; it is God's issue. We don't have to worry about not being able to control our "flight or fight" response, our gag reflex, or all of our jealousy. We can control what we need to control to improve and to achieve religious success. We can control our tendencies to blurt out whatever little lie gets us out of a tight spot and, instead, try to tell the truth even when it hurts. We can stop stealing even when we won't get caught. What can control what we need to control to see the world in terms of God's love and to work hard to make a better world. We don't have to tell our wife that she looks fat in that dress or tell our husband that he is not going bald. We don't have to tell the boss that he/she sucks at golf and fantasy sports. We do have to accept when the candidate of our political party is not the best. Some people are more unified, honest, and simpler. We can imitate them. We can achieve their high level of integrity. We can achieve a pretty high level of integrity. That level is enough to get us on the right path and keep us there even if it is not the goal itself. You can still be good even if you are not wholly and totally good.

If you believe that some great religious heroes such as Jesus or Taoist adepts were without any internal conflict or contradiction, saw the world exactly as it is, saw themselves exactly as they are, and never hid away any truths, then I do not argue with you; but I don't agree with you. For example, Mohammad, in the Koran, lied to himself about cattle; and Jesus likely lied to himself about his mother getting "knocked up" before she was married. Rather than defend the view that your favorite hero was totally honest and totally integrated, it is more useful to think what it means that religious inspiration comes from imperfect fragmented persons. I find that insight more inspirational than the idea of perfect persons.

PART 6: Optional: More Implications.

All the ideas in this Part of the chapter are my own. They are not necessary implications of the fact that human nature evolved. You could believe human nature evolved but not agree with my ideas. Still, they are reasonable implications of the fact that human nature evolved.

God Exists or Not Exists.

The fact that we evolved the ability to imagine God does not mean that God exists or God does not exist. The evolution of the ability for the idea of God, the fact that the idea came to us through evolution, is not relevant to the truth or value of the idea. We evolved the ability to imagine tigers and elephants; whether they are real depends on grounds other than our evolved ability to imagine them. We evolved the ability to imagine cloud-beings on giant gas planets. We might never be able to assess whether they are real by going to look. So we have to judge whether they are likely real or not by criteria other than direct view. We evolved the ability to imagine unicorns but used our other evolved abilities, our evolved abilities to think, to decide that unicorns are not real in the same way we can use our evolved abilities to assess the likelihood of life on giant gas planets. Likewise, we have to judge the issue of God on other grounds than whether we evolve the ability to imagine God. If you are quite careful, you can admit the fact that the basis for an idea evolved into the grounds for assessing the idea; but, until you learn to be quite careful, it is best to forget about evolution, pro or con, while thinking out God and morality.

Every particular kind of God entails also a particular kind of morality. The morality of Jesus and the idea of God-as-a-mind-and-person-and-the-Judeo-Christian-Muslim-God go along. I don't go into this aspect of the issue here.

Neither logic nor evidence can conclusively prove that God exists or does not exist, not logic or evidence from evolution or anywhere else.

So we have to rely on judgment and have to be open about what we do. We can decide if the evidence supports more the idea that there is some God or supports more the idea that there no God at all. If we think the evidence supports some God, (1) we can start from the evidence to think about what God the evidence supports, or (2) we can start from a particular God to think if the evidence supports that God. Most people take their God from childhood, and use whatever evidence and logic they can to support the claim that their God is the one-and-only-God and their way of life the best. Some people take a God or take a philosophical idea to which they have converted, and then search the evidence for justification; that is what atheists do. There is nothing absolutely wrong with doing this as long as you know what you are doing and you don't hide it from others. Just as no evidence or logic can conclusively prove God or not God, none can conclusively prove one God or one way, and we still have to use judgment.

Not surprisingly, on this basis, I think the evidence supports the idea that there is a mind behind it all, that mind is like a person, that personal mind is God, this God is like the Judeo-Christian-Muslim God, and the way of life that God supports is the teachings of Jesus mixed with practicality and Western values. God welcomes good ideas from other traditions. I do not go into the issue more here. I go into it some more in the chapter on atheism, but I don't finally settle it. Most of this book supports my judgment in one way or another.

Frequent Theme: Evolved Sentience and Evolved Morality.

When sentience and the capacity for morality evolve, they have to evolve together. Any evolved sentient being (person, agent) has to have moral feelings, and those moral feelings have to be similar to the moral feelings that humans have. Any being that evolved morality also has to be sentient, and the sentience would be similar to the sentience of humans. When you think of evolved sentient being, always think of sentient-moral being; and when you think of evolved moral being always think of moral-sentient being. Sometimes I write "sentient-moral" to make this point but even when I write only "sentient" or "moral" always think of "sentient-moral".

Evolved morality has to be along the lines we know of as morality. Morality has a logic, and evolution has to follow that logic, at least mostly. Evolved morality has to be based on the logic of the Golden Rule and "applies equally". See above for details of these ideas. Once we have this base, of course, we can twist it to serve our self-interest; but we must begin with this base. If we stray far from this base, other people will "call us" on our diversion, and we have to return. When we return, we return to this base.

An evolved sentient-moral being could create artificial beings who are sentient but do not have morality, or who have a sense of morality different than the morality we humans evolved with. An evolved sentient-moral being could create artificial beings who are moral but not sentient. An evolved sentient-moral being could create artificial beings who are sentient but have sentience different than human sentience. We

evolved humans likely are doing that right now with computers. All the possibilities will come with genetic engineering and bio-technology. None of this detracts from the facts that (1) when sentience and morality evolve, they evolve together, and that (2) all evolved morality has to follow much the same logical lines as the Golden Rule and “applies equally”.

The universe is mechanical and amoral. Yet it generates sentient-moral beings and generates many situations-and-things that are complicated and interesting such as galaxies, storms, forests, tribes of people, farms, fire flies, cities, democracies, Baroque music, chick flicks, and crime novels. The world gives sentient-moral beings a lot to do. It is a dangerous place but also one full of opportunity. I believe God planned the universe to be all this. He gave sentient-moral beings an arena in which to wonder and to work things out.

I do not say the world is a fantasy playground and we all should be “at play in the fields of the Lord”. The world can be a hard place too, and it is often a painful boring grind. The sentient-moral beings on planet Earth might not do well but instead might turn this place into a poison pit. Even if most of us do well and have fun, a lot of us get beat up too much to succeed. God knows all this. I am not sure what he makes of it and what he will do with beat up people. These facts do not change that something fascinating arose out of the mechanical and amoral, we can work on what arose, and we can often enjoy ourselves as we work on it.

God, through Evolution, Gave Us Almost Enough.

God, through evolution, gave us considerable abilities. Evolution gave us enough abilities so that we can properly assess most situations if we prepare ourselves and put our minds to it. We know how to make a living even if we cannot succeed grandly. We know right from wrong, and can do the right thing if we are willing to take the “hit” to our practical success. We know when we use morality to serve other ends, and we know we should not. We know when people use us for their own ends, and we usually go along with it because it serves our own (bad) ends or because we “get off on it” such as by feeling righteous. We know how to be good neighbors and good citizens. We know how to make the world better and more interesting without also making it worse and scarier.

God did not give us enough abilities so we can do everything proper preparation. We cannot be good citizens unless we are lucky enough to be born into a country with good institutions or we are very brave. We cannot be good citizens, good neighbors, good friends, or good parents, unless we put work into it. We have to be informed, listen to other people, and practice making good decisions. Most of us don’t do that but rather spend our energy getting off on giving our ignorant opinions.

God did not give us the abilities to overcome all obstacles. Sometimes we run into something that we just cannot handle, such as disease, natural disaster, terrorist attack, home invasion, long-term abuse, chronic depression, or a bad boss. God did give us the sense to get help sometimes. Sometimes we just suffer through it. Don’t look down on people who really can’t handle situations, as long as they are not “faking it” as part of the culture of victimization.

Most situations in the modern world are not much more complicated than situations ever were in human history but some are. It is hard to figure out what to do about terrorism; unemployment; welfare; inflation;

illegal immigration; bad education; ethnic groups, religious groups, socio-economic classes, and other subgroups with bad attitudes; and general rudeness. But that is part of being a citizen in a modern state, and we have to put up with the bad to get the good; we have to put up with the duties to get the benefits. Do what you can with what you've got. Get advice from somebody who makes real sense, not from some political demagogue who panders to your self-interest and prejudices. If you can't figure it out properly, then don't do anything. If you can't elect a person who clearly has good sense, then don't elect anybody.

Individual people differ in almost all details of their physical appearance. In the same way, people differ in the details of their abilities. Some people are better at music while others are better at business. Some people are better at cooking while others are better at hunting. People are able in different ways and they are unable in different ways. People differ in their able-ness and un-able-ness. This does not mean we are generally all-able or all-un-able. It means we can expect to be generally able for most situations that people usually had to face, at least before the invention of agriculture and civilization, but we are able in different individual ways. We can rely on what we have for most of the situations in life even if we do it a bit differently than other people, and even if we are better in some ways and worse than others.

The facts that people were generally able for most of life's situations, at least until the rise of agriculture and civilization, and that individuals differ, figure in later chapters in discussions of Buddhism, Taoism, and Zen. These facts matter for the teachings of Jesus because they support the idea that we should be tolerant and accept individuals. Individual differences are usually as source of pleasure.

Mixed Moral Nature Again.

Nearly all people have a firm moral sense. We know good from bad, right from wrong, and should from should not. We know the difference between being pro-active versus waiting for the world to take care of itself and take care of us.

Our moral sense is not perfect. We make mistakes. Moral ambiguity is real, and we get confused. We can get fooled by well-meaning parents, bad-meaning politicians, televangelists, self-righteous indignant people, smug do-gooders, people who use ambiguity to excuse what they want, modern Romanticism, greed, the smug moral superiority that prevails among college students, and all manner of non-academic slimy persuaders. The fact that we make mistakes is why we have moral sense; if we did what was right automatically then we would not need much moral sense any more than we need a well-developed sense of air to breathe. The fact that we make mistakes does not mean we do not have a firm sense of morality, it only means the world is a difficult place.

Again, we have a firm enough sense of morality for nearly all situations, especially if we talk to people without losing our natural bearings.

At the same time, it is worth stressing that nearly all of us have a mixed moral nature. We evolved both to act well most of the time and to cheat too often. We evolved to do out-and-out bad some of the time such as by stealing, hitting, and lying hurtful gossip, although, thankfully, we do that rarely, and only few among us learn to be criminals as a way of life. Usually we are good; we can shape behavior through teaching and learning; and we can learn to be even better than our nature by birth, if not perfect. When we "go

bad" consistently, usually we learned to do it. What can be learned could have been avoided, and might be reversible.

We have to accept the badness in ourselves without romanticizing it, liking it, dwelling in it, wallowing in it, indulging it, enjoying it too much, or using it for selfishness and further badness. We have to deal with the badness in ourselves without thinking we can become perfectly good. We can be naughty without being too bad, and we can make up for it if we really hurt somebody. We can learn to channel bad energy into getting things done without becoming annoying do-gooders.

How we turn out depends on culture, social group, government, institutions, and personal history. It is worth striving to mold the kind of social group etc. that leads people to be good, supports other people being good, and results in mutual support of goodness. It is worth striving for democratic institutions. While we cannot change our personal historical past we can change the trajectory of our lives, and it is worth striving to do that.

We cannot make people thoroughly good through moral, religious, social, political, or politically correct harangue. We cannot make people thoroughly good by threatening them with hell, through religious revivals, or through scolding and gossip. We cannot make people thoroughly good through a lot of fussy laws. Usually we make them worse. We can control their behavior through horrible tight institutions such as in Fascism and Totalitarianism; but that is worse than the usual amount of bad behavior. Any politician or preacher who offers a plan to make people really good usually is offering a plan for one social group to control the state and to dominate other social groups.

Conditions can drive people toward badness. Poverty is one such situation but so is protecting privilege and wealth. Living in a bad corrupt state usually makes people bad and corrupt. Living in a place where people have not sense of community and general good usually makes people selfish. Once in a situation of badness, then badness can foster more badness and other badness, and so support itself. Badness can become endemic.

There really are societies of badness and cultures of badness. There really are subgroups in modern societies that have been overrun by badness, sometimes ethnic groups, and sometimes occupational groups. I feel sorry for the innocent children that are born into bad situations. If our particular culture or social group supports bad attitudes, we have to accept that about our culture, and then change it or leave it. Once situations "go bad", it is hard to correct them from the inside. Usually bad situations have to be corrected when good people interfere from the outside, and keep interfering for a long time, as when the federal government steps in to "clean up" a city gone bad.

In nearly all groups, there will be mostly good people but there will also be a few bad people. Some bad people are bad by nature and there is little we can do about them. Some bad people learned to be bad, and might not have been bad by nature under other circumstances. But they did turn bad, and there is little we can do practically now to help them. We cannot eliminate bad people by harangue or crusade. The presence of some bad people does not mean morality has failed or religion has failed. It does mean we have to be sensible and we have to protect ourselves, our family, and group from bad people. We try to protect ourselves against bad people without becoming paranoid and without ruining life for good people too. We have to have good social pressure, laws, and enforcement.

Sometimes bad groups use state programs to live off the state. Such bad groups include: some people in business firms, financiers, poor people, occupational groups such as some teachers, and even ethnic groups. We can use our good nature to see the good aspects of the people within these groups, but we have to protect ourselves from these groups too.

People naturally divide up into groups of “us” and “them”. We tend to be suspicious of them, and we tend to see their normal life in a bad light. They do the same with us. In this case, we have to work against evolved nature. We have to try to overcome the natural tendency toward suspicious relations among groups. We have to try to see them as if they were human like us. We do not always succeed, but we can try.

All Kinds of People.

As any large group will contain various moral personalities, and all of us have a mix of moral tendencies in us, so any large group will contain various kinds of people, and most of us have the potential to be several kinds of people. Groups contain heroes, bullies, musicians, soldiers, healers, priests, leaders, followers, potters, skilled hunters, skilled gatherers, patient people, impatient people, good parents, bad parents, good citizens, bad citizens, brave people, cowards, gossips, truth tellers, etc. I have no idea which of these types is more “natural” or less “natural”, and I don’t care here. The point is that we are bound to deal with a variety of people, we cannot make everybody the same, and we should not try hard to do so. The fact of human variety has good points and bad points. On the good side, we have a lot of interesting variety. On the bad side, we have some crappy people, and we always have social pressure for conformity. It is better to accept variety as long as a type does little harm. Accept silly people as long as you do not also accept criminals. You have to work out your own lessons and your own balances.

Almost Good Enough for Democracy and the Planet.

I repeat what I said at the beginning. People are mostly good morally and are astute politically but people are not good enough and adept enough to make a simple populist democracy succeed. We are not good enough or adept enough to steward the planet properly. The goodness, and political skills, of the average person can be increased by the right institutions but they cannot be increased enough to make simple populist democracy successful. Alternatives exist in which we might be generally good and adept enough but we don’t have those, and so there is no point in speculating. Even if we had alternatives now, I think it is already too late. We have already dug a hole too big. Even so, we should not stop training people to be good neighbors. Even when the world declines, we will still have neighbors.

Through evolution, God made us good enough and adept enough to create agriculture, industry, and populist democracy but he did not make us good enough to make them work well. I don’t know why. I don’t know if God, through evolution, could have made us more adept or less adept and still made us sentient-moral-aesthetic beings. I don’t know if God could have made us good enough and adept enough but did not. I don’t know if, on some other planets, evolved beings are good enough and adept enough to succeed well - but I hope so. It is easy to make metaphysical dramas out of all this but I refuse. It is better to accept the situation and to figure out what we personally, and in concert with other like-minded people, can do to make things better.

Magic and Superstition are Natural.

See Part 2. My religious stance is austere and uncommon. Because our capacity for religion evolved, most religion includes a big dose of what I call magic and superstition: saviors, ghosts, spirits, visitations, power, the Force, Jedi, Sith, angels, saints, demons, medallions, curses, witches, etc. I do not dwell on that here. I have seen enough superstition of various kinds on various levels – including academic ideology that is pretty much just magic - so that I have come to dislike it. I point out some of the magic and superstition in later chapters on common popular religion and on mistakes in religion.

Magic and superstition are not necessarily bad. They are part of evolved human imagination, and most imagination is good. We should not try to squash imagination, and so we should not try to eliminate all this “mumbo jumbo” stuff from religion. Without imagination we would not have science or art, so magic and superstition are part of the price we pay for better things.

This irrational “stuff” can be bad in two ways. First, it blocks appreciation for a clearer better view of reality – in other words, it blocks appreciation for my view. Second, it leads to bad behavior more often than to good behavior. Even so, the bad behavior is mostly annoying rather than really bad. The harm done from trying to block magic and superstition usually is worse than tolerating them a little. More harm is done by zealots crusading on staunch religious principles that allow only a minimum of magic, such as in Protestantism, Islam, and atheism, than is done by people burning incense to ask the saints for a good score on an exam or for a negative on a pregnancy test. When magic and superstition lead to really bad results, then we have to take up intellectual arms against them.

It is sad to see an intelligent person lapse into magic and superstition. Most of my academic friends felt that sadness when they found out I believed in God and prophets. The greatest scientist of all time, Isaac Newton, wasted a third of his life looking for a nonexistent code in the Bible that hid the timetable for the world and its end. People have a right to be both stupid and smart. Rather than try to save all potentially clear-thinking children negatively by squashing magic and superstition in everybody, it is better positively to promote good thinking so people who have the ability for clear thinking have something to come to and can feel proud of using good judgment. That is pretty much what we do now, but we could do a better job. People who believe in a reasonable religious position, and who follow science, should be more open about what they believe.

I am not sure if my religious stance is an aberration when put in the context of evolved human nature. It does seem a little odd that humans in general evolved to accept spirits and forces, and that most people actively believe in magic and superstition, but that a small group of people does not. I don't know if the people who do not dwell in magic and superstition are stunted or advanced. Most people are about five feet to six feet (160 centimeters to 200 centimeters) tall but some people are only four feet tall and some people are over six feet six inches tall. If my view is an aberration, if reasonable religion is an aberration, then maybe I should feel bad about promoting it; but I don't. I feel good about it.

I don't know how evolution gave rise to people having a range of predilections for making something out of our lively world. I don't know if people show a continuous range or if we fall into types such as natural

skeptic, natural moderate believer, and natural spiritualist. This is a good topic for future research in the evolution of human nature.

Natural and Good.

Paraphrase of remarks after Darth Sidious got Annakin Skywalker to murder Count Dookoo:

A: I shouldn't have done that; it's not the Jedi way.

DS: It's only natural. He cut off your hand so you cut off his head. You wanted revenge. Remember what you did to the sand people.

See "The Tempest" by William Shakespeare.

In this section, I do not distinguish between "good" as a moral term and "good" meaning "beneficial" or as a general term of approval. Mostly I use it "good" to mean morally good. Take "natural" however you wish. In this case, in most common views, it does not include evolution and natural selection.

We like to think what is good is natural and what is natural is good. That is often true, but not always. When goodness and natural are not the same, we have to choose. Evolution gave us the abilities to see goodness and naturalness, even if not always clearly, and to choose, even if not always adeptly.

Most of the time, in most places, people have not drawn a sharp line between good versus natural unless situations forced them. People want to merge goodness with what comes naturally and with the natural world around them. Most of the time, we can do this, but not always.

Since about 1600, about when Shakespeare wrote "The Tempest", for reasons I don't go into, nature (natural; including the ecology and the planet), good, human-made things (art and artificiality including machines and science), and ordered human social life (including economy and state) have not always gone together well. When Westerners have not been able gracefully to align natural and good, we have tended to favor natural over good, and to denigrate everything civilized as un-natural, perverted, artificial, good only in a false way, harmful, and bad. Everything natural is honest and beneficial regardless of its apparent moral goodness or badness; everything that is truly beneficial must be from nature ultimately. Although modern people live in this well-intended hopeful view, this view is wrong. Nature is not always good. What is good is not always natural.

For example: It is good to give to charities so charities can give to needy people, even people we don't know, likely will never know, and can never give back to us. It is good to tell the truth even when lying might help us. It is good not to steal even when we would not get caught. It is good to treat other people as we would like them to treat us. It is good to frame all big rules as if they applied to everyone equally. But none of these is natural. It is natural to lie, cheat, steal, cheat on spouses, force other people to our will, and sometimes to murder, especially when we would benefit a lot and would not get caught. But it is not good. Formal schooling with thirty children to a room is not natural but, most of the time, it is good. It is natural for a 20-year-old boy to go out with a 15-year-old girl but usually in modern life it is not good. It is natural when an experienced 15-year-old girl seduces an inexperienced 19-year-old boy, but usually it

is not good. It can be natural for a 30-year-old man to take a 15-year-old girl “under his wing” to teach her about sex and life. In some situations, it might be good; see the movie “Gigi” and read “Emma” by Jane Austen where the heroine is 14 and the hero is 40. In our world, we think it is bad, and usually it is. It can be natural for a 30-year-old woman to tutor a 15-year-boy in sex, love, and life; but teachers go to jail for doing that; see Adam Sandler’s “That’s My Boy”. Birth control is not natural but usually is good. People like to think any plant is entirely-and-only beneficial and good but that is not true. Poison oak and ivy are natural, and are bad. Apple seeds and peach pits have cyanide. Most herbal teas have little benefit, and, if they do, the benefit is from chemicals that could be reproduced by a drug company. Sometimes, but not too often to worry about, herbal teas are harmful. “Natural” and “organic” foods cost a lot of money for whatever benefit they might give. Childhood cancer usually is quite natural but it is evil.

Although we can’t fall back on “natural” as a sure guide, we also can’t fall back on morality, even when we overcome obvious mere convention and contrived ideologies. We have to be careful putting good over natural. When put as a simple choice between natural and good, it seems obvious that we must choose good. To some people, choosing good over natural is the definition of morality. They denigrate natural and raise moral – they glut on the fruit of the tree of knowledge of good and evil. The choice between natural and good is not so clear. We can see they are wrong without falling into silly moral relativism. Religious leaders say it is better to die than to return violence for badness but nearly all of us choose to fight for our families rather than let them suffer. Our choice is natural, and, over time, this choice led to great good. Jesus said people have to give up family, wealth, and most comfort so as to follow him. Almost no supposedly-ardent Christians that I know do this. Almost nobody can do it, and I think Jesus knew so. We really don’t want to put in jail the young single parent who steals food for his/her children. Much harm is done by dogma that leads people to seek supposed good over natural, such as suicide bombing, killing doctors who do abortions, and living off the state. When a 14-year old girl seduces a 15-year old boy, the boy goes to jail but the girl does not. Sometimes even dogma that is supposed to support natural leads to harm, as when religions reject birth control or reject homosexuality by saying wrongly that it is totally unnatural and so totally bad.

In the 2000s, we think of families as natural, perhaps the most natural, as very good, and as the best mix of natural and good. We want families, natural, good, and a good political state that lets us mix them. The dying words of Princess Padme (Amidala), as she gave birth, were that Anakin still had good in him, with the implication that Obiwan should seek it. The mix of good-and-family is how Luke saved Anakin and so also at one stroke how Luke overcame the evil state. Sadly, real life is not like this. Loving your family is a great idea but using the family to settle all issues of natural and good doesn’t work. I don’t explain or give examples. Shows such as “Married with Children”, “Animal Kingdom”, “Good Behavior”, “The Americans”, and “Empire” try to make sense of this problem.

So, still, sometimes we do have to choose between natural and good.

I do not settle this issue. I point it out because it affects how people think of evolution, nature, morality, good, and God. People with sense respect the issue of natural and good, and they take the time and effort to think it out. People that support natural over good don’t like that: natural is not all good; there is goodness apart from their view of natural; good sometimes trumps natural; much of what they see as natural is not natural; and much of their idea of natural is from ideologies and is not realistic or natural. I don’t know if they like the idea that the ability for good (morality) came from natural selection. People that

support morality (their view of good) over natural don't like that: our ability for good comes from nature; sometimes what is natural but not obviously good can lead to good in the long run; people who know well the difference between good and natural often do what is natural anyway; most ideas of good come from ideologies (dogma); and most dogma has ideas of good that are not natural and that people don't follow even if they staunchly support the religion. How little nature is too little in a modern society and on the planet Earth of the future? How much contrivance is too much contrivance? Does substituting worship of nature, morality, or society for worship of God really help? There are other bones of contention in the debate of good versus natural but there is no use going into them here. Don't fall into the traps. Accept that you have to choose sometimes, and find sound reasons for choices. Think about what "natural", "non-natural", "artificial", "contrived", "genuine", "good", "beneficial", and "bad" mean for you, other people, society, and the planet.

Most choices between good and natural are not very harmful, and usually natural versus good is not important. It can be important to choose a small ecologically-friendly car over a gas-guzzling monster SUV but it is not so important whether you choose a Toyota or a Ford. When we choose the unnatural brownie over the natural organic bitter tough wild carrot, the world does not end. Natural versus good only becomes an issue when it becomes an issue, as, for example, if I am too fat and should not eat the brownie at all or if I stupidly eat so many natural bitter carrots that I puke.

We have three problems in choosing between natural and good. First, there is no framework greater than both that tells us how to choose. Usually one or the other serves as our biggest framework and the basis for choice. In the distant past, natural selection automatically made choices for us but, in modern times, usually we have to make a conscious choice, and have to take a shot in the dark. Second, we rarely see natural or good plainly, simply, and in-themselves; if that is possible. We see them only through lenses. One set of lenses is ideologies, especially ideologies that people use to distort their own thinking and to manipulate others. A large part of what people in all parts of the world think about natural and artificial is itself artificial and it is not nearly true enough. It is fun and helpful to examine your ideas to see how much they are distorted ideologies. Third, to choose well, people have to think hard, and that task, too often, they will not do. They prefer to abuse "natural" and "good" as overly simplistic tools.

The ideas of religious teachers help overall, and usually are not too wacky. Most great teachers such as Mohammad, Jesus, the Buddha, Confucius, and even Chuang Tzu were sensible about choices between natural and good, and only sometimes stressed what is good but not natural or natural but not good.

The problem of good and natural holds many sub-problems. The problem requires more space than I can give here. I go into it elsewhere.

No Intrinsic Natural Meaning to Life.

Natural selection is automatic. It has no intrinsic direction or goal. Nature does not aim at complexity, stability, interdependence, intelligence, cognitive ability, moral competence, or awareness of God even if nature does get there during evolution. In evolution, some individuals reproduce better than others in particular situations because they differ. The next generation is made up more from descendants of the individuals that reproduced better. What works in one situation does not necessarily work in another

situation. That's all. What works, works; what is, is; what reproduces, reproduces; what out-reproduces, out-reproduces; what comes to represent the species, comes to be the species.

Because there is no intrinsic better or best in the automatic process of natural selection, there can be no intrinsic meaning in the automatic process. There is no necessary meaning to evolution.

People evolved to find meaning even when there is no intrinsic meaning, just as we evolved to see the world as livelier than it is and to taste nutritious food as delicious. Seeing meaning where there is not necessarily meaning, seeing more meaning than there really is, and seeing meaning other than correct meaning, are all misperceptions that can help us in evolutionary success. How this works is a big field in itself, and not well understood, so I leave the topic alone here. I have been on the bad end of all these misperceptions, and so I have no doubt that they are a real part of evolved human nature.

People don't like that there is no intrinsic clear meaning in nature, evolution, and human nature. People evolved to find meaning, this is an important place where people expect to find meaning, and they find meaning whether it is there or not. The question is whether they find good modestly correct meaning. People think "natural" and "good" do coincide, should coincide, and have to coincide. People want to find a natural meaning to a good moral life, especially their own particular lives. People want to find meaning in life by doing natural things such as raising a family and outshining the neighbors. People want to find meaning in a successful life even if it is not entirely morally good. People want to find meaning in having a lot of experiences even of some are harrowing and some are morally bad. People who know something about evolution find intrinsic meaning in facets of evolution such as complexity, kinds of brain activity, and interdependence of parts. I sympathize with the need for meaning but there is still no necessary intrinsic basis for meaning in evolution or in nature.

I find the fact that there is no intrinsic meaning in evolution invigorating. I like imputing meaning to life. I don't mind that I impute meaning and I cannot logically prove meaning is "out there". I don't mind that I am not fully correct. I don't mind that imputing meaning is an evolved ability like finding nutritious food. I like acting morally most of the time, and I don't mind that my tendency to do so evolved. I don't expect to show that any meaning is necessary or intrinsic, although I do want to make good cases for the meaning that I impute. I expect to find out more after I die.

Because there is no necessary intrinsic meaning in nature alone, we have to accept variation in what people do find subjectively meaningful. People vary on what is meaningful, and we just have to accept that fact. That fact supports the ideas of plurality and interaction. The fact that we find a lot of overlap on what is meaningful gives me hope that we might be right about some of it even if we are not right about all of it.

Just because there is no necessary objective intrinsic meaning in nature alone, and people vary on what they find meaningful, does not mean there are no guidelines and standards. There are, especially in the teachings of the great religious teachers and scientists. We can't allow people to impute meaning that excuses badness. This book helps you discover the ideas of great religious teachers and to avoid the bad ideas.

Enough or Not Enough.

To me, it is more than enough that God set up the universe as an interesting place, in which life would evolve on many planets, and sentient life would evolve on enough planets. It is enough that people on Earth evolved a sense of morality and beauty, and that God sends us – I am not sure how – prophets to teach us how to be good people and live well. It is enough to act well according to the teachings of Jesus and other prophets without feeling that my idea system has to dominate. This is enough even though I know there is a good chance that human life on planet Earth will fail of its promise and fail in its duty to be stewards of the Earth. I don't need much magic or superstition.

For most people, this is not enough. People really need magic and superstition. Magic and superstition really are natural. People need to believe in many spirits. They need to believe they can have a personal relation with a mid-level spirit who will take care of them. They need to believe their ethnic-political group knows the "one true religion", and that a powerful spirit takes care of their ethnic-religious-political group. They need to believe that they each personally, their families, and their ethnic-religious-political group, will succeed regardless of what happens to Earth or to other people. They are susceptible to causes and they need to feel justified and saved. Even atheists and secularists need to feel religious-like fervor; they find their fervor in causes. They cannot live without causes to justify and save them. They transcend the superstitious magical religion of the masses so they can feel superior, justified, and saved.

Include secular fervor in magic and superstition. When people believe in magic and superstition yet also do little harm and act on the message of Jesus, that result seems fine. When people believe in magic and superstition but do little harm, even if they seldom act on the message of Jesus - the usual case - then I accept the situation. When people believe in magic and superstition, they are also susceptible to bad reasons, usually from bad people, and they use bad reasons to validate acting badly to get wealth, power, and sex. That I dislike. When people do evil on the basis of magic and superstition regardless of other causes such as desire for wealth and power, I dislike that too.

I differ from most people in that I believe in only one magical being, God, and I disbelieve in almost all magical acts. I am not superstitious. I can relate directly to God, and I think people should relate to no other supernatural being except God. Atheists and jaded academic pseudo-skeptics think that makes me no different from most superstitious people and does make me different from the. I disagree because, to me, they seem more like most people than they seem like me. I leave it to the reader to decide.

I don't know what to do. The best thing I know to do is what I have done in for myself and in this book: think as clearly as I can, explain as clearly as I can, and work for what I think is worthwhile.

Imitation and System.

People evolved the tendency to imitate what other people are doing, especially when other people look successful. If men see a man with a successful family, men try to find similar work, wear similar clothes, eat similar food, drive a similar car, drink similar booze, and, most important, find a similar spouse. Women do the same for what matters to them.

When I was young, parents used to say "If your friends all jumped off a bridge, would you do it too?" as a way to get children to follow parental rules instead of imitating peers. Kids followed peers anyhow, but

not in everything. Most of us didn't jump off bridges, wear stupid clothes, or take bad drugs for too long. Evolution also gave us the sense to know when to stop imitating one person and to start imitating another person or to stop imitating entirely and to do something on our own.

In the same way that people evolved to want meaning, are evolved to make it, and are evolved to imitate, so people evolved to seek and accept system. Meaning is more meaningful if it is part of a system. The more comprehensive the system, the better it is. We want to know not only that God set up this world to make sentient moral beings but also that he did it on other worlds, and we want to know what that all means as part of a system. We want not only to follow the Golden Rule but to think it is part of a system of ethics and part of what God wants. We want to think that voting leads to a good political system and a good nation. We make a deal with a particular spirit because that particular spirit is powerful and we want to think our spirit is the biggest baddest in the spirit system. Imitation is how people get into a system and reinforce the system. You follow the religion of your parents, ethnic group, and nation.

Yet following a system is no more always reliable than imitating other people is always reliable. We have to assess the strengths and weaknesses, the goods and bads, and the successes and failures, of the system. If this particular system does not work well enough, we might try another system. If this spirit doesn't have enough "mojo" to give us what we want, we look for another spirit, or we look for a different system of "mojo" and spirits. If Buddhism does not work well enough, we might switch to Hinduism or Taoism. If no system works well, we might have to strike out on our own, and we might even have to live without a well-knit system.

The general system is what most people live in most of the time, most people imitate when they imitate other people, and most people sustain when they follow other people. Social scientists call it "culture", "social system", or "social organization". Most people follow the general system most of the time but make exceptions when it is in their interest and when doing what they want is not likely to get them in too much trouble. Most people don't steal except when a lot of money is at stake and they are not likely to get caught. Most people wear similar clothes to everybody else except when they like to wear t-shirts or Hawaiian shirts. Most people strike a balance between the general system, alternative systems, and their particular tastes.

Just as evolution gave us a solid foundation of abilities to live (at least before the rise of agriculture and civilization), so most people are able to live through following their own capacities without a well-knit tight system - even though we seek system. Just as evolution leads us to differ a bit in our abilities even though we are generally capable, evolution led us to differ a bit in how we accept systems, how we reject systems, and what we are like when we live apart from systems. The ability to do on our own, ability to live apart from systems, and the distinctions between individuals, all play a role in later chapters on Taoism and Zen. These features remind us of the respect for individuals in the teachings of Jesus. The power of system plays a role in later chapters on Buddhism and Hinduism.

Don't romanticize system or anti-system. Just because we need some system does not mean the bigger and tighter a system is, the better it is. Just because we evolved to be able to get along pretty well using our native abilities (including imitation), and we all differ a bit, does not mean rebellion against the system is heroic. System is not necessarily good or bad; staunch individualism is not necessarily good or bad.

We can get an idea of the best attitude toward both system and non-system not through any platitude that I can offer here but through the ideas that come up throughout the book.

Beyond Itself.

In the great movie “The African Queen”, Katherine Hepburn says to Humphrey Bogart something like, “The purpose of nature is to rise above itself”. People are the part of nature that rises above itself. Her opinion applies both to “good versus natural” and to the idea that religion rises above the “mere physical finite” nature of individual evolved sentient beings.

Natural selection gave us the ability to look at the world both semi-objectively and with inspiration. Most of our intellect is used for practical evolutionary success right now, but some of our left-over intellect might give us a picture of the world that is not limited by a focus on evolutionary success. Accidentally, we might have evolved the ability to look beyond ourselves to a bigger world, even if we cannot live in the bigger world. We owe much of our progress in science to the ability to see beyond what is right in front of us regardless of practicality.

Before you get excited, recall that images of bigger more important worlds do not agree between people who see them and between major religions. So, if evolution did allow us to see beyond ourselves, the vision is not clear and reliable. The most common elements of those visions seem to be love, trust, joy, empathy, decency, “applies equally” and the Golden Rule.

Evolution might have given us the ability sometimes to see beyond ourselves but it did not give us the ability to sustain the vision, and, in fact, evolution made sure the ability is limited and short-term. In our evolutionary past, dreamers who spent a lot of time seeing beyond the obvious world of right now did not do as well in the everyday world of raising a family and playing politics, and so left fewer descendants. Dreamers stumble over tree roots even if their dreams are true. There might be lessons in the images of a better world beyond the obvious hassle-ridden world of daily life but there might also be lessons in the fact that we cannot live in that other better world while we are still here. There is an evolutionary value to glimpsing a greater truer world from time to time but there is great evolutionary detriment in living in that world for more than a few days at a time.

Imagine you are a smart dog who lives among people in a happy suburban neighborhood. The people take you for walks. The people take you to the countryside. You have dog friends. Sometimes you are allowed to roam alone. From your travels, you have learned where food comes from, and how organized the human world is.

One day you come to deeply appreciate that the human world is better than dog world. The dog world depends on the human world for food, protection, shelter, health, entertainment, and in many other ways you don’t understand. You think how dogs might become like humans, but, in your heart, you know that could never happen. It is not just that dogs can’t talk – human children think dogs can – but dogs can’t think like humans and act like humans.

Humans on the grand stage of existence are like dogs on the smaller stage of the human world. The difference is that the better worlds we see come as much out of imagination as they come from any real

spiritual world that encompasses this real material world. There might be a better world within which this real world lives but I doubt we can see it clearly. At best, we can get a sense of a better world to work for in this real world by seeing how our sense of morality and decency leads us to see a better world, and how our imaginations make this world more interesting.

If you do see a bigger picture, if you have a “Grand Canyon” moment, if you come to realize correctly that human squabbles are so much spray raised by the wake of a giant ship, then go with that as much as you can. Almost always, that kind of experience leads people to better people and to live by the teachings of great religions teachers such as Jesus. Go with that. Spend your life enjoying the world and helping out. Don’t go with anything bad. Admire the simple good people who can live that life even if they never had the feeling you had.

Getting By on Incomplete Knowledge.

It seems vexing that God would evolve people who have moral feelings and wonder what it is all about but who can’t settle on one explanation of what it is all about. It is as if God didn’t finish the job.

Imagine you did know what it was all about. Likely, you would get bored. Likely, you would stop acting with moral commitment because you would lose interest. Likely, life is more fun because we don’t know what it is all about. That idea does not excuse evil, but it is a start.

Whether we know what it is all about or not, we still have a pretty good idea how to act. We know the basic principles of how to act even if we argue about their application in particular cases. We know the Golden Rule and “applies equally”. We know of charity, rule of law, the value of the individual, freedom, social justice, schools, and decency. We did evolve to know the basic principles and we did build ideas and institutions based on that ability. So maybe God did finish the job for what is needed in this world. Wondering what it is all about is icing on the cake.

In the future, we might learn more of what it is all about and we might have different moral challenges. The world of artificial intelligence and bio-engineering will change what it means to be human and to be a person. Even so, the moral foundation that we lay in this world will determine what that world will be like. Even in that world, I doubt the creatures will know fully what it is all about, but I think they will have good ideas what they should do anyway.

The Natural Wisdom of Following Jesus.

Morality evolved. It is part of our nature. We have an inborn tendency to act along the lines of “applies equally” and “do unto others”. Most of us are more good than bad. Most of us respond well to goodness. A few consistently good people can change a troubled neighborhood. We have a natural tendency to empathy, and so we tend to widen the circle of goodness. We naturally follow along the lines taught by the great religious teachers. Jesus taught this way as a way of life, and so we naturally tend to live as Jesus taught.

It is wise to go along with nature as long as nature is good. It is wise to go along with the teachings of great religious teachers. It is not necessarily stupid, blind, or idealistic. People that tell you to slow down,

pay attention to the quality of life, help out, and maybe volunteer, are not saying anything foolish unless they take it to extremes.

Don't make too much of this. Don't make great religious teachers, including Jesus, into gods, avatars of a cosmic principle, or living archetypes. They simply felt clearly and strongly that part of human nature that we have all been prepared to feel but usually suppress.

The Natural Folly of Following Jesus.

In our evolutionary past, really good people did not leave as many offspring as people with a mixed moral nature. Because we evolved morality, we necessarily have a mixed moral nature, and necessarily cannot reach the perfection taught by great religious teachers. Even now, people who try to be like Jesus, and who work hard to make a better world, might achieve some satisfaction, but they usually fail miserably in terms of evolutionary success. They do not achieve power, wealth, fame, and great reproduction. They do not reproduce well and so the genes that helped them be very good decline. So what?

Maybe this is a case of evolution taking us beyond. Maybe it is important that some humans see beyond but not necessarily important that all humans live beyond. Maybe that occasional arising of a minority of visionaries helps the rest of us more than if we all did really evolve into angels.

Maybe it is better for some people to see the better world, fail, die, and drop their insightful genes out of the general human population. People with the genes will come along from time to time even if they also fail by normal standards and even if their genes never dominate. I think it is better to see the better ideal world but not necessarily to try to live in it while we are still in this world.

On a less "airy-fairy" level, for this world, we are back to the problem of why we should pay attention to great religious teachers if their advice is impractical, and if evolution has proven their advice impractical for at least the last 100,000 years. That is, why be very moral? The plainest way I can respond is: You either get morality or you don't. You either get the idea of trying hard despite a mixed moral nature and the disadvantages, or you don't. About 2500 years of Western moral teaching have tried to make sure that as many people morality as deeply as possible. In particular, they tried to make us get the teachings of Jesus. I can't improve on that tradition in the next few lines.

Morality originally evolved among small groups, and it works best among small groups. In fact, it works almost along the lines that Jesus taught. It is evolutionarily successful among small groups, and is not evolutionarily foolish. People live in large societies now but often their important lives go on among small groups-networks in which the teachings of Jesus make a lot of sense, even at work.

Even in large societies apart from small groups, morality works pretty well if not ideally. Even then, it is usually better to be mostly moral than amoral or immoral. People who act mostly morally, if not ideally, succeed about as well now as people who acted mostly well in our evolutionary past. Acting well leads to pretty good comparative success among our little networks where it counts. Most of us cheat a little but not much. We can recover from the small cheating of ourselves and our friends. We can still succeed in the game of competitive competition by acting well most of the time.

Every once in a while, somebody cheats on a big scale, makes a fortune or gains great power, founds a family, and the family goes on to success for generations on the basis of initial ill-gotten gains. Then the family tries to achieve good standing through charity and public service. That is not likely to happen to you, and I wouldn't plan my life around it. In my experience, people who act badly now eventually crash. The crash takes away more than they have gained both from themselves and their families. Business men who spend all their lives at the office lose their families. Academics who spend all their lives working on a big reputation rather than doing solid work find themselves relegated to a footnote a few years after they retire. That is more likely to happen to you than founding a dynasty.

These points do not make the world basically moral and do not mean the teachings of Jesus are bound to be strategically most effective in all situations. These points are merely an observation that the teachings of Jesus are right enough now.

No Perfect Consistency.

Having a mixed moral nature is a kind of imperfection due to mixture and inconsistency. Just as we are doomed to suffer a mixed moral nature, so also we have to suffer misperception, susceptibility, deception, self-deception, a mix of many "modules" and proximal mechanisms not all of which are compatible, self-contradiction, animal urges such as the desire for burned meat, emotions, comparative competition, commitment, over-commitment, doubts, restlessness, craving, and other psychic forces too many to list. Maybe because we can never get enough success in evolutionary terms, and we are never the only one in the group who matters, we seem doomed to face a limit on satisfaction and we can never get enough satisfaction.

For some religions, this human dilemma is a real problem. Religions dream of perfecting humans. Part of reaching perfection is reaching perfect consistency. Another part of perfection is purging emotions with frequently bad results such as anger, jealousy, desire for stuff, and desire for power. It is very unlikely mere humans can ever reach such goals, not even monks who works for decades. If success in some religions, such as Hinduism, Buddhism, and Zen, depends on reaching such perfection, the no human has ever achieved it.

If any person who started out as a mere human ever reaches such perfection, then I think we might have to stop thinking of that person as a mere human. What we then think about that person varies with the particular religion. It pains me to not think of Siddhartha Gautama the Buddha as a mere human being, but, if he did achieve perfection and freedom from all craving, then, to me, he was no longer human. I doubt that is the case. I think of Jesus as still human.

No Need to Be Perfect.

Perfect people don't need religion. Religion is not for perfect people, it is for real normal flawed people. Imperfect people benefit from religion. Just as we don't need to know what it is all about to know what to do, we don't need to be perfect to act. The fact that we evolved, and evolved a mixed nature, helps make sense of why we need prophets and that we don't have to be perfect.

Who to Take Advice From.

One of the big lessons of literature and politics after World War One is that leaders and useful people do not have to have a perfect character. A person can be quite flawed and still be human and useful. The most common example has been Winston Churchill. The drug habits of George W. Bush, and the sex habits of Jack Kennedy and Bill Clinton, are recent examples. I add the ignorance of Ronald Reagan. We are all flawed, so this lesson about flawed character succeeding is good to know.

Pop literature after World War Two took this idea too far: Useful people have to be flawed. The more flawed a person is, the more useful he-she is. Nearly-perfect people are really more flawed than flawed people, and far less to be trusted. Contrary to pop culture un-wisdom, in fact, not all bad boys and bad girls are more useful than good boys and good girls. Good boys and girls can still be very useful too. We can still take them for examples. Some of the great TV dads and moms, such as Andy Griffith, were good people and good role models. We need to search for the right balance of flawed and perfect in ourselves and in the people that we take for leaders and examples.

Religions make a point of seeing their leaders as perfect. Even stances and ideologies take their flawed heroes as perfect in their “flaw-ness”. Mick Jagger is the perfect bad boy. Kurt Cobain was the perfect suffering artist. Angelina Jolie tried to be the perfect bad girl until age and reality caught up with her, and she realized heart is better. To save his career, Justin Bieber “went bad”. To keep her career going for a long time, Taylor Swift knows how to keep the perfect balance of good and bad. George W. Bush is the perfect convert. When religions and ideologies offer a person as perfect, or perfectly flawed, we are right in being suspicious. If the leader really has achieved perfection, it is not clear that we can take him/her as an example for the rest of us.

It is a good idea to take advice from people who are flawed enough still to be human and yet who do not make a virtue of their flaw-ness. People who have something to say need to know something about what it means to be human. You don't find out what it is to be human without making big mistakes and without hurting a few people. Yet if you make a virtue of being damaged, of mistakes, and hurting people, then you haven't learned nearly enough about what it means to be human. This too is a lesson of history and literature but seems to be a lesson we forget in favor of ideologies.

Regardless of what dogma says, some religious leaders are more charmingly naïve than perfect. That is how I take Jesus, the Buddha, Chuang Tzu, Zen masters, and even Mohammad. They are idealists. There is nothing wrong with this. They could still be quite effective, and were. To say they are idealists is not to make a virtue of your flaws. Just as a child sometimes sees something that a jaded adult forgot, sometimes we need to listen to idealists. Their naivety gives them enough simplicity to be more perfect than usual. Sometimes that kind of simple incomplete perfection gives people insight and makes them worth listening to.

If I were really clever, I would devise a scheme to merge metaphysics with evolution: Evolution produces both not-perfectible contradictory complexity most of the time and naïve simple near-perfection from time to time. From that result, I could draw implications about God's plan; advise people who to listen to; and make imperfect people think they were more like the nearly-perfect prophets than they really are. It would sell well. That kind of cleverness is neither simple, consistent, near-perfect, nor worth listening too.

Repeat: Objectively Existing Morality.

At least since Plato about 2400 years ago, Western thinkers have seen morality as objectively “out there”. It is something that we discover and conform to, like we discover logic, mathematics, the laws of physics, or the rules of golf, and conform to them. Morality cannot be explained away by any reference to any kind of practicality, including power and evolutionary success. Morality cannot be explained away by any kind of “nothing but” reduction. Morality is more than brown eyes or curly hair. This view is useful when trying to merge God and morality. Mostly I agree. It is easy enough to take points of my argument as evidence for objective morality, such as the independent logic of morality and the likelihood that a similar morality would evolve anywhere morality evolved. Evolution did not make morality; evolution led us to discover moral logic and to conform to it.

The idea that our capacity for morality evolved seems to undermine the idea that morality is objective. This implication troubled Darwin greatly. I disagree. I hope it is easy to see how we could evolve to be aware of objective moral logic even if we don’t live up to it fully. Regardless of whether morality really is objective, my argument makes useful points, and, on the whole, stands. It is not useful here to embroil my argument in another argument about objectivity.

If morality is something in its own right, and cannot be explained away by “nothing but”, then what is it? What does that mean? These questions are what really lie behind current controversies about evolution, God, and morality. Questions about whether the capacity for morality evolved is often just a way to set up questions about what morality is and what that implies so as to lead into opinions that are held for other reasons. These are natural questions for a book on life stances but mostly I do not get into them. They are big topics in their own right, and I have to address other topics. Many people naturally invoke “God” at this point, and I have no strong objection. But the answer is not as simple as “God is goodness, and goodness is God”. I have already said I don’t think God can be immoral yet God tolerates evil in creation, and uses evil, and that I have no explanation.

Naturalistic Ethics.

Naturalistic ethics is the idea that morality, or at least moral lessons, are in nature, and we learn morality from nature. Even when we don’t anthropomorphize over cute little animals, we do tend to see morality in such effects as parents taking care of young, cooperation among prey to avoid predators, cooperation among predators to catch prey, the carbon cycle, and weather cycles. Natural ethics is like natural law, an important idea in the history of democracies. Naturalistic ethics predates evolutionary theory. It is not always clear how morality is in nature and what kind of morality is in nature. It is not clear how the fact that morality evolved affects naturalistic ethics. I like the idea of natural law. I don’t mind seeing moral lessons in nature. But I don’t think we could learn morality from nature or anywhere else if evolution had not already predisposed us to feel moral feelings along the lines of the moral logic of “applies equally”. The relations between naturalistic ethics and objective morality are not clear either, although, often, the two stances are taken as incompatible.

Another version of (what might be) naturalistic ethics says that ethics is only another proximate ability, and that ethics can be reduced to reproductive success, in the same way that hunting, flying, swimming, or fighting over mates, can be reduced to reproductive. As evolved beings, we could not be sensitive to

moral feelings or moral logic unless we evolved to be sensitive to them. That does not mean they can be reduced to “nothing but” or explained away as “nothing but”. We could not be sensitive to mathematics or to scientific method unless we evolved a predisposition to be sensitive to them, but that does not mean we can reduce mathematics or scientific method to reproductive success. I say more about the mistake of “nothing but” reductionism in later chapters on the self and on atheism.

I didn’t go more into these issues because I don’t have to settle these issues for the points that I make here to have value.

Do Not Metaphysical-ize Evil or Good-and-Evil.

Just because individuals have a mixed moral nature, God allows badness in the universe, and God used badness in evolution, does not mean that badness is a thing in itself or is a force in itself. Good and bad are not locked together in a mutual pact. They do not need each other in some spiritual or metaphysical sense. We do not need evil to see good. God is not by necessity a mix of good and bad. Badness does not by necessity have an objective existence. Evil is not a metaphysical principle. Evil is not a principle personified in the Devil. The Devil is not an archetype. Jesus and the Devil are not twin brothers locked in combat forever. You cannot become more godlike by acting badly or by hurting people. These are all self-delusory stances that allow you to excuse self-indulgence. Don’t make these mistakes.

Exactly what it does mean is not settled. I do not know why God allows just the badness that he does allow.

Some stances, such as Taoism, urge us to get beyond simplistic ideas of goodness and badness. That is not the same as metaphysical-izing badness. It does not mean goodness is not real, or that the people who advocate getting beyond simplistic ideas of good and bad do bad things. It rarely means that Taoists do bad things. It is not an excuse to do whatever you want. Some early Christians made this mistake, and Paul severely scolded them for it. In this case, Paul was correct.

Thinking beyond simplistic good and evil so that you can indulge yourself does not make you a profound thinker. It does not set you free. It makes you a self-indulgent dangerous fool. If you really want to be a profound thinker, figure out how goodness arises so consistently out of chaos and badness, and figure out the implications of that.

Using Evolved Abilities for Fun and Otherwise.

People evolved a rich repertoire of abilities such as sex, games, fame, wealth, art, religion, morality, and science. In the last 5000 years, we have taken many of our original abilities out of their natural setting. We learned skills that are based on the original natural abilities. Instead of hunting, people chase little white balls around a long beautiful golf course. Instead of taking chances on which way the rabbit will swerve, we deal cards to see how they fall.

Most deviations and augmentations are not harmful, and many are good. Modern scientific medicine is a deviation from original shamans but I much prefer modern doctors. I would rather have people chasing golf balls on a course than running down deer in the middle of my streets. People have a tolerance for

alcohol because we evolved as fruit-eaters, and some fruit naturally falls to the ground and ferments. So now we are able to drink beer, wine, and various spirits.

Some deviations and augmentations are bad, harmful, or annoying. I like music but I hate when loud crap is blasted out of rolling boom boxes (cars). Young people have always sought places to meet in private but dark bars and bad booze do not always make the best modern venue. Moderate drinking is OK but excessive drinking is quite bad.

As with other aspects of life, we have to choose. I take the Libertarian stance. Enjoy what nature gave us, and enjoy augmentations too, as long as we are consenting adults and we don't hurt anyone. Even if the actors endure some small harm, then what business is it of mine, and why should I get involved? If people want to drink, and they harm nobody, let them drink. Let them smoke marijuana. Let people have sex as they will. People can smoke tobacco in their own private separate dwelling a long as nobody else has to endure the poisonous smoke; they cannot poison me; they cannot smoke in public places or in contiguous housing such as apartments. People can eat whatever they want as much as they want but they must pay extra insurance if they get fat or likely will develop diseases for overeating.

Boons and Banes of Morality.

Believe it or not, imitation, various proximate mechanisms, comparative competition, and manipulation can serve morality. We teach children morality through manipulation and imitation. We get them to act well by telling them to "act like Suzy" or to "do what Father Dave says". We use comparative competition to get people to act more morally – or at least more like the morality we want. Most PTA meetings, faculty meetings, meetings of PC people, and meetings of Right Wingers, feature heavy moral competition. The pursuit of fame and wealth can be channeled to serve the greater good. Apologists for capitalism sell it that way, and it even actually works that way often enough.

Imitation, manipulation, and especially comparative competition, also can be banes of morality. Trying to act more morally than somebody else, or act more morally than the norm, leads to acting badly. The modern equivalent, acting cooler than other people, goes down the same path. Imitating a cool jerk who does not really understand coolness makes you less cool and a bit bad too in a cheap way. Imitating "bad boys" and "bad girls" makes you un-cool, not really "bad" in the good sense, and not at all good; instead, it makes you silly and a nuisance. Comparative competition is "keeping up with Joneses". A person would have to miss all the literature and media of the 1900s and 2000s not to understand how keeping up with the Joneses leads to bad behavior. Religious-moral movements depend on imitation, manipulation, and keeping up with the holy Joneses.

Beauty.

Morality has its own logic, to which natural selection has to conform in the long run. In contrast, pleasure and pain are almost (but not quite) free of any logic that constrains natural selection. Evolution can apply pleasure almost to any act that leads to success, even to an act like childbirth. It would be convenient for theorists if beauty either had little intrinsic logic, like pleasure and pain, or had a clear single logic as with morality. Beauty has some logic but no clear single comprehensive guiding logic. Legions of art critics in the West, at least since Socrates and Plato about 400 years before Jesus, have shown there is some

logic, and have offered us their bit of aesthetic insight as the essence of all the logic of beauty. All have failed so far. The fact that so many can have partial success but none can have full success shows that beauty has some logic but no single clear comprehensive logic that we see so far.

The problem is compounded by the fact that beauty likely is more diverse than pleasure and pain or than morality. Without going through every idea that art critics have offered, I can list highlights: prettiness, symmetry, balance that is not necessarily symmetric, harmony however defined, charm, a variation of sex, a variation of sexual attractiveness, awe inspiring, inspiring to morality, and aesthetically effective without necessarily being pretty. These aspects are not compatible; they are also not exclusive; they are not all clearly defined from some other common idea; and more than one applies at a time even when they are not fully compatible. Here is a line from John Lennon: "Yellow matter custard dripping from a dead dog's eye". It is quite effective in its place, and so beautiful, but it is hardly pretty.

Scientists have shown that we tend to see as beautiful those things that are conducive to evolutionary success, and we tend to see as more beautiful things that are more conducive to success. Men see women in general as beautiful, and see women who are healthy and have body proportions that are likely to make them good mothers as more beautiful. Men see women with good personalities and who are skillful also as beautiful because they are as likely to have success as women who merely have good proportions. Women see men as handsome (male beauty) for the same reasons. Landscapes with the right amount of trees, open grassy spaces, and water, and that are likely to support many vegetables, fruits, and game animals, we see as beautiful. Yet this cannot be all there is to beauty. We hear John Lennon's poetry as beautiful. We see the open ocean or the baking desert as beautiful. We see pictures as beautiful even though looking at them does not lead to immediate evolutionary success. The art of the 1900s boasts thousands of images that are aesthetically effective without necessarily being pretty such Fauvism and Cubism.

This issue is important because it bears on religion and morality. We have the same feeling of beauty and awe in religion that we have toward other beautiful things. We make our gods in the image of healthy strong young men and women, with a mixture of ideals from our culture and society. Pictures of Jesus or the Buddha likely are wildly inaccurate – Jesus was not a northern European from about 1910 with a neatly clipped beard and a short haircut. Religion uses the feeling of beauty to draw in and hold people. Some religious visions are quite awe inspiring regardless of their likely truth. It is not likely any major religion could survive for long if it did not lend itself to a many various beauties. We need to separate the feeling of beauty from particular religions. We can't disentangle religion from beauty until we know more about beauty. This book does not dwell on this problem but I do point it out sometimes. I do not dwell on this problem because it is too hard to make sense of it given the current state of thinking.

PART 7: Optional: Evolution of Religion.

Please see the section on religion in Part 2. Please read Part 3 before this Part.

If we mix natural imaginative thinking, "irrational" commitment, "irrational thinking", categories, lively world, intentions, enduring relations, bridging of categories, and distorting of categories, we get spirits added to (my idea of) the natural world. Really, all we need is a lively world and semi-persons. From this base, we get personification of places, events, and ideas. We get spirits that don't necessarily personify anything

but can sometimes. For example, when wind moves, we see not just air with different pressures but a life with a will moving air around. When we see a large mountain, we see not just a pile of dirt and rocks but a being with a will, and who can be dangerous and useful. The gain we get from seeing a lively world with spirits likely far outweighs the world without spirits. The spirits can form their own spirit-real world like the real natural world.

Not only do natural things have spirits, so do living individual people and dead people. Categories of people have a particular spirit, often in addition to their particular individual spirit or in place of it, such as pregnant women, hot-headed young men, our family, their family, our group, and their group.

Scientists used to debate which of these spirits might have served as the original model for all spirits but that question is not useful here.

We have different relations with different spirits. All spirits tend to be of higher rank and more powerful than individual people, so individual people “curry favor” with the spirits by giving gifts and doing services. People sacrifice to spirits and worship them. When people approach spirits, people act as individuals and on behalf of whole groups. In return for gifts and services, spirits protect individuals and groups. Spirits also can be allies in conflicts, as with coconuts above, and in many famous battles featured in the Tanakh (Old Testament) and in the Hindu epic Mahabharata.

Sometimes it is easier to think of the spirit as a “force”. Things, situations, and events that have spirits also have a force, a vice versa. The cold snowy windy mountain has a force. The hurricane has a force. Springtime and winter have a force. Love is a force, and it has a spirit. It is probably not worth trying to separate out the two ideas in normal human thinking, at least here. Where there is a spirit, there is a force, and vice versa. Where there are a lot of little forces, people tend naturally to drift into the idea of one big Force, as in Star Wars.

“Animism” is paying attention to forces and spirits. Modern religions think of all animism as “polytheism”. “Polytheism” is literally the worship of “many deities”, but the difference does not matter here. The first form of religion very likely was animism. Evolutionary biologists now are re-discovering an idea that has been current in some schools of anthropology at least since Edward Burnett Tyler explained it in the middle 1800s.

From animism, monotheism grew, just as the idea of one big Force grows out of the idea of many smaller disparate forces. Monotheism is not an idea that prevails in many societies and cultures. It is an odd unusual idea. It developed out of polytheism-animism after the genetic basis for belief in polytheism-animism already was set. There are no genes for monotheism and there are no genes that naturally lead us to the idea of one single good God; God did not implant the idea of himself in our genes either by direct intervention or indirectly through evolution. How monotheism arose in history is not entirely clear, and the topic is not important for this book. Even though the belief in one God has genetic roots in our evolved nature, and even though it developed out of earlier polytheism-animism, those facts do not mean it is false or true. Whether it is true or false is a much different question. I have already decided that it is true. You are free to agree or disagree.

Animism does not go away just because some people get theoretically sophisticated about their religious beliefs, as with monotheism. The large majority of people still believe in ideas such as giving-back-and-forth, spirits, the Force, and the group-as-giant-person. The large majority of people are still animists even if their official religion is strongly monotheistic.

Religion and Morality Go Together.

Religion and morality evolved together. They usually support each other. Very likely, when they evolve, they are always together and mutually supportive. I doubt one could evolve without the other.

Once people have the idea of spirits, they can use spirits to reinforce morality. If you act well, the spirits reward you. People who act well, when they act among other people who also act well, that is, when they act well in their own group, tend to do well. People who act badly toward near kin, friends, and neighbors get abused in return. The spirits really do reward good guys and punish bad guys most of the time.

Once people have the idea of morality, it can be used to reinforce religion. We want beneficial relations with the spirits. The spirits are supposed to reward people who act well, and people who act well do well, so the spirits must really exist, and they must at least recognize morality most of the time. Even if the spirits are not entirely good, even if they are sometimes impish or even bad, at least, as persons, they recognize morality (see below) and respond to it. The fact that they respond to morality makes morality a force in religion. As persons, at least some spirits are more good than bad, and those are the ones that become most important in our relations and in our religion.

Religion is Both Quite Sane and Partly Crazy.

We can't make all bits of the world equally lively and we can't relate to all the lively things equally. Some things lend themselves to being more lively, especially things that move on their own and with which we interact closely such as a car. Some things we interact with more, and we tend to make them more lively, such as our houses or the Internet.

We have to select which parts are livelier and which parts we interact with more. Religion is an integral part of selection. For example, where people have to hunt big game, and compete with other predators, they tend to make animals and predators quite lively and to give them spirits. Among North American plains "Indians" ("native Americans"), bison and wolves tended to have their own spirits. Where people grow grains to make a living, they give grains a spirit. Where society is complex, for various reasons, people give the subgroups within society their own spirits.

Whenever we select, we have to commit. If we see bison as having a spirit, and we interact with them more than prairie dogs, then we have committed. If we fish for a living, and one subgroup in our society represents salmon, then we have a different attitude, relation, and commitment toward that subgroup. Our subgroup has its own spirit, and we certainly have a different attitude, relation, and commitment toward our subgroup and its spirit than toward other subgroups.

Religion is one of our biggest guides in selection and commitment. When we say oak trees have a spirit but pine trees don't, then we have made a commitment about the world, people, and society. Religion is not neutral.

In being not neutral, religion differs from the ordinary mundane everyday world. In not being exactly like the regular obvious world, and in demanding commitment, religion is a little crazy. Some crazy is good. People who have a strong relation to wolves as part of their religious commitment are not neutral and so are a little bit crazy. But their craziness helps them make sense of the world, act, and get along. They know how they stand with the people who have a special relation to bison, coyotes, or the river.

At the same time, religion can't be too crazy or it "turns people off", and they won't commit. People who identify with wolves can't really live like wolves in all aspects of their lives. They can't run around on all four legs and have six pups at a time. In being a little crazy, religion helps people to act and succeed. If religion gets in the way of success by being too crazy, people give it up in favor of other ways of seeing that are not so crazy.

Religion has to find a balance between being crazy enough to inspire commitment and guide action versus being so crazy that it causes disadvantage and alienates people.

To find the balance, religion can't be static. Religion has to be able to change somewhat to go along with changing conditions. If wolves become extinct, the wolf people might have to forge an alliance with the coyote people. If the number of wolf people dwindles even if wolves themselves don't go extinct, the wolf people might still have to forge an alliance with the coyote people. Commitment and the need to change don't always work well together. Commitment resists change, and change undermines commitment. Still, most religions that survive solve these problems.

Human Irrationality.

People do not see the world exactly as it is, not only due to limitations of merely physical beings but also because to see the world inaccurately sometimes is better. Effective action requires strong commitment. Morality, as effective action, often requires strong commitment. Strong commitment is not strictly rational. Sometimes it is irrational. Sometimes it borders on the crazy. Religion is often irrational. Although I do not make the case, art is often irrational.

Much of human life is irrational, and people like it. People need their ceremonies, holy days, candles, icons, blessings, civil ceremonies, black versus white, good versus evil, television preachers, political demagogues, church services, etc. We just have to get used to irrationality. We have to put up with it when that is all we can do. Sometimes we can learn to enjoy it.

If we try to force people to be rational, especially to be our version of rational, then we usually do much more harm than good. The obvious examples are American Prohibition and War on Drugs, but as much damage is done by Political Correctness of both the Left and Right.

Of course, irrationality can be a source of badness, and that we don't have to put up with. So much has been said about irrational badness, how to recognize it in ourselves and others, and what to do about it, that I don't repeat here.

Some good can come of irrationality. Religion is irrational but religious people argue it is good irrationality and I don't wish to argue too hard against them. The lesson is to pick from religion what is good despite being irrational, or because it is irrational; then keep the good and reject the bad. Getting "ripped" every once in a while often does more good than harm. Screaming at a sporting match is fun as long as that is not the only mental activity you ever have.

A modern mistake is to romanticize and glorify irrationality, especially emotion as super-rational and necessarily morally superior. We already have enough irrationality. We don't need to cultivate even more irrationality, and we don't need to add insult to injury with an irrational argument that irrationality is better. You, and others, already have enough irrationality so that you can enjoy what you have without wanting more. Do enjoy it as long as you don't do much harm, then let go.

It can sound as if I say: "The masses at heart are irrational fools. Let them have their stupid irrationality as long as they do little harm. Make sure we minimize the harm they do. Don't expect them to be as rational as us wise people." The worst effects of such patronizing are that it allows "the masses" to get away with bad irrationality and it allows us to not help people to be better thinkers, including to be more rational. Yes, we have to put up with a lot of irrationality from "the masses". But the masses also have a lot of rationality, a lot of good common sense, and basic decency. That is what schools are supposed to cultivate. We should put up with civil and religious ceremonies but we should also expect people to think as well and they can and we should teach them to do that. It is not nasty to expect people to work to think better. It is not condescending to help people think better, to teach them to think better. Some people can become really good thinkers if we believe in them and help them. Becoming a really good thinker is not to become a computer.

Extending Moral Groups.

When great prophets, such as Jesus, want us to be better, they urge us to extend moral logic by ignoring superficial differences while recognizing deeper similarities. They do the reverse of what bad people do when bad people find distinctions so bad people can use misguided moral fervor. People evolved to be able to extend in some situations, and to ignore some differences, but people also evolved not to be able to extend willy-nilly and to ignore all differences. When we marry, we have to extend the feeling of "us" to our spouse and our children, and often we have to extend "we" to the family and group of our spouse as well. If we wear blue shirts while they wear green shirts, we have to overlook the difference of blue and green to find the common human skin beneath. It is hard enough to do this over marriage. It is harder to do it to the neighboring "tribe", town, state, country, ethnic group, religious group, etc. It is even hard for men to extend full humanity to women, and vice versa. I could guess when we can extend and when we cannot, but, at present, there are no simple clear guidelines, and so I don't guess. It is clear enough that people in state societies have to extend more than is common in human nature, but that we can do it. It is clear enough that we will have to extend quite a bit if humanity and life are to endure on this planet. It is not clear that we can do it.

PART 8: Optional: Evolution of Morality.

Please refer to the sections on morality in Part 2. Please read Part 3. It might help some people to read Part 9 before Part 8.

We have moral feelings, make moral judgments, act morally, offer moral argument, and are susceptible to moral argument, because, in our past, people who had moral feelings etc. succeeded better than people who did not have moral feelings etc. We have moral feelings etc. because our ancestors who had moral feelings etc. succeeded and we are their descendants. If moral feelings etc. had not worked better than amorality, immorality, and moral laxness then we would not have morality now. For ease, I use "morality" or "moral feelings" to imply all of morality including acts etc.

At the end of Part 3, I noted some puzzles of morality. Here they are again.

(1) Morality is an ideal. As an ideal, morality tells us to care for other people as much as we care for ourselves. Yet morality evolved out of self-interest. How can an ideal that tells us to transcend self-interest arise out of self-interest?

(2) Morality is a combination of both irrational emotion and considered rational judgment.

(3) Morality largely serves practical self-interest. It helps people do practical things that they could not achieve without morality. People are adept judges of practicality most of the time. So why do people need irrational emotional morality to get them to do what is in their own practical self-interest? Why can't people reap the benefits of practicality, especially of cooperation, without irrational emotional morality to push them and bind them?

(4) Ordinarily we think that rational strategic consideration best serves practical self-interest. Yet people cannot achieve full practical self-interest without irrational emotional morality. People need irrationality to achieve supposedly rational practicality.

(5) Morality works as an ideal only because it doesn't work as an ideal. If people were fully moral, then their moral society would fall apart, for many reasons. People need apply morality selectively to keep the ideal of at least some morality. People need to be good to some people, indifferent to others, and bad to yet others, so people can keep the ideal of morality and be good to the select few.

(6) Imperfect people are often more interesting than really goody people.

(7) Nobody can be morally perfect.

(8) Somewhat paradoxically, we are often better people when we are less morally perfect, or at least when we try less hard. We often do more overall good even if we do a little damage along the way. Society often achieves more benefit when people are not as concerned with goodness.

(9) We get nervous around strongly moralistic people. We appreciate a little urging but don't like being told we are piles of shit (Martin Luther), and we will go to hell if we don't straighten up right now and do

what a zealous moralist tells us. While morality is an ideal, it seems to work best when it is not extreme. Can an ideal be an ideal but not be absolute?

(10) The West has opposed emotion to reason since at least Plato, 2400 years ago. The Hebrews had their version of this dichotomy and preference in “personal indulgence versus God-given Law”. The two versions fused after Jesus and the early Church Fathers. Previously, the West extolled reason above emotion. Since 1800, the West, and, now perhaps most of the world thanks to Western pop culture and Romanticism, extols emotion above reason. Which view does morality support?

It is useful to boil it all down to three basic topic clusters:

(1) Given that humans are quite adept at figuring practicality, at figuring what helps and hurts reproductive success, why were specifically moral feelings useful? What does morality do that rational reckoning of practicality can't do and-or that other feelings can't do?

(2) How did moral feelings arise in the first place? What makes moral feelings differ from other feelings, especially feelings that lead to action?

(3) (2A) How did morality work to aid individual reproductive success, or to aid family success, in small groups of foragers? (2B) Given that morality is an ideal, why are we more moral to some people and less moral to other people or even bad to some people? (2C) Why do people sometimes act morally in ways not likely to help reproductive success, as when a person pulls a strange child from a burning car?

I don't repeat much from the sections on morality in Part 2. I repeat a little for reference.

The Evolution of Morality and Cooperation.

People get more done by cooperating. Some things can be done only through cooperation, and those things are important such as hunting in groups, defending, going after other groups, sharing food and chores, and tending the ill. Think of simply living together in peace and harmony as cooperation. Almost always a group that cooperates because its members feel morality out-competes a group that does not, and so all the individuals in the moral group do better than all the individuals in the group that does not feel morality and cooperate.

Unfortunately, cooperating is beset by problems, of which maybe the most obvious is cheating. Morality helps overcome the problems of cooperation, especially cheating, so moral people can reap the benefits. Apparently evolving people could not overcome problems of cooperation in any way other than through irrational emotional idealistic morality. We cannot overcome problems of cooperation by merely rationally weighing self-interest.

Moral feelings might have developed as an extension-and-modification of feelings that we already had for close kin, friends, and exchange partners. See Part 4 above about kin selection (inclusive fitness) and reciprocal altruism.

However we got moral feelings and judgment, assume we already have moral feelings, make moral judgments, and act according to our judgments. Then we need to see what happens.

Mutual help, through morality or in any way, works better if people focus cooperation on the other people who cooperate in return. Mutual help works better if moral people focus morality on other similarly moral people. As long as people can focus moral actions on other people in the group who also act morally toward them, as long as almost everybody in a group can focus moral acts on each other, then they all do well, and they all leave more descendants than people who do not act morally and-or who cannot focus moral relations on each other.

While morality helps individual practical self-interest, and depends on practical self-interest, morality does it all in a group setting. Morality helps the formation of groups, and helps the formation of particular kinds of groups. In fact, morality likely could not continue, could not be selected for, without that particular kind of groups. This situation raises a chicken-and-egg problem that I don't go into here. This situation is the basis for never-ending bickering between Darwinists and non-Darwinist anthropologists.

Morality works also because moral action is not usually a matter of one wronged person, or even a few wronged people, against one cheater. Part of morality is that almost the whole group has to go after bad people and uncooperative people. Part of morality is the right of moral people to ask other moral people to help in case somebody cheats, or "slacks off", and should get punished. Part of morality is the right of moral people to get angry at other would-be moral people who do not help, do not help enough, do not get angry at cheaters, and do not join in active punishment. Moral indignation and moral guilt are part of the moral complex of ideas, feelings, judgments, and acts, and make morality strong. When one person wants to go after another, he-she builds up his-her case and support in the community. He-she "gets the moral ducks in a row".

(Through punishing wrong-doers and non-cooperators, we can get people to do almost anything. We don't need moral feelings or judgments. So, Darwinists who offer punishment as part of morality have to say why morality is needed in addition to punishment. Darwinists are aware of this problem and have done work to deal with it. I don't summarize the issue here.)

We don't want morality to get people to do anything. We want morality to get people to do moral acts and cooperative acts. We want morality to stimulate people not only from fear of punishment but for the sake of the ideal and the act. Darwinists have to think how morality works with and without punishment, and how punishment works with and without morality. I don't go into the issue here.

As mentioned in Part 2, when we pay attention to how we really act morally, we don't act according to the ideal of loving everyone. Mostly we act according to strategic self-interest.

Here we need caution. Not all systems of morality say we should act according to universal love. I think most systems only say we should act toward more people more kindly than usual. Most systems are about ordering human relations without necessarily pushing us to an absolute ideal. Most systems of morality say how we should act toward particular kinds of people such as parents, brothers, sisters, children, in-laws, cousins, members of another spirit group, members of groups with whom we trade, and members of groups with whom we don't trade. If a hunter kills a rabbit, with whom should she share and

how much? If two hunters kill a deer, with whom should they share and how much? Moral ideal absolutes such as “love your neighbor as yourself” might be implicit but they linger in the background. Most of morality is about other matters; those other matters are what people think of as morality. For most people, most of the time, morality was more like Jewish Law and less like the parables of Jesus or the simple teachings of great rabbis. Trying to sort all this out here is not possible. So, I take that morality tells us to act better to most people than we might ordinarily act, and morality holds as an ideal that we act toward all people as if they were close kin, as if they were us. I accept ideal morality. Now we need to think about the relation between ideal and real.

When we look at how we do act, we find that we act about as we would act according to the ideas of kin selection, inclusive fitness, and reciprocity that were given in Part 3. We help people who are related to us about according to how we are related, they help us about according to how we are related, we help people with whom we share work and marriage, and they help us according to how we share work and marriage. In morality, we follow practicality as practicality is determined for us by natural selection and reproductive success.

In that case, why do we need morality? Why isn't following practicality enough? Likely practicality alone is not enough because, to cooperate and reap the benefits, we need to act a bit better, on a wider scope, than obvious practicality tells us to act. If we look carefully, we find that, with morality, we cooperate and act kindly a little more intensely and toward a slightly wider circle than mere strategic rational kin selection and mutual reciprocity would lead us. Without morality, we might be able to cooperate with siblings but likely we have only a couple of siblings at most, and we need half-a-dozen people to hunt a group of deer or to gather wild rice safely in dangerous water. We need the extra little nudge.

Why is the extra nudge only a little? Why doesn't the nudge go further and make us kind to, and make us cooperate with, a big group of group mates, or even across groups so that people in half-a-dozen groups all act as if they were siblings? Why doesn't the nudge get us to live up fully to the ideal?

To answer that question, we first have to see other issues. Compared to small groups, large groups are more susceptible to cheating and all the problems of cooperating. Think how much easier it is to maintain moral standards in a small group, a small church or musical group, and how much harder to maintain standards in a large groups, a large church or big band.

The nudge should be small enough to get small groups to hold together reliably but can't be enough to get people to try to form large groups with greater risks. A large nudge would not be very useful, and might be dangerous, while a small nudge often would be enough. A small nudge is more efficient. In that case, natural selection almost always chooses the most efficient option, the small nudge. The actually evolved nudge is not strong enough, and need not be strong enough, to get us to go much beyond what is set up already by kin selection and reciprocity.

If the nudge is only needed for small groups, can't work on large groups, and so is only a small nudge, then is any moral nudge really necessary? Can't assessment of practicality do the trick? Can't a simple extension of the rational logic of reciprocity and kin selection do the trick? There is no definite answer to this question but apparently the answer is “no”. Even with small groups an extra nudge is needed that mere rationality cannot provide.

If only a small nudge is needed, and a big nudge couldn't work, then why does the nudge have to come in the form of an ideal, morality, with potentially universal absolute scope? Why does the nudge have to feel like a very big nudge? This way leads to an inevitable contradiction between the ideal absolute motivation that we need to act and the necessarily limited scope of our real action. We have to talk in terms of loving everybody when in fact we know we can only love a few people who are near, dear, and cooperative. Again, there is no clear answer. Rather than give a lot of speculation here, basically, all I say is that people need universals, ideals, even absolutes, to get even a little bit beyond what immediate practicality tells us. The use, and misuse, of ideals and absolutes is the price we have to pay for the nudge beyond obvious self-interest that leads us to effective cooperation. The nagging contradiction between what we should do and what we know we will do is part of the price, and part of the human condition. I write more about this issue elsewhere.

What happens in a group if people act strictly according to any ideal? Suppose we tried to run America strictly according to the ideal of "tough guy (and girl)", honor, Justice, or Truth? Society would fall apart. Society would not fall apart because the ideal is wrong but for two other reasons. (A) Most of life is not about any particular ideal, and trying to force life into the "Procrustean Bed" of any ideal only freezes life and people. It adds a huge overhead, enough to destroy. What if we had to consider Honor and Pride whenever we bought lunch or went to a garage sale? (B) There is more than one ideal. Ideals conflict. Much as we might like, we cannot have Justice and Pride together. The conflict of ideals worsens the problem when we try to run society according to an ideal only.

How many ideals are needed for full human society and full human life? How did we get any ideal? How do they work in society? How do we judge between ideals? How do we know when to leave ideals alone and simply get on with life? These are relevant interesting questions, especially for Darwinists, but I can't take them up here.

What happens when people do act morally strictly, as much in accord with the ideal as possible? First, what happens depends on the size of the group. Strict morality can work in small groups where people know each other quite well, usually when they are at odds with a bigger group around them, even when they owe their living to the bigger group, as with religious groups in America such as the Amish and Jews in Europe for a long time. But strict morality cannot work even in modestly sized groups, and especially cannot work in groups where people don't know each other quite well and don't have a strong reason to stick together. That is, strict morality can't work in real groups. People cannot resist short-term self-interest, and so cheating comes again.

Second, as with other ideals, acting strictly according to morality tends to freeze people so that people don't act on opportunities that they might otherwise have taken, so that people lose out on some benefit that they might otherwise have gained. When people act with great strictness, paradoxically, the group overall benefits less (achieves less total welfare) than if people have enough freedom. It is not true that "to ask forgiveness is better than to ask permission" but it is true enough. People need not to worry about morality always. People need to feel confident they can make a few mistakes, be forgiven, and get over the problem with modest restitution if needed. Morality arose out of self-interest. For morality to throttle self-interest is for morality to kill its parents. The overall greatest good for a group comes when people follow morality generally, don't break any serious rules, but otherwise are free to pursue self-interest.

Exactly where to draw the line is a big topic, and the line varies by culture, society, conditions, and history. I don't go into the issue here. It is important to say that people in general have a sense that too much morality can be bad, and that we need some freedom. So people are naturally suspicious of too much morality and fight against too much morality.

Third, morality conflicts with other goals and other ideals, such as Honor, Revenge, wealth, power, and Family. While a moralist might say that morality has to come first and be on top of the ideal heap by its very nature (I come close to saying this below), natural selection does not look at it that way. That ideal wins, in particular types of situations only, that leads to the most reproductive success, in those particular situations only. No ideal need come out on top all the time. There need be no dominant ideal. Trying to force one dominant ideal all the time adds to action freeze and reduces practical success.

Natural selection would give morality the force of an ideal strong enough to get us to cooperate in fairly small groups most of the time but no more power or scope than that, under normal conditions. How it is that modern people can cooperate to live in states is another issue entirely from what I raise here.

Morality requires that sometimes moral people get after bad people and even get after other moral people who are too lax. Morality requires some moralistic people, attitude, and acts. The facts that morality is an ideal, and there is always a gap between real and ideal, open the door for moralistic harangue. Yet people don't like to be prodded morally and made to feel guilt. (A) Moral selection, including not getting too worked up about all transgressions, is in accord with the general selectivity of people about acts. People get a lot huffier when they personally suffer wrong or someone near them suffers wrong than when somebody unrelated suffers wrong. We get morally angry when an unrelated visiting child steals from our purse but only get sad when our own child steals. We want not to be goaded into acting on an ideal in every case, especially when self-interest tells us that we don't benefit by acting on the ideal in every case. (B) People sense that getting too moralistic might do more harm than good. It upsets the balance between ideals and freedom that is needed for their own best benefit and for the possible best benefit of the group.

(C) Most importantly, moralistic harangues, and manipulation by guilt, are ways for some people to use other people, almost always in the self-interest of the moralistic people. When one office worker wants to "get" another, the first worker "runs down" the moral character of the second so the people of the office will take the side of the first. Yet the second worker really might not be worse than anybody else. When one politician goes after another, the first always attacks the moral character of the second, and drums up moral outrage. If one cunning person can use morality against another, he/she might later use morality against me, my kin, or my friends. Even if, in some cases, a person is justly accused, the whole tactic of moralistic attack is dangerous. Moralistic attack leads to overly-moralistic behavior that erodes the overall welfare of the group. It is better not to let cunning people use morality as a weapon at all. It is better not to fall into the habit of moralistic thinking. One way to hold the line against overly-moralistic behavior is to hold the line against moralistic attack and the moralistic people who tend to use it often. We suspect them. We don't like them. Even when they are right.

Moral life in early human groups was not simply about trying to get as many people as possible as much as possible to live up to a simple easily-understood ideal. Even in early groups, living more morally might have made things worse, not better, even though living somewhat morally certainly did make things much

better. Even in early groups, there were sub-groups of kin, friends, and allies, and people had to act a bit differently toward his/her sub-groups and toward the whole group. Even in early groups, morality could never be the only consideration and often was not even a relevant consideration. Even in early groups, morality competed with other ideals such as Honor, Courage, and Beauty. All this is even more so today in complex societies. Morality is quite important to me, but I have to see it for what it is, how it evolved, and its role for good and bad in the real current world.

Variety of People; People are overall more Good than Bad.

Even in a basically moral group, some cheating happens. Even your most angelic best child sometimes steals a cookie. We have all used moralistic cunning. Morality can end some cheating but not all. As a result, even in a moral group, (1) there will be a variety of characters, and (2) each of us will have within ourselves the potential to be good and bad. See movies about hucksters who go into a good community where they bilk the folk as in "The Rain Man".

Are people basically more good-moral or more bad-cheaters? How particular individual people turn out depends on circumstances, but I think people are more good than bad. I think most people can be taught to act quite well most of the time in the right conditions. Usually the conditions were right enough in our evolutionary past for cautious good attitude to be fixed as the basic predisposition. We start out giving people the benefit of the doubt. We start out acting mostly good with a little bit of opportunism, trying out badness sometimes. Sadly, people also can learn to be quite bad in the right conditions, as with children who are forced to be soldiers.

Here is one reason why people are usually more good than bad: Cheaters depend on moral people in a way that moral people don't depend on cheaters. Imagine a group in which only moral people do productive work while cheaters can only live if they have moral people to live off of. Moral people help each other while cheaters always harm the people they interact with. Moral people benefit, they benefit more with increasing numbers of moral people, they benefit with an increasing ratio of moral people in the group, they benefit even without any cheaters, and they benefit most without any cheaters. Cheaters cannot benefit without moral people, cheaters do not benefit much if there are many cheaters, they lose benefit the more cheaters there are, and they only hurt each other if there are only cheaters without any moral people. We can imagine a group of all-moral (or almost all-moral people); but we can't imagine a group of all cheaters because they would have nobody to prey on, and they would destroy each other. Briefly, moral people are "primary producers" while cheaters are parasites. Primary producers can live quite well without parasites but, without hosts, parasites die.

All people vary in propensities to cheat and to act with simple goodness, and, likewise, moral people vary in simple goodness and in zealotry. First, within each person, we have both simple goodness and fierce zealotry. Second, within groups, some people tend to be zealots by nature while others are simply good without being zealots. It is hard to say if people in general are more zealous or less zealous. I think most of us prefer not to be zealots unless situations bring out our zealotry. It can be dangerous to be a zealot, and it is convenient to let other people be zealots. When situations do call for craziness, then most of us can rage with moral indignation easily enough. We can even talk a big game and let other people do the dirty work of zealotry and of punishing bad people. This is part of our mixed moral nature too.

If we all have a mixed moral nature, and we all need some training to bring out the best, then we need to build institutions that bring out the best. Usually institutions that bring out the best also produce people that support those institutions such as charities, good schools, and democracy. People and institutions support each other. On the other hand, bad institutions produce bad people who sustain bad institutions such as tyranny and gangs. Usually the middle ground is narrow, and the situation goes one way or the other. It is hard to make a good balance and easy to fall into a bad balance. People who live in good situations are lucky. We need to make sure we fall on the side of good institutions and good people, and stay that way.

Morality, Intent, and Persons.

Real morality requires the ability to read intent, and it requires empathy and sympathy. We have to be able to guess accurately what other people intend, what their motives are. We have to be able to guess adeptly what other people feel, and we have to feel along with them at least sometimes. In jargon, morality needs a solid “theory of mind”. We have to know what it means to be the “other” when we “do unto others”. At the same time, for morality to persist, we have to feel that other people can understand us, feel us, feel for us, and feel with us, too. We have to expect others in our group also to have a theory of mind, and their theory of mind has to be similar to ours. We have to believe that understanding, feeling about, feeling with, and feeling for, are mutual. We do not have to expect they really will treat us as well as we would treat ourselves.

When we read the intent of others, especially when we have empathy and sympathy, we see others as persons. Morality and the idea of a person evolved together. They imply each other. I mention this link again below, and the topic requires a lot on its own, so I leave the issue alone here. Even with animals, when we can read intent, have empathy, and sympathy, we see the animal as a person. About the time I wrote, some people wished to give chimpanzees, gorillas, and elephants the status of persons for many humanitarian (!) and legal reasons. It does little good here to argue about exactly where to draw the line as long as we do see the close ties between moral feelings and persons.

Altruism.

Sometimes people do act in accord with the moral ideal at the expense of their apparent fitness (practical reproductive success) as when someone leaps into the street to snatch a strange child from an oncoming car.

Think of morality not as an ideal but as a mechanism or as a tool. Most tools have specific uses, an “ideal” for the tool, including the situations in which the tool should be used. At the same time, no tool is perfect. Sometimes the tool is used in cases that resemble the best situations but are not the best. Sometimes we use a wrench for a hammer, and sometimes we use a hammer to prop open a window. Ordinarily the people around us are close to us, are kin, friends, work partners, sharing partners, or members of our group. We develop the general attitude of kindness toward them; we develop moral feelings toward them. In those situations, it makes sense to snatch a child out of the way of a wandering water buffalo or a running herd of giraffe, even if the child is not ours. At the least, our act will dispose our moral partners to do the same for us. Even if we get killed, they will be kindly disposed to our relatives and friends, so we will gain indirectly through their gain. If the same attitude later leads modern people to

save strange children from automobiles, there is nothing to wonder about, and the act certainly does not repeal all the other ways in which morality does go along with our reproductive success.

As an ideal in human theory, morality should be universal; but so what? In evolution, universality is only a guide, a suggestion. Universality is not evolutionarily mandatory, and could not be made mandatory by natural selection. A modest sense of universality might be needed for morality to work but that does not mean really acting universally is needed for morality to work in natural selection. We should not confuse ideal with real even when the ideal guides the real somewhat.

Some Companion Ideas that are Important Later.

Not only did we evolve to act morally most of the time, we also evolved the following ideas. I do not say why. We evolved to:

- (1) Think morality is really important, about as important as anything else in life. Not all of us are like the “noble Romans” who put duty above family and life but nearly all of us understand the feeling.
- (2) Think morality is real. We don’t think of morality as real in the same way we think of rocks as real but we do think morality is more real than the images that we see in clouds and more real than the ripples we see on water during a windy day – and, yes, I know the ripples are real.
- (3) Link morality with the super natural. We think morality is real in the way other super natural things are real such as spirits of the storm. People that believe in high gods or in God think morality and the gods, or God, are closely related.

At the beginning of this chapter, I said morality is real. I use these points to support my belief. These points are not the most important support but they do help. The most important support is that morality has its own logic, the logic of the Golden Rule and “applies equally”.

I think dedicated Darwinists would use these points instead to argue that morality is merely evolved. The feelings that morality is important, real, and linked to God are all evolved, likely merely evolved and not true. If they are all merely evolved and not true, then they are bad evidence that morality is real. In fact, they are evidence against morality being real. So morality is not real. Morality is merely evolved, a handy delusion that serves reproductive success nearly all the time.

The Logic of Morality.

I differ from mainstream Darwinism in 2016 because of how much I stress moral logic. I use the logic of morality to bolster my belief that morality is real while Darwinists pretty much overlook any particular logic that morality might have while they focus on how morality is used to support success. Morality is entirely, only, and nothing but its use. I disagree. I think morality is channeled by its logic. Morality IS something, and morality’s is-ness is important. So, here I explain a bit.

I do not discuss the logic of morality in the context of other ideals. I do not treat morality as one ideal to be compared to other ideals but focus only on morality. I hope to do that elsewhere.

People can't argue much about taste in food but they do argue about morality. They argue the facts of a case, relations of facts to principles, and which principles apply. While not exactly the same, it is useful to think of court cases as arguments about morality. When a young person says "but that's not fair" he/she has to back up the assertion with ideals, principles, rules, standards, and precedents.

We can't argue about anything unless that thing has a logic. Usually we can't appeal to rules unless the rules are organized into a logic. We can't relate facts to rules without a logic. We do argue enough about morality, and in the right ways about morality, so that it has to have a logic. People can be susceptible to sensual appeals that don't have much of a logic such as the naked body of a healthy young person. But ordinarily people are susceptible to things as parts of systems with a logic. Immediate sex appeal makes sense but romantic movies only make sense as a set of ideas about relations and love. Even porn only makes sense in the context of logics; I let you figure out which logics. Sometimes immediate violence makes sense but movies about the American West, and films noir, even when they have a lot of violence, only make sense as a system of ideas about good, bad, justice, self-reliance, friendship, teams, etc.

Even purely physical systems follow a logic, and the logic makes a difference. We don't think of motion as following a logic but it does, and the logic makes a difference. It makes a difference if moving bodies follow Newtonian rules or Relativity. Crystals cannot form in any ways. They have to form following the logic of "group theory". Abstract mental systems have to follow a logic even when we don't just make them up. There are only so many abstract design patterns that can be made on a wall, and they too have to follow the logic of group theory. Each branch of mathematics has its own logic such as the logic of groups, hyperbolic geometry, or all the various infinities (there is more than one kind).

It makes sense that our mental abilities follow a logic even if they evolved. Now we have to decide which logic, or even which logics, morality follows. Of course, I think the logic of morality is in the Golden Rule and "applies equally". The key issue is whether even natural selection has to follow the logic but I cannot really go after this problem here. I can say enough to make more sense. I only illustrate. See my other writing.

Think about kin selection (inclusive fitness). We are kind to our kin, and we expect them to be kind to us, because we are part them and they are part us. We share genes, a lot of genes. Doing something to a kinsperson is like doing something to me. They feel the same way. The same is true of our constant partners in gathering food, sharing food, sharing child care, and other chores. Doing something to them is almost like doing it to me even if we are not (as) related as kin. They are in the same relation to us. In this situation, the only rule that consistently makes sense is the Golden Rule and "applies equally", with some allowance for different age, experience, particular individual skills, gender, etc. I am NOT saying that we are always kind to our kin and frequent work buddies, that we never compete, and that we never do bad things to each other. Bad things do happen, and bad relations do develop even with close kin. After all, they are not exactly us and we are not exactly them. But the only efficient way to approach the situation to begin with is to treat them much as we want them to treat us, and that means everybody treats everybody the same. We begin with the benefit of the doubt, with good intentions, and with good overtures.

Think about life in a group, with persons, the persons can read intent pretty accurately but not perfectly, and the persons have sympathy and empathy for each other. Sympathy means they have similar sets of feelings and they can read each other's feelings. Empathy means they can share the feelings so that they understand the feelings of others, know why others respond, and know they likely would respond similarly if they were in the situation of the others. If you do something to someone else, that is almost like doing it to yourself. If someone else does something to you, that is almost like the other person doing it to himself. Of course, natural selection made sure that we are not that empathetic and sympathetic, and did so in ways that serve reproductive success. Only saints, some avatars, and some bodhisattvas, are that sympathetic and empathetic. We have all ignored somebody else's feelings and done to them what we would not want anybody to do to us. And we have all been ashamed of ourselves later for doing it. Despite how empathy and sympathy might work out in particular cases, the underlying logic is that of the Golden Rule and "applies equally". As with morality in general, even though sympathy and empathy have been shaped to serve reproductive success, there is still an underlying logic, and this underlying logic is that of the Golden Rule and "applies equally".

Persons, morality, empathy, and sympathy all evolved together, and all share the same underlying logic of the Golden Rule and "applies equally". Each has other features, especially persons, but that does not change the common underlying logic.

If people are fairly free to leave a group and set up their own group, then morality has to follow "do unto others" and "applies equally". Under any other rule, some people in the group would have to gain while others would have to lose. If some people tried to make morality follow another rule, the other people who "lost out" because of the new rule would leave to set up their own group in which morality did follow that rule and only that rule. Eventually in free groups, people would have to settle into a rule something like the Golden Rule as the basic default position. From this default position, people could negotiate variations and people could maneuver for gain; but that does not change the basic default position. Not all basic default positions are encoded into our genes but I think this one is. No social animal is totally free to leave its group, set up another group, or join another group, especially with predation and strife between groups. I think evolving humans were free enough to set up new groups even given intergroup strife. This point is contentious in evolutionary theory now, and I don't go more into it here.

The theories that Darwinists use to understand cooperation, in particular game theory that relies only on "Prisoner's Dilemma", are set up so freedom to switch groups is not part of the game. The players are trapped in the game, usually in one group with no subgroups or alternatives. This limit is not realistic. When modified to allow switching between groups and memories about players and groups, I think the default condition of the Golden Rule and "applies equally" emerges.

Morality is an ideal, and a universal ideal. Moral teachers say to be good to everybody. This kind of an ideal goes along with the logic of the Golden Rule and is a mirror image of the logic of "applies equally".

People are adept at twisting moral logic to get around it and to use it for self-interest. People kill each other in the name of a good god. People enable their friends' bad habits. People are adept at making themselves feel moral about bad acts such as stealing. These abilities to twist logic and feeling do not alter the basic ideas just given. They do not mean morality can follow any logic or that evolution can apply moral feeling to any act.

In mainstream Darwinist thinking, moral feelings could apply to any act if that act furthered evolutionary success, even bad acts such as robbery. Moral feelings can go along with other feelings if the other feelings helped our evolutionary success such as greed; we can feel moral about feeling greedy or acting greedy. In contrast, I think moral feelings cannot apply to just any act and cannot go along with just any other feelings, no matter how much the act or feelings might have promoted our evolutionary success. We can feel clever about bilking old people out of their retirement through a Ponzi scheme but we can't really feel moral about it. We can rationalize so as to act badly and to cover up our bad feelings but deep inside we still know we have done wrong when we do not follow the Golden Rule and "applies equally".

Morality, sentience, sympathy, empathy, the idea of a person, ideals, universal ideals, the Golden Rule, and "applies equally" all go together and evolved together. I think they would all evolve together wherever they evolved. Thus even all extra-terrestrial aliens that feel morality would know of the Golden Rule and "applies equally". They would also all have a mixed moral nature and would be able to twist moral logic for self-interest. We can expect aliens to understand our morality but they might not act any better toward us than we have acted toward ourselves sometimes.

Pro-Sociality.

People who act morally among each other promote their own particular individual success, the success of other group members who act morally too, especially ones who act morally among each other, and even the success of other group members who might not act as morally. People who act morally among each other promote overall group welfare. They help each other to find food, trade, care for children, defend food, defend the group, find spouses, and do all the other act that are important in group life. People who act morally also act "nicely" and "kindly" toward each other. They act like kin toward each other. Morality is "pro-social".

Politicians and priests promote morality as much for the pro-social effects as for the morality itself. We should be careful about this effect of morality. We tend to see this effect in terms of people sacrificing for the group. This way of looking can be misleading. The group benefits because members individually gain more benefit on average (some might lose but that does not change the average). If we think of group benefit in terms of the sum of individual benefits then the group does benefit when people act morally. We should not think that people would act morally for long if they personally lost benefit even if somehow the group gained benefit at the same time. If many people lost benefit, then the group would not act morally and could not gain benefit. The group does not come before individuals and it does not channel what individuals do. Individuals helping each other make the group better, partially directly but mostly indirectly.

The Legacy Carried Over.

Because moral action was successful for our ancestors in general, we inherited a bundle of abilities that still shape our lives. We are more pro-social than an observer might expect for an evolved organism for which self-interest is basic (this result does not reduce the role of self-interest). We are susceptible to morality, kindness, friendship, and moralizing. We take people at face value until they show otherwise. We share. We trust. We give to strangers. We respond to appeals of all kinds, even from comparative

strangers. We cooperate. We plan together. We can delay reward for a long time. We can divide work and reward among a large diverse group. We “carry” people when they have problems. We expect other people to be moralistic enough. We learn cultural values and social roles. We expect all this of other people. We enforce expectations for good behavior and shared values through rewards, ostracism, and punishment.

Our abilities evolved among hunter-gatherer-foragers. We carried these abilities to other settings that arose later such as horticulture, agriculture, villages, towns, cities, states, occupations such as carpenter and blacksmith, labor unions, business firms, professions such as electrician and lawyer, long-distance trade, commerce, and capitalism. We adapted abilities that were originally suited for hunting bands to let us build complex democracies or complex fascist states. We could do that without changing hardly at all the underlying abilities – our “mental genes” are very likely nearly identical to the “mental genes” of our hunter-gatherer-forager ancestors.

Because moral action was successful for most of our ancestors, and because selfishness is often a way to succeed, we also inherited abilities to be amoral or immoral. We are not always bound enough by our susceptibility to morality. We can use the susceptibility of other people to morality against them. We lie, steal, cheat, seduce, run away, and act like cowards. We do not enforce expected good norms, and so we let down society, the people who trusted us, and our kin and friends.

Tendencies to good and bad exist in all people to some extent, and in all societies. Which tendencies come to the fore, how much, and in what ways, depends on the person, history, culture, society, and conditions. All in all, people have been pretty good, even given wars, exploitation, and the impending ruin of the planet. The harm that we do mostly we don’t intend. Unfortunately, we also don’t stop even when we clearly see the harm.

Reducing Morality to Nothing But Reproductive Success.

If you don’t like arguments about ideals, what is real and how, and relations to the super natural, you can be a good Darwinist and overlook those issues entirely. All you have to do is focus on how people really behave under considerations of morality, and check to make sure that what people really do goes along with their reproductive success, or would have gone along with their reproductive success in the past as we evolved our nature. You take that as evidence that morality really evolved, and use as much as you can to speculate on how morality evolved. This is what most Darwinists do.

I have nothing against this research strategy, and much good insight has come of it. I don’t like that it tends to reduce morality to nothing but reproductive success, to explain away morality. It does not tell us how morality is distinct from any other trait that serves reproductive success such as drooling at the smell of burned meat, chasing rabbits, running from bears, having genitalia, or having orgasms. It reduces the variety and interest of life. It even reduces our ability to explain why various traits evolved because it overlooks the particular nature of particular traits, and so, in the long run, it actually reduces the power of Darwinism.

I prefer a more rounded view that takes account of how a trait works and what it is, including the logic by which it works and that might have affected how it evolved.

Optional Technical Insertion: Rules, Values, Strategic Interaction, and Society

The need for rules, values, and institutions raises the following problems, which I do not solve.

First, imagine two people sharing a rabbit. How they share the rabbit can be seen by looking at their strategic options. If the two people are of about the same “power” likely they will share the rabbit about equally. We cannot so easily understand what happens with many people, as the example of sharing the deer from above shows. It is not easy to read off what really happens just from theories of strategy.

Social scientists tend to think rules and values are the direct simple result of strategies, as in sharing the rabbit, but they are not. This mistake can be called “individualist reductionism”. It is true that rules and values have to come out of strategies and cannot stray far from a balance of strategic interest. People modify rules and values to go along with strategic interest. But they are not the simple direct reflection of strategic interest. The rule “the hunter gets the left leg” holds if the hunter weighs 90 pounds and is nice or weighs 200 pounds and is fierce. Rules and values have some autonomy of their own, and have an interesting relation with strategic interest. You cannot guess what will happen in a town meeting from reading “Roberts’ Rules of Order”; and you cannot derive “Robert’s Rules of Order” from knowing that people form power blocks. How this all works is not well known now. Social science theory can help but it also hurts by channeling the imagination.

Second, we are susceptible to rules and values as to sex and morality. We follow them, even when, at least in the short run, sometimes we suffer. Very likely we have capacities for rules and values, and the capacities are about as important as our capacity for morality. This result leads some social scientists to say that humans could not have evolved a capacity for rules and values unless natural selection occurred not just at the individual level but between groups: “group selection”. For decades, this idea was framed as group versus group, like “spy versus spy” from Mad Magazine, in which whole groups annihilated other whole groups. Now, the idea is often framed in terms of multiple levels of selection, from gene to small group to big group. It is too hard to summarize that idea here. It is a mistake is to think simplistic group selection entirely replaced individual action in the evolution of the capacity for morality and the capacity for rules and values.

Third, some social scientists dismiss biology and individual strategy. They say culture, social structure, social organization, or some other group dominates the individual and determines what he-she does. This is a mistake. Still, these thinkers use the importance of rules and values, and the susceptibility of people to rules and values, as evidence. These thinkers ignore how individuals institute rules and values, change rules and values, and maneuver within rules and values. In my experience, these thinkers have little feel for biology, individual strategies, and the interplay of individuals and rules.

PART 9: Optional: Needed Ideas about Morality.

I repeat my request that you read David Hume and Immanuel Kant. See Part 8. This Part summarizes ideas that you need so as to think more about morality, and this Part repeats from above. Unless you already have some background, you can’t assimilate all the points in this Part at one sitting. They are meant for future reference and to guide you in future reading. They set up the argument in the next Part of the chapter on the modern Darwinian explanation of morality.

Morality is about goodness but it also includes feelings-ideas-and-judgments of good and bad, good and evil, right and wrong, should and should not, ought and ought not, fair and unfair, just and unjust, disgust and approval, “yes” versus “no, icky”, duty, rights, responsibility, and other feelings and assessments that I don’t list here. In this chapter, I write as if all the aspects of morality are pretty much part of the same greater thing. I don’t distinguish between the morality of fair and the morality of icky. In fact, I think most of morality can be unified under good and bad, the Golden Rule, and “applies equally”. In a longer work specifically on morality, I would explain, and would deal with feelings and ideas that did not fit under those three aspects of morality. Here, I just note the problem and go on.

Morality is about persons. Only persons can have morality and show morality. Morality cannot arise in rocks, amoebas, trees, forests, roses, clouds, storms, falling coconuts, and most animals; and morality cannot arise by natural selection in the single-unto-itself tree-based life force in the movie “Avatar”. Persons usually show morality between other persons. Morality is part of a relation of what Martin Buber called “I and Thou”. People can correctly show morality toward animals such as when people fight cruelty and when people wish to save endangered animals. People can correctly show morality toward aspects of nature and to nature as a whole, as when people save forests, ecosystems, and the planet. This does not undermine what I say. Part of morality is responsibility and duty, and wishing to help nature is a valid extension of those. When we think about how morality evolved, we have to think too about how persons evolved at the same time and what role morality played in interactions between evolving persons. When we think about how morality works now, we have to think of how morality and personhood work together and cannot work separately.

Some animals do show rudimentary morality but that is not relevant here and does not undermine what I say. Someday robots will be sentient and have no morality or have morality different than evolved human morality. That future also does not discredit what I say.

The fact that morality is based in persons affects how we see morality, what we expect, and how morality works. For example, the idea of “applies equally” assumes that everyone is a person, and that people have to be treated in accord with “applies equally”.

Likewise, the rules and facts of morality also shape persons. How morality works affects what we think is a person, what we think of persons, what we expect of persons, and what we expect persons not to do or be. If you are too moral, amoral, or immoral, too social or non-social, like power too much or not enough, then you cease to be a person. Some people become demons, some saints.

Another way to say morality is about persons is to say morality is about agents. Agents have to be free somewhat to act; they do not need absolute cosmic freedom. Agents have to have some free will and freedom of choice; they do not need absolute cosmic free will. Agents have to take responsibility for actions, and feel duties. Agents have rights.

In theory, morality could work with only two agents, or with only one agent and nature. In the real world, morality implies a community of persons who regularly interact and have expectations about each other. Morality implies communities. Interacting-somewhat-autonomous-agents-becoming-persons is the only way morality could arise under natural selection. So, naturally occurring morality always implies a group

of interacting persons. That is where we find morality now. Morality does not necessarily imply the kind of society that any particular interest groups now promote, including anthropologists, NGOs, politicians, ethnic activists, and religious activists. The relations between morality-in-general, particular moralities, and kinds of communities, are not clear. I don't have to clarify them. To repeat: the fact that morality and community are closely related does not mean that society makes the category "morality" or society sets all the content of morality.

This idea of agents affected the American Revolution and has affected mainstream non-Marxist economic theory since it began with Adam Smith in 1776 in his book "The Wealth of Nations".

While empathy and sympathy are not logically necessary for "applies equally", still morality, especially the Golden Rule, implies a lot of empathy and sympathy. It helps to know what other people think and feel, and to share in their thinking and feeling as much as our character and imagination allow. At the least, persons have to see each other as persons. For normal naturally evolved human beings, sympathy and empathy are needed for morality. Sympathy and empathy are part of naturally evolved group life among persons, and could only have evolved naturally in group life among evolving emerging persons. Morality, empathy, and sympathy had to evolve together. Not only did Adam Smith write about economics in terms of agents, he also wrote about moral sentiments and moral theory. The fact that morality, empathy, and sympathy imply group life does not imply society originated and fully controls sympathy and empathy. It does not imply any particular society or any social theory that is promoted by any modern group.

Morality is not just an assessment such as "the price of apples is too high today" or "I like Mozart but not Beethoven". Morality is a judgment. We approve or disapprove, extol or condemn, and offer reward or punishment, when we make moral judgments.

In theory, morality is one of the highest judgments we can make, perhaps the highest. Morality is right in case of a conflict of morality versus: you, family, God, any religion, any dogma, any Church, any country, any political agenda, or humanity. Few things may judge morality. Morality can judge almost anything.

Of course, in practice, we do not apply morality in the vast majority of human acts or ideas, as when we buy coffee. In practice, other things often trump simple morality, as when people choose their country or their family over what is good, even when they know better. This kind of ranking and choice despite the clear ideal of "morality first" made only intuitive sense until evolutionary theory gave a good explanation. Now we have a better systematic sense of why we rank morality so highly but often "fudge" in the better interests of family, religion, job, or nation.

Morality implies that we reward and punish people in some cases.

Evolved morality requires that some good people require other good people to go along with punishing bad actors (offenders) and rewarding good actors. It is not enough just to be good yourself, you also have to be against bad people and for other good people. Evolved morality requires that some people be self-righteous and moralistic at least sometimes. Self-righteousness and moralistic high-hat can go too far. There is no absolute guideline for how much is enough.

Morality requires rights, responsibilities, and duties. We cannot have rights without responsibilities and duties. We need duties to be moral. I do not go into relations of responsibilities, duties, and rights. Since the 1960s, Americans have stressed rights more than responsibilities, and that has led us astray.

Morality can apply both to acts and ideas (all kinds of mental states and attitudes). We can have morally bad ideas and good ideas. For valid reasons, Western legal systems decided it is better to focus on acts and to not manage ideas through morality. Even so, in our human past we did apply morality both to acts and ideas, and in our daily life outside the legal system we still do. We apply morality to ideas even when we don't expect ideas to lead right away to acts. The term "dirty mind" is a potent moral judgment.

To assess and judge, we need a logic. To make assessments and judgments that work with more than one person, in a community of persons, we also need a logic. Otherwise, people could have no grounds to assert or deny moral judgments, and could not agree or disagree. Morality has a logic. I believe the root logic of morality is the Golden Rule and "applies equally" (with some additions and modifications that do not affect my assertion, and that I discuss elsewhere but not here). I differ from mainstream evolutionary thinking in this point. For that view, see below.

To repeat: there is a difference between knowing about games in general and knowing any particular game. We don't learn games in general; we learn particular games on the basis of knowing about games in general. The basis to learn games is not given to us by society and it is not learned. We are born with the ability to learn games, with which we learn particular games. The same is true of morality. We have a general ability for morality but we do not live general morality or learn a general morality. We learn and live particular styles of morality. The general ability to learn morality evolved. The general ability for morality is not given to us by society, and it is not learned. The general ability to learn particular styles evolved. We do learn the particulars of any given style of morality such as Christian or Taoist morality. Society gives the particulars of a style of morality but does not give us morality as such. The particulars that society gives us can be so important that we overlook our underlying general capacity for morality.

The same is true of religion.

Morality uses facts but morality is not limited to facts. We do not read morality directly from facts. We add moral judgment to facts. Moral judgment and facts are logically distinct. When we see a boy taking apples from a tree we don't know how to assess his actions morally until we know that his grandmother owns the tree and gave him permission or know that the neighbor owns the tree and forbade him. Even if we know that the neighbor forbade him, we might withhold judgment until we know how reasonable it is to forbid neighborhood children from taking apples off a tree when the neighbor does not pick them himself and does not pick up windfalls either.

Morality adds something to facts. Morality adds assessment and judgment.

Facts do play a role along with morality. We need to know who owns the tree and what the owner said about picking apples. Morality cannot be arbitrarily added to any blank fact. Likewise, on the other hand, morality cannot be reduced to a formula about facts. I cannot go into the interplay between morality and facts. What is important here is that moral assessment is logically distinct from facts.

There is a difference between a judgment about a situation versus the drive to do something about the situation, to respond. In common, incorrect, but still useful, terms: there is a difference between logic versus emotion, thought versus action, rationality versus irrationality.

We need both logic and emotion to know what to do, and then do it. In terms of the TV show "Star Trek": Mr. Spock is logical but does not always know what to do and does not always do anything; Dr. McCoy is emotional but does not always know what to do and often does nothing; while Captain Kirk blends logic and emotion, does know what to do, and does it effectively.

Morality not only has passions that drive moral responses, morality has its own distinct passions. When we see right and wrong, we want to do something because we feel moral approval or moral outrage. We do not get angry at a dog getting out of a yard through its own cleverness in the same way that we get angry when the owner does not control the dog, does not secure the yard, the dog gets out, and the dog bites somebody.

Sometimes morality is about a lone right-thinking right-feeling person who has to go against society even at great cost, as in some Classical Greek drama, Classical American Westerns, film noir, detective films, and all police ("cop") movies after about "Bullitt". That case would be important if this book were about morality but here we can overlook it.

More often, people think morality is "prosocial", that morality promotes society; and, in fact, most moral ideas do lead to a better social life. Telling the truth most of the time, not stealing, not cheating, helping others before they ask, helping others when they do ask, and the "Boy Scout Code", really do lead to a better life for the doer and everybody around him/her. If everybody were the Good Samaritan, our world would be better. If everybody could think of nature as our mother and as someone that we have to get along with, this world would be better. Business in the long run would be impossible without business ethics even if in the short run you can make a killing by cheating. This idea that morality is prosocial is how most people explain and justify morality to children.

The link between pro-sociality and morality is at the root of modern controversy about morality. It leads anthropologists to explain morality as an aspect of society. It leads biologists to wonder how evolution, which is rooted in individualistic natural selection, could lead to a strong prosocial force, and to answer that the pro-sociality is only a by-product of individual gain. The confusion over pro-sociality leads both groups to reduce morality to nothing but whatever they think is important. It leads the groups to talk past each other. It leads both groups not to look at morality in itself before giving explanations and reducing morality to nothing but.

On a more personal level, but tied to pro-sociality, are two complementary views of morality. On the one hand, morality is kind. We all know that we behave better, and in many ways more morally, toward our near kin than to strangers. Morally seems to be a version of these feelings, an extension of them. On the other hand, morally sometimes requires us to be stern, as when we have to punish even our own children when they break important rules. The sternness leads to a better family-social group. We can look at the sternness as kindness in disguise ("you have to be cruel to be kind" and "tough love") but it is better to look at it first as simply sternness, as when we spank a child for stealing regardless of what that act might contribute to more efficient family operation in the long run.

At least since Plato argued with Sophists, 400 years before Jesus, it has not been clear if people should be good

- (1) For the sake of goodness in itself.
- (2) Because being good and acting well leads to benefit for the person.
- (3) Because acting well leads to benefit for society.

Personal benefit can be pleasure, satisfaction, other positive feelings, better character, Heaven, a better rebirth, getting along in society, having more useful contacts with people, staying out of trouble, or helping society because you like society.

Plato was unclear on this point, his confusion led him to err, and the errors have lingered in Western thought ever since. For an example of confusion over (a) morality for its own sake versus (b) morality for benefit, listen to the song “Santa Claus is Comin’ to town”, as in Chapter One. Parents teach children all three rationales for morality. The issue remains unresolved. Just why is honesty the best policy? I come down on the side of doing good for its own sake. It might be necessary to teach children that doing good leads to reward but in the long run that is a dangerous idea.

The issue is important because of the ties to pro-sociality and to conflicts between anthropologists versus biologists. Anthropologists latch on to the explanation that good is for the good of society while biologists use benefit of the individual. To the list above of individual benefits for doing good, biologists add that a person increases his/her reproductive success and so increases long run evolutionary success. Morality is for the good of the self. All other reasons are simply that reason in disguise.

Long before modern controversies about the evolution of morality, thinkers offered theories of morality, usually based on one of the benefits listed above, for individuals or society. An act was moral if it aided that benefit. A judgment was moral if it led people to see a situation so that they would act in ways that promoted one of the benefits listed above. People could feel when an act or judgment promoted one of the benefits listed above, and so would feel that act or judgment was moral. People could feel when an act or judgment went against one of the benefits listed above, and so would feel that act or judgment was immoral. Since about 1800, thinkers have focused on acts and judgments that have to do with society rather than individuals. I don’t go through the list, but only mention some examples that, hopefully, get the idea across:

-Stealing is immoral because it disrupts social order, social cohesion, and the sense of social identity.
Respecting social status is moral because it promotes order, cohesion, and social identity.

-Morality is entirely a matter of convention, in particular socio-cultural convention. Society invented the idea of morality and society fills up entirely the content of morality. It makes no sense to speak of a moral sense apart from the particular content given by each particular society. This stance implies that morality is not comparable across societies; there can be no general rules of morality.

-Stealing is immoral because it subtracts from the total welfare (food, clothing, security, entertainment, families, housing, religious activity, sports, etc.) of particular individuals, and so subtracts from the total welfare for society as a whole. In contrast, honest purchase is moral because it adds to the total welfare. Think of whether paying for apples rather than stealing them benefits Johnny, Suzy, and Tom individually more than it costs each individually, not only right now, but over their whole lives. Say that buying rather than stealing leads to greater benefit than cost for Johnny and Suzy but to greater cost than benefit for Tom. Still, if the sum of benefits for Johnny and Suzy is greater than the cost to Tom, then, paying is better than stealing, and so paying becomes the moral rule for everybody. If the sum total of the benefits minus the costs for an act, reckoned for each individual, summed over all individuals, is positive, then the act is moral. If the sum total is negative, then the act is immoral. If the sum total for one act is greater than the sum total for another act, then the first act is more moral, than the second act. This vision is the basis for social planning, and has been used to justify quite a few giant sports stadiums.

-Society is not the sum of individuals. Society is greater than the sum of individuals. Still society is about overall benefit, for which we have to figure cost and benefit. We can figure costs and benefits to society directly without going through individuals. If an act, judgment, rule, program, etc. benefits society-as-a-whole then that act etc. is moral. If an act etc. hurts society as a whole, then it is immoral. If one act benefits society more than another act, the first act is more moral than the second act.

-Rather than figure trillions of particular acts, we can reckon in terms of a rule. If a rule against stealing leads to more benefit than cost, we can say the rule is moral and so stealing is immoral. If a rule against lying leads to more cost than benefit, we can say that the rule is not moral even if sometimes it is useful for teaching children or for limited situations. If one rule benefits more than another rule, the first rule is more moral than the second rule. The cost-and-benefit consequences of the rule can be figured for the sum of individuals or for society as a whole. Usually it is easier to figure for society as a whole and then make up rationales about how that also benefits individuals.

Two particular visions (theories) of morality deserve mention, especially because they don't fit into the molds above. Both have influenced me much.

(1) Immanuel Kant is my source for "applies equally". Any rule, to feel moral, must apply to all people equally including you, your kin, your friends, etc. It applies equally to us all because we are persons, and we are not rocks or animals. It is hard to imagine being a person and not wishing such a rule to apply to all persons, at least in theory. A good example is telling the truth. If any rule does apply equally in that way, then it will tend to feel moral. Kant's term for a rule that has to apply to all people because they are sentient beings is "categorical imperative". You see that term often in the literature on morality.

(2) G.E. Moore made a strong case that we should not reduce goodness to any other thing. We should stop trying to explain goodness in any other terms. We cannot understand goodness in any terms other than goodness. We should understand and accept the idea that we do good for goodness itself and not for any other reason. Goodness is its own category. We should think about good in itself. Moore used the term "naturalistic fallacy" for reducing morality to anything else, in particular to any natural thing such as cost and benefit but including ideas such as honor.

It is possible to combine Kant and Moore but I don't try here and a combination of the two is not needed for what I say in this book.

To explain morality properly, I should contrast moral assessments with other assessments such as based on beauty and economics. I can't do that here. I hope to do that in other work.

PART 10: Optional: The Darwinian Explanation of Morality.

This part requires Parts 6 through 9. Especially refer to the last few sections of Part 8, and even more the section on the logic of morality.

When Darwin first applied evolution to humans he was scared by implications for morality and religion. If our senses of morality and religion evolved, and how we actually feel and act under morality and religion follows our reproductive success rather than ideals, then morality and religion could not be about anything real. They are useful delusions, aimed to serve individual reproductive success, and cannot be anything more. Darwin reduced morality and religion to nothing but evolved traits that serve reproductive success like antlers on deer or spots on butterfly wings. I disagree.

Evolutionary scientists carried on Darwin's mistake of reducing to nothing but and explaining away. They did so in how they think about morality as adaptive, how morality might have evolved, and how morality aids success. Below, I retell one of Darwin's examples, and explain how his mistake is carried on. Most evolutionary scientists avoid the issue of what happens if morality is successfully reduced to nothing but. I am not sure what they really think. See the chapter in this book on atheism.

I think most religious people also avoid the issue. They have a feel for the bad that would ensue if we reduced morality to nothing but practical reproductive success, and so they deny evolution is real; deny humans evolved; or accept that humans evolved but deny humans evolved morality and religion, and they assert that God inserted genes for morality and religion into an otherwise evolved proto-human non-moral animal. Or they simply don't deal with the issue.

If we make the mistake of thinking morality can be reduced to nothing but, simply because our capacity for morality evolved, or because what we do follows reproductive success rather than an ideal, we make a fundamental mistake about how the world works. We make a mistake about how persons, evolution, self-determination, and self-government work. We misunderstand ideals.

We severely diminish our hopes for good self-government. It is unlikely any trait that is nothing but can serve as the foundation for persons, morality, and self-government. Even if, through amazing social engineering, some "reduced to nothing but" trait could serve as the basis for democracy, why bother? It would be gilding a clod of dirt. It helps good self-government when we can be secure in believing that persons and morality are real enough.

Morality evolved to serve reproductive success and it still does. Even so, if we reduce morality to nothing but an evolved mechanism to serve reproductive success, then also we make the mistake of thinking that any-and-all ideas that have an evolved basis cannot be about anything real simply because the basis for

the ideas evolved. We wrongly think evolved ideas cannot have a real object and cannot be true. When we make this mistake with morality, we also tend to make it with other ideas such as scientific method.

The Darwinian Explanation for Moral Feelings and Acts.

Assume that we have moral feelings, and don't worry about where they came from or how they relate to other feelings such as hot and cold, and pleasure and pain.

IN THEORY, natural selection can attach any feeling, including moral feeling, to any idea or act, as long as the attaching leads to evolutionary success, that is, to reproductive success. Natural selection can attach the feeling to the degree that gives the best results for evolutionary reproductive success. Natural selection can make sure a feeling does not attach to an act or idea if having that feeling to motivate the idea or act would lead to less success. IN THEORY, natural selection can get us to do or not do, to the right extent, in the same way. Usually a feeling goes along with doing or not doing to the right extent. For example, we find fruit and some nuts sweet but spoiled almonds are bitter and rotten fruit is icky. We like meat more than vegetables but like both better than hunger. Usually we are not afraid of robins. We love all babies including tiger cubs but fear adult tigers. We love babies that look a lot like us more than we love the babies of other people or other species. We are more afraid of big hungry angry nearby bears than of well-fed neighborhood dogs usually confined to their own lawns.

Given that we do have moral feelings, natural selection attaches moral feeling to any act or idea to get us to do the act or think the idea, or not do the act and not think the idea. Natural selection attaches the feeling to the right intensity so that we do the act or think the idea to the right extent. Natural selection makes sure moral feeling does not attach to any act or idea that might harm reproductive evolutionary success. Natural selection made sure we don't attach moral good feelings to people that do not help us achieve practical evolutionary success or that might hinder us. We feel more kind, good, and moral toward our near kin than to strangers because we achieve practical evolutionary success through our kin but not usually through strangers. That is the whole current theory of the natural selection of morality, in a nutshell. For example, we approve of love and duty, but usually approve of love more than duty, yet act more from duty than love. We condemn stealing and incest but usually disapprove of incest more, likely because, when it happens, it leads to more personal, family, and social damage. We get huffier when a stranger steals from us than when our niece steals from us.

This explanation makes sense and is overall true. This account explains how people really use morality, that is, who we treat fairly well, who we treat really well, who we treat badly, who we treat really badly, and when. The neo-Darwinian explanation can give us suggestions for what to do and not do in making a lasting just state. The neo-Darwinian explanation can account for odd cases of strong altruism as when a person saves an unknown drowning child, although I do not explain how. This explanation is well worth keeping.

This explanation also reduces morality and explains it away as nothing but. Just because the explanation is so good at accounting for how we actually use morality it takes all focus away from how morality differs from other features of human nature, what morality might be in itself, and if morality ideally follows a logic even if in practice it bends the logic.

Darwin himself opened the door to thinking about attaching feeling this way and so explaining away morality as nothing but. In an example that became famous, Darwin used bees. A hive has only one queen. If the current queen is young and healthy, and a bee that ordinarily would be a worker begins to grow into another queen, then other worker bees, her nearly-identical sisters, sting her to death. Darwin said, if bees were moral, they would feel justified, righteous, and good about stinging to death their own sisters - as justified, righteous, and good as humans do saving the life of a drowning child or shooting a drug-addled home invader. Natural selection can attach the moral feeling to any idea or act as long as the attachment leads to more success than failure overall. Darwin did not bring up whether the idea or act has to follow the logic of "applies equally" or any logic. In his view, moral logic is not at issue. The question of logic does not come up. Darwin did not think ask whether morality has to pertain only among persons. The question of persons does not come up. Bees are not persons. Darwin did not bring up why bees would need moral feelings so as to be able to sting to death a sister. Apparently bees can figure out practicality without need of morality to urge them on; if bees can do it, then humans can do it too and so should not need morality. But humans do have morality and it is not clear why they need the extra boost to do what bees can do without morality. The only issues for Darwin are act and attached feeling, of applying moral emotion to get animals to do the act or think the idea, and the overall degree of evolutionary (reproductive) success.

Overwhelmingly: Biologists followed Darwin in considering only situations, acts, moral feelings, and cost and benefit; biologists followed Darwin in attaching moral feelings to acts and ideas to get people to do and think idea (or not do and not think); biologists have not considered if morality has to follow a logic even if morality evolved, in particular if morality has to follow the logic of "applies equally"; biologists have not considered the extent to which morality goes with persons – although since about 1985 biologists have taken seriously agents and have made progress in seeing relations between agents and morality. Biologists followed Hume and Darwin but overlooked Kant. Biologists dived into explaining away morality as nothing but practical success, reproductive success, in disguise.

Even so, biologically based analyses have been quite productive and are on-the-whole far more correct than wrong. I write not to undo what biologists have done but to keep people from making the same mistake of explaining away morality as nothing but, of overlooking what morality is and the context in which morality evolved, among evolving persons. We can think that our sense of morality has historical roots in practicality and success, and still intimately tied to practicality and success, without concluding morality itself is nothing but practicality and success. At some point, morality becomes something in itself that we need to respect.

In other work, I assess "attaching feelings to acts and ideas" in more detail.

Right and Wrong about the Current Darwinian Account.

(1) If humans already are so good at judging practicality, that is, what serves reproductive success, then why do we need a strong force such as morality to get us to act practically? Why did we need any force other than practical consideration? Why did we need any force other than practical consideration to overcome cheating to benefit from cooperation? Why do humans need morality if bees don't? I know analyses of irrational commitment. I accept that they are good arguments. I want them made better.

Specifically, we need to pay careful attention to games other than “prisoners’ dilemma” to figure out how morality works to augment considerations of practicality.

(2) Why do we need specifically moral force and feelings? How do the moral feelings that spur moral action differ from other feelings that spur other action such as a taste for sugar, a taste for meat, desire for sex, desire for beauty, and pleasure and pain? Why do we need so many different kinds of feeling? What makes moral feeling distinct from the others?

(3) How did we get specifically moral feelings to begin with? Where did moral feelings originate, and so how did morality originate? Modern Darwinism does offer an account of how morality originated from kin selection (inclusive fitness) and reciprocity; see above. But the account is not fully satisfying. Nobody is sure why humans evolved morality while other animals did not.

(4) I find exhilarating recent studies of the development of morality and the sense of persons in children. I think moral sense and a sense of persons are linked in any naturally evolved sentient being even if they are logically separable. Darwinism could benefit from more consideration of the evolution of the idea of persons, and study of the mutual evolution of the senses of morality and personhood.

(5) If Darwinism could answer these questions, it would be more powerful. Darwinism does not need to answer these questions to show how selective application of morality does serve practical reproductive success. In offering accurate arguments about that, Darwinism can feel it has successfully solved the problem of morality when, in fact, it has solved only one aspect of the problem of morality. So, for the most part, the other questions remain overlooked and unanswered.

(6) Not only did we evolve morality but we also evolved to think morality is really important, morality is real in some way, and morality is linked to the highest levels of the super natural. If the main goal of morality is to promote reproductive success, why is morality reinforced (reified) this way? We don’t need to feel that pleasure and pain are real in the same way we think morality is real, and we don’t need to think they are linked to super natural at any level.

(7) Morality evolved to promote reproductive success. People still use morality to promote reproductive success. We can understand a lot about morality by considering how it promotes success. Exactly the same can be said of pleasure and pain, the taste of food, smells, sight, hearing, sex, strategies for finding food such as hunting and gathering, fighting, sentience, art, and personhood. If all are merely methods to promote reproductive success, what makes them different? What makes them all needed? What is the best way to understand them in themselves? How do we think of them as distinct? What makes each special? This question goes deeper than asking how each evolved at a particular time, and in particular situation, on planet Earth. Moreover, morality seems to be more distinct from, say, the sense of smell, than the sense of touch is distinct from the sense of smell. As long as we think of all them only in terms of methods to serve reproductive success, we can make little sense of this feeling that not only are they distinct but are distinct in different ways. We need better ways to think about the methods that nature evolved, even if we first have to think of them as methods to serve reproductive success.

(8) A handy way to summarize the issue in (7) is to say that Darwinism gives us a good way to see how something works and what it works for, but humans also want to know what something is. Knowing what

something is, is not just a metaphysical quest. Knowing what something is also helps us to know how it evolved, how it works, and how it is distinct from other methods.

Don't dwell too long on the distinction between knowing how something works versus knowing what it is. Western thought has at times emphasized one to the detriment of the other, mistakes followed, and the mistakes became entrenched. The idea of "Being" or "is-ness" has haunted Western thought, as have reactions against the idea of Being. Get the idea of "is" versus "how it works", and see how knowing both points of view helps.

The desire to know what something is, and to think in terms of "is", likely evolved. That does not mean the desire to think in terms of is and to know what something is, is not useful, and does not mean things do not exist simply because our desire to see them in terms of "is" evolved. Again, the source of an idea does not matter, not even that it evolved. Some things exist even though we evolved to think in terms of existence and essence.

(9) Morality really does seem to have a logic, and the logic seems to be the Golden Rule and "applies equally". What does this "having a logic" imply for the evolution of morality? What does this imply for how morality differs from other methods that serve reproductive success such as walking upright?

(10, with 5 repeated) The fact that the questions in (1) and (2) don't need answers to offer explanations based on adaptation and reproductive success makes it too easy to reduce morality merely to practical evolutionary reproductive success, and so intensifies the reduction. We should be suspicious of any reduction that fails to address the questions in (1) and (2).

(10 continued) Many attributes that evolution gave us are merely accidents of the history of evolution on this planet such as the ability to breathe oxygen, fly in rarified gas (air), and walk on two legs on solid ground. In contrast, some abilities lead us to perceive things that would exist even if humans never evolved, and to follow some of them. We perceive light, the sun, and the octave, and we follow scientific method. We need to decide which of these options morality is, and what that means.

We do gain by looking at morality as merely a method to serve reproductive success, and as a thing for which we evolved a capacity to imagine as real - but what do we lose? We lose appreciation for the logic of morality, the force of "applies equally" and the Golden Rule. We lose appreciation for morality as what we should follow as much as we can. We lose the feeling of morality as something apart from people, with its own being, and greater than people. We lose a chance to know any ties between morality and the super natural, including God.

Giving Darwinism a Needed Break.

I am a Darwinist. I do not criticize Darwinism to negate it but to make it better, especially for well-rounded people who want to place Darwinism and themselves in a bigger context.

For reasons that I can't go into here, science rightfully cannot accept the super natural into explanations. This rule is a strength of science. The view I take of morality leads me toward the super natural even if my view does not require the super natural. So Darwinists are correct to be leery of my criticism if they

feel it leads inevitably to the super natural. They have to decide how much they have to deal with without being forced into the super natural.

If Darwinism cannot settle the issues raised above, such as the reality status of morality, and cannot admit the super natural into scientific arguments, then what is the proper path for Darwinism? The proper path is what Darwinists have done. The proper path is to see how morality is used, and not used, to promote reproductive success. Once Darwinists have more and better information on that topic, then they can worry about the other issues. Darwinism applied to humans is still young enough as a science so that it should focus on how morality is used and not worry so much about what morality is or about some of the other issues raised above.

On the other hand, Darwinists should not think every attempt to place Darwinism in a bigger setting is necessarily a critique of evolutionary theory and of the idea that evolutionary theory applies to humans. Some of us believe that humans evolved, including morality, and want to understand not only how that happened, and how it works now, but what it means. To understand how humans and morality evolved, we have to consider at least some of what morality is as well as how morality is used.

What I Want.

I want to have my cake and eat it too. Usually I dislike wanting to have your cake and eat too but in this case not only can I get away with it but it is the best attitude.

-I want to keep the Darwinian account of how morality works and how it might have arisen, and keep the traditional sense that morality is almost uniquely important, morality is bigger than humans, and is real.

-I want to keep the Darwinian account of how morality works and also think about what morality is.

-I want to know why we have the ideal of morality but apply it selectively. Darwinism is very good at offering an answer to this question.

-Even though I see why we do not live up to moral ideals, I also want to keep morality as an ideal for me, and I want to work hard to make a better world.

-I want to believe that moral logic (Golden Rule and “applies equally”) conveys the ideal of morality and constrains even real evolved morality but also that natural selection often does not fulfill moral logic and sometimes does an end run around moral logic.

-I want not to reduce morality to “nothing but” anything including nothing but evolutionary reproductive success and nothing but society.

-I want to keep what we gain from seeing that we are moral but we are not perfectly moral.

To repeat: Just because we evolved the ability for something does not mean that our ideas about that thing are nothing but evolved useful delusions, and does not mean that thing is necessarily unreal. We can evolve true ideas about true real things, even non-material things such as morality.

Just because something is non-material and real, and evolution gives us an ability to see it and follow it, does not mean evolution will lead us to see it completely clearly and follow it fully. We see real material things such as forests but we hardly know everything relevant about them and we don't treat them as well as we should even for our own welfare. Our evolved ability for geometry falls short of ideal geometry but that does not mean we don't do any geometry, and falling short of the ideal because we evolved the ability to see the ideal makes sense of the fact that some people are adept while others are not. The fact that how we follow morality can be explained by evolutionary theory does not debunk that morality exists. It means the capacity for morality evolved in the context of serving practical evolutionary reproductive success. We do not follow scientific method perfectly either but that does not mean scientific method is merely an evolved delusion.

We can have both ideal morality and real morality if we think morality is real but that we also evolved a capacity to see morality and to follow it as much as practical evolutionary success allows. Morality does exist apart from humans or any evolved sentient beings. Evolution led us to see and to follow something that is non-material yet still real apart from us, morality. Morality is not a thing evolution merely invented as just another organ like fly wings. Moral logic does constrain real evolved morality. Our evolved ability to follow morality falls short because it is an evolved ability. Falling short is what we should expect even if morality is real.

We cannot use morality and persons as the basis for real democracy unless we do see morality as both real and evolved, unless we see both the ideal and how we really act. Unless we see real and evolved, ideals and real acts, we will constantly confuse real and ideal, and will constantly make bad policies and programs.

I think evolutionary biology so far has done an outstanding job of going after morality. Biologists do tend to get misled by the idea that morality is nothing but an evolved delusion, and frightened by their own train of logic, but that is a chance we take when we think hard. Besides the classics in moral philosophy, any person interested in knowing about morality should read works on the biology of morality.

To improve understanding of morality, I have some suggestions:

- If you are a religious person, don't worry that modern Darwinism has explained away morality and God. Appreciate how well modern Darwinism explains what people really are like and what people really do. Use knowledge about what people really are like and really do to get people to act better and be better. Don't base your work on unrealistic ideologies.

- If you wish to make democracy work, pay attention to what biologists say about human nature in general and human moral nature in particular. The best source for wisdom is still the past but wisdom from the past goes along well with what biology tells us. Use what you know of human nature, and learn about human nature, to design good laws and good programs. Use it to understand how capitalism really works and real capitalism affects social and class relations.

- If you approach these issues from modern Darwinism:

=Stop taking pride in the possibility that evolutionary theory explains away morality and religion. Instead, pay attention to how theory explains what people actually do, sheds light on how morality evolved, or on what a person is and how persons might have evolved.

=Think about how moral feelings differ from other feelings. Why do we need so many feelings?

=Think whether morality follows a logic. Can moral feelings really attach willy-nilly to any act or idea even among evolved persons? Is there a pattern to how moral feelings attach other than to serve reproductive success? If morality does follow a logic, what is that logic?

=Think about how ideals work in human life, how they might have evolved, and why we need so many ideals.

=Step back and, as a person, wonder if morality might be real and what that might imply.

=Read my chapter on atheism later in the book.