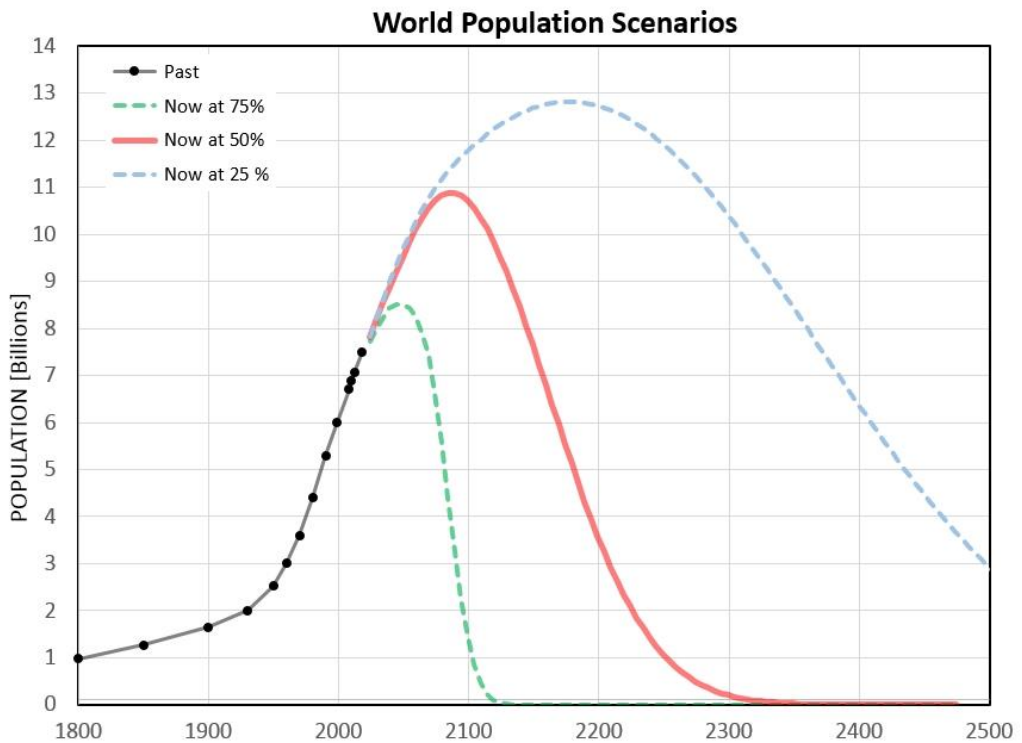


EUSOCIALITY and PSYCHOPATHY

Second Edition



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Cover picture: World population scenarios based on sampling theory and hypotheses that the number of people born to date is 75 %, 50 % and 25 % of the entirety of humans who will ever be born. A description of the basic assumptions for this graph is given in Chapter 30.

"Anacharsis laughed at him [Solon] for imagining [that] the dishonesty and covetousness of his countrymen could be restrained by written laws, which were like spiders' webs, and would catch, it is true, the weak and poor, but be broken by the mighty and rich." Anacharsis, 600 BC

"Anyone who is stupid enough to trust or believe me deserves the consequences."
A sentiment summarizing John Grambling's attitude toward the many banks that he defrauded.

"A great civilization is not conquered from without until it has destroyed itself from within." Will Durant

In a democracy people get the government they deserve! Humans are ungovernable. They deserve each other!

"Good news, oh beautiful planet, the accursed race of Man is not immortal."
Robinson Jeffers

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Introduction to First Edition

The title of this book consists of one word that almost no one has heard before and another in common use that people think they understand but which is widely misunderstood. The two words represent opposite ends of a spectrum for social behavior.

Eusociality refers to a social organization in which individuals are reliably devoted to the prosperity and survival of their collective while having no regard for individual welfare beyond the needs of the collective. It can evolve in a species where individuals associate in groups that compete with each other for a winner-take-all result.

Psychopathy is commonly thought of as murderous behavior devoid of empathy or remorse. It is much more, and “white collar psychopaths” are far more numerous than murderous ones. A psychopath has no concern for the welfare of others; their concern is exclusively for themselves.

Overview of Book’s Objectives

Very few species are eusocial. The most notable examples are ants, termites, honey bees and bumble bees. Among mammals, only the naked mole rat is considered to be eusocial. Humans have started down the eusocial path, as suggested by E. O. Wilson (2012), but with very uneven results. One of these, unforeseen by traditional evolutionists, is “psychopathy.” In retrospect, however, any “game theorist” would have predicted that when humans began to form super-tribes, which led to civilization, the niches for psychopathy would have exploded!

This book argues that psychopaths have “gamed” evolutionary opportunities afforded by civilization, and that they hijack societies and eventually destroy them. I use the analogy of an organism in which cancer cells arise and can take over the individual organism and unthinkingly kill it.

Historians have puzzled over the fact that all civilizations have endings. In spite of their theoretically superior prosperity and strength compared to nearby uncivilized societies, the civilized ones have trouble enduring. A median lifetime of 87 civilizations has been estimated by Kemp (2019) to be about 250 years (see figure on next page). Explanations are given, such as exhaustion of resources, natural disasters and poor governance. No doubt, each of these explanations can account for some failures. My argument is that even if none of these traditional explanations weaken and destroy a civilization it is doomed to fail eventually due to a hijacking by psychopaths.

Using my cancer analogy, if a person does not die by drowning, car accident, or heart attack, there is always that internal threat of a cancer cell escaping detection by the immune system and proliferating out of control to kill the person. Just as the risk of death from cancer increases as the individual ages, the risk of a civilization collapsing due to a hijacking by psychopaths increases with the civilization’s age.

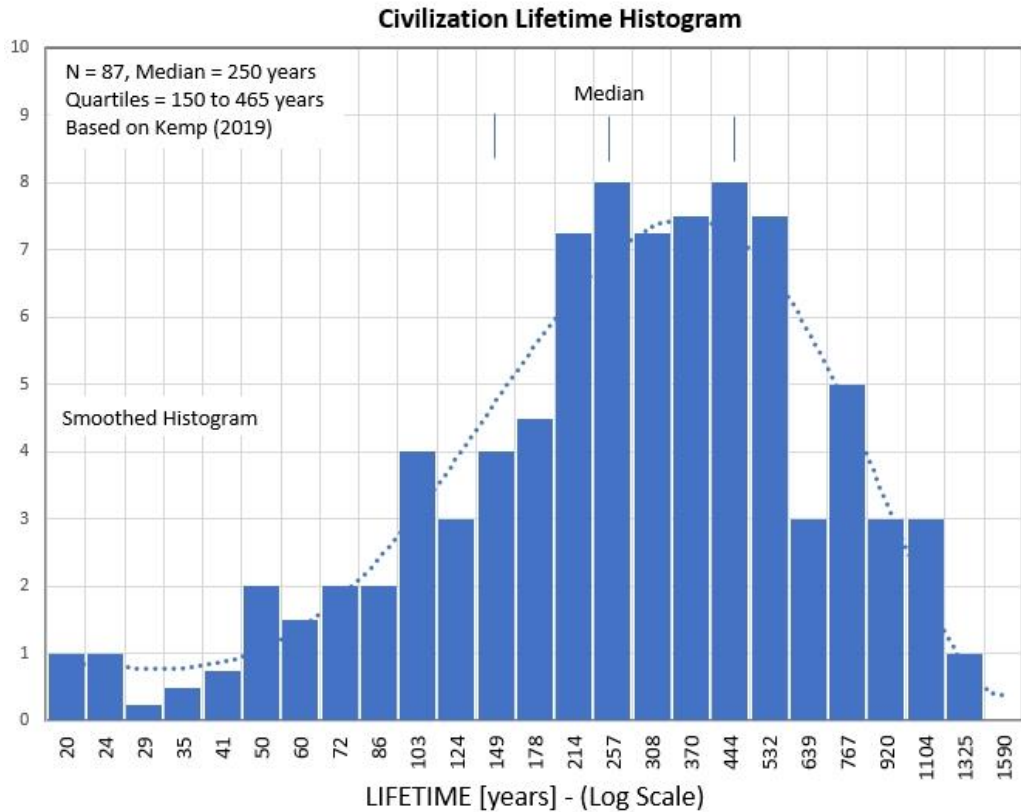


Figure 1. Histogram of civilization lifetimes as determined by Kemp, 2019. Each lifetime interval has a width that is 1.2 times the previous interval (i.e., yielding a log scale for the x-axis). The counts for a few intervals have been “smoothed” to overcome a tendency to use round numbers in estimating a civilization’s lifetime. A “trendline” (dotted trace) is shown. The median lifetime is 250 years. The first and third quartiles are at 150 and 465 years; half of civilization lifetimes occur within this interval.

Life Evolution Pattern: Coming Together Transitions

The evolution of life has several “coming together” transitions to form something bigger. The first of these is the coming together of RNA (or DNA) strands to form a cell. The second one is the coming together of cells to form a multi-cellular organism. The last one, which has occurred for only a few species, is the coming together of individual organisms to form a social collective that competes with other social collectives. After a species has completed this last transition it is referred to as “eusocial.” For the eusocial species the individual members have evolved away from regard for self to regard for only the collective.

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In trying to understand the transition from human individuals to a tribe, a eusocial transition, the most instructive earlier transition is the one from cells to an organism. The organism has an immune system for identifying rogue cells and destroying them. Does a tribe have something analogous to an immune system for identifying and destroying rogue individuals? I will dwell on a tribe's "cultural immune system" for detecting and disabling rogue individuals. A psychopath is that rogue individual and he is analogous to a cancer cell. Whereas one is a parasite of an organism the other is a parasite of the tribe.

I will argue that whereas in the ancestral environment a tribe's methods for suppressing the destructive influence of psychopaths was effective, when super-tribes began to form at the onset of the Holocene epoch, 11,700 years ago, the tribal "cultural immune system" was ineffective. This allowed for the growth of many niches for psychopaths. In other words, whereas super-tribes enabled the creation of "civilization" they also allowed for the proliferation of psychopaths, and this insured the eventual death of the civilization.

If this speculation is true then any endeavor to protect civilization will require that we have a better understanding of how psychopaths "game" a civilized society. I claim that in spite of the lessons to be learned from a study of super-tribes losing their ability to control psychopaths, once a society has been hijacked it is destined to collapse. Since the modern world is highly inter-connected we are really dealing with the possible collapse of global civilization. I claim that we are also dealing with the matter of the collapse of humanity, at least as we know it.

A Difficult Read

If psychopaths are indeed a crucial determiner of civilization endings, and even the end of humanity, then we need to not only acknowledge the role psychopaths have played in hijacking societies, but we must have a deeper understanding of how they do it. Before we address this, we should understand non-psychopaths in a fundamental way. This requires that we understand sociobiology, an academic discipline that relates individual behavior to the fact that individuals are assembled by genes in gene pools that compete with each other. This is a big subject, so my treatment of it will necessarily be brief. My description of how a psychopath differs from "normaloids" will require an understanding of the differences between brain frontal lobe function and posterior lobe function. This is the subject of neuropsychology, so I will present a tutorial on that. An understanding of Poisson statistics will also be needed, so I treat that.

As a foundation for these matters, and also undergirding all serious scientific disciplines, is the assumption that all living things are assembled by genes that have no prevision of outcomes. The genes that exist in a gene pool are those which survived competition with other genes in past environments. Even though outcomes determined which genes would remain in the gene pool, the genes themselves had no understanding of outcomes. In

Introduction

other words, humans are puppets designed for the past, and outdated genes pull the strings. This way of viewing human nature is very off-putting for most people, and to the extent that it is needed for understanding much of the material in this book the reading of it can be uncomfortable.

Chapter 9 is one of the highlights of this book. Why, you might ask, don't I start out the book with the Chapter 9 material. The reason is simple: unfamiliar terminology can't be used before it has been defined, and unfamiliar concepts can't be used before they have been described. The first 6 chapters can be viewed as "tool" chapters, for they create the tools needed for understanding the essential argument of the book. Chapters 7 and 8 are needed before Chapter 9. I think the chapters preceding Chapter 9 are interesting by themselves, and maybe not all readers would agree. That's why I state that this book may be a difficult read for most people. I understand this, but the book is not meant for most people. In fact, it is not meant for anyone besides myself! I have written it knowing that book sales for serious matters are denied to authors who are unknown. I am an unknown within the fields of sociobiology, neuropsychology, and all other humanities. My only claim to being known, and respected, is within the physical sciences of astronomy and the atmospheric sciences.

Within the physical sciences a rigorous approach is required; a scientist with charisma but lacking rigor cannot survive. Things are different in the humanities. Charisma without rigor is viable for maintaining a career in most humanities. Those of us who have survived within the physical sciences have an opinion about those who dominate the humanities. We suspect that the least rigorous of the humanities, such as sociology, are led by charismatic charlatans.

There exist academic disciplines that straddle the undisciplined humanities and the rigorous physical sciences. When a rigorous thinker works in these intermediate fields, and rescues them from charismatic charlatans, they can create amazingly successful versions that endure for at least a generation. Two examples of this are the invigoration of a branch of psychology that became known as neuropsychology, and the rescue of anthropology from trivial just-so stories and lame speculation by the new field of sociobiology. Both of these new disciplines developed with daring and a firm direction during the 1960s and 1970s, reaching a glorious apex in about 1980. They were then hijacked by timid thinkers with social agendas starting sometime around 1990.

I'm 86 years old now, so I remember the rise and fall of these two great scientific fields. I wasn't a participant in either of them, but they were both "close to my heart," especially sociobiology, and it saddens me that the shining light pioneers of those fields have lost, or are losing, audience. We need them to address the topics that this book is devoted to. If they're not going to do it, then I will!

Introduction

My Amateur Status

The reader, if any will ever exist, should know that I'm an amateur in the subjects of this book. No one in the fields of sociobiology, neuropsychology, anthropology or psychopathy will have ever heard of me. I have had only one college course in anthropology, and it emphasized the trivial matter of names for relatives within tribes. But I also had no college courses in the atmospheric sciences, where I earned a living as a Caltech employee for three decades, leading to 46 publications, many awards, and four patents. I also hadn't taken any optical astronomy courses prior to my retirement, during which I have published 58 papers and one book on photometry (all five Amazon.com reviews are 5-star). I might add that Leibnitz hadn't taken any courses in calculus before he invented the field. Academic pedigrees can sometimes be misleading; those of us who cross academic discipline boundaries can sometimes have insights worth consideration.

Finally, on the matter of this book being a difficult read, for most people it would be an uninteresting read. I'm reminded of an exchange I had 5 or 6 decades ago with Garrett Hardin, one of my heroes. He read a treatise I wrote about thermonuclear war, and how important it was for the sake of humanity's continued existence to maintain a deep underground dwelling that would be a safe haven from radiation-produced mutations. Hardin encouraged me to write about this for a publication, which he would help me with. As I spoke with people about this project I slowly and reluctantly came to an understanding that most people don't care about the future except as it matters to their children and grandchildren. Their basic attitude was "What have future generations ever done for me?" During the intervening decades I have continued to be puzzled by this attitude, but can now accept that for maybe 99 % of people they care more about a sale on ice cream at the local market than the future of humanity!

My Previous Book on this Matter

In 2018 I self-published the book *Civility and its Discontents*. It had the purpose of explaining why most people living in a civilization are discontent, the subject of Sigmund Freud's *Civilization and its Discontents*. My explanation expanded upon Freud's by emphasizing the unnaturalness of living among strangers and the frustration of living in a society dominated by psychopaths. My book was inspired by Donald Trump being elected president and Keith Olberman's 2016 web page showing his scoring of Trump on the Hare Psychopathy Checklist. At the time of this "inspiration" I was being annoyed by e-mails asking for the submission of articles to a humanities journal that I suspected was a bogus journal, so to find out I prepared a "joke article" that I intentionally fashioned in a way that would annoy any humanities reviewer. It was so much fun writing this faux article that it occurred to me that each article section could be expanded into a book chapter. The journal "accepted" my article for publication, provided I paid a \$200 publication fee, so this evidence showed that the so-called journal

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was a money-making scam – perpetrated, most likely, by the “white color psychopaths” that I criticized in the article.

My *Civility* book was almost ready for publication when I was in a serious car accident (2018 January) that probably would have killed me if the timing had differed by as little as 0.2 seconds (the other driver had alcohol and cocaine in his blood, according to an autopsy). My injuries kept me from writing for a couple months, but eventually I had a hurried version that I self-published during my recovery. A few months later I had the strength to add to it and self-publish a more substantial version.

Even though that book might have sold only one copy I considered it a great success. Every reading of my *Civility* book led to a resolve to create a more expanded version with a new emphasis on the relationship between psychopathy and its opposite, eusociality. That led to this book (the First Edition, in 2020). Every reading of it stimulated new ideas which I incorporated in revised versions. When it expanded by ~ 50 % in late 2020 I began calling it a Second Edition. Every update since then has been called a Second Edition. This was done knowing that it wouldn't confuse anybody because book sales had remained close to zero. I've re-read this book several times and am proud of the accomplishment. One measure of my success is that so far no one is throwing tomatoes at my house or trashing me on Reddit.

The present book is a greatly improved version of the First Edition. It has new ideas and many color graphs. I consider it a success because I enjoy reading it and adding ideas that improve it. It's greatest value for me is that each re-reading of it stimulates the development of my thinking further. No book can completely exhaust a subject because anything written about a subject is more accurately just a “work in progress.”

[Currently, the First Edition is just a black and white version of the color version Second Edition. Color costs a lot which is my motivation for making these two versions available.]

Introduction

Introduction to Second Edition

The First Edition of this book was written in 2019, while Donald J. Trump was president. That book borrowed heavily from ideas in my 2018 book *Civility and its Discontents*, which was inspired by my discovery in 2016 of Keith Olbermann's scoring of Trump using Robert Hare's "Psychopathy Checklist;" Olbermann showed that Trump was a psychopath. The main message of the First Edition is that societies can be hijacked by psychopaths, and this begins a process of collapse of the hijacked society. This basic idea continues to be central to the present edition. However, this one contains a more thorough development of the argument for why psychopaths are able to hijack a modern society more easily than the more primitive tribal society, or small tribe.

Whereas the overall goal of both editions of this book is to provide a plausible theory for the fact that civilizations are amazingly prone to collapse, in spite of their greater prosperity and presumed technical strength over surrounding uncivilized societies, the arguments used for that purpose can be used to deliver another worthy message: namely, human nature is mis-matched for a civilized lifestyle because it evolved for life in small tribes, not today's super-tribes. This Second Edition includes additional material that more directly delivers that message.

To summarize, for millions of years our ancestors lived in small tribes that competed for territory by waging war with neighbor tribes when the prospect for victory was favorable. War and peace required different tribal organizations, and this meant that tribal organization transitions had to occur.

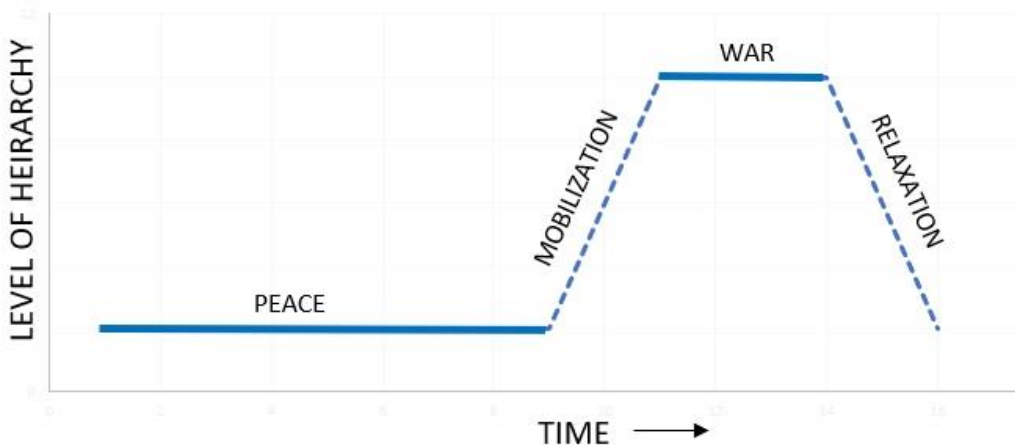


Figure 2. Every successful tribe goes through the cycle depicted in this figure many times. The individuals of the tribe must be capable of performing well during each of the two states, peace and war, and they must recognize when to initiate and complete each of the transitions.

Introduction

The level of conflict between neighboring tribes varies with time. When it is high the tribe's future is best served by individuals who set aside individual aspirations in order to contribute to the tribe's victory. Afterward, the tribe can "relax," and during the following interlude of peace individuals are allowed to compete with each other. This peaceful competition leads to improvements of the tribal genome (i.e., "fitter" individuals) and greater tribal strength for use in the next war. Tribal organization accommodates these changes by mobilizing to form a hierarchical organization prior to war (Fog, 2017) and returning to a more egalitarian or peaceful organization after victory or stalemate.

We can safely assume that tribal genomes that have survived these evolutionary challenges were good at creating individuals who implemented all of the appropriate changes of tribal structure. The wisdom of a winning tribe resided in the tribal genome, for it is out of the genome that individuals are conceived and grow to adults whose job it is to carry out that tribal wisdom. Each generation must be ready to perform under all conditions, even though only one state may prevail during their tenure.

If we think of humans as robots created from the tribal genome for the purpose of securing tribal genome longevity, then the robot brains will consist of stimulus-response circuits that achieve good results when the robots are grouped in small robot tribes. A robot today was meant for a social setting of 100,000 years ago, living with 150 other robots, so what could possibly go wrong when it is transported in time to unforeseen conditions of a contemporary super-tribe consisting of millions of like-minded robots also transported in time?

As challenging as modern society is for these time-traveling robots, add into consideration that psychopaths were rarely found in the AE tribes, whereas today's typical society, such as America, may include a million free-roaming psychopaths. In the small tribe it was easy to identify a psychopath because everyone knew everyone in the tribe. But in a super-tribe a psychopath is rarely discovered, and even after discovery he can simply relocate to a part of the super-tribe that sees him as just another stranger.

The First Edition of this book introduced the speculation that high functioning "white collar" psychopaths seized opportunities for governance, and occasionally achieved leadership positions. In this way psychopaths have been able to hijack societies and rule it the way a mafia crime family used to rule a New York City neighborhood. I speculated further by suggesting that psychopath hijackings might account for civilization collapses.

This Second Edition emphasizes the role of authoritarians in aiding the psychopath imposters. Since the principal mischief of the authoritarians is to pressure others into adopting the beliefs and commanded behaviors of the strong leader, the psychopath cult leader, I rename them the Enforcers. Thus, the twin evils of human nature are on opposite ends of the eusociality spectrum as the psychopaths and the Enforcers.

Introduction

Every tribe has a culture in addition to a tribal genome. I'll use the phrase "tribal genome" to refer to the sum of genes for individuals in the tribe. Whereas the tribal genome restricts what culturgen (elements of culture) can exist, the culture also influences what genomic changes are being influenced. The tribe's genome and culture co-evolve, as described by Lumsden and Wilson (1981).

Tribes ceased to exist (with minor exceptions) at the onset of the Holocene epoch, about 11,700 years ago. As tribes coalesced into super-tribes they became societies, and eventually a civilization (groups of interacting societies). Since tribal genomes are unable to change as fast as cultures we now have a human genetic inheritance meant for a tribal cultural setting that no longer exists. Behaviors that were once adaptive (for tribal genome survival) are sometimes mal-adapted to the civilized setting. In other words, human nature is mal-adapted to the modern condition and both individuals and societies suffer unnecessarily.

A persistent message of this book is that *human nature is no longer adaptive!*

The organizing principle for this book is that human nature consists of behaviors that served tribal genomes when we lived in small tribes, and since we no longer live in small tribes our instincts are doubly mal-adapted, as summarized in the following box:

*1) when we lived in small tribes the tribal genome made fools of us by creating us for sacrifice of individual well-being when devotion to the collective was required, and
2) our present-day behaviors often don't even serve the present-day collective, the society that we now inhabit, because the new collective is so immense that its needs differ profoundly from those of the ancestral small tribe*

So why write a book with this organizing principle? Because as an author of such an endeavor the writing process forces me to adhere to a disciplined development of a central thought. The matter of "why write this book" reminds me of the question of "why should teachers teach?" After all, as Richard Feynman stated: "The bad students can't be taught, and the good ones don't need to be" (approximate quote). Therefore, the main role of writing (as with teaching) is to help the writer with the creative process of understanding a subject. This is especially true for the writer without readers, which describes all but one of my books. [OK, since you're wondering, the only one of my books that has been a regular seller, for about 17 years, is my least important one, according to my value system: *Exoplanet Observing for Amateurs*, a "how to" book for doing astronomical photometry.]

One unavoidable conclusion of the present book is a belief that "we're all suckers." A dictionary definition for a sucker is "someone who is easily cheated, deceived or imposed upon." It shouldn't be a surprise to learn that the genes that assemble us can easily

Introduction

manipulate us to do their bidding, rendering us their suckers. The tribal genome has no regard for individual welfare beyond what is needed for an individual's usefulness to the genome. Therefore, people are prone to pursue those enduring twin towering drivers: *love* and *war*. The love part is obvious, but the war part requires an understanding of how individual collectives form and compete, referred to by academics as "group selection theory."

Patriotism is a willingness of the individual to sacrifice himself on behalf of the collective (the tribe). A patriot will not only defend the home tribe when attacked, but he will join in attacking a weaker neighbor tribe if it may advance prosperity prospects for the home tribe. Living in peace would be so much simpler.

The lover and warrior are both suckers.

In writing such a book I risk appearing to defend psychopathy. But the psychopath is not just a victimizer of the collective, he is also a sucker tool for his genes, given his often rapist lust for sex and increased fecundity, which are often followed by dismal life endings.

Becoming aware of this fundamental truth about our origin, that the tribal genome that made us doesn't care about us, and in fact uses us for its own ends, must be sobering. It is understandable that this idea produces discomfort in people for whom it is new. The discomfort is probably generated by forcing us to view ourselves as suckers, all of us. Our most cherished values, such as the celebration of patriotism, or the desire to have and raise children, are forced into a category that must be viewed differently. Our lofty opinion of ourselves as a species, and dreams of humanity finding a winning place on Earth, might deserve questioning. Sorry about that!

Chapter 1. Single Cell to Multi-Cell

Living elements that join to form a new living thing evolve new ways of behaving. The elements will forego concern for themselves and instead act on behalf of the new entity, i.e., their behavior should switch from self-serving to “collective serving.” It will be instructive to consider what must have happened when the cells came together to form multi-cellular organisms.

A First Coming Together: RNA or DNA Strands to Cells

The earliest life must have been single strands of RNA or DNA. The most faithful and prolific reproducers would dominate life in whatever pond they lived.

Because we know that cells evolved there must have been events in which these strands of life came together somehow to form a simple version of a “cell.” When RNA and DNA strands came together to form primitive cells, the best performing cells would naturally dominate the watery environment. Since the cell lives or dies on how well it functions the cells that came to dominate the pond must have been controlled by strands that served cell function. The most successful cells would have been those in which the RNA or DNA strands performed on behalf of cell survival instead of strand alone survival.

I don’t want to dwell on this evolutionary step because I don’t know about how this could have come about. Nevertheless, this must have been the first step in a “coming together” of life entities to form something bigger than itself and more complicated, requiring a change in how the entities that came together functioned. I prefer to use the next step in the evolution of complexity to illustrate a basic concept of game theory.

Forming Multi-Cellular Life

There must have been a first occasion when single cells divided and stuck together instead of separating and going their separate ways. Such a stuck-together pair of identical cells might have been less vulnerable to predation by predator cells. If sticking together had some such advantage, then a genetic predisposition for it would have evolved; this would have led to the appearance of cells that were genetically identical and genetically-driven to stick together.

A new mutation could then have changed the properties of the outer layer of cells, affording additional protection from predators. This would have entailed the invention of DNA methylation, or the covering of DNA strands so that only some of the DNA was uncovered and active in producing proteins that defined the cell’s properties.

1. Single Cell to Multi-Cell

This must be how “organs” originated, and how a multi-cellular organism evolved. Because methylation of DNA could change what proteins a cell produced, some cells could combine with like-methylated cells to form an “organ” that functioned in a way unique to it. This is the essence of a “division of labor” and it is only possible because all cells of the multi-cellular organism are joined together in a “one for all, and all for one” manner.

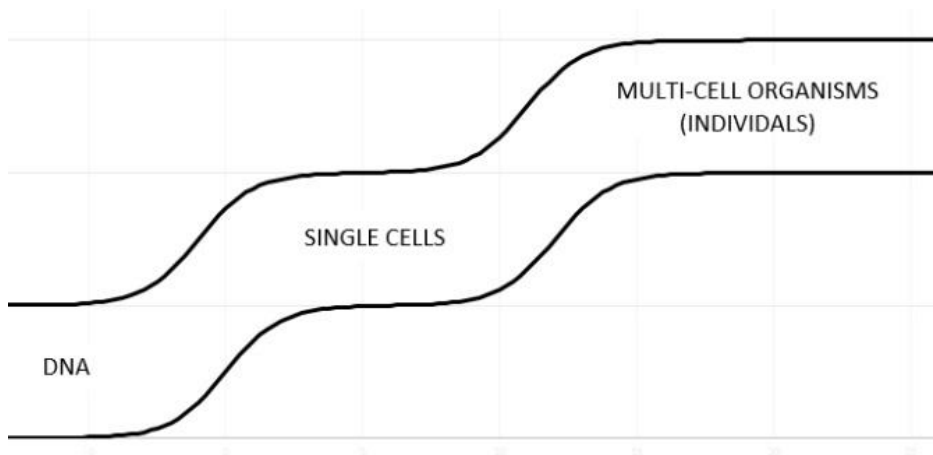


Figure 1.1. *The first two stages of living things coming together to form more complex life.*

This figure illustrates the first two transitions from simple life elements to more complex life: 1) RNA or DNA strands to single-cell life, and 2) single cell life to multi-cellular life. During each transition the component entities had to change their “allegiance” from self to the new thing that they formed.

Requirement for an Immune System

Notice that all cells in a multi-cellular organism have a shared fate. This is an important precondition for other things to happen, as any game theorist would recognize. Cells in a body are rewarded by the success of the body, and the only measure for any such cell is how well it contributes to the body’s performance.

This is such a simple-sounding statement, but it hides unseen subtleties. For example, if a cell is a liability to the body, because it is under-performing its assigned function for whatever reason (injury, mutation, wearing out, etc.), the cell’s most important contribution to the body would be to self-destruct! A cell may not be in the best position to know if it’s a liability, so that’s the job of an immune system’s killer T cells. These immune cells scour the body for under-performing cells that need to be marked for self-

1. Single Cell to Multi-Cell

destruction in order to maintain the body's performance. Each cell has within it the capability to self-destruct if it is "marked" by a killer T-cell to do so. The self-destruction process is called "apoptosis" (ap-uh-toh-sis) and it involves a chopping up of nucleus DNA into functionless pieces.

There's one other cell type that needs to be marked for self-destruction: a cancer cell! Such a cell behaves in a way that doesn't have the body's welfare "in mind." It's as if the cell is oblivious to the body's needs and reverts to an ancestral self-serving behavior. If such a cell is able to multiply and start to form many of itself (a tumor), it may stimulate "angiogenesis," which is growth of capillaries for diverting extra blood to the tumor, i.e., stealing resources meant for other cells (those still functioning on behalf of the body). A cancer cell has no pre-vision of its future demise by causing its host body to eventually die due to uncontrolled metastasis of cancer cells; the cancer cells just do what they do because they are somehow programed to change allegiance from the organism to itself.

Three Cell Types Needing Destruction

I can think of three reasons a cell should be marked for destruction: 1) it loses its ability to function due to injury or a mutation that destroys its ability to function on behalf of the organism, making it "in the way" of the other cells (or it produces toxins that interfere with neighbor cell function), 2) the cell can "revert" to the way of its ancestors, before they transitioned to working on behalf of the organism, rendering it self-serving and a threat to the multi-cellular organism, and 3) the cell undergoes a mutation that causes it to re-invent itself as a self-serving cell that steals resources and threatens the organism-sustaining function of the other cells. Every day the human body, for example, has to deal with 1000 to 5000 cells that mutate to a pre-cancerous state. This may be a tiny fraction of the 30 trillion cells in a typical human body, but the efficiency of the immune system's killer T-cells to locate them and mark them for apoptosis is nevertheless amazing!

These evolutionary transitions require many generations, and during the transition there will be a mix of elements that behave in the old, un-evolved way among those that behave in the new way.

The immune system of an organism illustrates the game theory principle that when elements join to form an entity with a "shared fate" for all elements, a mechanism is required to assure that all elements are functioning on behalf of the new entity instead of themselves.

Chapter 2. Individuals to a Social Collective

There's one more transition to consider: individuals joining to form social collectives with a "shared destiny." This is the most interesting and possibly difficult transition for a species to undertake. The transition has been completed by ants, honeybees, bumble bees and termites. Humans started the transition so recently that our species exhibits only some rudiments of supremacy of the collective.

The coming together of multi-cellular organisms to form a collective is one more example of evolution's pattern of combining lower level life forms to create a more complicated "higher level" life form.

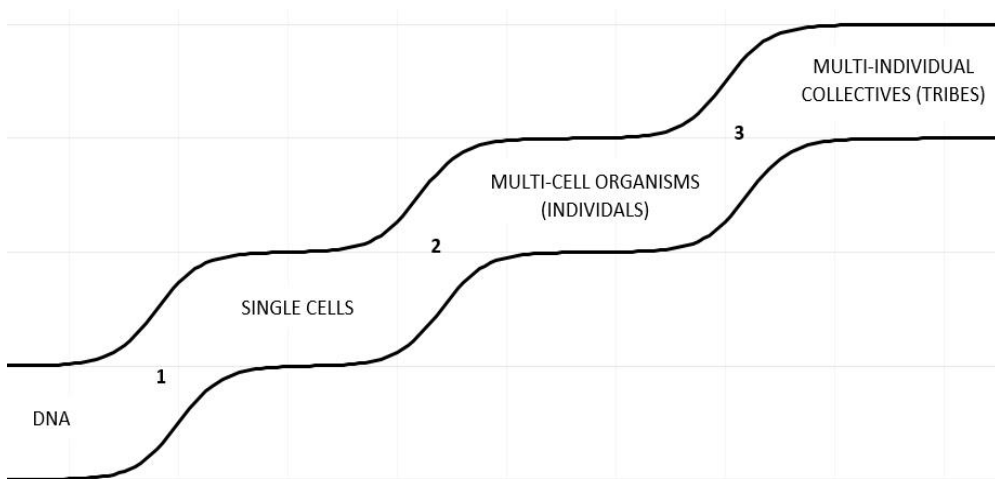


Figure 2.1. *The three coming-together transitions connecting the four levels of living things. Transition #3 is referred to as a "eusocial" transition.*

A game theorist will wonder if insights gained from the study of Transition #2 can be used for gaining an understanding of Transition #3. This transition won't happen unless the collective has a shared destiny. Thus, a flock of birds is just a temporary coming together without a shared destiny. Beehives, on the other hand, have a shared destiny. A single bee cannot live long without the hive. A hive either survives, or it dies, and all the bees of that hive share in the fate of the hive.

Transition#3 Has a Name

The term "eusocial" was introduced in 1956 by Suzanne Batra when she was a graduate student. Her thesis advisor had a different understanding of the term's potential meaning, and his understanding has prevailed. The description of eusociality emphasizes interdependence of the individual members; division of labor is a salient feature illustrating this interdependence. Eusociality was popularized recently by Edward O. Wilson in his book *The Social Conquest of the Earth* (2012). I want to emphasize two

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overlooked but essential features of the eusocial transition: 1) it is a repeat of past coming together transitions in which one level of living elements form an entity at a new level of life, with the new entities either surviving or dying as a whole, and 2) as with each previous transition, the behavior of the lower-level elements (individuals) shift their “loyalty” from themselves to the newly-formed higher level entity (the collective).

I mostly want to emphasize that during the eusocial transition a “selfish perspective” surrenders to an “altruistic perspective.” This is equivalent to stating that eusociality repeats a pattern of converting “enslavement” to a lower level of life to a next higher level of life. For Transition #1 the RNA (or DNA) strands changed from serving themselves to serving the survival prospects of the cells that they assembled and lived within. For Transition #2 the cells changed from serving the survival of the cell to serving the multi-cellular organism that they were a part of. For Transition #3 the individual organism changes its behavior from serving the individual self (and close kin) to serving the social collective that it is a member of.

I will frequently make use of the solutions that evolved for accomplishing Transition #2 for understanding what solutions may be evolving for Transition #3. In other words, I will rely on the analogy that “a tribesman is to his tribe, as a cell is to the individual person.”

At times I will more explicitly implicate the “tribal genome” by stating that “the tribesman is to the tribal genome, as the cell is to the individual’s genotype,” but don’t worry about that subtle distinction at this time.

The eusocialized insect species exhibit extreme division of labor examples that involve anatomy and physiology. Among bees, for example, some are “workers” that forsake reproduction tasks. Their body types differ depending on their role in the hive. Human ancestors, on the other hand, evolved along the eusocialized path by developing a division of labor that was achieved with minimal diversity of anatomy and physiology, relying instead on diversity of mental abilities and personality traits.

In all cases with a eusocial species the collectives compete with each other in a manner that results in the survival or death of collectives (e.g., the individuals in the collective). For humans, the word “collective” can be replaced by the word “tribe.”

It is always the case that when a new level of coming together occurs there are evolutionary rewards for the individual components to differ in their traits. For example, during Transition #2 (cells to multi-cellular organism) in mammals some cells became a heart, others a kidney, etc. During Transition #3 (individual organisms to collectives), for the ants some became workers, others soldiers, etc. It is therefore unsurprising that

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for humans the same transition led to differences in what people were good at (inherited traits). This is true even though only some mammals are only partially eusocialized.

Very few species have completed the transition to eusociality. Some are completely un-eusocialized. Most species are somewhere “in between.” This can be illustrated by constructing a histogram of an imaginary assessment of the millions of species. Figure 2.2 is meant to convey the idea that most species consist of individuals that are competing with other individuals, a few are more “clan-oriented” (described by “inclusive fitness” theory), and a very few are mostly or completely eusocialized. For example, in the first category would be found most fish and insect species. Among the middle category would be most herd and predatory species. The last category would include the hundreds of species of ants, bees and termites, as well as naked mole rats. E. O. Wilson has written (2014, p.19) that only 19 species (or categories of species; note: there are ~ 15,000 species of ants) have been identified as being mostly eusocialized (this doesn’t include humans because we are only partially eusocialized). Among primates the orangutan is minimally eusocialized (with a “loner” lifestyle), gorillas are mostly in the “clan” category, and at a given moment in time a human tribe can be found somewhere between the middle and last category (to be described later).

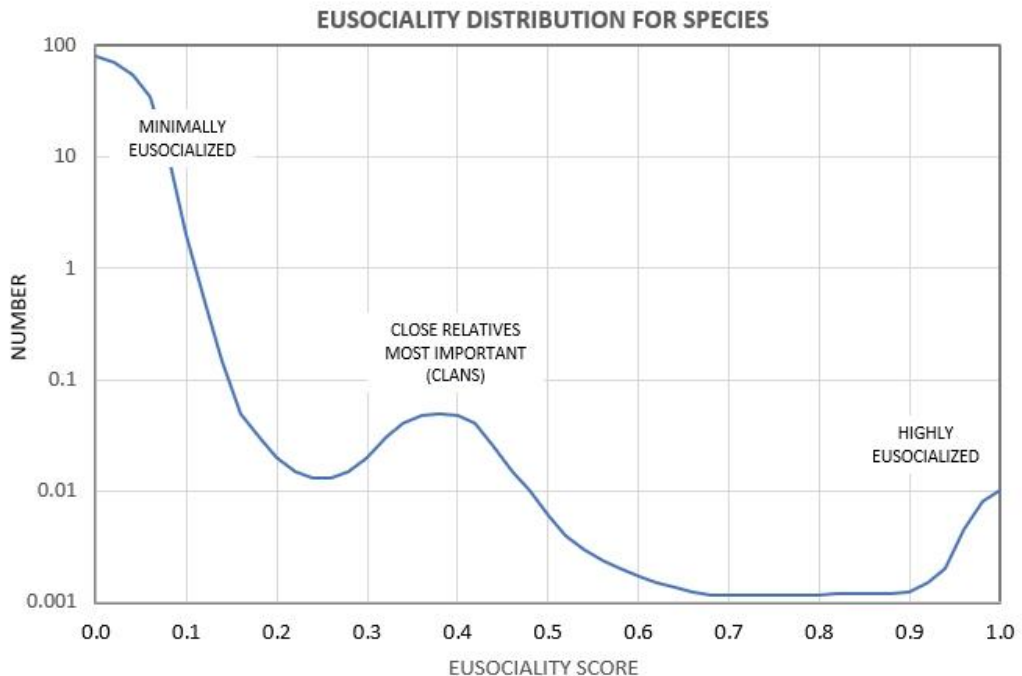


Figure 2.2. Hypothetical histogram of species eusociality score (not based on data; for illustration purposes only).

2. Individuals to a Social Collective

Humans are almost a “special case” because there is so much diversity in each human tribe that at any given time there can be found a diversity of eusociality among the tribesmen. Moreover, this distribution will shift over time in response to changing needs for individuals to cooperate in attacking a weaker neighbor tribe (and defending from such attacks). These are matters for a later chapter, so expect a return to these topics.

The human evolution toward eusociality has encountered obstacles that were not present for the eusocial insects. For example, E. O. Wilson (2012, Ch. 6) gives reasons for this that are related to the “life cycle” of insects (the role of the queen in founding colonies). I prefer to emphasize the simpler example that a person is theoretically capable of asking “Why should I sacrifice myself to help the tribe?”

Humanity has had a bumpy path toward eusocialization and one of these bumps occurred during the Holocene epoch (from 11,700 years ago to the present). This book argues that the Holocene is profoundly different from the preceding “ancestral environment,” or AE, also referred to as the Stone Age (i.e., the Pleistocene, from 2.6 million years ago to the beginning of the Holocene). During the entirety of the Holocene humans have been unprepared for the challenges of preserving their previous eusocial accomplishments.

In order to explain why the Holocene has threatened to undo the eusocial accomplishments of the AE I will need to present some groundwork chapters on neuropsychology, psychopathy and sociobiology. The next chapter is a neuropsychology tutorial.

Chapter 3. Neuropsychology Tutorial

Every brain is assembled by instructions from genes. The brain's posterior lobes create a continuously updated "situational awareness" with guidance from the frontal lobes. The frontal lobes exhibit an "executive function" that continuously strives to achieve things whose pattern we refer to as lifestyle. A primitive limbic system is where "values" reside for use in creating a lifestyle. IQ is determined exclusively by the posterior lobes. A few tests endeavor to measure frontal lobe function, but they are difficult to administer and are less well known. The limbic system is even more difficult to assess.

This chapter provides some useful background for understanding topics treated in following chapters. The brain can be viewed in terms of the way it is organized vertically, laterally (left/right), and longitudinally (anterior/posterior). I'll describe some of the lateral organization (left brain versus right brain). Most of this neuropsychology tutorial is about longitudinal organization (frontal lobes versus posterior lobes). Whereas this chapter emphasizes the function of the posterior lobes, the next emphasizes the function of frontal lobes. Lastly, I will briefly describe vertical organization (e.g., the role of the limbic system in driving the cerebral cortex).

In any human population there's a spectrum of traits. When nurture doesn't have an important influence on the expression of a trait in adulthood, meaning that genetic influence is paramount, the trait is said to be part of the individual's "phenotype." A person's phenotype is at least partly determined by their "genotype." It is typical for the attribution of traits to genetics to be ~ 50 %.

Stature, for example, is often cited as an example of a genetically-determined trait. For a population in which everyone has the same nutrition stature would be determined by genetics 100 %. (This ignores a few obvious exceptions, such as childhood diseases, etc.) When nutrition varies greatly across a population the opposite can be said: stature would be mostly determined by nurture (nutrition). This nature/nurture caveat will be assumed to exist for every trait, and I won't dwell on this detail in what follows.

IQ is one of the strongest genetically determined traits, exhibiting a correlation of ~ 70 % for identical twins raised apart. IQ is determined by "posterior lobe" function. Psychopathy is another genetically determined trait, and it is generated in the "pre-frontal lobes" and "para-limbic system." The psychopathy aspect of frontal lobe function will be treated in the next chapter; other aspects of frontal lobe function are included in this chapter.

Frontal lobe function has not been studied enough for knowing how to partition the relative influences of nature and nurture. The same is true for the limbic system. The most conservative position is to assume that nature is an important contributor to both the frontal lobes and limbic system.

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Overview of Cerebral Cortex

The cerebral cortex surrounds the brain stem and mid-brain regions. Whereas for most animals the cerebral cortex is a shallow covering of the mid-brain, in humans it has a greatly larger volume than the other regions. The cerebral cortex consists of four lobes left of the mid-line and four lobes right of it. Figure 3.1 shows the location of these lobes. Underneath the cerebral cortex is the rest of the brain, consisting of a “limbic system” (where emotions are generated), the cerebellum (located beneath the occipital lobes, responsible for fine motor movement), and the brain stem (responsible for regulating heart rate, breathing, and other basic body functions). Other components exist (such as the reticular activating system, etc.) which won’t be discussed here.

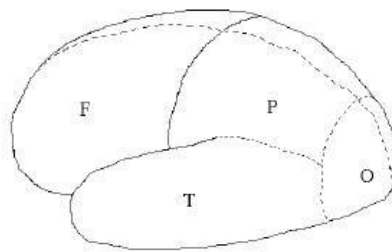


Figure 3.1. Cerebral cortex brain lobes: Frontal, Parietal, Temporal and Occipital. The P, T and O lobes are collectively referred to as “posterior lobes.” The view is of the left side, front is toward the left. The right side of the brain has the same architecture.

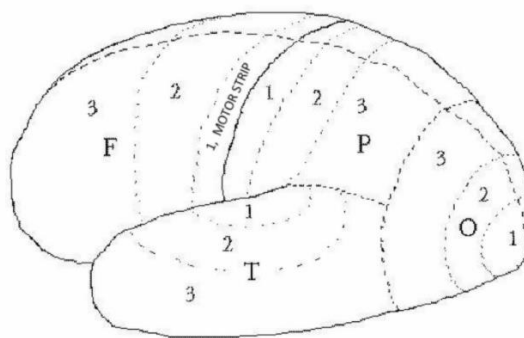


Figure 3.2. Locations of three cortices within each lobe (primary, secondary and tertiary). The frontal lobe’s primary cortex is also referred to as the “motor strip” since it has direct command connections to body muscles. Frontal lobe cortex regions 2 and 3 are referred to as pre-frontal cortex.

The cerebral cortex is what makes humans human! It has dominated brain evolution during the past several million years of our ancestral evolution. The human cerebral

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cortex has grown in size faster than any other brain region. The pre-frontal lobes have undergone a growth spurt during the last 1/3 million years.

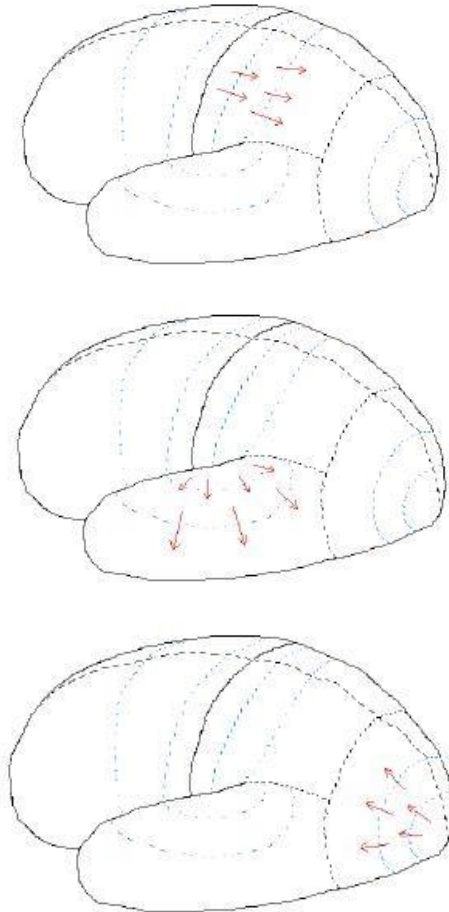


Figure 3.3. Top panel: The parietal lobe receives sensory signals from within the body (pain, joint position, temperature, etc.). The signals arrive at the parietal primary cortex, are elaborated in secondary cortex and are “identified” in tertiary cortex. Middle panel: The temporal lobe receives sensory signals from the ears. The signals arrive at the temporal primary cortex, are elaborated in secondary cortex and are “identified” in tertiary cortex. Bottom panel: The occipital lobe receives sensory signals from the eyes. The signals arrive at the occipital primary cortex, are elaborated in secondary cortex and are “identified” in tertiary cortex.

Smell is another sensory input with a location not shown (it doesn't have a lobe devoted to it). These four sensory input categories (feeling, hearing, seeing and smelling) can be

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described as either *in situ* (feeling and smelling) or “remote” (hearing and seeing). Ontological development (for each individual) appears to recapitulate phylogenetic evolution (of the species): the *in situ* sensory input provides an initial reality used to calibrate the remote sensor signals.

The posterior lobes create “situational awareness,” or an understanding of the immediate environment and the individual’s relationship to it. Before treating frontal lobe function I want to describe an interesting difference between the left and right lobes.

Serial and Parallel Processing of Posterior Lobes

The left and right cerebral hemispheres are close to anatomical mirror images of each other. However, they have some anatomical and functional differences. For example, the production of human speech occurs in Broca’s Area, located in the left (frontal) lobe. Speech reception is performed by Wernicke’s Area, located in the left (posterior) temporal lobe. These locations are shown in Fig. 3.4.

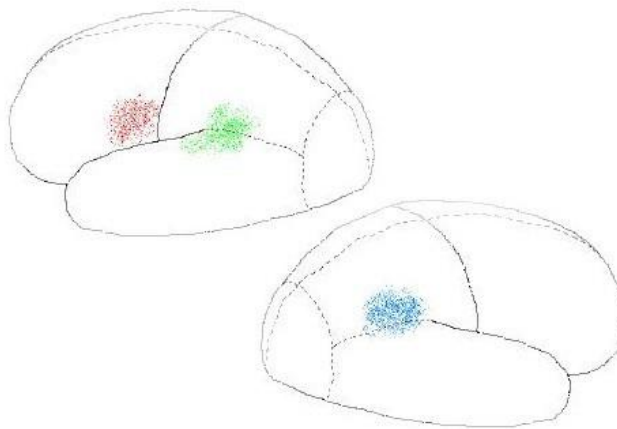


Figure 3.4 Upper panel shows location of language comprehension area (Wernicke's Area, right-most pattern of dots), and speech production area (Broca's Area, left-most pattern of dots). The lower panel shows the location of the inferior parietal lobule, which monitors the spatial relationship of body parts in relation to the immediate environment.

Left and right cerebral cortices, which I'll refer to as “left brain” (LB) and “right brain” (RB), have different “wiring.” Axons are the connections between neurons. Axons in RB have thicker insulating coverings (“myelination”) than in LB. This apparently is an evolutionary response to RB’s specialization for “holistic” (i.e., parallel) computing, which requires more long-path connections than needed for “serial” computing. LB consists of many self-contained modules, with short connections within the module, and

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the modules are connected to each other by a small number of long-connections. LB architecture resembles how common (serial) computers function: subroutines produce an output that is shared with other subroutines. The RB architecture resembles how the rarer type of parallel (neural network) computers function: nodes are connected to other nodes at seemingly random locations throughout the entire network.

Given that LB resembles a serial processor and RB resembles a parallel processor, it is logical that some tasks are better performed by LB and others are better performed by RB. For example, language production and reception consists of decoding “chunks” of information (phonemes) and combining them with attention to temporal sequence. This computing style is serial in nature, and is therefore found in LB. Facial recognition, however, doesn’t have any temporal sequence aspects; it is a holistic task, and it is therefore a capability of RB.

IQ Histogram

IQ test scoring is defined so that a population’s average IQ is 100 and the standard deviation of the IQ score distribution is 15 points, as shown in Fig. 3.5. Thus, 50 % of people have a below average IQ, and 50 % have an above average IQ. Also, 68 % have an IQ between 85 and 115 (i.e., 16 % have an IQ below 85 and 16 % have an IQ above 115).

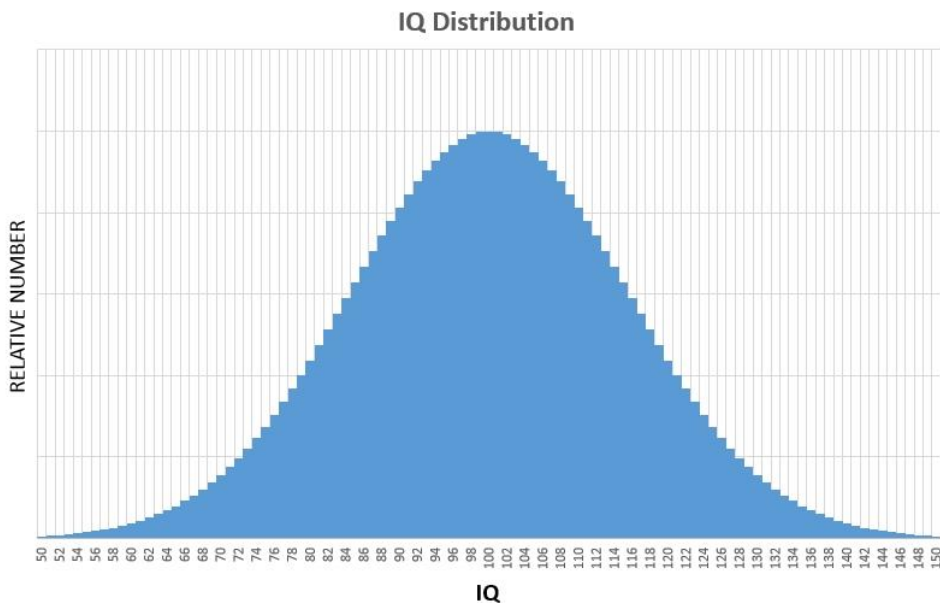


Figure 3.5. *IQ distribution.*

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IQ tests consist of many sub-tests; approximately half of them probe performance of the left cerebral hemisphere (posterior lobes), and the others probe performance of the right cerebral hemisphere (posterior lobes). Usually, all sub-test scores have approximately the same score for an individual. Occasionally one sub-test score will be much lower than the others, and in children such a person is identified as “learning disabled.” Injury to a specific posterior lobe area could produce such a result.

A surprising finding is that performance on an IQ test is completely determined by the posterior lobes. When frontal lobotomies were commonly used on unruly people, changing them from aggressive to passive, it was found that IQ did not change. In fact, some patients scored higher on IQ tests.

Frontal Lobe Function

The “nerve activity” of the frontal lobes is a reversal of what happens in the posterior lobes, as shown in Fig. 3.6. Thoughts about hypothetical behaviors begin in the front-most cortex region. An “evaluation” of the hypothetical act is performed in the secondary cortex and if a decision to proceed occurs the motor strip is activated for performing the behavior. The first two steps in this process are presumably in continuous activity, and only when a “decision” to act is arrived at by secondary cortex is the motor strip (primary cortex) activated. In other words, the pre-frontal lobe is continuously active and the motor strip is only intermittently active.

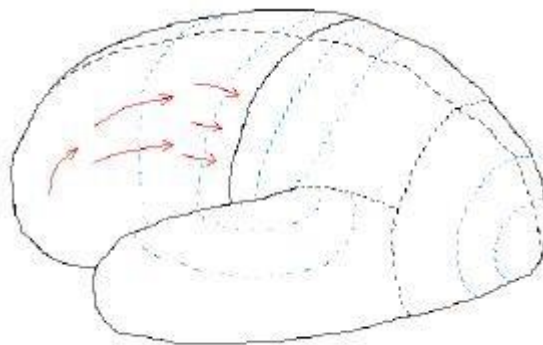


Figure 3.6. *Flow of nerve activity when some activity is planned and performed. The flow in this case is from tertiary to secondary, possibly followed by command of muscles by primary cortex (producing behavior).*

The two pre-frontal lobes (left and right pre-frontal) arrive at decisions of whether to do something, and specifically what to do. Usually, the left and right pre-frontal lobes work harmoniously together; this is necessary because the left motor strip controls one side of the body (right side) while the right motor strip controls the other side of the body (left

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side). It's not necessary to describe certain matters for the purposes of this book (such as the role of the corpus callosum, inhibition activity, reticular activating system, etc.).

Limbic System

The limbic system is ancient, but it still plays an essential role in establishing an individual's behavior. Goals for behavior originate in the limbic system. It can be thought of as containing a "value system." It is the place that states "This is important, that isn't." A subset of components of the limbic system will be important in understanding psychopathy. It is called the "paralimbic system." The components are amygdala, hippocampus, anterior and posterior cingulate, orbital frontal cortex, insula and temporal pole (Kiehl, 2014).

I won't describe the location of these components or describe what each does. Their role in producing psychopathic behavior will be treated in later chapters. For now, just think of the limbic system, including the paralimbic subset, as creating a value system for use by the pre-frontal lobes as they create life goals and respond to specific situations. The limbic system and pre-frontal lobes determine lifestyle.

Whole Brain Function

One of this tutorial's messages is that brain architecture is very specific, and it is largely understood by neuropsychologists. This is true for the frontal as well as posterior lobes. The limbic system is slowly coming into focus for neuroscientists.

"Personality" resides mostly in the left and right pre-frontal cortices. Many split-brain experiments provide evidence for a person's left pre-frontal and right pre-frontal having different life goals (Gazzaniga and LeDoux, 1978). For example, patient PS, who had undergone full callosal surgery to control seizures (cutting of connections between left and right cortices), was asked about his job choice; his left pre-frontal answered "draftsman" whereas right pre-frontal answered "automobile race." Another split-brain patient was recorded to be buttoning a shirt with one hand while the other hand was busy unbuttoning.

Perhaps the most famous example of the "lateralization" of personality comes from an accident in 1848 to Phineas Gage. An unexpected explosion sent a metal tamping rod through his left pre-frontal cortex. After his amazing 2-month recovery he exhibited a totally unexpected personality change. Instead of the friendly person that people knew, he was "fitful, irreverent, indulging at times in the grossest profanity... at times pertinaciously obstinate... he has the animal passions of a strong man." (Harlow, 1868).

As I explain in *Genetic Enslavement* (Gary, 2004, pg. 77, where I use the abbreviations RBf for right pre-frontal and LBf for left pre-frontal): *This old example illustrates the*

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well-known finding that RBf language ability is usually limited to profanity, songs and other memorized verbal material, such as the alphabet. A wealth of studies show that LBf is the site of the most advanced human traits, such as conscientiousness, positive social behavior, rationality, strategic planning, and positive affect (mood). LBf is often referred to as the site of executive function. RBf, by contrast, is associated with lack of inhibition, anti-social behavior, emotionality, and negative affect. RBf is more closely connected to the sub-cortical limbic system, the source of emotions.

The principal goal of this chapter is to describe how the brain partitions the tasks of creating “situational awareness” and the planning and executing of “what to do.” The first task is performed by the posterior lobes and the second one is performed by the frontal lobes. This sounds simple, but the tasks are more complicated.

Whereas “situational awareness” is performed by the posterior lobes, there is usually so much sensory input available that if all of it were incorporated into a “here’s the situation” product it would be overwhelming. Most sensory input is irrelevant to the task of the moment. In order to prevent the frontal lobes from being overwhelmed with too much situational information, risking behavioral paralysis, only a subset of what the posterior lobes are capable of noticing is needed. This requires a pattern of prioritization. The frontal lobes create a “filter” for use by the posterior lobes, so that the situation of awareness is molded by frontal lobe motivation.

My dogs can be used to illustrate this since their brains are organized the same as humans (sorry, I don’t mean to insult dogs).



Figure 3.7. My dog Bertha maintains “situational awareness” of the yard, hoping to see a rabbit emerge from the nearby wood pile.

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Bertha likes to monitor my backyard for rabbits. Her posterior lobes are actively listening and looking for the purpose of maintaining a “situational awareness” that is matched to the task of chasing rabbits. Her frontal lobes interpret the nearby setting in an adaptive manner. She ignores the sight of butterflies and birds, as well as birdsong and the sound of road traffic. Her frontal lobes are focused on whatever her “situational awareness” reveals about the presence of a rabbit. Her frontal lobes are poised for the response of a slow and stealthy approach followed by a fast attack.



Jimmy is most interested in chasing balls.

My other dog, Jimmy, is more interested in chasing a thrown ball. He is maintaining a different situational awareness. He knows that I don't throw the ball until I finish my coffee, so he continues to stare at me to detect how much my cup tilts with each drink. When I exaggerate the final gulp with a big tilt, he gets up and brings the ball to me.

My third dog isn't interested in either rabbits or ball chasing; instead he loves human contact, so he lies beside me and waits for opportunities to be pet. His situational awareness is restricted to when I'm free to give him loving attention.

Each dog has inherited a different personality! The limbic system has a role in determining their personality, but I want to defer discussion of this for the chapter on human personality. For the purposes of this book it is only necessary to acknowledge that the frontal lobes, as driven by the value system of the limbic system, shape what the posterior lobes are tasked with doing in creating situational awareness.

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Different people have different posterior lobe competence profiles. For example, some people have “perfect pitch,” native music ability, photographic memory, visualization manipulation, etc. I once tested someone who could tell me the day of the week for a two-decade range of calendar dates (he could also multiply big numbers in his head, perform factorials and other mathematical tasks).

During childhood, presumably, everyone takes a (subconscious) reading of what they’re good at and uses this to formulate realistic life goals. This is a big and fascinating subject.

Occasionally someone with familiarity with neuropsychology ventures into speculation about ways to account for the psychopath personality as an abnormality of brain laterality. For example, someone whose left pre-frontal lobe has the same architecture found in the right pre-frontal lobe can be expected to have psychopath traits. This is a very speculative “proximal causation” argument. Because this book is about “distal causation” matters I refer the reader to a brief discussion of it by Gary (2018, Ch. 6, pgs. 32-33).

Frontal lobe performance is more challenging to measure than posterior lobe function. Several frontal lobe tests exist, but they measure different aspects of “executive function” (e.g., Halstead-Reitan Battery, Montreal Neurological, Luria’s Neuropsychological). The Hare Psychopathy Checklist, Revised (PCL-R) can be considered another frontal lobe test, even though it was designed for use with a prison population for parole decisions and it measures a specific set of behavioral tendencies. The Hare Psychopathy Checklist is treated extensively in the next chapter.

Because the PCL test demands special training to administer, other tests (some being self-report) have come into common use. One of these is the Psychopathic Personality Inventory, or PPI. It was developed by Lilienfeld and Andrews (1996) and consists of 160 questions with 3 possible responses each, and produces a result consisting of 8 categories (such as cold-heartedness, fearlessness, impulsivity and blaming others). Another self-report test is the Levenson Self-Report Psychopathy Scale (Levenson et al, 1995), consisting of 26 items. The MMPI (Minnesota Multiphasic Personality Inventory) is a widely used test for identifying common personality traits (e.g., neuroticism, introversion/extroversion) and mental diseases (e.g., schizophrenia, manic-depressive disorder). The MMPI is useful in designing treatments but it’s not very effective in assessing psychopathology, so it won’t be very relevant for this book’s purposes.

Limbic system performance is also difficult to measure. Tests for “emotional intelligence” are in fact probing the limbic system, or more specifically, the paralimbic system. One of these tests is MSCEIT (Mayer, 2002).

Chapter 4. Sociopathy and Psychopathy

The brain's purpose is to produce "adaptive" behavior. The brain's frontal lobes and paralimbic system determine the many aspects of adaptive behavior. Psychopaths are people with life strategies that are self-serving at the expense of others, and this weakens group welfare. When they harm others without a feeling of remorse they are described as lacking a conscience. Sociopaths are less extreme versions of psychopaths.

Defining sociopathy and psychopathy are subjective because in any human population there's a spectrum of behavioral traits that constitute life strategies. When nurture has an unimportant influence on the expression of a life strategy we can use the term "phenotype" to describe the set of such traits. In this book I will categorize people as belonging to one of five phenotypes: enforcers, normaloid, unreliable, sociopath and psychopath. In this chapter the "enforcers" will be considered a subset of the "normaloid" category, so for now imagine that there are only the last four categories.

The measure I will use for determining these categories is Robert D. Hare's "Psychopathy Checklist, Revised," PCL-R (Hare, 1990, 1991, 2003). It is the most-used tool for measuring an individual's degree of psychopathology (which I'll simply refer to as PCL hereafter). The scoring is based on 20 items (cf. Fig. 4.3), with each item scored as either 0, 1 or 2. The maximum score is 40. Typical scores are 0 and 1.

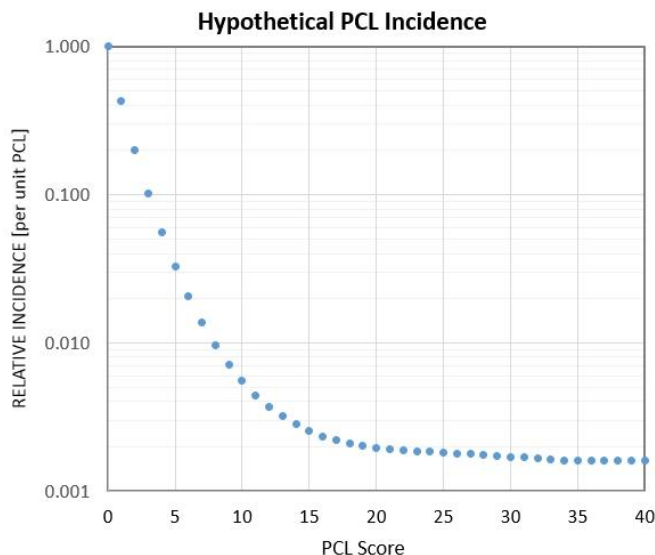


Figure 4.1. *Relative incidence of PCL scores for a North American population of males (using a function that is loosely based on data which I devised for illustration purposes).*

When an individual is evaluated by different qualified people the PCL scores exhibit good agreement (a "few" points). This is one of its virtues. However, it was designed for use with prisoners, not those who have never been incarcerated. Other tests have been

4. Sociopathy and Psychopathy

created, some specifically for the wider population of the un-incarcerated (e.g., PPI, PCL:SV). I will use PCL because it is in wider use.

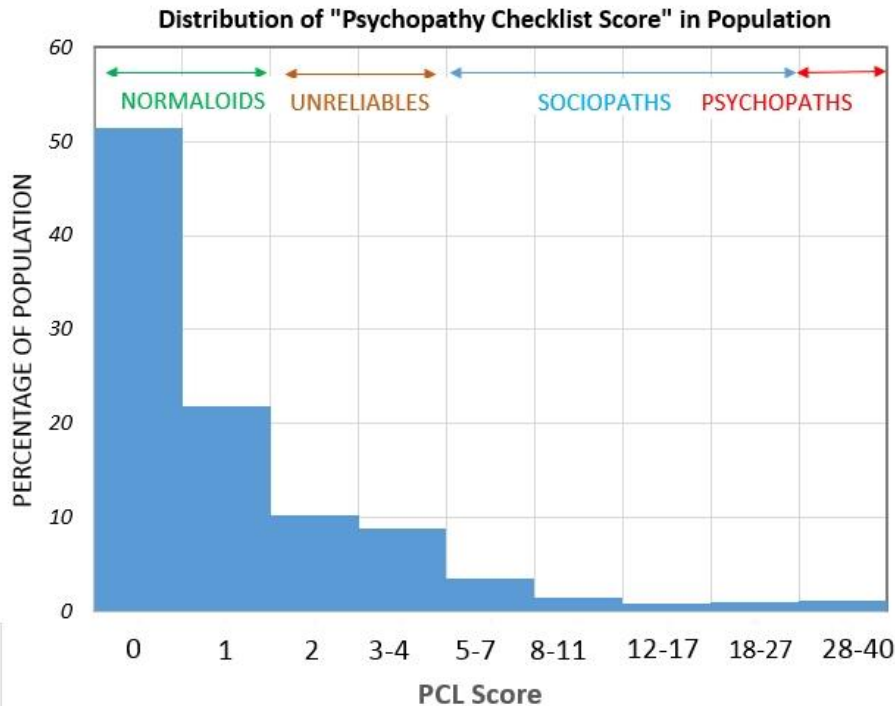


Figure 4.2. Percentage of the male population for which PCL scores are in the ranges indicated, based on Fig. 4.1. My assignment of a PCL range for “sociopathy” is somewhat arbitrary; however, it is consistent with a measurement of 6 % of the population having “borderline personality disorder” (BPD). Percentages for these four groups is: Normaloids = 73 %, Unreliables = 19 %, Sociopaths = 6.6 %, Psychopaths = 1.1 %.

One of the Fig. 4.1 messages is that psychopathy is a region on a spectrum of measured values. There is no clear distinction between a psychopath and nearby others since people populate the entire PCL scoring region of 0 to 40. It is therefore somewhat arbitrary where to set the boundary. PCL \Rightarrow 30 is most often used, but PCL $>$ 27 has also been used with essentially the same results. The PCL range for psychopaths is therefore approximately 28 to 40. This PCL range includes about 1 % of the male population, according to the somewhat subjective PCL incidence model I used for Fig. 4.1, which was constrained by adjusting the incidence function (Fig. 4.1) to be monotonic (always decreasing with higher scores) and the integrated distribution between 28 and 40 \sim 1 %. (Note: The Fig. 4.1 function is approximately compatible with measurements, such as Neumann and Hare, 2007; it slightly under-represents incidence in the region 5 - 11.)

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Figure 4.3 is the list of the 20 PCL test items. Each of the 20 items are scored with either 0, 1 or 2 for the person under evaluation. The scoring is supposed to be done by trained and certified investigators (not amateurs). Both personal interviews and file records are used in the scoring.

	Interpresonal Group
1	Glibness/superficial charm
2	Gradiose sense of self-worth
4	Pathological lying
5	Cunning/manipulative
	Affective Group
6	Lack of remorse of guilt
7	Shallow affect
8	Callous/lack of empathy
16	Failure to accept responsibility
	Lifestyle Group
3	Need for stimulation
9	Parasitic lifestyle
13	No realistic, long-term goals
14	Impulsivity
15	Irresponsibility
	Antisocial Group
10	Poor behavioral controls
12	Early behavioral problems
18	Juvenile delinquency
19	Revoke conditional release
20	Criminal versatility
	Miscellaneous
11	Promiscuous sexual behavior
17	Many short-term marital relationships

Figure 4.3. *PCL items, as presented by Hare (2016). The four groups are used for classifying psychopath classes. Factor 1 is based on scores of the first two trait groups (Interpersonal and Affective) and Factor 2 consists of scores for the next two trait groups (Lifestyle and Antisocial).*

There are high correlations among all items. Nevertheless, a “factor analysis” of PCL scores (Hare, 2003) reveals the existence of two broad categories, or “Factors”:

4. Sociopathy and Psychopathy

Interpersonal-Affective and Lifestyle-Antisocial. Each of these has been shown by factor analysis to consist of two additional sub-categories. A specific person will have a PCL profile which will identify them as either psychopathic (and belonging to one of the two Factors, as well as one of the four sub-factors), or not being psychopathic. However, just because someone's PCL score is below the cut-off value (e.g., < 30) doesn't mean that they don't share some aspects of psychopaths; they can score very high in one Factor and low in the other Factor. For example, whereas 25 % of the prison population are psychopaths, 75 % have high enough scores for Factor 2 to qualify as being "Lifestyle-Antisocial." In other words, whereas only 25 % of a typical prison population can be categorized as psychopathic, another 50 % would be categorized as psychopathic based only on Factor 2 traits. The research about psychopathic profiles is fairly new, and ongoing; speculation about the interpretation of evolutionary adaptive relationships should someday provide very interesting insights.

Notice that the incidence of psychopaths presented in the first two figures of this chapter are for males. Females have a much lower incidence of psychopathy. According to Kiehl (2014) the most likely incidence of psychopathy for males is 0.5 to 1.0 %, and for females it is 1/10th of the male incidence (which translates to approximately 0.8 % and 0.1 % for males and females, respectively).

These incidence values differ from the 4 % that was commonly cited a couple decades ago. I suspect that this is due to the confusion between measurements made mostly with a prison population and converting them to the general population. The early publications also assumed that the female incidence was almost as great as the male incidence. This is no longer accepted.

Another clarification should be made concerning the term "sociopathy." It has never been defined and is not accepted as an official diagnosis. It was originally meant to apply to anti-social behavior that was mostly produced by an unfortunate childhood. Whereas psychopaths are described as being devoid of emotions, sociopaths are burdened with some emotions. Sometimes the words "sociopath" and "psychopath" are used as if they apply to the same thing. Given the abundant misuse of the term by my predecessors I feel free to continue the tradition. Namely, I arbitrarily assign the label "sociopath" to those who score within the PCL range 5 to 27. This encompasses ~ 7 % of the male population. I'm equating "borderline personality disorder" (BPD) with sociopathy, since the traits for BPD are very similar to psychopathy (though less severe). The incidence of BPD has been estimated to comprise 5.9 % of the US population; 5.8 % for males and 6.2 % for females (Hyde, 2010). Whereas sociopathology is essentially found equally in males and females, psychopathology is 10 times more frequent in males than females. The first two figures of this chapter are therefore meant to describe males, and modified versions would be needed to describe females. Since the purpose of this book is to speculate on the threats to civilization posed by psychopaths, which are mostly males, it will not be necessary to consider female counterparts to Figures 4.1 and 4.2.

4. Sociopathy and Psychopathy

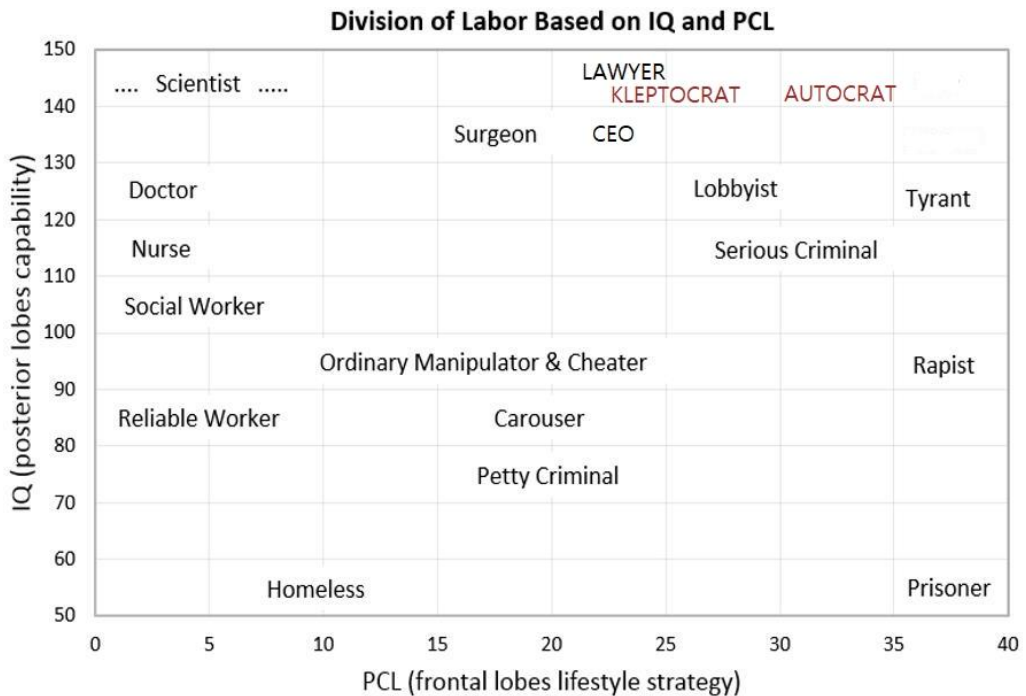


Figure 4.4. Suggested relationship between job category and a person's IQ and PCL.

The above figure is my attempt to show how a person's inherited IQ and PCL lead them toward specific job categories. I apologize for the highly subjective nature of these speculations, but my purpose is to illustrate a direction for future investigation. Some of the job category placements are inspired by the findings reported by Murphy (2018).

Just as IQ has many posterior lobe components that are lumped into one number, things measured by PCL have many frontal lobe and paralimbic system components (and combinations of components, or Factors and sub-factors) that are lumped into one PCL number. Nevertheless, it can be said that when a human embryo is conceived it has a genotype placing it on a life trajectory toward a phenotype that ends up somewhere in the IQ/PCL domain. Rehabilitation of psychopaths is a lost cause (details about this later), and this may also be true for sociopaths (Gagne, 2024, notwithstanding).

Many parole hearing psychiatrists have been snookered by consummate, smooth-talking psychopaths. Lay people who randomly encounter these psychopaths are even more easily tricked into trusting them. I've been the victim of both types, as has probably everyone reading this book – even if you're unaware of it. Psychopaths and sociopaths are a part of everyday life today; amazingly, everyone seems oblivious to this.

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Conscience

The usual description of a psychopath (also frequently equated with “sociopath”) is that he or she lies a lot, manipulates others, is charming in the manipulations, likes to achieve power over others, strives to always win, never admits guilt, lacks remorse for victimizing others, and has a glib and fundamentally unemotional affect. Most of these descriptions can be efficiently summarized using the phrase: *lacking a conscience*.

The first substantive description of psychopathy was by Hervey M. Cleckley (1941), whose book *The Mask of Insanity* described the psychopath as someone who, in spite of a normal presentation of self, was in fact a master deceiver who had no moral restraints. A few decades later R. D. Hare corrected the impression that psychopathy was a mental illness by clearly stating that the psychopath is untroubled by any of the usual mental illness complaints (depression, anxiety, etc.); the psychopath had no complaints and no desire to seek treatment for change; he was simply unencumbered by a conscience! Non-psychopaths had a conscience, and this is what contributed to complaints by normal people. The title of Hare’s breakthrough book reveals how important the concept of conscience is to understanding psychopathy: *Without Conscience* (1993).

So, what’s “conscience”? Consider for a moment the following descriptive attempt: *“Psychologically speaking, conscience is a sense of obligation ultimately based in an emotional attachment to another living creature (often but not always a human being), or to a group of human beings, or even in some cases to humanity as a whole. Conscience does not exist without an emotional bond to someone or something, and in this way conscience is closely allied with the spectrum of emotions we call ‘love.’”* (Stout, 2005). This account illustrates one end of a spectrum of speculations, while the same author describes a speculation from the other end: *“Or is conscience, as more than one sociopath has implied, simply a psychological corral for the masses.”*

These descriptions of “conscience” are suggestive, but they are missing something. Consider the word “conscientious.” It includes “meticulous, scrupulous, careful and principled.” It also includes “doing things according to one’s inner sense of what’s right or wrong.” For example, using myself as an example, when I conduct astronomical measurements of star brightness using my backyard observatory, I adhere to procedures that minimize subjective bias motivated by a desired result. Data cannot be rejected as “outliers” without a credible hypothesis for how they could occur as an artifact (e.g., a cosmic ray hit to a CCD pixel). When I write a scientific paper I am careful to acknowledge relevant publications of previous work, and I am cautious about overstating my results. Being conscientious is a personality trait which probably is genetic (in elementary school a teacher noted on my report card that I was “conscientious”).

The “conscience,” whatever it is, and wherever it is located in the brain, is more than Stout’s “...closely allied with the spectrum of emotions we call ‘love.’” I will leave it to

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the reader to gradually formulate a fuller understanding of this pivotal concept, which I hope the rest of this book will provide.

The previous paragraph is a “tease.” It will become clear during the reading of this book that as humans evolved a high IQ it became necessary for a conscience to also evolve. The conscience assured that a thinking individual would remain loyal to *tribal genome survival*. Whether the individual with a conscience prospered and survived was irrelevant. Anyone without a conscience, e.g., the psychopath, weakened and therefore threatened the tribal genome. Tribes with psychopaths were more often vanquished by tribes with individuals who had a conscience. (Sorry for getting ahead of the book’s unfolding theme, but for some intelligent readers this aside will make perfect sense.)

Chapter 5. Sociobiology Tutorial

E. O. Wilson wrote in his landmark book *Sociobiology: A New Synthesis* (1975) that many academic disciplines should be re-formulated to conform to sociobiology insights. Among these are psychology, anthropology, sociology, economics and philosophy. Even history should be written with attention to the rigors of sociobiology. The present book relies on sociobiology theory to explain why civilizations have a median longevity of only 250 years in spite of the fact that they are presumably stronger than their neighboring uncivilized societies. Specific attention will be given to the future of our current “Western Civilization.”

I think Wilson’s appeal is reasonable. After all, the physical sciences are based on the simple formula $F=ma$, with an understanding that any explanation should in theory be reducible to this equation. (Note: “F” is force that a particle is subjected to, “m” is mass of the particle and “a” is acceleration of the particle; only four forces exist: gravity, electro-magnetic, nuclear and weak.) So far, all observed motions of particles can be accounted for by invoking $F=ma$. Sometimes quantum electrodynamics, or QED, has to be invoked, but usually only for the tiny spatial realm. And then there’s the Heisenberg Uncertainty Principle, HUP, which limits how accurately an observer can know the position and velocity, simultaneously, and some argue that this also makes predictions “fuzzy.” These two qualifications mean that $\mathbf{F} = \mathbf{ma} + \mathbf{f}$, where “f” stands for “the fuzzies” (QED, HUP). The $F=ma$ requirement, as well as $F = ma + f$, forbid such absurd “explanations” as prayer, divine intervention, free will, and their ilk. All physical sciences acknowledge the supremacy of $F=ma$.

For the life sciences, therefore, it should be possible to require that every explanation at least be compatible with the sociobiology assertion that every living thing is assembled by genes and evolution rewards genes for how well they keep themselves represented in gene pools. This is the humanity field’s equivalent of $F=ma$. However, since academics in the humanities have a tradition of following charismatic leaders instead of following a direction dictated by “rigorous thinking” I expect that an appeal such as mine will never sway those with a professional investment in the traditional version of the humanities. Rephrasing this: No academics working in the humanities will read this book because they prefer to follow charismatic leaders instead of undertaking rigorous thinking.

Overview of the Sociobiology Paradigm

Every living thing is assembled by genes. The living thing has a lifetime much shorter than the genes that assembled it. For humans, with lifespans of a few tens of decades, most of our genes have existed for millions of years. The small percentage of genes that differ from individual-to-individual, much less than 1 % of the total, have been present in the human genome for thousands of generations. The individual is assembled by those genes that have been most successful in staying in the human genome. Does the individual’s welfare matter to the genes: yes, but only to the extent that the individual can promote the prospects for genetic longevity! If a gene prospers in the gene pool by

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exploiting the individual, and even ruining his wellbeing consistently, that gene will nevertheless stay in the gene pool. Any gene that promotes individual wellbeing while being less successful than a competing allele in keeping itself in the gene pool will eventually disappear.

These truths are too uncomfortable for most people to accept. We like to think that the genes are there for us, to give us life and provide for our happiness and wellbeing – but evolution doesn't work that way. Evolution has no concern for just individual wellbeing. In fact, evolution rewards genes that enslave the individual for genetic longevity purposes. And don't expect evolution to produce individuals who can easily figure out how enslaved they are to tiny DNA molecules. Sociobiologists have figured it out, but it wasn't easy. (For an extended discussion of this, see *Genetic Enslavement: A Call to Arms for Individual Liberation* (2021) by Gary.)

As I stated in the Introduction, sociobiology was vibrant for only about one generation. Mainstream academics have succeeded in suppressing or shunning the field. I suspect that social activists viewed sociobiology as threatening to their agenda, and they infiltrated the main funding agency (NIH) for sociobiology field work and theoretical studies. Perhaps another factor that suppressed the vigorous pursuit of sociobiological science starting in the 1990s was timid anthropology department heads, that might have been hearing complaints from “snowflake” students. While whatever happened was going on I was employed by Caltech/JPL in the physical sciences, so I'm not as privy to the sordid details as the fading ranks of sociobiologists.

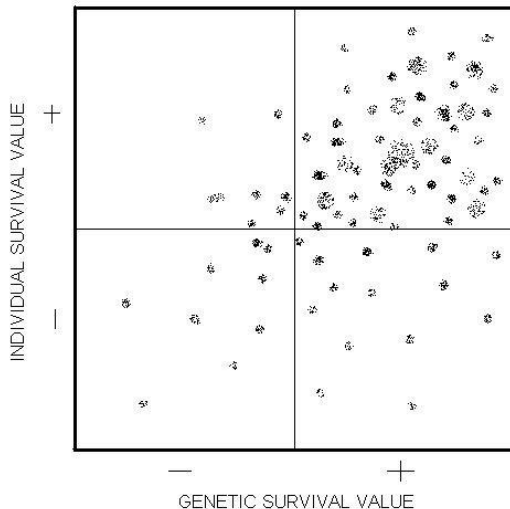


Figure 5.1. A matrix of "genetic survival value" and "individual welfare" (labeled in 1963 as "individual survival value") with hypothetical markings of the locus of individual genes.

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In a way, I'm in a privileged position to write with this level of candor. If I had been born a few years later than 1939 I probably would have made my career in sociobiology. In 1963 I began developing sociobiological insights on my own, as the matrix in Fig. 5.1 shows.

I challenge anyone to study this matrix and then dispute the central theme of this chapter. The message of the matrix is found in the lower-right quadrant: genes that can survive (in the gene pool) while being harmful to individual welfare will continue to survive in the gene pool, and there's nothing that individuals can do to correct this injustice short of taking control of their species evolution (domesticating the human species).

Group Selection and Parochial Altruism

Before a species begins to be eusocialized, individuals and their close kin compete. This allows genes to survive that make strong and self-reliant individuals. Loyalty to group won't be important because the individual is not part of a group. Loyalty will be limited to close kin since they will share genes. W. D. Hamilton worked out the mathematics for this situation in 1964; it's called "inclusive fitness theory."

E. O. Wilson published *Sociobiology* in 1975 and hinted at the importance of groups competing with each other. Richard Dawkins published *The Selfish Gene* in 1976, which can be viewed as a popular version of Wilson's book. The focus of the Dawkins book is the gene, and group competition was under-treated. Slowly, group competition entered the sociobiology literature. My favorite version is one that combines a game theory treatment of alternations between individual and group selection in an article in *Science* magazine by Choi and Bowles in 2007. I'll describe their theory, in my own way, next.

Tribes, or super-tribes, typically have long times of peace punctuated by inter-tribal warfare. During the peaceful phase individuals (and their close kin) are competing with other individuals (and close kin) within the tribe or super-tribe. During these times evolution will reward selfishness, and thus increase the frequency of genes within the tribal gene pool for selfish traits. However, when inter-tribal rivalry rises, and during inter-tribal warfare, evolution will reward selfless loyalty to tribal welfare. After all, there will be dire consequences for all members of a tribe that does not tap into individual patriotism when the tribe is at war. In other words, the relative importance of individual selection and group selection will vary like a pendulum as the tribe changes from peace to war, etc. This scenario, supported by game theory simulations, is referred to as "parochial altruism."

An interesting prediction follows from parochial altruism. If a society is at peace for a long time, such as after conquering all of its neighboring tribes, it might remain at peace for so long that selfishness grows to a level that the society is incapable of defending itself when an attack eventually comes. In fact, others have speculated that this is one

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factor that explains the collapse of the Roman Empire (Turchin, 2007). This theory should be included on any list for possible explanations for civilization median longevity being as short as 250 years.

Regal Societies

The book *Warlike and Peaceful Societies: The Interaction of Genes and Culture* (2017) by Agner Fox describes a theory for a society's organization (governance) that relies heavily on parochial altruism concepts. I discovered the book in 2021 and can say that it also has a striking resemblance to parts of the First Edition of this book. The Fox book states that a society changes its organization to match the level of threat that its members feel about a rival society. When it feels threatened it becomes hierarchical, or "regal," and when the threat is low its organization becomes less regal, or "kungic" (i.e., peaceful), which means that individuals are subject to a looser government control.

Whereas this book hypothesizes that civilizations collapse after they have been hijacked by psychopaths, and that this is more easily accomplished because the constraints on psychopaths disappeared when tribes coalesced to super-tribes and societies, the Fox book doesn't even mention psychopathy. It also has minimal emphasis on the differences between Stone Age tribes and contemporary societies.

Parochial altruism articles are also restricted in the same way. Nevertheless, the Fox book is a valuable contribution to the matters under consideration in this book because it treats a subset of this book's material with scholastic rigor (and an excess of references).

Suicide

The chapter describing the coming together of cells to form a multi-cellular organism (Chapter 1) showed how the immune system identifies types of cells that need to be destroyed because they are failing in their performance on behalf of the organism. One cell type may be under-performing because of a DNA error resulting from a random mutation when the cell formed. Another cell type may be under-performing due to senescence, or a "wearing out" from old age. Is there an analog in social collectives for a cultural immune system dealing with the problem of individuals who resemble these two cell types, e.g., people who are defective due to a mutation occurring during their conception or embryonic growth and people who are old and suffer from extreme senescence?

A sociobiologist is in a good position to answer this question; he could almost predict the presence of suicide among members of a collective. This would be based on the analogy with apoptosis, a cell's internal mechanism for self-destruction when it has been determined (usually by a killer T cell) to be a liability to the organism. The argument would be that every person is capable of taking self-readings for evaluating his value to

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the collective. If a person judges himself to be a liability (to the collective) he initiates a process of self-destruction, i.e., suicide. Feeling depressed, when confirming additional self-readings are made, is an early phase of this process.

Sociobiologists might also interpret “bullying” to be another evolutionarily useful adaptation by tribal genomes. The schoolyard bully illustrates how a flawed child might have been “weeded out” of a tribe. In this case children take readings of other children and when the target appears to be a liability to the collective the act of bullying demoralizes the victimized child in a way that triggers depression and possibly suicide. A bully, therefore, is analogous to a killer T cell! This connection could only be made by a sociobiologist.

Initiation rituals serve a similar purpose for boys who survive to young adulthood. Those who fail the initiation rite are social outcasts, which is a kind way of removing them from the tribal breeding pool without losing their ability to defend the tribe.

Sometimes a defect is so obvious that it can be detected right after birth. The Spartans threw defective babies over the infamous Ceada's cliff (according to Plutarch). Thus, Spartan-like tribes were less burdened by the raising of babies through childhood to adulthood, and be burdened by them during their entire adult life.

The human analog of a senescent cell is an old person. For tribes that are constantly moving, an old person is left behind if they can't keep up. For itinerant tribes the handicap of an old person is more of a challenge. In some of these societies it is customary for an old person to ask to be killed. An extreme solution was developed by the primitive Ache tribes of Paraguay: some young men were given the job of killing old people.

A poignant case of senescent suicide is reported by observers of a pack of Arctic wolves (Shea and Donovan, 2019). “After several failed hunts the pack managed to drag down a muskox calf... The matriarch stood beside the carcass and fended off her older (ravenous) children, allowing only the four pups to eat. The older wolves begged, whined ... hoping for a mouthful. She held firm, snapping and growling, while the pups gorged... Eventually everyone was allowed to feed... The matriarch (having not eaten) vanished. She never returned.”

This wolf story illustrates one of two exceptions to the rule that suicides are a way for defective individuals to be removed from the collective. Wolf packs with matriarchs who behave like this should theoretically fare better than other wolf packs. The matriarch who left the pack was not defective, she was serving the collective in a way that the wolf genome must have provided for. On Elsmere Island, where this incident occurred, food was so scarce that a wolf pack is competing with “nature” more than with other wolf packs. Evolutionary payoffs are therefore less dependent upon “group selection” than adaptation to harsh conditions.

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The other exception for suicides serving the collective is when someone is plagued by a serious health issue, or many such issues, as often happens in old age. Humans are in a better position to understand when they're in this situation. One of my intellectual heroes (GH) committed suicide in response to an intractable age-related illness.

As an aside, Darwin occasionally wrote about groups competing, but never really understood the implication of this. For example, in *On the Origin of Species* (1859) he wrote "Natural selection will never produce in a being anything injurious to itself." This is equivalent to the analogous statement that a multi-cellular organism will never consist of cells that are capable of apoptosis. Nobody is perfect.

Some Sociobiology "Laws"

I use the term "law" loosely. Laws that always apply only exist in physics. Nevertheless, it will be instructive for understanding sociobiology to describe some social relationships that almost always hold.

Law #1

Whereas individuals can compete with individuals, and tribes with tribes, it is more useful to think in terms of gene pools competing with gene pools. After all, gene pools evolve on long timescales and the individuals assembled by these genes are short-term combatants for achieving the end of eternal genetic existence. Gene pools evolve, not individuals. The lay person may acknowledge that evolution is something that happened to our ancestors, but no thought is given to gene pool changes that produced this evolution. Genes are mistakenly thought of as serving the individual because they give life to the individual, but the individual serves the genes in ways that are never recognized by the individual.

The uncomfortable truth is that the individual is created by the genes as a way to assure continued genetic existence. Because genes exist for millions of years, while the individual exists for a matter of years, the individual is in fact "enslaved" to the genes! This is accomplished by a brain that is assembled by the genes, with as many as 50 % having influence upon brain pre-wiring. The brain is just another organ, like a kidney or muscle, meant to promote survival of the individual long enough to reproduce and serve the tribe in other ways so that other individuals can carry the same genes into the future.

During most of the ancestral environment (AE) the human species consisted of thousands of gene pools. Sometimes the "other" gene pool belonged to another species. The individuals created by a gene pool are merely a means for the genes in that pool to achieve an immortal presence. None of this is "understood" by those genes, of course, nor by their individual creations (with few exceptions – such as those who read this book).

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Law#2

Whenever like-elements of life combine to form groups that compete with others of its kind, the winning groups are the ones that eventually evolve a diversity of the constituent elements. The previous chapters describe three coming together transitions. After each transition the new entities evolve from “same type” individual entities to “different type” individual entities. This is easiest to understand for Transition #3, when individual organisms came together to form groups of (essentially) same type individuals, such as tribes. Considering the case of humans, and our pre-human ancestors, whereas initially the individuals within the tribe may have been similar, eventually evolution led to tribes composed of individuals who differed from each other in significant ways.

This last transition is the most important one for us to understand, especially for the case of humans. When groups of individuals are joined in winner-take-all competition, and when each tribal gene pool differs in how much diversity exists in the individuals that that tribe’s gene pool creates, an evolutionary advantage will usually exist for the tribe that creates a greater diversity of individuals. Every specific tribal need can be met better by the joining of individuals who are better matched to that need than the joining of general-purpose individuals. Because of this “division of labor” we should expect that after the creation of tribal life the pace of evolution should quicken.

For example, each tribe might have a warrior class (analogous to soldier ants). The same tribe might also have artisans who specialize in making weapons for use by warriors. The same artisans could make tools for use by non-warrior construction workers (e.g., making huts, paths and other infrastructure). Each tribe can be thought of as having a need for a specific percentage of each individual type. If 10 % of tribesmen are needed for warrior duty, another 30 % are needed for construction work, 5 % are needed for artisan duties, etc., tribes that produce individuals with these skills at the optimal percentages will have an advantage over tribes that fail to achieve the optimal percentage. (This is referred to in sociobiology as an “evolutionarily stable strategy,” or ESS.)

Law #3

Living things have no prevision of outcomes. Every living thing exists because its ancestors were successful; pre-adaptations are accidental. For example, a cancer cell has no prevision of its death when the host dies. The same concept applies at a higher level of life, human civilization, as expressed by Bertrand Russell (1903):

Such ... is the world which Science presents for our belief. ... That man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and his beliefs, are but the outcome of accidental collocations of atoms; ... all the noonday brightness of human genius [is] destined to

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extinction in the vast death of the solar system, ... the whole temple of man's achievement must inevitably be buried beneath the debris of a universe in ruins.

Law #4

Whenever a species consists of collectives that compete with each other, with winner-take-all consequences (loss of descendants by the loser collective), that species will evolve some eusocial traits (e.g., patriotism, diversity of talent among individuals), and it is therefore on a path to becoming more eusocial. (This is probably an over-statement of something that's true most of the time and shouldn't be labeled a "law.")

The Essence of Sociobiology

As stated above, the "laws" just cited are not real laws, as with the laws of physics. They resemble the so-called laws in the humanities.

Those of us in the physical sciences view people in the humanities as "un-disciplined." When someone with a physical sciences perspective enters a humanities realm, they are dismayed by what they see. There is so much "cleaning up" to do, and so many charismatic charlatans who are viewed as leaders in their field! It is unsurprising how unwelcome the new person is, with his alien perspective, and his lack of respect for traditional beliefs. For example, sociologists must view sociobiologists as unwelcome aliens invading the humanities.

I am one of those aliens. I demand that any humanities assertion must be compatible with $F=ma$, or a principle derived from $F=ma$. For an example in the physical sciences, chemists use the "perfect gas law" ($PV=nRT$) which is derived from $F=ma$. Every treatment of a gas must be compatible with the gas law. An analogy for the humanities would be that any assertion pertaining to an individual's behavior must be compatible with the genetics of brain assembly by genes that have succeeded in surviving in a gene pool. A sociologist might react with the thought: "What? I don't need no gene pools to keep my followers loyal to me!" The clash of cultures is inevitable.

Sociobiologists have many "end points" that must be upsetting to others. For example, "Good" and "evil" are human-invented concepts. They do not exist as forces that influence events. A sociobiologist would generally attribute "good" to things that promote the collective's genome longevity, while "bad" is for things that threaten the collective's genome longevity. As will be shown in later chapters of this book, things that safeguard a human collective's longevity (such as authoritarian "Enforcers") can ruin the quality of life of individuals who value the freedoms of individualism.

Here are some other end-point examples from sociobiology, described briefly but with more "bite." There are no gods, no devils and no angels. No external force protects

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individuals or species from suffering or death. Noble actions, regardless of intentions, can be futile. Truth often loses out to falsehoods. It's possible that Evil is the ultimate winner in all realms! Determinism of the $F=ma$ type is true. An appeal to the Heisenberg uncertainty principle could only fuzzy-up predictions and will not rescue "free will," or God, or an eventual triumph of Good over Evil.

People who cling to wishful thinking are revealing themselves to be pathetically enslaved to their genome makers.

This chapter could have included more laws, more examples of the clash of cultures between the physical sciences and the humanities, and on many other sociobiology topics. My personal library has 3 shelves devoted to sociobiology, so obviously this short chapter can only provide a flavor of what the field is about. The rest of this book will provide everything needed to follow sociobiological explanations when they are presented.

Chapter 6. Dunbar Number

Our ancestors spent most of their millions of years living in tribes with populations of 100 to 200 individuals. Smaller bands of men performed specific tasks, such as hunting, construction projects and border patrol. Human nature evolved for the social setting of these small tribes with a total population of about 150, the Dunbar Number.

Eusocial species form collectives with characteristic numbers of individuals. For humans the most common tribal size is about 150, with less important peaks at 50 and 500 (Dunbar and Sosis, 2017). Tribes with a structure that favors a total population that peaks near 150 may exhibit population variations over time between 100 and 200. When tribal size grows toward that upper limit, tribal fission is likely to occur. A charismatic leader will collect a small following and leave the tribe in search of some “promised land.” When a tribe goes below the lower limit, there is a strong incentive for the tribe to grow. All tribes have “ownership” of a territory. Hunting and gathering occur within that territory. Somewhere near the center of that territory is a settlement which serves as a home base for all tribesmen.

Border Skirmishes

Tribes are a social collective, and like all social collectives they compete with each other. Consider, again, the most frequent conflict category between tribes: skirmishes between small bands of individuals at territorial borders (Keeley, 1996). E. O. Wilson (2012, Ch. 8) called attention to the similarity of human border skirmishes with those practiced by chimpanzees; he summarized the latter this way: “*Chimpanzees live in groups ... of up to 150 individuals, which defend territories ... Within each of these ... small parties form ... averaging 5 to 10 strong ... The patterns of collective violence in which young chimp males engage are remarkably similar to those of young human males. ... The purpose of the raids on neighboring communities is evidently to kill or drive out its members and acquire new territory.*” I surmise from this that humans have been behaving this way for more than 7 million years, or forever long the human and chimp lineages diverged.

Imagine that during the AE human tribes of ~ 150 individuals were organized in a similar way to the chimpanzee bands. Consider the 5 or 10 individuals within the band of males that spend time near the tribe’s territorial border, looking for an opportunity to engage in a skirmish to attack and possibly kill a lone individual, or smaller band, from the neighboring tribe. If those individuals liked picking fights, and if they were uninhibited by empathy for fellow humans of another tribe when they were fighting, that band would have an advantage in prevailing during the skirmish. Border skirmishes not only protect territory, they can enlarge territory by stealing it from a neighbor tribe. Every tribe must have had a few such males, which I’ll refer to temporarily as “ruffians.” A tribe with ruffians would therefore benefit in competition for territory compared to a tribe without ruffians.

6. Dunbar Number

Using round numbers, tribes of 150 individuals would number about 50 adult men, 50 adult women and 50 babies and children. The men associated with mostly each other; and they traveled throughout the tribal territory. They defended territorial boundaries, hunted, made weapons and tools and built huts. The women mostly associated with each other and did food gathering safely within tribal territory while avoiding territorial boundaries. Their social lives were mostly confined to each other and maternal matters.

If a tribe's population decreased significantly, a neighbor tribe that noticed this might conclude that the smaller tribe was vulnerable. This is how inter-tribal warfare might begin. Successful warfare leads to increasing territorial size and population capacity. The importance of tribal size for inter-tribal warfare outcomes is illustrated by studies of our closest related species, chimpanzees. Michael P. Ghiglieri writes (2000, pg. 175) "... male chimps ... waged war on a neighboring community only when it ... was a lot smaller and weaker than their own community, containing half or fewer adult males."

Because of the importance of being prepared for either initiating inter-tribal warfare, or defending the home tribe from warfare initiated by a neighboring tribe, tribal survival depended on the social cohesiveness of male tribesmen. If there were 50 adult men in a tribe, it was imperative that all 50 men must have been able to trust each other during battle. Trust is built upon a history of interpersonal experience. With lifetimes of maybe 40 years during the AE there are limits to the number of interpersonal relationships that can be assessed for trustworthiness. The Dunbar Number of 150 is usually explained as the maximum tribal population size that provides a sufficient number of interpersonal assessments needed for establishing trustworthiness for the subset of the tribe that must work together. For the tribal social structure given above, in which adult males form a cohesive association, a tribal size of about 150 (total for men, women and children) is an estimate for the Dunbar Number.

Other social structures exist, and lead to other optimum "community sizes." Dunbar and Sosis (2017) cite the following peaks in the histogram of tribal sizes: 50, 150 and 500. Presumably these less common but still present smaller and larger population size "attractants" correspond to different social structures.

Within a tribe the adult men form small bands for specific tasks. Hunting parties may be one of the most important and enduring band. Infrastructure construction and maintenance (huts, trails, storage structures, wells, etc.) will have optimum numbers for those tasks. Border patrol is an ever-present need, so those bands may form and remain stable with the same men. How many men would be needed for each band? Of course, it would vary with the task, but we can be guided by a propensity for present-day sports teams to number between 5 to 10 members (basketball = 5, baseball = 9, football = 11, Army squad = 4 to 10, etc.). In sports teams every member has a special role, so we can assume that within the AE tribal team special roles also existed, and each member was chosen for their role based on ability for that role. Teams of 5 to 10 men may have also

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been typical during the AE. Notice the rewards for a tribe with a membership exhibiting diversity of talent.

ESS

The “evolutionarily stable strategy,” or ESS, states that when a tribe relies upon a diversity of talents the tribal genome will consist of genes that produce people with those talents in proportions that are optimal for the tribe. For example, if tribes are best served by hunting parties of 5 to 8 men, then tribal gene frequencies will be such that for most generations the tribe will have approximately 5 to 8 men with talent for hunting. The same concept applies to every category of essential talent needed by a tribe. Whereas a tribe has only one chief at a time, it is important that a reserve of chief candidates exist for the case of a chief’s injury or death. The optimum number of men with talent for tribal leadership may be approximately 3 (i.e., 6 %). Tribes whose ESS is matched to these needs will have an advantage over tribes that depart from optimum percentages.

What would happen if a tribe doubled in population? It would have twice as many candidates for being chief than needed. This was illustrated by a chimpanzee documentary on Netflix: *Chimp Empire*. It described a conflict between two troops in the Ngogo region of Africa in 1993. Both troops had border patrollers to assess their neighbor troop’s strength. The troop of 120 individuals was being challenged by a smaller troop on their western border. The narrator described the large troop as being weakened by internal discord, principally a conflict over leadership. The smaller troop had once been members of the larger troop. The smaller troop was more efficient due to better cooperation among its members. Contrary to most situations, the smaller troop attacked the larger troop. Both troops were of equal strength so there was a standoff and the smaller troop’s attackers retreated. Troop size matters, but so does troop cooperation. The most remarkable thing about this documentary is that the leader of the small troop’s attackers was a former member of the troop he was attacking, which means that he was trying to injure or kill close kin. This illustrates the supremacy of collective affiliation over kin relationships.

Random Walking

Small tribes can evolve faster than large tribes, and this is due to a statistical phenomenon called “random walking.” A detailed description of how this can lead to small tribal size as an evolutionarily optimum is given in Gary (2021, Chapter 22), so I will merely summarize that discussion here.

Many individual traits contribute to viability: physical endurance, immune system strength, social skills, etc.. A mutation that affects any of these traits will move the tribal genome a small amount in a direction that could change tribal survival prospects. If there are N such traits then the tribe will move in N-dimensional space a small amount each

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generation. The movement will be random because genetic mutations are random. Every such movement will have consequences for tribal survival, even though they may be small. The distance covered in N-dimensional space by genetic mutations each generation can be described by the following “random walk” statistic: distance from a starting point is proportional to the square-root of the number of events.

This means that short intervals between generations allows tribes to evolve faster than those with long intervals between generations. In other words, short lifespans can have adaptive advantages. Lifespan is not relevant to this book’s purposes so that subject will not be discussed further here (but it’s treated in Gary, 2021).

Another random walk statistic is that an individual with a significant trait change will have an effect on tribal viability that diminishes as tribal size increases. This means that small tribes can evolve faster than large tribes.

Consider the thought experiment of a progenitor tribe consisting of 1000 individuals that splits into a society of 10 tribes with 100 individuals each. After a few generations we can ask how far in N-dimensional mutation space have the small tribes moved in relation to what the progenitor’s movement would have been if the split had not occurred. The answer is about 3 times farther. Some small tribes might have regressed, become weaker, but others could have become better adapted to the prevailing conditions. Assuming the weaker tribes disappeared and were replaced by the better-adapted tribes, which grew in population and fissioned into new tribes, it can be said that the progenitor’s splitting into smaller tribes was a good decision. This is especially the case when “prevailing conditions” are changing (such as climate, disease invasions, etc.).

The same arguments can be applied to the evolution of tribal culture. Each tribe has a collection of specific “culturgens” that constitute a tribal culture. In spite of the fact that a tribal culture can evolve dramatically faster than its genome, it too can be viewed as influencing optimal tribal size and therefore affecting the Dunbar Number. So, the smaller the tribe the faster it can undergo cultural evolution. And the more tribes that exist for a society of tribes with a given population, the better off the best one will be when prevailing conditions fail to prevail.

There’s no simple way to model this dynamic that favors small tribes, so there’s no way to know what an optimal size would be – especially since prevailing conditions would change the optimum size in ways that can’t be modeled – so I won’t take a position on whether the Dunbar Number is most influenced by the random walk argument for genetic mutations, the random walk argument for cultural changes or the need for every tribesman to know every other tribesman. It may be the case that these three actors take turns being most important and depend on how fast prevailing conditions are changing.

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So far I haven't taken a position on whether the border patroller ruffians are psychopaths, sociopaths or even one of the other (so-far undiscussed) categories of people. There's a clear answer for this, but before we can identify who they are we need to do some more analysis of the Eusocial Spectrum. That's what the next chapter is about. It will put us in a much better position for answering this question

Chapter 7. Authoritarian Enforcers

“My country, right or wrong.” This is a popularized version of 19th Century U.S. Navy officer Stephan Decatur’s toast at a banquet in his honor. It captures the essence of unquestioning patriotism that is expected of everyone in the military.

During the ancestral environment (AE) tribes were in constant conflict over territory. There were two states for each tribe: war and peace. Every tribal genome would have to create individuals who could take “readings” of the threat posed by all its neighboring tribes. The most important measure for threat was the neighbor tribe’s population. If it was growing and approaching the dangerous level of twice the home tribe’s population, then the threat level should be heeded, and the smaller tribe should begin to prepare for being attacked. A similar mobilization is likely to be occurring in the larger tribe, for no tribe should overlook an opportunity to vanquish a weaker tribe. Inequality of strength should be viewed by both tribes as a prelude to open warfare.

Before open warfare breaks out each tribe must undertake a change in how it is organized if it is to perform well during the oncoming war. Individuals must shift their emphasis from devotion to family, relatives and friends to whatever will serve the entire tribe. An adult male who had been a devoted husband and father must think of himself as a warrior who is needed for saving the tribe. If he was learning a new trade, such as gardening, he must set aside his hoe and pick-up a spear.

Tribal governance must also undergo a change. Whereas during peaceful times a sense of democracy prevailed, where each person’s opinion could be heard when a tribal decision had to be made, during warfare a strong leader is needed who can issue commands that will be followed without questioning. What had been a society of egalitarianism must become a society with a hierarchy. At the top of this hierarchy is a tribal chief with kingly power, who can create levels of command that will be needed during war. The desired transition to a hierarchical form of governance is described by Fog (2017) as the “regality transition.”

Some adult males might be reluctant to set aside their hoe, or tools of whatever their trade had been. If the tribe must undergo this mobilization of all its adult males before warfare begins, then it may be useful to the tribe if some of the tribesmen are instinctively predisposed to enforce the transition by bullying each reluctant adult male. This is a reasonable speculation because today we have documented evidence for the existence of a segment of society that are bully enforcers, referred to by academic as “authoritarians.”

Authoritarianism and Defining “Enforcer”

I estimate (for reasons to be described later) that at least 1/3 of people today are prone to becoming enforcers and scoring high on a questionnaire that measures a person’s desire for enforcing a conformity of beliefs and behavior upon all others. Based on recent research the actual percentage of people who qualify as enforcers among today’s

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societies is within the range 5 % to 25 %. Presumably the percentage of enforcers varies with time in response to conditions. More on this later.

The psychological test that I'm referring to is Right-Wing Authoritarianism (RWA), published by Altemeyer in 1981. It was inspired by a curiosity of why some people so easily followed fascist leaders leading up to World War II. The test consists of 20 opinions that require a response of either agreement or disagreement using a 9-point score for each item. For example: *"The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas."* Or *"What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path."*

In addition to opinions like those, with which an authoritarian would agree, there are an equal number of items with which he would disagree, such as: *"Our country needs free thinkers who have the courage to defy traditional ways, even if this upsets many people."* and *"There is no 'one right way' to live life; everybody has to create their own way."* Scoring is performed so that high RWA scores correspond to agreement with the first category of opinions and disagreement with the second category.

Wikipedia cites a quote by Karen Stenner that succinctly describes the people who score high on this test, which psychologists refer to as "authoritarianism." *"Right-wing authoritarians are people who have a high degree of willingness to submit to authorities they perceive as established and legitimate, who adhere to societal conventions and norms and who are hostile and punitive in their attitudes towards people who do not adhere to them. They value uniformity and are in favor of using group authority, including coercion, to achieve it."*

The term "Right-Wing Authoritarian" suggest an association with political conservatives. Although this is generally true in contemporary society some examples exist of ultra-liberals having high RWA scores. For example, the Millennial Generation (cf. Chapter 23) includes a sub-population that likes "calling out" anyone who dares to think for themselves in a way that challenges "politically correct" positions. They want everyone to think as they do, and their lack of tolerance or open-mindedness for new ideas is referred to as "cancel culture" because of their penchant for "canceling" free thinkers. Canceling can take the form of trying to ruin the person's career so they cannot find employment anywhere in academia, thus silencing their academic voice.

I not only have reservations about the phrase "Right Wing" but also "Authoritarian." This is because the people with high RWA scores are followers of an authoritarian leader. Yes, their enforcement of the leader's dogma promotes the authoritarian's goals, but the followers are enforcers of the authoritarian agenda. To say that they agree with the authoritarian's ideology would be giving them too much credit for understanding that ideology. They just like being told what to believe, and what to do, by the strong leader

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that they adopt as their group's authority. During the AE the "group" was the tribe and the "authority" was the tribal chief. This made sense for tribal harmony when engaged in conflict with other tribes.

In spite of these reservations of terminology I will continue to make use of RWA scores. However, I take the position that RWA measures the degree of an "enforcer" personality trait. So, instead of calling these people "Authoritarians," as is done in the psychology community, I will call them "Enforcers." They are to be thought of as followers of an authority, who enforce conformance with the beliefs and commands of that authority.

Replacing the well-established term "Authoritarian" with "Enforcer" may seem like a trivial distinction, but it brings a body of psychology research into better alignment with sociobiological theory. It also frees up use of the term "authoritarian" for the strong leader who commands beliefs and behaviors. Such a person is in fact the "author" of the commanded ideology.

The Eusociality Spectrum – From Enforcers to Psychopaths

Considering a hypothetical pair of tribes that were equal in all respects except the presence of Enforcers, the tribe with them would more likely vanquish the tribe without them. We can assume that the RWA person was valuable to AE tribes and therefore was an evolutionary product of the AE. It is therefore no surprise that Enforcers are present in our contemporary population.

Notice that the high-scoring RWA person is a product of inter-tribal competition with evolutionary rewards for eusocial behavior. If psychopaths are the antithesis of eusociality, then RWA Enforcers are the exemplars of it. PCL measures how far a person is located toward one extreme, and RWA measures how far a person is located toward the other extreme. The next figure illustrates this.

Enforcers (high RWA)	Normal People	Psychopaths (high PCL)
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Figure 7.1. *Enforcers and psychopaths are opposite types.*

The RWA people must exist within the low scoring PCL group. Those with a PCL score of zero comprise 50 % of the population (according to Fig. 4.1). Presumably the high RWA scorers are found among these people. The above figure captures the notion that eusociality extends from the hyper-eusocial Enforcers (high RWA) at one end, to the hyper-individual oriented psychopaths (high PCL) at the other end. Another way to illustrate this idea is to show a population distribution (Fig. 7.2, next page).

The concept I'm trying to present is that the PCL score measures mental traits in one direction from normal while the RWA scale measures traits in the other direction from

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normal. I want to emphasize that the Enforcers are a product of evolutionary forces that rewarded tribes that included individuals who maintained a coherent belief system within the tribe and a devotion to unquestioning patriotic defense of the tribe among all tribal members when the need for it existed. Psychopaths are an anomaly, as I will argue later in this book, and they constitute a small percentage of the population..

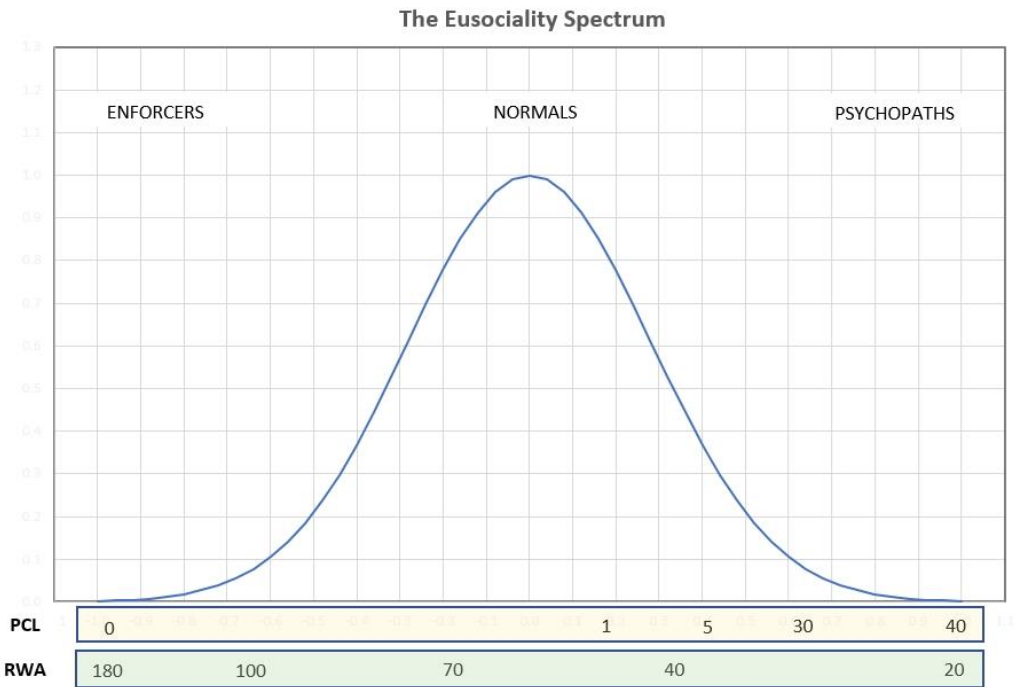


Figure 7.2. Population distribution showing the full eusociality spectrum, from Enforcers to psychopaths. (For illustration purposes only; not based on data.)

As will become abundantly clear by the end of this book, the two extremes on the eusociality spectrum can be viewed as *the twin evils of human nature: hyper-eusociality (Enforcers) and hyper-individualism (psychopaths)*.

One simple way to state the difference between Enforcers and psychopaths is to imagine how they would define good and bad. The psychopath would say “What’s good for me is good, and what’s bad for me is bad.” The Enforcer would say “What’s good for the collective is good; what’s bad for the collective is bad.” (Actually, since the Enforcer lacks insight into his personality he wouldn’t “say” that, he would simply act as if he believed it.) But we shouldn’t overlook the following nuance: today’s Enforcer is evolutionarily adapted for life within a collective that was the AE tribe. What was good for the old tribe during the AE is not necessarily good for contemporary society! I will continue to emphasize this perspective throughout this book.

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Today we can recognize the Enforcers for their primitive need to enforce uniformity of beliefs and patriotism upon everyone. They notice if someone is skipping church attendance on Sundays. They are the “busy-bodies” who start rumors about anyone whose loyalty to “group think” is in question. During the Nazi era they would have been “informants,” reporting on suspicious neighbors. They would have been at book burnings to rid society of books that the authorities labeled subversive. In Arizona, where I live, they drive pick-up trucks with a big US flag flying from a truck bed. They also like “Annoy a Liberal” bumper stickers. They seem to delight in being “in your face.”



Figure 7.3. *An example of hyper-patriotism (an Enforcer).*

According to Dean and Altemeyer (2020), RWA people are mean-spirited. Studies show that when adult RWA people remember fellow students in high school who made mistakes they recall them with little empathy and plenty blame. In fact, some report having had “secret pleasure” about the other student’s mishap. The same authors report that when people are placed in the role of “teachers” who were able to administer electric shocks to “learners” the high RWA people gave stronger shocks. A Group Cohesiveness Scale was used to show that high-scoring RWAs agree with the following two statements: “For any group to succeed all its members have to give it their complete loyalty.” And “There is nothing lower than a person who betrays his group or stirs up disagreement within it.” These attitudes were needed by AE tribes.

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Political analysts have puzzled over Trump's appeal to evangelical voters. After all, Trump is not religious; he has a lifestyle that violates all religious codes. The RWA researchers have shown that evangelicals are consistent high scorers, so there's a "gut appeal" to Trump's performance as a strong leader. Moreover, Trump stated that he was 100 % pro-life, in spite of having stated years earlier that he was 100 % pro-choice. The RWAs don't demand consistency from their leaders. For evangelicals, abortion is a very important issue. Why? Because they are pawns of the genes that made them! If the genes could have an opinion, and talk, their most important policy would be to never abort one of their creations. Although all humans are to some extent enslaved to their genetic makers, some are more enslaved than others, and religious people, especially the RWA Enforcers, are enslaved more than others. Hence, their abhorrence of abortion.

Authors Dean and Altemeyer (2020) take the position that the Enforcers (or authoritarians, as they call them) are "frightened" people, "living in fear." They write "Like many animals, they are prey for carnivores, they find safety by being in a herd whose prime directives are follow the leader and stick together." (pg. 194) In spite of Altemeyer being the expert on authoritarians, I prefer to think of Enforcers as quick-to-anger enforcers of tribal conformance imperatives that are needed for tribal safety when the tribe is threatened. For them, tribal survival is everything, and their ability for independent thinking disappears whenever the tribe (or group) is threatened. These people exist today because our ancestors lived in tribes (during the AE), and they helped vanquish tribes without people like them. Enforcers are a product of the partial eusocialization that occurred during our ancestry.

Let's imagine how people at each extreme of the eusocial spectrum would explain themselves. The Enforcers would say "Hey authority, tell me what to believe, and how to act." The psychopath would say "I'm the only one in this world who matters, so don't bother telling me what to believe or how to act."

What about the "normaloid"? Since I'm one of them I'll try to express how we think: "I'm able to figure things out for myself so I bristle at the thought of anyone telling me what to believe; I would also never tell someone else what to believe. Behavior, however, is a different matter. Since my character was formed during the Great Depression and World War II I understand that a harmonious society has legitimate needs for how everyone should behave, so I am conscientious about behaving in a way that shows consideration for others. For us Normaloids 'doing the right thing' comes naturally."

Studies have shown that people with high RWA scores have trouble seeing inconsistencies in their thinking (Dean and Altemeyer, 2020). For example, they might agree with the statement: "All fish live in the ocean; sharks live in the ocean; therefore, sharks are fish." It's as if their left brains are either incompetent or are ignored. Only a right brain would agree with the superficial logic of the above syllogism.

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The Enforcer's thinking appears to be "compartmentalized" in a way that permits contradictory beliefs to coexist in the same brain. Evolution so strongly rewarded talent in narrow realms that it was willing to overlook a person's deficiencies in other realms when a specific talent was needed. This has led to what I term "spectacular stupidity" – the existence of inexplicable stupidity about many things that coexist with amazing talent in one realm. (This topic is treated at length in Chapters 17 and 18.)

During the AE the upside to having Enforcers in a tribe must have been greater than the theoretical value of having people with generalized competence and creative thinking that questioned and guided leadership wisdom. This imbalance may have been good for the tribe whose survival required unquestioning patriotism (e.g., "my country, right or wrong"), but I question its value in a modern society. How else could evolution have produced so many unthinking Enforcers that we find in today's population? Since tribes were small, with fewer than 200 individuals usually, it was feasible to enforce uniformity of beliefs and behavior. But with today's typical society, consisting of hundreds of joined tribes and millions of people, there are new risks of many sub-cultures that can't get along – as is happening in America today.

As an aside, we should acknowledge the presence of those who need to dominate others, scored using the Social Dominance Orientation test, or SDO. These people are attracted to leadership of RWA followers. Cults (and fascist societies) consist of RWA followers led by SDO "strong leaders." Whereas an SDO person can be found anywhere along the RWA spectrum, Dean and Altemeyer (2020) call attention to a subpopulation (~14 %) with high scores for both RWA and SDO. They are referred to as "Double Highs."

The authors suggest that Trump is a Double High. However, Trump is a psychopath (one of the 1 % at the right end of the eusociality spectrum). He's an accomplished "con man," or "imposter," capable of posing with whatever persona advances his goals – which appear to be achieving wealth, power and dominance over others. I agree that he must have a high SDO score, but he wouldn't score high on the RWA test (assuming he answered honestly). I take this position because he has no concern for a patriotic defense of the collective. Trump has famously expressed puzzlement about why anyone would volunteer for military service. He has even called them "losers." He has conned the RWA people into following him about anything he says or does, because they think he's one of them. If this assessment is true, then it would be a case of a hyper-individualist (psychopath) leading a following of hyper-eusocialists (Enforcers). They deserve each other. How ironic, and how fitting!

Percentages of Enforcers

We know that psychopaths and sociopaths together make up about 7 % of the population. Can we estimate how many people are Enforcers?

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A salient trait for the Enforcers is the holding of weird beliefs, sometimes incompatible with each other, but always flagrantly incompatible with generally available information. For example, approximately 40 % of people in America believe in creationism and reject evolution, in stark contrast with both common sense and an abundance of scientific knowledge. About 26 % of people believe in astrology. (I've made a living in astronomy and we astronomers are amused by the fact that more Nautical Almanacs are sold to astrologers than astronomers.) About 80 % of Americans believe in angels, and 55 % believe in "guardian angels." Finally, and this may be getting ahead of the book's message, about 35 % of voters are consistent Trump supporters. They are apparently willing to believe anything he says, including that the COVID-19 pandemic wasn't serious, or was under control, wearing a mask is for sissies, and if you get sick with it just take hydroxychloroquine. According to a survey (no reference, sorry) 40 % of white Americans score either "high" or "very high" for authoritarianism. According to a 2021 survey of 1000 people in 8 countries using a RWA test (Venaglia and Maxwell, 2021) countries differed in their RWA scores for authoritarianism (using $RWA > 110$). Figure 7.4 is a table from that study.

**Prevalence among adults in
Western countries**

2021 Morning Consult survey 

	Low RWA	High RWA
US	13.4%	25.6%
UK	13.6%	10.4%
Germany	17.4%	6.7%
France	10.2%	10.7%
Spain	17.9%	9.2%
Italy	17.9%	12.9%
Australia	17.1%	12.9%
Canada	21.3%	13.4%

Figure 7.4. Listing of prevalence of authoritarians (Enforcers) for a selection of countries from a study conducted in 2021 by Venaglia and Maxwell, of Morning Consult.

The remarkable thing to note from the above table is that societies differ in their authoritarian (Enforcer) prevalence. At the time of this survey Americans had the highest incidence, ~ 26 %, while next-door Canada had half this rate, ~ 13 %. Germany had an even lower rate of ~ 7 %.

The lowest rate in 2021 was for Germany. This is ironic considering that in 1932 Hitler received 33 % of the vote in a field of six (37 % in a second round with a field of three). During the Nazi years, book burnings were common, Jews were sent to concentration camps to die and war was waged on neighboring countries. All of these things required

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a strong hierarchy that was created and defended by Enforcers of an authoritarian dictatorship. This means that a society's prevalence for Enforcers varies with time. (I recently learned about a book that argues for such a variability of authoritarian expression: Stenner, 2010, *The Authoritarian Dynamic*.)

Additional evidence for the idea that “phenotypic expression” of authoritarianism is influenced by a person's surroundings comes from the fact that most Americans are genetically related to people in the other counties listed the above table. This is a typical nature/nurture situation where genotype + environment = phenotype (GEP, as described in Chapter 4). The 4 years of a Trump presidency probably influenced the American expression of authoritarianism, raising it to the 26 % level. If societal polarization and intolerance for others in America worsens, the prevalence of authoritarians will likely increase further.

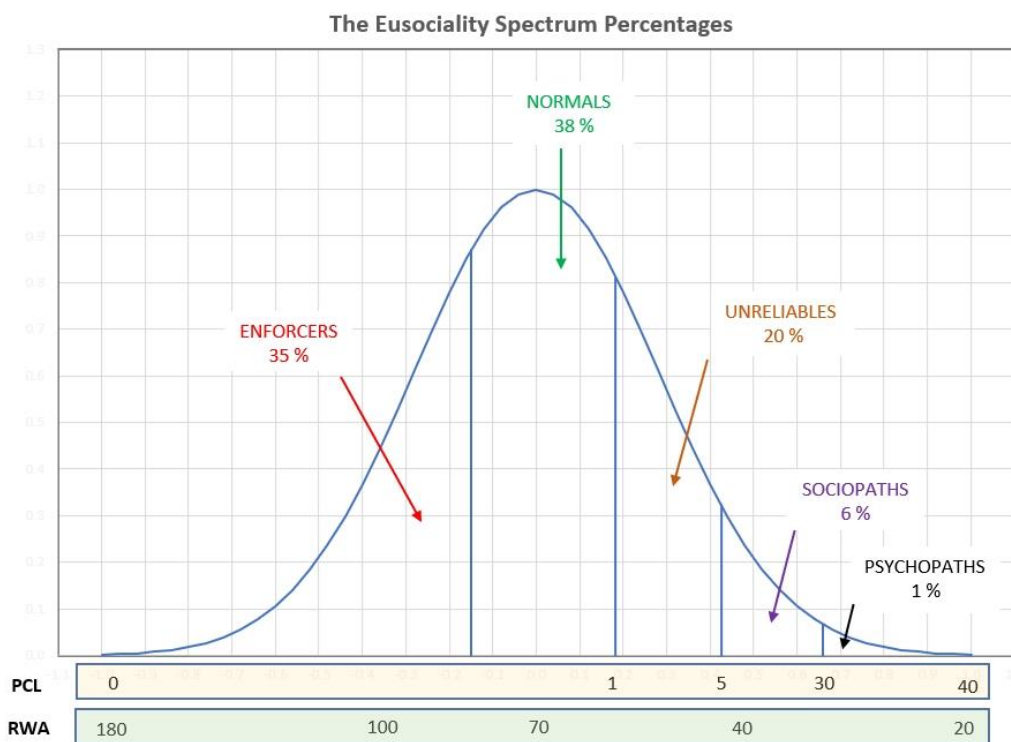


Figure 7.5. PCL and RWA locations on the eusociality spectrum, showing sub-types within the population and an estimate of their percentages.

There may be an upper limit to how many people are capable of becoming authoritarian. This is a relatively new field, and academics may eventually have an answer for this interesting question. For present purposes I will adopt the estimate that ~ 35 % of people

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are capable of expressing the authoritarian/Enforcer personality when conditions are favorable for its expression, such as when warfare is believed to be imminent.

Whereas Fig. 7.2 shows only psychopaths and Enforcers at opposite ends, Fig. 7.5 shows where sociopaths, and Unreliables are located. In this figure the vertical boundaries separating psychopaths, sociopaths and Unreliables are based on the incidences for these sub-types given in Chapter 4. The location of the Enforcer boundary corresponds to an estimate of the maximum prevalence that can exist under high threat conditions.

There may be sub-types within the “Enforcer” category which future work may reveal. Note that all sub-types are determined by frontal lobe function. Note also that all sub-types must have been adaptive to tribal gene pools during the AE. The only exception to this is the psychopath sub-type, which I will argue later in this book, is an oversight that was less of a problem during the AE. The fact that several sub-types were selected by evolution illustrates the importance of diversity in a species that is on the road to eusociality. It is likely that the proportions of each sub-type were established and refined by the ESS process (“evolutionarily stable strategy,” described in Chapter 5).

Enforcer Thought Experiment

Enforcer Thought Experiment #1. Suppose neighbor tribes 1 and 2 have populations that drifted to 200 and 100. As with chimpanzees let’s adopt this 2:1 ratio as a threshold for the larger tribe to consider attacking the smaller tribe. Let’s further assume that the home tribe, with the larger population, has adopted the culturgen of not enforcing warrior duty when they initiate an attack. Let’s call this the “leave individuals alone” culturgen. In other words, the larger home tribe has no Enforcers. When the attack occurs, some men will stay home and thus decrease the chances for home tribe victory. The home tribe would then be less likely to vanquish the smaller tribe and take over their territory for repopulating it with their excess home tribe’s population.

Enforcer Thought Experiment #2. Let’s switch which tribe is the home tribe, so that the home tribe is the one with a population of 100 and the neighbor tribe has 200. As before, let’s assume the smaller home tribe has adopted the “leave individuals alone” culturgen. In other words, the smaller home tribe has no Enforcers. When the larger neighbor tribe attacks, the smaller home tribe will have fewer than half the warriors that it would have had if Enforcers were present. The home tribe is therefore likely to be vanquished.

Enforcer Thought Experiment Conclusion. The “leave individuals alone” culturgen is evolutionarily unsustainable. In other words, for a species on a path to eusociality the presence of Enforcers is a necessary evolutionary outcome!

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Preview of Enforcer Presence Implications

If about 35 % of people are capable of becoming Enforcers, and 7 % are either sociopaths or psychopaths, that means that almost half of today's population is "in the way" of good people who are trying to achieve good outcomes for contemporary problems. These people are a "problem half" of the human population! They may have been an asset to our tribal ancestors, but times are different, and I argue that these people are now a liability.

We should not forget the way these problem people are responsible for creating Nazi Germany, fascist Italy, fascist Spain and the many other fascist episodes in world history? They are trying to create a neo-Nazi America, and neo-Nazi European countries.

About 38 % of people are identified as "normal" in the previous figure. They are candidates for belonging to a category of people who can be a force for good in achieving a winning place for humanity. However, keep in mind that half of them will have below-average IQ (a posterior lobe function). In addition, half of the ones with above IQ people can be expected to have a substandard lifestyle (a frontal lobe trait). That leaves ~ 10 % of all people who are potentially an asset for humanity's future challenges: those who are not psychopath, sociopath or Unreliable, not Enforcer, and who have above average IQ and who follow a sane lifestyle. If we require people to be more than just above average in IQ and lifestyle, such as two sigmas above, then we're left with maybe only 1 % of people who carry the burden of trying to save humanity from calamity.

In other words, I believe that 99 % of people are "in the way" of the 1 % who are capable of trying to save humanity. But the situation is even worse, because not only are half of people in the way, they are also predisposed to be troublemakers. If we are concerned with the goal of assessing the prospects for preventing the collapse of global civilization and the possible extinction of our species, then any assessment depends on how the Enforcers and psychopaths can ruin our prospects for success by thwarting those of us in the 1 % who will be working to save humanity.

Apologies for the previous paragraph, which was "getting ahead" of this book's story. I will return to that topic in later chapters.

If we are to systematically consider challenges presented by the twin flaws of human nature some more groundwork is needed. The next chapter assesses a possible role for the sociopaths, psychopaths and Enforcers.

Chapter 8. Who Are the Border Patrollers?

This chapter asks if the border patrollers are psychopaths, sociopaths or Enforcers. The answer is somewhat uncertain but a most likely assignment is made.

Can we say that the “ruffians” described in Chapter 6 are psychopaths? Or maybe sociopaths? Or could they be the Enforcers described in the previous chapter? Yes, we have an answer for this question, and it may not be who you are expecting it to be.

Recall that about 0.8 % of today’s male population are psychopaths. In a typical small tribe, with 150 total population that includes ~ 50 adult men, the number of adult male psychopaths would be 0.4, on average. If the average had been 1.0, for example, the chances of a tribe having a psychopath would be 50 %; so with an average of 0.4 there’s a 20 % chance that any tribe chosen at random would have a male psychopath. This assumes that the percentage of psychopaths was the same during the AE as now, when in fact there is evidence, and plenty of speculation, that the percentage was lower during the AE. Thus, a more realistic percentage for a typical AE tribe might be 0.2 male psychopaths per tribe, for example. Since AE tribal size fluctuated within the range of 100 to 200 total population, the incidence of psychopaths in a tribe would fluctuate within the range 0.1 to 0.3. In other words, among a randomly chosen 10 tribes there would only be one to three tribes with a psychopath.

The above also makes it clear that too few male psychopaths will be present for essentially all a tribe’s generational history, so they won’t be available for any essential duty. This is a strong argument for stating that psychopaths are a non-essential tribal component for ANY role useful to the tribe.

Border patrol is an important duty for any tribe with neighbors. If a tribe is without any ruffians, for even a short time (year timescale), it will be at risk of being attacked and overwhelmed by a stronger neighbor tribe. If several ruffians are needed for border patrol duty, a tribe with a population of psychopaths that fluctuates between 0.1 and 0.3 won’t be able to maintain a border patrol band.

As an aside, there’s another reason that argues strongly against psychopaths being used for border patrol duty: psychopaths are too unreliable for any task that involves helping anyone besides themselves! They have been described as lousy soldiers (Hare, 1993) because they lack discipline, are impulsive and can’t form bonds with comrades.

What about the sociopaths? Are there enough of them in a typical tribe to maintain a border patrol band? According to my definition of “sociopath” (Chapter 4), today approximately 6 % of males are sociopaths. A tribal population of 150 means that among the 50 adult men in that tribe approximately three adult male sociopaths will be present, on average. This is only half of the needed number.

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A tribe's population fluctuates, typically between 100 and 200. When it's at the low value only about two sociopaths are present. If the border patrollers are sociopaths then there won't be enough of them for this essential duty. In this book's First Edition I argued for sociopaths being responsible for border patrolling and stated that when their numbers fell short of the 5 or 6 needed for this duty they would recruit from the "Unreliables" category. How often would this have to occur?

To answer this "likelihood of a shortage" question we can resort to a Poisson statistical analysis. It will depend on tribal size and the required number of a specific phenotype.

Poisson Statistics Consideration

The appearance of a required phenotype in a tribe has a randomness about it, given that phenotypes are the result of random genetic inheritance. Consider the example of a tribe of 150 total population that exists for many generations. If 3 of a required type is needed we should consider how often a generation will yield only 2, or possibly 1, or even zero of that type. This is a job for Poisson statistics (of the Geiger counter type; there are several types of Poisson statistics). Figure 8.1 is a histogram of how often a generation will have x-axis numbers of the type under consideration, which I temporarily invite you to imagine are sociopaths

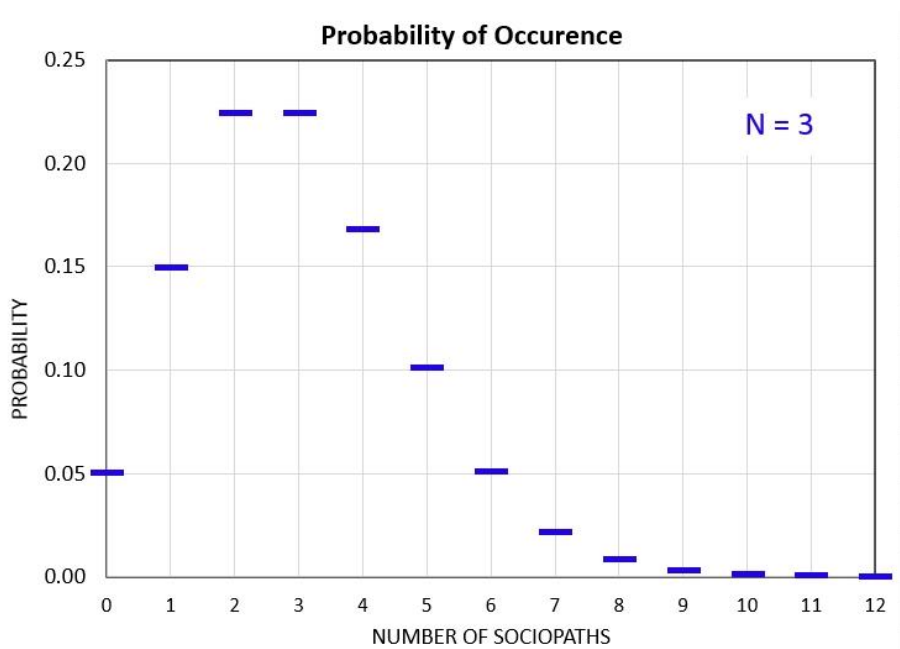


Figure 8.1. *Probability of occurrence of Ruffians when the time-average number is 3, using Poisson statistics. This is the situation for a tribal total population of 150.*

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This figure should be interpreted the following way: 5 % of a tribe's generations will be without a sociopath if on average, over the generations, the tribe has 3 sociopaths. (As an aside, could this logic be used to justify evolution rewarding tribes that maintain their population size above some number, such as the Dunbar Number?) When total population drops to 100 the probability of there being no sociopaths is at a risky 13 %, as shown in the next figure (Fig. 8.2).

From these two Poisson graphs it is clear that the population of sociopaths will be insufficient for border patrol duty for most tribal generations.

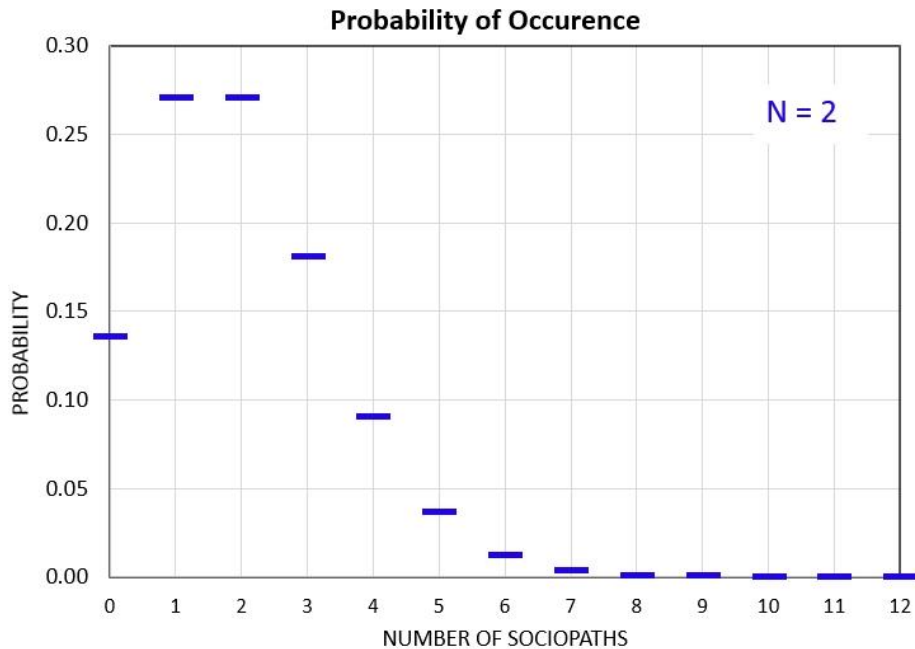


Figure 8.2. Probability of occurrence of sociopaths when the time-average number is 2, using Poisson statistics. This is the situation for a tribal total population of 100.

We are forced to conclude also that during the AE tribes sometimes didn't have enough male *sociopaths* for border patrolling. This would most often occur when tribal size fluctuated to low population levels (such as 100). Since the border patrol was an essential task for every tribe I will adopt the position that sociopaths were not charged with this task.

Could the Enforcers have been recruited for border patrolling? Recall from the previous chapter that the fraction of the population who are Enforcers is variable, ranging from a core of ~ 6 % to a flexibly enhanced level of maybe 35 % (in America it was 26 % in 2021). The prevalence of Enforcers is influenced by the level of threat felt by tribesmen.

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The condition requiring this was described as a generally felt looming threat of war with a neighbor tribe. If the border patrollers are Enforcers, then we could speculate that the lack of manpower for border patrolling could also serve as an incentive for the Enforcer-prone population to come forward and serve in this essential role. In addition, since tribal size is likely to fluctuate (between 100 to 200, for example), there would be an evolutionary reward for the existence of a pool of proto-Enforcers (e.g., 35 %) out of which recruitment can occur for actual Enforcer behavior to meet a fluctuating need.

So “yes,” it is possible that the job of border patrolling can be performed by Enforcers. The only argument that I anticipate against this is “Will ruffians be willing to unhesitatingly kill members of the neighboring tribe without provocation?” My answer to this question will consist of a personal note, given in the next paragraph.

One of my acquaintances spent a couple decades working for the U. S. Border Patrol. My overall assessment of him is that he was a trustworthy fellow. He wasn’t interested in the realm of ideas, so our conversations were quite dull. He later worked as a DEA agent, in a job demanding trustworthiness, so he wasn’t a sociopath. He said he liked the border patrol job. I would describe his public persona as quiet, calm and calculating. He wasn’t an “in your face” type of Enforcer. Words weren’t his tool for enforcing; he preferred a pistol. He loved firearms and went to a shooting range often. I can easily imagine him performing border patrolling with a quiet and stealthy demeanor. His type must be one that is valuable for border patrolling. Incidentally, he was a staunch Trump supporter with no interest in discussing the subject. He knew what he needed to know and being curious about other viewpoints wasn’t in his nature.

This is just one case, but it supports the notion that there’s a spectrum of personality types within the Enforcer category. Namely, at one end of the spectrum is a “hard core” (maybe 6 %) that are low profile, full-time border patrolling Enforcers, and then there’s a pool of proto-Enforcers who adopt the obnoxious and intolerant persona when the tribe feels threatened, and they may number 25 to 30 % of the population.

Border Patrollers are More than Just Ruffians

So far I’ve characterized our ancestral tribal border patrollers as ruffians who liked to pick fights with smaller groups of neighbor tribesmen in order to preserve or enlarge the home tribe’s territory. This is a simplistic “job description.” Consider that every tribe has to continually assess each neighbor tribe’s strength. If the neighbor tribe has become stronger than the home tribe then this is a threat category that must be monitored carefully. If the neighbor tribe has become weak, then it may be ready for targeting by the home tribe for vanquishing and territorial expansion. Who is in the best position for knowing the state of a neighbor tribe? The border patrollers!

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If the Enforcers are border patrollers, then let's acknowledge that the core Enforcers have two additional jobs: 1) continual monitoring of the strength of all neighbor tribes and reporting back to "headquarters" any significant changes, and 2) when a neighbor tribe is either significantly weakened, or significantly strengthened, mobilizing the entire tribe to prepare for war. This second-stage will involve transforming the otherwise sane people who are in fact Enforcer-prone to become Enforcer-actual: the busy-body, intolerant and "in your face" bully, telling everyone what to think and what to do.

According to this model there should be a core of 5 or 10 % of the population that does border patrolling and monitors neighbor tribal strength, and when this core "sounds the alarm" there should be a larger percentage of the population that assumes the bully persona and initiates a tribal organization transition to the "regality" form, that is optimum for warfare ("mobilization"). Recall the 2021 survey of authoritarianism (the Enforcers) percentages in several countries:

Prevalence among adults in Western countries

2021 Morning Consult survey 

	Low RWA	High RWA
US	13.4%	25.6%
UK	13.6%	10.4%
Germany	17.4%	6.7%
France	10.2%	10.7%
Spain	17.9%	9.2%
Italy	17.9%	12.9%
Australia	17.1%	12.9%
Canada	21.3%	13.4%

A first view of this table might raise concern that there were problems with RWA measurement errors since the RWA scores differ significantly from society to society. For example, Americans are the most advanced for mobilization with a 26 % score while our neighbors in Cabada have half as many Enforcers. (Trumps' psychopathic presidency may have contributed to this.) Other societies are even less advanced, or less mobilized for warfare. My answer for this variation is that RWA scores *should* vary among societies because the need for mobilization for war differs from society to society. The observed RWA score variation is therefore consistent with my assertion that there's a proto-Enforcer pool, of perhaps 35 % of the population, and that the actual number of currently active Enforcers varies in response to social conditions.

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It's risky to use modern societies for understanding how ancestral tribes behaved. My purpose in doing it here is to illustrate how the expression of an Enforcer personality can vary as the threat level to the home society varies. If this "elastic" property of the Enforcer phenotype exists today, then it probably existed in the ancestral environment.

I think this chapter has established that border patrolling is accomplished by the Enforcer population.

Chapter 9. Eusociality, IQ and Conscience

The human evolutionary path along the eusocial transition modifies individuals to behave in ways that preserve group dominance over other groups. When humans began evolving higher intelligence during the eusocial transition, possibly 1.8 million years ago (Mya), it became possible for individuals to question their instinctive self-sacrificing patriotic behavior. The tribes whose gene pools evolved a cultural inhibition for questioning this category of behavior would have a competitive advantage. The longer this culturgen existed the greater was the reward for the evolution of a mental module, possibly 0.3 Mya, for controlling this questioning and preserving patriotism. This new mental module is now called “conscience” and it provides a moral framework for preserving automatic and unquestioning patriotism, one of eusociality’s most important tools.

Transition #3, the one leading to eusociality, requires that most individuals change their allegiance from self (and close kin) to the collective, which for humans is the home tribe. This chapter is devoted to trying to prove something that is conceptually easy to understand but resistant to the contemporary with a “conscience.” I will explain this cryptic statement in due time.

Increasing Intelligence Threatens Eusociality

Human brain size has approximately quadrupled since our lineage separated from the chimpanzee lineage. The increase has been described as exhibiting two growth spurts, the main one starting at ~ 1.8 million years ago (*Homo habilis*) and the second and less dramatic one starting at ~ 300,000 years ago (*Homo sapiens*). An increasing brain size is associated with increasing intelligence. It is tempting to assume that the first brain growth spurt was mostly in the posterior lobes, and the second one was mostly in the pre-frontal lobes. This is based on the fact that embryology tends to recapitulate phylogeny, and during embryology the pre-frontal lobes are the last to develop.

Posterior lobes provide “situational awareness” understanding whereas pre-frontal lobes (which are value-driven by the limbic system) produce “lifestyle behaviors.” If the first growth spurt was mainly due to posterior lobe enlargement then it would be correct to state that it produced an increase in IQ (since IQ resides in the posterior lobes). Brain size and IQ estimates are shown in Fig. 9.1. In this figure I have arbitrarily adopted IQ to be proportional to the cube of brain size.

The evolution of increasing IQ had its risks. As “situational awareness” improved, so did the individual’s capability for questioning his eusocial enslavement to the tribe. For example, the most intelligent individual in the tribe might ask the following:

Why should I join my fellow tribesmen as they prepare to invade a smaller neighbor tribe? After all, our territory is secure, and life is stable, so who cares

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if we increase tribal territory? This will just increase our tribe's population, and when it gets too large there will be a splitting of the tribe and we'll end up with the same population and the need to shrink territory back to what it is now.

Oh, I know! This entire process increases my tribal gene pool; so all of these instincts to invade the poor neighbor tribe is just for helping our genes become immortal. To Hell with the genes! They are just using me for their purposes! I'm staying home; let the poor fools who don't understand this, the low IQ ones, risk their lives by invading the neighbor tribe.

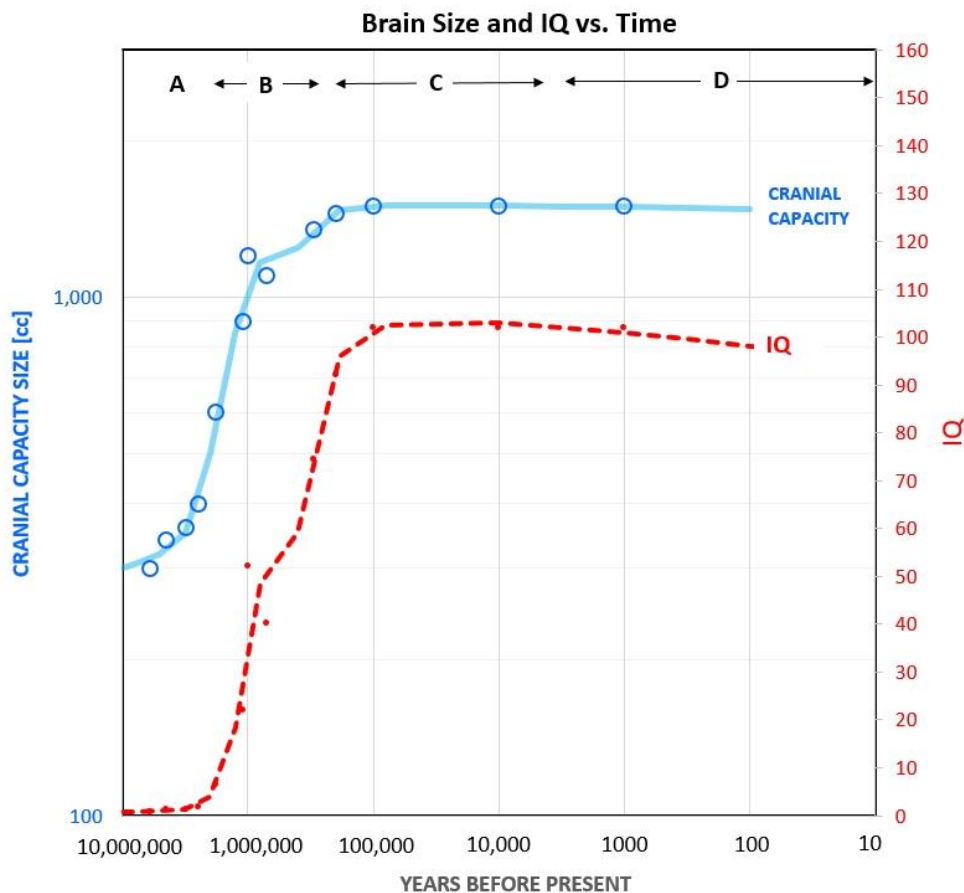


Figure 9.1. Brain size, based on cranial capacity, versus time. The IQ plot is arbitrarily taken to be proportional to “cube of capacity.” (The time intervals are described in the text.)

This imaginary soliloquy by a high IQ tribesman illustrates the threat posed by IQ to maintenance of tribal eusociality. Recall, a tribe is strongest when everyone is in

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unquestioning agreement with the merits of patriotic behavior. Even chimpanzees have an observable level of eusocial development. They are capable of sympathy, maintain inter-personal bonds, they maintain border patrols and engage in occasional inter-tribal warfare. Their commitment to a level of eusociality is not threatened by IQ because their IQ is low. The human commitment may have begun to be threatened during the interval of fast IQ increase that started 1.8 million years ago, indicated in Figure 9.1 by the time interval label “B”.

The individuals who posed this threat resemble today’s psychopaths because their behavior involves “conscious, calculating thinking.” (I will use the term “proto-psychopath” for pre-Holocene and “psychopath” for Holocene for reasons to be described later.) Let’s try to “game out” this unfolding drama with reasonable speculations.

Starting sometime late in the IQ rise that began 1.8 million years ago, the B time interval, the number of proto-psychopaths was increasing such that their tribal incidence approached one. In other words, before this critical time few tribes included a proto-psychopath, but afterward the probability of any given tribe being “infected” by a proto-psychopath was greater than 5 %, or 50 %, etc. Figure 9.2 illustrates a possible scenario of increasing proto-psychopath incidence. During the IQ rise that begins at ~ 1.8 million years ago the incidence rises from zero to the above cited critical level range of 5 % to 50 % presence per tribe. I show the maximum occurring at ~ 200,000 years ago.

I assume that proto-psychopathy was zero before the B time interval (time interval A) because psychopathy requires a sophisticated (“street smart”) understanding of other people. It also requires a cunning ability for deception. Each of these mental traits was rapidly increasing during the time interval B.

Why wouldn’t the niche of proto-psychopathy simply continue to rise above the critical levels? The answer, I propose, is due to the cultural evolution of “morality” followed by the mental module evolution of phenotypes with a **conscience**! This is described next.

Evolution of Morality and Conscience

If some tribes overlooked the trend of increasing social disruption caused by proto-psychopaths, and the resultant weakening of patriotic fervor, they would be at a competitive disadvantage with neighboring tribes that somehow responded to reduce the effect of the new proto-psychopath’s influence. But what could such a tribe have done?

The first thing tribes could have done is to add a new culture trick by inventing something we now refer to as “morality.” This new thing, if it could be enforced by the pre-existing desire for tribesmen to conform (e.g., “conformance”), could preserve eusocial behavior. This “morality” would identify individual slackers (lacking patriotism) for punishment.

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Cultural evolution is fundamentally random, so some tribes may have adopted the required “culturgen” while others didn’t. (A “culturgen” is a component of culture that has a specific purpose, as described by Lumsden and Wilson, 1981.) Tribes that adopted the morality culturgen (by accident, presumably), would have been likely winners since they would be more prosperous and stronger than their neighbors.

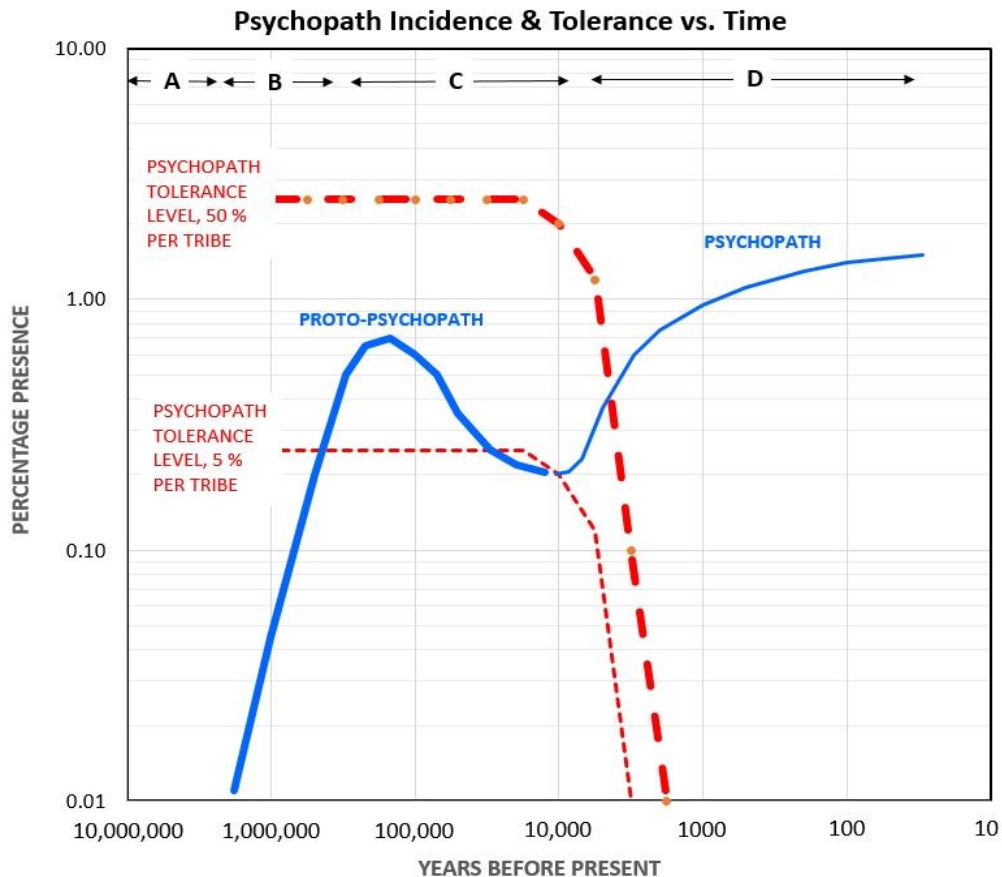


Figure 9.2. Illustration of possible change in the incidence of the proto-psychopath (before Holocene) and psychopath (during Holocene) in relation to tolerable levels for psychopathy (dashed traces) based on tribal size. During the interval labeled B brain size was growing fast, giving rise to the calculating proto-psychopath. During interval C a “conscience” mental module that imposed “morality” upon behavior was evolving; this reduced the adaptive value of psychopathic behavior, and reduced proto-psychopath incidence. During D tribes were coalescing, allowing psychopaths to roam freely within the super-tribe without detection at each new location. (The proto-psychopath and psychopath traces are not based on data but are for illustration purposes only.)

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However, every new culturgen has to be accepted by tribesmen for it to be fully effective. This is where the conformance enforcers had an important role to play (and maybe this is when they evolved). These people would relish the opportunity to tell other people what to believe, and what to do (a job perfectly suited to the Enforcers). We should expect resistance of any new imposed behavior, regardless of how valuable it may be for tribal survival. Even the winning tribe can expect to experience some discomfort with the new culturgen that demands loyalty to this funny new “morality” thing.

Any discomfort among individuals in the winning tribe meant that an evolutionary reward was present for genetic mutations that relieved this discomfort. I suggest that a new mental module in the brain evolved that incorporated morality and executed it automatically. This would have reduced discomfort with the culturgen. Any tribe that included individuals with this new mental module, which we now call “conscience,” would be rewarded with not only fewer individual slackers but lower levels of discomfort with conformance to moral behavior. This is my suggestion of how a “conscience mental module” evolved.

Where would such a mental module reside? Most likely in the left pre-frontal cortex. This is based on present-day findings from split brain patients whose study reveals differences in left and right pre-frontal cortices. The left is consistently pro-social, and the right is consistently asocial. A fuller description of this was given in Chapter 3.

When might this have occurred? How about 300,000 years ago? That’s when the latest *Homo sapien* brain growth spurt began (probably in the pre-frontal lobes)!

We can now interpret the Fig. 9.2 time segment labeled C. That’s when most tribesmen were evolving a conscience. A conscience secured unthinking patriotism. Approximately 99 % of tribesmen (i.e., everyone who wasn’t a proto-psychopath) eventually evolved a conscience. A subset of the 99 % would have a weak conscience, the sociopaths. With a conscience in place, “conformance enforcement” by the Enforcers continued to contribute to an assurance that eusocial behavior would occur for even those who had a weak conscience. Conformance is applying “social pressure” on fellow tribesmen with a lesser developed conscience. Conscience and conformance are a natural pairing: one constrains personal behavior and the other applies the same constraints on others.

Conformance could provide a check on proto-psychopaths. The adaptive value of psychopathy (for the individual who was genetically inclined to be a proto-psychopath) would be reduced when conformance was applied within the tribe. This brought the incidence of proto-psychopaths to low levels (shown as ~ 0.2 % in Fig. 9.2), which meant that AE tribes at the end of time interval C didn’t have to deal with psychopathy’s socially disruptive effects except on rare occasions.

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The mental module that produced a conscience was useful to the Enforcers in their application of social pressure to achieve conformance by others. Together, these two forces had the result of restoring and enhancing eusociality. A hypothetical plot of the level of eusociality (using an arbitrary scale) is shown in Fig. 9.3.

Throughout the time interval labeled “C” tribes could continue to evolve an ever-increasing diversity of talent among individuals (improving the value of division of labor), and thereby gain in eusocial strength.

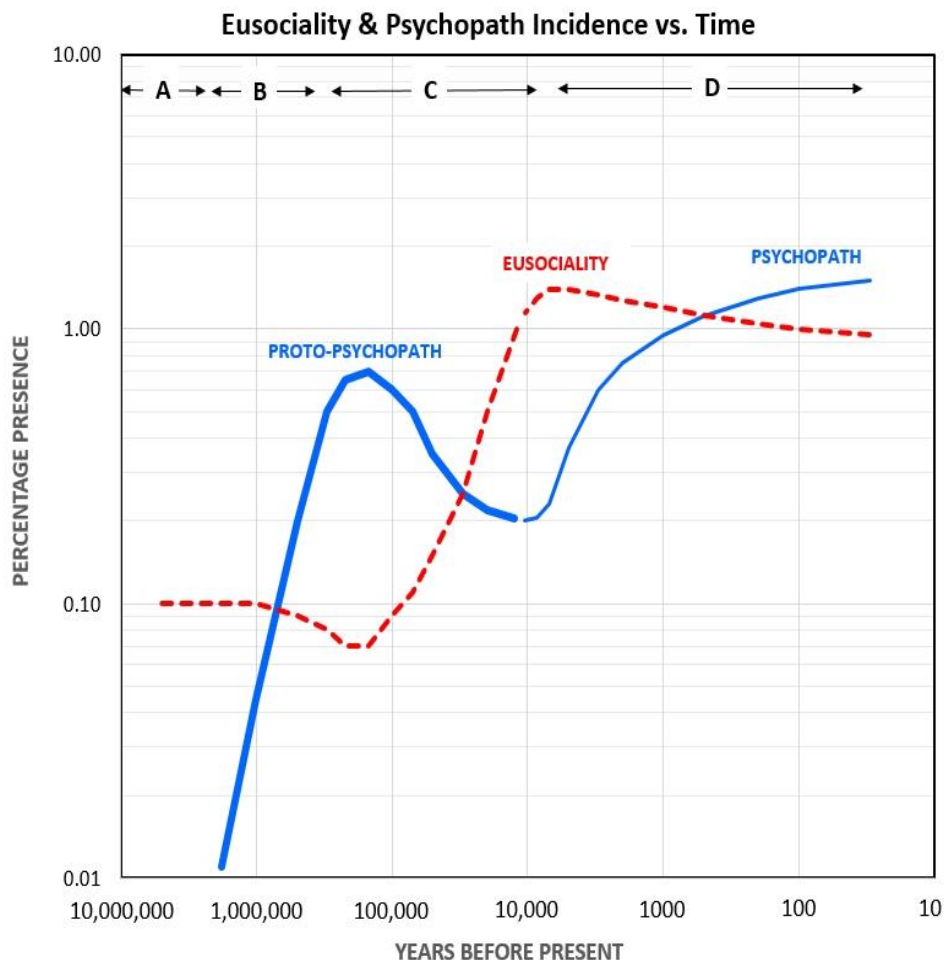


Figure 9.3. Hypothetical relationship between level of eusociality (arbitrary scale) and psychopathy versus time. (All levels and shapes are for illustration purposes only; they are not based on data.)

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No Logical Basis for Obeying the Conscience

Being good, or doing the right thing, is equivalent to living one's life in accordance with one's conscience. It's difficult to acknowledge that this has no logical basis! The reason for this difficulty is that it suggests that psychopaths are more logical than normaloids, and if we believe that living logically is better than living enslaved to some genetic trick, called conscience, then we end up legitimizing the psychopath.

The flaw in this argument is the allegation that living logically is what we should strive to do, or that we even have "free will" for choosing to do. Living logically is never what people do because of the way our brains are constructed. Is sexual intercourse logical? It's a trick of the genes. What about actually wanting children and raising a family? Another trick. Or the immense satisfaction for many old people in being with grandchildren? It's a genetic reward for being an obedient slave.

In my book *Genetic Enslavement: A Call to Arms for Individual Liberation*, chapter after chapter illustrates how illogical human nature is. My last chapter in that book addressed a possible reader concern that I was justifying abandonment of good behavior (i.e., justifying psychopathy) by revealing how illogically enslaved people were to the genes that assembled them. So in that last chapter I argued that in spite of my revealing everyone's enslavement to good behavior, regardless of logic, the book would have no effect on anyone's behavior. This position was justified by my assertion that good people couldn't help themselves; our behavior is good because we are born "good." In other words, we behave in ways that our genetically assembled brains dictate, so gaining insight is just a fun thing to do and is completely harmless.

It would be interesting to see how a psychopath would "review" the last paragraph. Professional psychologists like to say that insight is helpful, but I can't imagine a session during which a psychologist explains that being good is a genetic trick played on people who were made by the genes to be gullible enough to accept their tricks. I believe that psychologists are sometimes helpful, but they would never use the insights of this book to achieve good outcomes.

The Situation before the Holocene

To the extent that conscience imposes a check on logical thinking, and thus preserves eusocialized behavior (which includes the most important category: "patriotism"), humans have been enslaved to the genes that assembled a conscience ever since that mental module evolved. When this mental check was in place it became safer for the genes that assemble humans to evolve greater intelligence. It is amusing to note that the evolution of something in the left pre-frontal lobe ("conscience") allowed for a continuation of the evolution of something in the posterior lobes (IQ). This apparently has been a winning strategy for at least 300,000 years.

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Throughout the time intervals A, B and C tribes continued to maintain tribal territories, and they competed with each other for retaining or expanding territory. Border patrolling continued, and a small population of ruffian Enforcers for this duty continued to exist. The population of core Enforcers (for border patrol duty) was maintained at about 10 % (as an “evolutionarily stable strategy”) and the willingness of another 25 % (approximately) to assume Enforcer duties when required must have evolved. A majority of tribesmen kept the tribe viable through such mundane and sustaining activities as hunting and gathering, the building and maintaining of infrastructure, tool and weapon making, etc.

When tribes began to coalesce in response to their shrinking territory during the Holocene warming, a super-tribe could not tolerate the same incidence level of psychopaths that existed before the Holocene. For example, a super-tribe of 3000 total population, with ~ 1000 adult men, would require that the incidence of psychopaths be lower than 0.1 % in order that such tribes had a lower than 50 % probability of being “psychopath infected.” An incidence higher than that would almost guarantee the presence of at least one psychopath, who would remain in the super-tribe because he would merely move after each local detection. Therefore, during the time interval indicated by the letter D the incidence of psychopaths is expected to increase. This is just a “taste” of the immense changes that occurred during the Holocene.

At the start of the Holocene warming (~ 11,700 years ago) proto-psychopathy would have been brought to low levels, low enough so that few tribes had to deal with the problem. When the Holocene began, here’s where things stood:

- 1) almost everyone (>99 %) had a “conscience” and understood “the difference between right and wrong,”
- 2) these people felt compelled to do “right” and not do “wrong,”
- 3) the Enforcers enforced conformance on everyone in the tribe, using social pressure, thus adding to everyone’s preference for doing “right,”
- 4) the strength of “conscience” varied across the tribal population, with ~ 6 % of them, the sociopaths, having a weak one and a poor sense of morality,
- 5) the incidence of proto-psychopaths was low enough that most AE tribes had none, and
- 6) the level of eusociality was at an all-time high.

The next few chapters deal with how the Holocene “changed everything”! They will provide a more informed discussion of why I distinguish between proto-psychopaths and psychopaths.

Chapter 10. AE Immune System

The previous chapters have created several “loose ends” requiring explanation. This chapter is devoted to pre-history “loose ends.” My use of the term pre-history is similar to what sociobiologists refer to as the “ancestral environment,” AE. I will depart slightly from this definition by arbitrarily assigning the AE to times before the Holocene epoch, which began 11,700 years ago. This is when glaciers began to melt and recede, ushering in our present warm inter-glacial period.

The next chapter will also continue a discussion of some loose end issues. The chapter following it will resume my narrative of how humans have become what we are by considering changes occurring during the Holocene. The reason for this “pause” devoted to pre-Holocene loose ends is based on my belief that the differences that began to occur at the beginning of the Holocene are so important that we can’t understand Holocene events until we have a more complete understanding of what happened before.

During the AE essentially all human tribes are thought to have been small (~ 150), whereas during the Holocene tribes grew in size to super-tribes, then society size and finally to a civilization of many societies. I will argue that large tribes provide a social environment that is different in significant ways from the small tribe environment, and this difference means that some genetic and cultural adaptations that evolved during the AE were either ineffective or dysfunctional during the Holocene.

Genetic Relationship Between Sociopaths and Psychopaths

One of these loose ends is the genetic relationship between sociopaths and psychopaths. In Chapter 8 (“Who Are the Border Patrollers”) I took the position that border patrolling was done by the Enforcers. I also pointed out that since most AE tribes didn’t have a psychopath among its membership tribes must not have an essential role for psychopaths.

However, in modern society some high-functioning psychopaths have found useful niches (e.g., lawyers, surgeons, politicians). If proto-psychopaths were the unwanted male type in the AE, why did they exist? Why hadn’t the forces of evolution reduced their numbers to zero?

One obvious response is the counter question: “Why do cancer cells exist in every multi-cellular organism?” [yes, “every” organism; they are constantly being identified and destroyed by the immune system, which accounts for most organisms dying from other causes.] The implication of this counter question is that some things are so complicated to create, e.g., an organism, or a tribe, that the very process of creation entails unavoidable vulnerabilities for mistakes. This, in turn, requires the creation of systems (e.g., an immune system) for identifying and correcting the mistakes.

Another way of saying the above is that, given the recentness of the evolution of a conscience, it is difficult for mutations to avoid occasionally creating someone without

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the full strength of a conscience, and when such an individual came into existence it was difficult for a tribe to exterminate him and his offspring (who lacked the “conscience” mutations). Since today’s psychopaths come in different “flavors” (at least four trait categories), psychopaths are made from the combining of several genes, or possible thousands (Glenn and Raine, 2014). Multi-gene theory may then be invoked to postulate that when a few psychopath genes exist in the tribal gene pool there will inevitably be a population of individuals who have an insufficient number of them to qualify as psychopathic, and this is how sociopaths are made.

The genetic relationship between sociopaths and psychopaths is more of a curiosity than a central theme of this book, i.e., an example of “proximal causation” versus the book’s emphasis on “distal causation.” I have therefore relegated to Appendix B a treatment of two genetic models that might account for the presence of one when the other exists.

Ancestral Environment (AE) Immunity Experiments

Cancer cells and proto-psychopaths resemble each other: both look out for themselves without regard to any other of their kind in their respective collective. Just as the cancer cell can be thought of as relapsing to cell behavior that existed before cells combined to form a multi-cellular organism, a proto-psychopath could be thought of as a human who behaves like humans may have behaved before they lived in tribes. I now believe that the origin of psychopaths is more complicated. Whatever the origin story, let’s consider how the AE tribe might have dealt with the proto-psychopath.

As will be argued in a later chapter the incidence of proto-psychopaths in the AE was lower than the incidence of psychopaths today. If we adopt 0.5 % for the AE, approximately $\frac{1}{4}$ of AE tribes would have been burdened with an adult male proto-psychopath. This is a high enough incidence that tribesmen must have been attentive to behavior that resembled that of a proto-psychopath. When someone was identified as unusually disruptive to tribal social harmony, and if shunning didn’t render the proto-psychopath harmless, there must have been a more extreme instinctive response. Banishment would be one option. But another option is murder. We have evidence from the anthropology literature about how tribesmen dealt with such a person. According to one report an African hunter/gatherer man who was disruptive was ambushed and murdered by fellow tribesmen (reference lost).

Notice how similar this way for dealing with a proto-psychopath is to the way multi-cellular organism’s killer T-cells identify and get rid of cancer cells. Whereas the killer T-cells initiate apoptosis, causing the cancerous cell to initiate self-disassembly and death, the tribesmen conduct the killing themselves.

Which tribesmen do this? The most obvious candidate is the Enforcers! Future anthropology field work may eventually provide evidence for this. If this speculation is

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eventually confirmed, then we would have to view the Enforcers as a key part of the AE tribe's "immune system."

Whereas Enforcer border skirmishes were a nearly continuous form of conflict, paleontology evidence suggests that neighboring tribes occasionally engaged in all-out warfare. This is based on a finding of prehistoric mass graves and palisades (Keeley, 1996). It is likely that the ruffian Enforcers played an important role at those times, perhaps as both tribal chiefs and warriors. It is reasonable to imagine that whereas the tribal ruffians victimized neighboring tribesmen while on border patrol, they were a core for the formation of a more organized force, or army, for inter-tribal warfare.

Note that a niche for ruffians is an example of "division of labor." Also note the similar role of "border skirmish ruffians" to the soldier ants or bees whose role is attacking anyone getting close to the ant colony or beehive. Finally, note that ruffians are analogous to the creation of protective skin following Life Transition #2, as well as the multi-cell organism's killer T-cell immune system.

Female Sociopaths and Proto-psychopaths

During the outbreak of inter-tribal war all male sociopaths, Unreliables, Enforcers and most Normals must have joined the border patrol ruffians in forming a warrior force. The occasional proto-psychopath may have pretended to be a warrior, all the while finding ways to avoid danger. Artisans, members of the "normal" sub-type, are the makers of tools and weapons. In most cases they would have been recognized as having indispensable value to the tribe and they would have been told to stay home with the women and children when warfare broke out (Gary, 2014, Chapters 10 and 11). In this way all able-bodied males except the artisans would have served as temporary warriors. All males (besides the occasional proto-psychopath) would be eusocial assets in one way or another.

What about the female proto-psychopaths? Consider the numbers of female sociopaths and proto-psychopaths in a typical AE tribe. Female psychopaths are currently ~ 1/10 as numerous as male psychopaths (Kiehl, 2014). Assuming the same ratio exists for female and male proto-psychopaths during the AE, the presence of female proto-psychopaths would have had a negligible presence and influence on the AE tribes. We may therefore ignore female proto-psychopaths.

What about the female sociopaths in a typical AE tribe? Today females sociopaths (note that I equate sociopath with "borderline personality disorder") are slightly more numerous than male sociopaths (6.2 % versus 5.8 %). Therefore, there will be approximately as many female sociopaths as male sociopaths in these tribes. and their presence should not be ignored.

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The female sociopaths had no useful warrior role. The primary value of females for the tribe was making babies and raising children. In fact, wars were sometimes initiated for the abduction of females, who would be brought back to the home tribe (Chagnon, 1983). They were valued for their baby-making capability. Even chimpanzees sometimes abducted female chimpanzees from another group (they never abducted males). I speculate that since they made babies, and weren't socially disruptive, the female sociopaths were probably tolerated.

I can't explain why the ratio of male to female psychopaths is about 10:1 whereas the incidence of male and female sociopaths is essentially the same. If sociopaths are simply people with fewer genes that produce psychopathy, then there should be the same 10:1 gender difference for sociopaths. This puzzling fact may have a simple answer, but until it is understood it can be viewed as a weakness of my speculation for the genetic relationship that I propose exists between sociopaths and psychopaths.

I have argued (Chapter 8) that proto-psychopathic men couldn't have had an essential tribe-serving role since they were absent in most AE tribes. However, the greater probability of their presence in large AE tribes suggests a possible role: a "too large" tribe needed to "fission" in order for its population to stay below the Dunbar Number because when tribal size grew proto-psychopaths became more difficult to identify (since interpersonal interactions between any two tribal members was reduced). It is ironic that this problem might have been solved by a "charismatic leader" (a male proto-psychopath) becoming a cult leader who collected a following with whom he marched off to an imagined "promised land." I wonder if the genes, in their infinite wisdom, evolved this trick for preserving the tribes that they created. It is amusing to consider this possibility, that the male proto-psychopath who assumed the role of charismatic cult leader by leading his flock away is himself a victim of the tribal gene pool, given that most such fissioning events were in fact suicidal. The cult leader who made the fissioning possible could then be viewed as a sacrifice that benefitted the home tribe and its gene pool. How clever it would have been if evolution had created a small modification of the proto-psychopath's personality to render him an asset instead of a liability to the tribe.

Morality, Conscience and Conformance

As speculated in the previous chapter proto-psychopaths may have begun to appear during the brain expansion interval that started ~ 1.8 million years ago. This brain expansion created a niche for unscrupulous behavior since an increasing IQ led to improvements in "situational understanding." By 300,000 years ago the incidence of proto-psychopaths could have become large enough that small tribes had a non-negligible probability of having one or more of them. At that time there might not have been any tribal cultural traditions, or social instincts, that prepared the rest of the tribesmen for dealing with the proto-psychopath's social disruptiveness.

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An immune system's first task is to identify the component of the collective that needs to be either sequestered or eradicated. If we use today's understanding of the psychopath as a stand-in for the AE's proto-psychopath, we would state that the tribal proto-psychopath could have been identified as the person whose work style was erratic, who didn't follow-through with promises, who stole, lied, cheated and who couldn't be trusted for any tribal duties. It is only necessary here to simply state that the proto-psychopath must have been identifiable and that his presence was socially disruptive. Because much of this section's discussion relates to what was treated in generality in the previous chapter, a crucial figure from that chapter will be repeated (Fig. 10.1, next page).

Assuming the proto-psychopath was identifiable, what might have been the first level of defense in the tribal culture's "immune response." In the last chapter I suggested that a simple culturgen could have been adopted for "avoidance" of the unusual individual. Whereas the present-day psychopath is a master at imitating normalcy, this sophisticated capability may not have existed for the proto-psychopath. The culturgen of "shunning" is more extreme than avoiding, and it might have been employed. Banishment may have been difficult to accomplish, but it's another possibility. Murder by ambush is a final option, and we know that during the Holocene this was sometimes practiced.

Once a culturgen is adopted by a tribe, with enforcement by Enforcers, there would be rewards for a genetic accommodation. As explained in detail by Lumsden and Wilson (1981) when a new culturgen is adopted there will be rewards for the incorporation of the associated behavior in the brain's pre-wiring. In other words, when a culturgen has been adopted and enforced for many generations there may eventually follow the evolution of a genetic predisposition for the culturgen's behavior. This is a significant conclusion of the Lumsden and Wilson book.

Consider the concept of "badness" and the placing of another person's behavior into that category: stealing is bad, not sharing food is bad, lying is bad, etc. If this is accomplished somehow by culture, and if this cultural construct becomes elaborated to include many things as being bad, we have the beginning of a culture of "morality." The longer this culture of morality endures in tribal history, the greater is the likelihood that brain pre-wiring will evolve to include some automatic categorizing of things observed as belonging to "bad." The way someone responds to things observed and categorized, such as badness, becomes part of the "morality" mental module that is undergoing genetic evolution.

The value of having a genetically-created "morality mental module" is that it helps in the automatic recognition of bad people, and it provides guidance for our behavior with them. Morality can also include "good" things and help us identify good people and guide us in our behavior with them.

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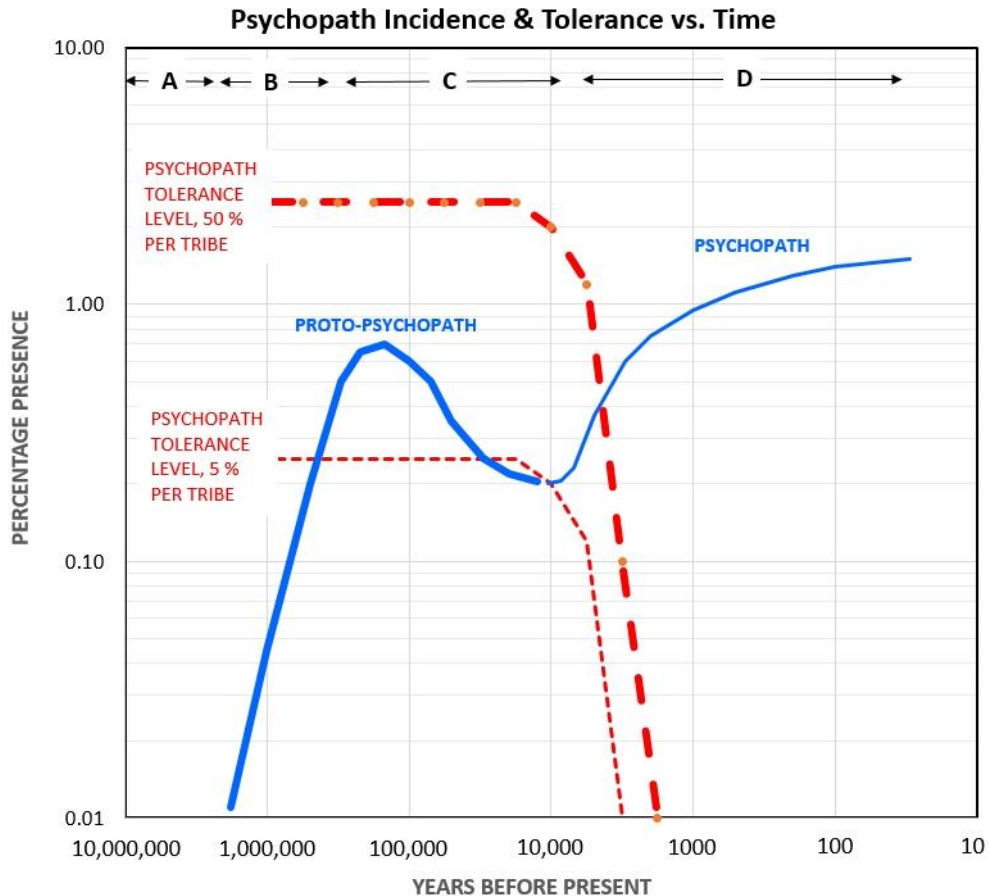


Figure 10.1. Repeat of Fig. 9.2, illustrating possible changes in the incidence of proto-psychopaths (before Holocene) and psychopaths (during Holocene) in relation to tolerable levels for psychopathy (dashed traces) based on tribal size. During interval B brain size was growing fast, giving rise to the calculating proto-psychopath. During interval C a “conscience” mental module (that imposed “morality” upon behavior) was evolving, and this reduced the adaptive value of psychopathic behavior, which led to a reduction of proto-psychopath incidence. During D tribes were coalescing, allowing psychopaths to roam freely within the super-tribe without detection at each new location.

It’s a small step for the morality module to then evolve the capability for identifying in one’s own behavior things belonging to good and bad categories. The next evolutionary advance is the capability to conform one’s own behavior to be compatible with the morality that was initially used to categorize other people’s behavior. This entire package of capabilities is what we now refer to as “conscience.”

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Each step in this evolutionary advance sets the stage for another advancing step. As tribesmen enforce morality on others, at the same time there is an evolutionary pressure for individuals to impose on themselves the same morality. If nearly everyone in a tribe shares the same morality, then conformance is just a matter of enforcement. Conforming one's own morality to the one widespread in the tribe is something helped along by social pressure from the Enforcers. Their fraction of the population may have expanded during this era in human evolution, the time interval designated by "C" in the previous figure. In fact, it's possible that the Enforcers evolved into existence during interval "C" for the purpose of imposing eusocial behavior to curb the questioning of patriotism (that was undergoing increased scrutiny due to the increasing evolution of intelligence).

Conformance of moral behavior was a major accomplishment along the path to preserving eusociality, given that it had been facing erosion by the evolution of an ever-increasing intelligence. Note that this evolutionary dynamic is a case of posterior lobe evolution forcing an evolutionary response taken on by the frontal lobes and their value-driven limbic system. Such conformance was not needed for the other 19 eusocialized species (ants, bees, termites, etc.) along their transition to eusociality because they lacked a thinking brain capable of thinking thoughts that needed to be reined in.

As an aside, one of my principal complaints with civilization is that the collective has a way of telling individuals what thoughts are permitted (e.g., "politically correct"). The collective's tool for that task is the Enforcer. As a farm boy I recall a horse's rejection of having a halter placed over its head; it chafes at the restrictions and loss of freedom when this is done. As much as I want my tribe to survive, I also want the freedom to think outside my tribe's sanctioned realm. My desire for the freedom to think, captured by the phrase "free thinker," is not appreciated by Enforcers. We are "natural enemies," in spite of our shared desire to protect our society from being vanquished by a rival society.

When most of our AE ancestors evolved a primitive version of morality, and then a conscience, and when the Enforcers enforced conformance upon all tribal members, any proto-psychopath in the tribe would have been handicapped. The incidence of proto-psychopaths, who by definition lacked a conscience, must therefore have declined when most humans were born with a conscience and a desire to enforce conformance on others. The reduction of proto-psychopaths must have secured continuance of the human species on the eusocial transition. By the time of the sudden beginning of the Holocene the incidence of male proto-psychopaths must have reached a minimum. This is illustrated in the previous figure (time interval "C"). By then all small tribes had "tools" for minimizing the proto-psychopath's socially disruptive effects. As the chapter after the next one will show, these tools were incapable of working during the Holocene.

Chapter 11. War and Peace Transitions

During the Ancestral Environment tribes were in constant competition for territory. Whenever one became weaker than its neighbor the weaker was at risk of being attacked. Each tribe must have undergone a transition in its organization prior to conflict. Whereas a tribe during peacetime was mostly egalitarian, prior to warfare a transition had to be made to a more hierarchical organization. After tribal warfare both tribes would have to reverse that transition and return to a more egalitarian structure.

Imagine a tribe that is besieged by a stronger tribe. Dire prospects call for an extreme strategy. It would benefit a tribe in this situation to adopt, temporarily at least, a belief system that called upon all individuals to become devoted exclusively to tribal welfare. Individuals should then place greater importance on serving the tribe than serving themselves as individuals, or to serving family, friends, truth, ideology, humanity or anything that could compete with tribal survival. If the tribe was a thinking entity, and could invent the perfect tribesman, he would respond to a general perception of threat by becoming able to take orders from a tribal leader whose only purpose was to create an invincible tribe. “Individualism” would be replaced by robotic loyalty to the collective. Such a tribe would be fully eusocial for as long as necessary to survive.

To assist in this transition, we can imagine how useful it would be for some in the tribe to take on the role of “enforcing” others to make the transition! Yes, I’m referring to the Enforcers. The figure on the next page is an attempt to show how the intensity of devotion to the collective, the tribe, varies with time as the tribe goes from a state of peace to a state of war, and then a return to peace.

The lower panel of this figure is a repeat of the figure in the Introduction to the Second Edition. It calls attention to the fact that every tribe experiences the two states: war and peace. During war the tribe should be organized in a way that allows for a leader, such as a tribal chief, to issue commands and have them executed by lower levels of authority. This organization type is referred to as hierarchical (Fog, 2017). When the tribe is at peace it may be less hierarchical. In fact, there are reasons it is better for the tribe to be more egalitarian during peace: it permits a greater amount of individual/individual competition, which eventually produces a tribe that is stronger, and readier for war. Every tribe must undergo the transition from a relatively egalitarian state to a highly hierarchical state prior to the outbreak of war. This transition can be referred to as a “mobilization.”

After warfare (and assuming the home tribe is either triumphant or has agreed to a stalemate and suspends warlike actions) the tribe should make the opposite transition, from highly hierarchical to relatively egalitarian. This transition can be referred to as “relaxation.” After the relaxation transition tribal governance is less hierarchical and more egalitarian.

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The first transition depicted in the upper panel of this figure is accomplished by a population of Enforcers who become active when the prospect of war appears imminent. The figure on the next page (Fig. 11.2) depicts the level of influence needed by the Enforcers to accomplish the peace-to-war transition.

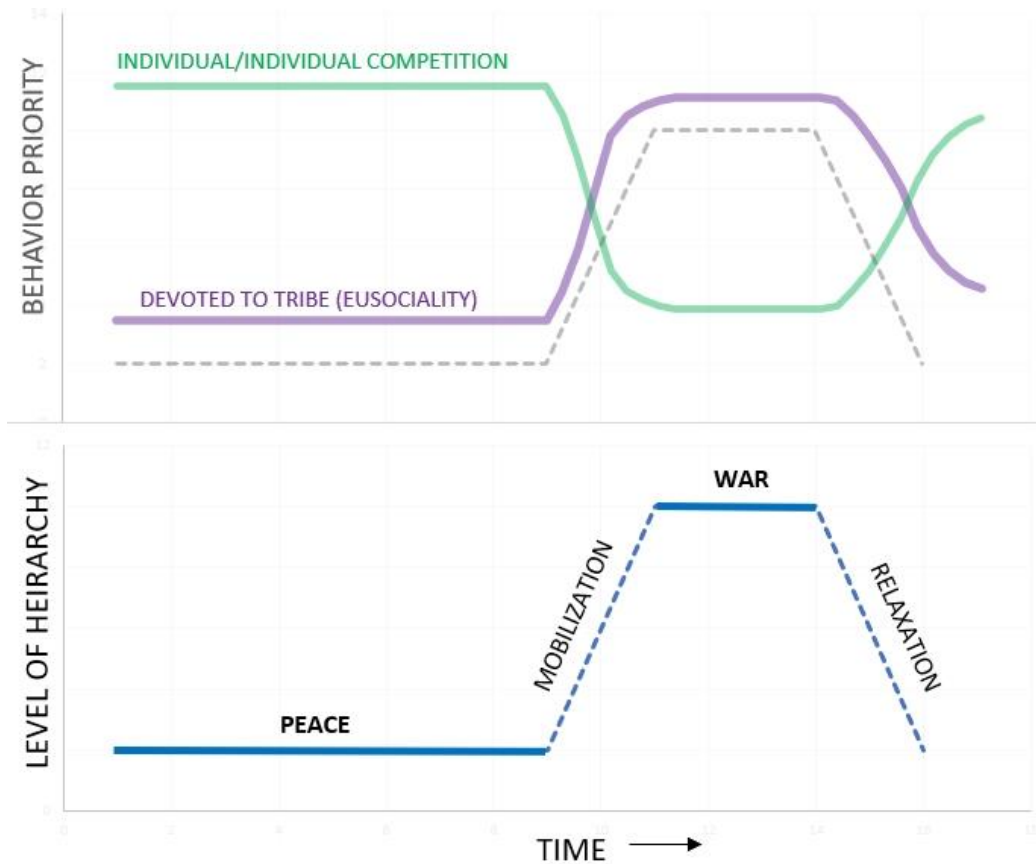


Figure 11.1. Lower panel depicts the need for a tribe to undergo a transition from a low hierarchy organization to a high level of hierarchy prior to the outbreak of war. The upper panel depicts how tribesmen are permitted to be engaged in individual/individual competition during peacetime but must forego that type of competition during wartime (green trace). During war all individuals are devoted to self-sacrificial (e.g., eusocial) warlike behavior.

The red trace (Fig. 11.2) indicates that during peacetime the only presence of Enforcers is a band of border patrollers. This is the “hard core” of ~ 10 % Enforcers referred to earlier. When the prospect of war is sensed, first by the border patrollers, and eventually by a loosely organized leadership, a sub-population (of maybe 25 %) change personality

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and become Enforcers. I will refer to this second category of Enforcers as “proto-Enforcers.” The newly enlarged group of Enforcers pressure and bully the rest of the population to stop competing individual-to-individual, and instead become exclusively concerned about tribal survival. When this transition is successful individuals start cooperating instead of competing, and war commences.

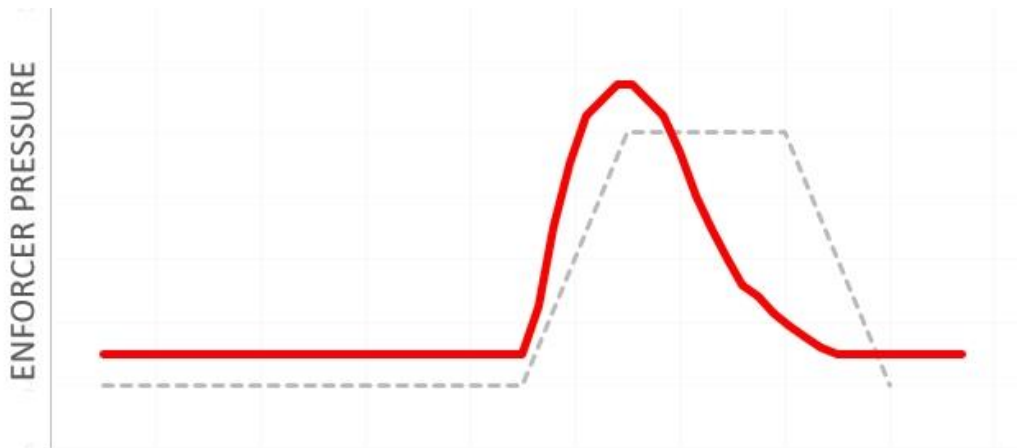


Figure 11.2. *The red trace shows how the Enforcers influence tribesmen for the goal of total tribal devotion needed for achieving tribal victory.*

During warfare the tribe is run by a strong leader in charge of a hierarchical social structure. Since all men know each other in a small tribe the chief will be someone who is trusted. The chief resembles a “king,” with regal authority. Fog (2017) has described this transition to a highly hierarchical social organization as a “regal transition.”

After war the tribe should reorganize itself to be less hierarchical, i.e., more egalitarian. If it doesn’t undergo that transition it will neglect opportunities for individuals to discover their talents, and tribal strength would suffer. (A fuller discussion of this is presented in Chapter 23.)

Consider the unlikely situation before the Holocene that the strong leader was a psychopath. Such a leader would surely favor the growth of hierarchy during the mobilization transition, but he would lack incentive to initiate a relaxation transition. This could lead to a long-lived autocracy. The strong leader would create a cadre of permanent Enforcers, as depicted in the figure on the next page. Such events must have been rare before the Holocene because a tribe that was hijacked by a psychopath in this manner would eventually weaken and be vanquished by tribes that had legitimate leaders.

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This is a reasonable speculation for how war and peace transitions occurred during the AE. A future chapter will address how these transitions might have gone awry during the Holocene. During the 20th Century Hitler, Mussolini and Stalin illustrated how this hijacking was accomplished. Today's Russian leader, Vladimir Putin, is currently the most prominent example. President Donald Trump aspires to achieve the same control of America; even if he fails, someone like him may eventually be successful since the Enforcers are still influential in America [written 2025 April]. Sorry, but this is getting ahead of the story I want to tell. It will be dealt with in future chapters.

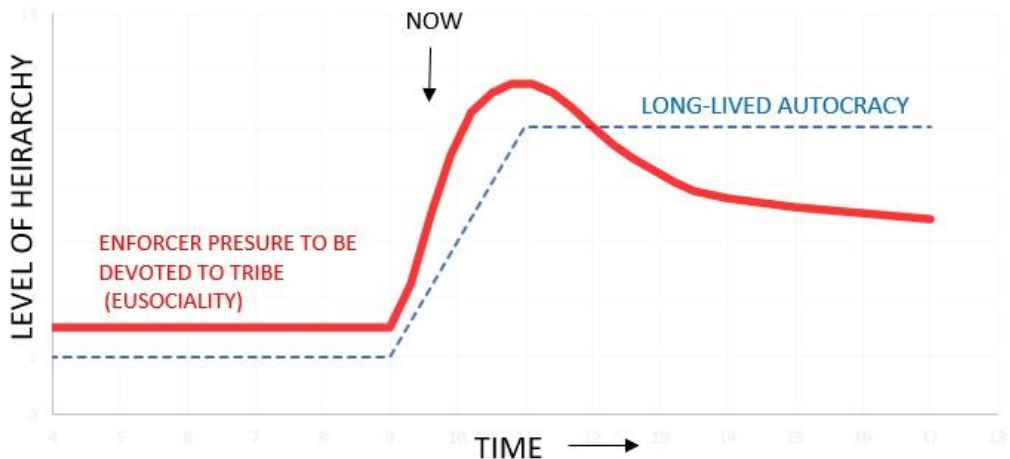


Figure 11.3. *When the strong leader is a psychopath he will never relax his hierarchical control of the tribe, so there is no return to a peacetime form of egalitarian governance.*

Relationship Between Political and Eusocial Spectra

So far I've referred to the "conservative/liberal" spectrum and the Eusocial spectrum (Enforcer/psychopath). What's the relationship between these two spectra?

I have no evidence for the following speculation, and fortunately this speculation is irrelevant to the goals of this book. Nevertheless, it would be a "loose end" if the matter wasn't addressed, so here's my speculation:

Conservatives are derived from the Enforcer and sociopath population (35 % + 6 % = 41 %) and liberals are derived from the Normaloid/non-Enforcer population (73 % - 35 % = 38 %). What about the psychopaths? They're apolitical. I don't know how to characterize the Unreliables (19 %) except maybe to suggest they are "independents."

Such a speculation could be evaluated by simply scoring many people using the RWA and PCL tests (to arrive at a "Eusociality score") and asking for their political affiliation.

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Some of this data may exist but I haven't been able to find it. Let's try to imagine what a 2-dimensional scatter plot of such data might look like.

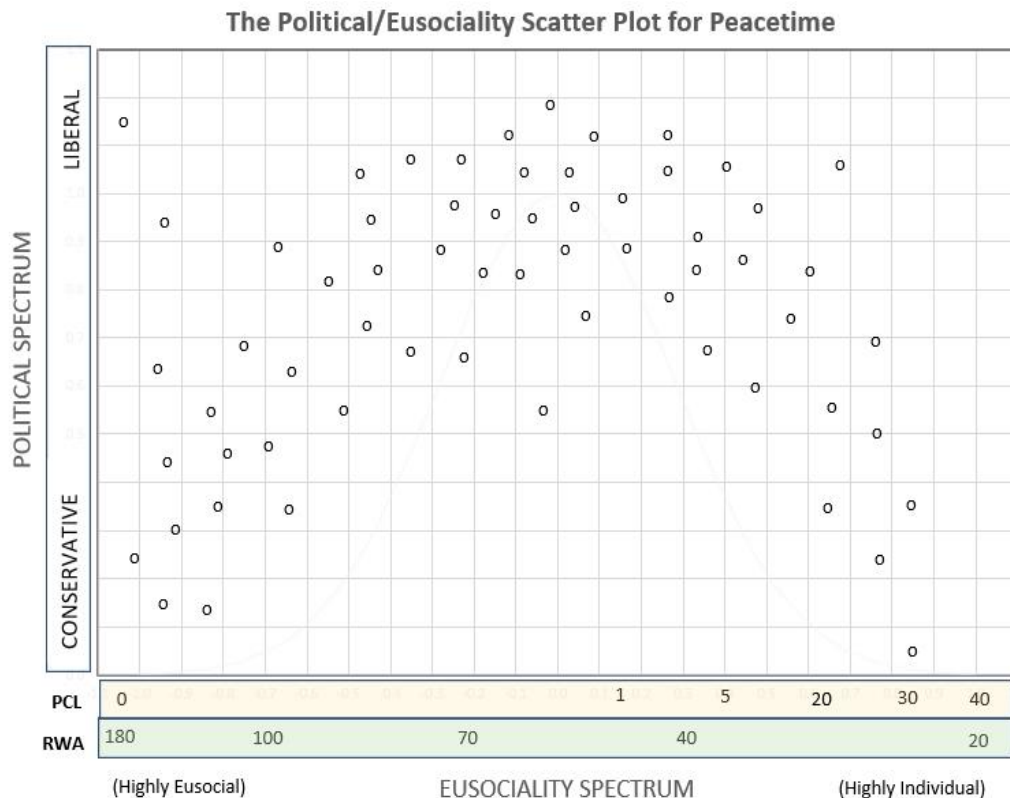


Figure 11.4. Scatter plot of hypothetical political affiliation scores (y-axis) versus eusociality (x-axis) for a population that is at peace. (All data are for illustration purposes only; they are not based on actual measurements.)

The “inverted U” pattern is produced by the Enforcers being the principal source for conservatism, with an assist from the sociopaths, while the Normaloids are the principal source for the liberals. In the upper-left corner are “woke” people. Notice that there are no political affiliations for the psychopaths (at the extreme right side). During peacetime there is an approximate balance across the eusociality spectrum.

The next figure is for wartime (Fig. 11.5). Most data are shifted to the left, reflecting the fact that the Enforcers have done their job of influencing tribesmen to behave with a greater degree of eusociality.

A tribe that adapts to changing conditions in this manner is more likely to survive when competing with tribes that are more rigid in their behavior.

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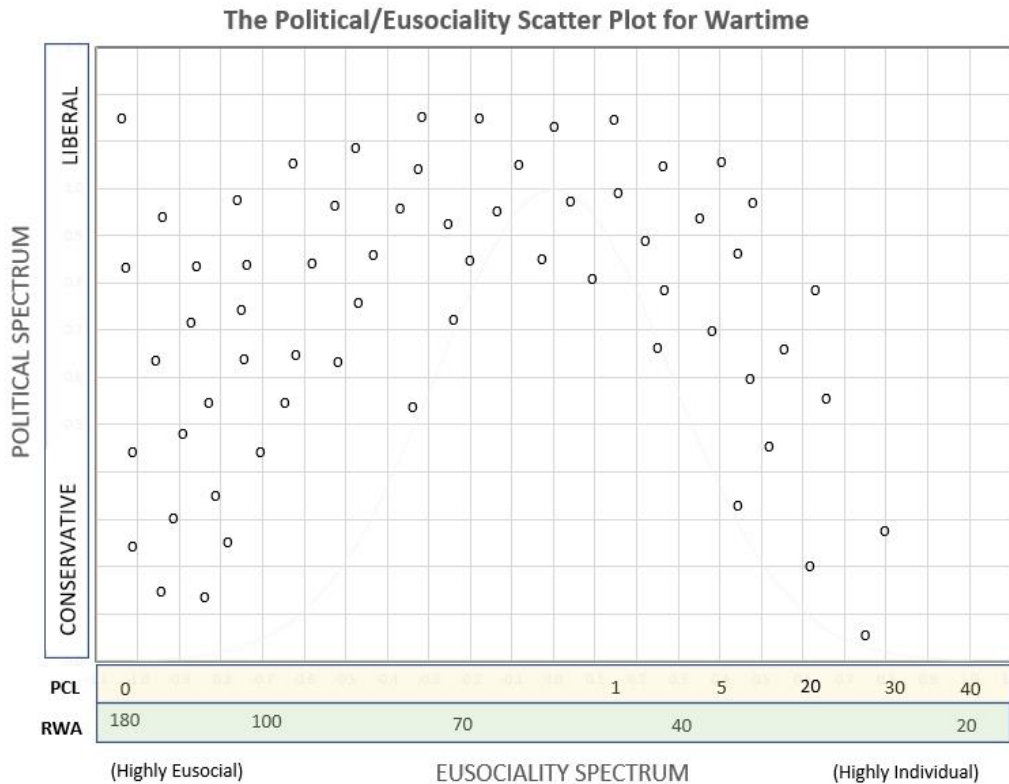


Figure 11.5. Scatter plot of hypothetical scores for a population that is at war. (All data are for illustration purposes only; they are not based on actual measurements.)

This section has been highly speculative, yet it captures the essence of a common-sensical understanding of how people change in response to war and peace transitions. I look forward to future work by others on this interesting question.

Chapter 12. Thought Experiments for the A. E.

The Ancestral Environment, AE, is important for understanding human nature, a nature that we're burdened with during our experiment with civilization. Any attempt to understand contemporary dysfunctions should begin with an understanding of the world our nature prepared us to inhabit. Among these "dysfunctions" are the presence of rape among humans, intra-species war and feeble interest in self-discovery. It will also be useful to understand the origin of these human traits, as well as the immense diversity of human abilities.

This chapter treats a few more "loose end" descriptions of how humans were adapted to AE living. The following chapter will resume the book's narrative with a description of evolutionary opportunities for humanity during the Holocene.

Thought Experiment #1: Rape as an Adaptation

If the bands of border patrollers spent most of their time in their assigned role patrolling the border, preventing them from devotion to raising a family, how would their genes for "enforcement" be maintained within the tribe? My answer will be speculative, and somewhat resembling a "thought experiment," so this is the right chapter for it.

Many species rape: ducks, birds, snow geese, fish, sheep, orangutans, chimpanzees, gorillas - and especially humans! Rape can be a "loser" male's last option for contributing to the species gene pool. It is most instructive to consider strategies employed by Rocky Mountain bighorn sheep, as described in a scientific journal (*Science*, 1984).

This study concluded that rams had three main strategies for reproduction: 1) mate guarding, 2) mate sequestering and 3) opportunistic rape. The rams that "guarded" were relatively dominant. Those that sequestered were less so; which explains why they forcibly moved their female to the periphery of the herd to prevent his ewe from returning to the center of the herd (where her selection of males would be improved). The most subordinate rams waited on the sidelines for opportunities to rape unguarded ewes.

Thornhill and Palmer (2000) suggested that some men rape for the same reason: namely, that men who cannot gain sexual access to women based on their personal success resort to rape as the next-best option. In other words, rape can be adaptive from the gene's perspective. This is not to excuse rape, which the authors make clear when they wrote "...everyone has the same goal regarding rape: to end it." The subject, however, is so clouded by a "political correctness" emotion that some readers have unfairly criticized the authors for even publishing their findings.

Rape by victorious warriors seems to be a human universal. What began as a routine ritual after one tribe succeeded in subjugating another after victorious battle (pillage and general mayhem) continues to the present time when countries battle each other to a

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decisive ending. The normal penalties for raping within one's own society are not imposed on rapists by an invading army (or marauding party) when they are victorious. This is because there is minimal danger that the husband, or family of the wronged woman, will be able to achieve revenge after their tribe (country) is subjugated by war. During World War II the European women (especially the French) were surprised to discover that the victorious American soldiers did not rape them, which is an exception that supports the generality of the rule.

For humans, at least, it can be said that high status males also rape. This adds to their creation of offspring in addition to the marital component. The genes do not “overlook” any opportunity to serve themselves!

It can be shown through a series of arguments that the evolution of women's concealed ovulation contributed to the advance of human dominance of the planet. The first step is to argue that concealed ovulation encouraged the evolution of monogamy. Monogamy, in turn, led to an increased paternal investment, and that allowed for the evolution of an extended childhood, which allowed for more brain development before adulthood, which made humans smarter and the planet's most dominant species.

I won't labor you with more detail for this sequence of arguments here, but I need to establish the fact that male investment in raising offspring is an important human evolutionary accomplishment. It's true that men and women “use” each other. I like to say that *“Men like women because they can make babies, women like men because they can contribute resources for raising babies, and the genes like both because this is their way to strive for genetic immortality.”* Women prefer to be monogamous with men who can be “good providers.” (They also cuckold their husbands for ~ 15 % of their children, but that matter isn't relevant for this book.) Men who are losers are, by definition, poor providers. Thus, loser men are forced into rape as a strategy for directly serving their genes.

This position is apparently “uncomfortable” for hyper-liberal sociologists, psychologists, social activists, the “snowflake” Millennials, and even some evolutionary psychologists (e.g., J.T.). Their argument, instead, is that males are obsessed with over-powering females for some unstated reason related to a dysfunctional culture (try that for explaining why ducks rape!). An excellent treatment of rape is given by Michael P. Ghiglieri in Chapter 4 of his book *The Dark Side of Man: Tracing the Origins of Male Violence* (2000).

It is easy to imagine that rape served the genes in many ancestral situations, but it surely didn't provide the individual with improved health, greater longevity or an improved general well-being. What rape mostly provided was a desperate vehicle for keeping the loser's genes in the gene pool!

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Now we're ready to return to the question of how Enforcers reproduced, given that they spent much of their time patrolling the tribe's border with a few other males. They could have, and this is pure speculation, seized opportunities from the periphery of the tribe for raping unattended females – just like the subordinate bighorn sheep.

Thought Experiment #2: Risks of Asking “Why Be Good?”

Imagine a thoughtful normaloid who learns that proto-psychopath criminals commit half of all serious crime (Hare, 1993). He also notes that sociopaths are often freeloaders. He then asks himself “why am I so conscientiously devoted to tribal welfare?” If he is capable of brave thinking he will realize that his behavior amounts to enslavement to the tribe with fewer rewards than for the freeloaders and criminals. He may note that his individual welfare is jeopardized as he works to promote tribal strength. Why does he behave this way, or, rather, why should he continue to behave this way after seeing how the tribe is taking advantage of him?

Since he's a normaloid he will eventually discover that he can't change his behavior. He will be good with others because he can't be otherwise. All Normaloids are like this, because the genes create brain circuits for it. “So much for insight” this normaloid may mutter, as he continues to “do good” and contribute to tribal harmony and cohesive strength, both essential ingredients for preserving society's eusocial strength. (Reminder: “Good” is defined as whatever increases tribal gene pool survival.)

There are two reasons for the amazing lack of curiosity for almost all humans. First is the enforcement of uniformity of thought by the Enforcers. But more important, most people are incapable of creative thought leading to new insights! The forces of evolution have placed boundaries on human thought, and crossing these boundaries is so threatening to tribal survival that brains have evolved circuits that forbid these thoughts. Any failures of control by brain circuits are the responsibility for the Enforcers to control. Curiosity is lauded in word only; the vast majority of adults are woefully uncurious about their enslavement, which is by genetic design. (This is one reason this book will never sell.)

The psychopath, however, has no trouble crossing these boundaries. He is like a robot designed for self-fulfillment at the expense of anyone who gets in the way.

As an aside, I'm a “normaloid” with a PCL score of zero. I can't explain how I was able to cross the boundaries of thought that keep Normaloids enslaved.

Thought Experiment #3: Rewards for Diversity

Imagine the following two tribes in chronic competition: Tribe 1 consists of men who are all the same, and Tribe 2 consists of men whose talents differ in many respects. In

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Tribe 1 all warriors make their own weapons, whereas in Tribe 2 an artisan with special talent for craftsmanship makes weapons for the warriors. Tribe 2 will have the best weapons.

Assume that there are about 50 adult men in each tribe, and imagine how teams of men for specific tasks are formed (not only for warfare but also hunting, construction, etc.). As explained in Chapter 6, teams of 5 to 10 men must have been typical during the AE since it has remained that way throughout the Holocene. In teams every member has a special role. If each member was chosen for their role based on ability for that role, Tribe 2 would have stronger teams than Tribe 1.

The previous examples are just a sample of many that could illustrate the merits of diversity of talent among tribal membership. It seems inevitable that whenever groups compete evolution will reward those groups with the greatest diversity.

The presence of diversity is not without risks. One of these is the presence of psychopaths; another is a hyper-tolerance of differences that can undermine resolve to banish psychopaths. (This sensitive topic is treated later.)

Thought Experiment #4: Rewards for Adventurousness

Imagine two tribes situated along similar bends of a river. One tribe is comprised of cautious individuals, and the other is comprised of reckless ones. For some reason, possibly related to ancestral mythologies about hidden dangers in the mountains, neither tribe has explored what's on the other side of the mountains that the river flows out of. Whenever someone of the cautious tribe thinks about exploring the fabled dangerous mountains they ask themselves: "Why? My life in the village is fine. I would have everything to lose and nothing to gain by wasting time and energy looking for something better." An individual of the other tribe will ask himself: "Why not? Yes, I have a comfortable life in my village, but I wonder what's on the other side of that beautiful mountain ridge."

An individual from the adventurous tribe sets out to climb the treacherous mountain slope, but he is never heard from again. This confirms the cautious tribesmen that they are right to be satisfied with their comfortable life. But others in the adventurous tribe are undeterred, and another of them sets out to see what the problem could be. He also never returns.

Eventually, someone from the reckless and adventurous tribe returns, and he is filled with stories about the wonderful valley on the other side! He describes the safest way to navigate through treacherous river rapids and narrow ledges. One by one, he leads fellow tribesmen to a wonderful valley where a new "founding" tribe is eventually established.

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The “moral” of this story is that *recklessness* is an evolutionary adaptation from the standpoint of the collective. However, from the standpoint of the individual the cautious tribe individuals were making rational decisions and the reckless tribe individuals weren’t.

Incidentally, this subject is treated (without the benefit of sociobiological understanding) in a book by Melvin Konner: *Why the Reckless Survive* (1990).

Thought Experiment #5: The Fate of Nice Tribes

Imagine a tribe that figured out how to live in a desert-like environment. It’s main challenge for surviving were “the elements” posed by a barren nature. It had no neighboring tribes to worry about, so they discontinued border patrolling. Over the generations the proto-Enforcers remained inactive, and their knowledge of how to “mobilize” for war was from legends, not an older generation who had once done it. The same unfamiliarity existed for waging war.

In spite of their life’s hardships these tribesmen were happy. They cooperated with each other for projects, such as digging wells and creating cliff swellings – and there were no Enforcers telling them to be patriotic. Tribesmen with the Enforcer and proto-Enforcer personality were valued less than during previous generations, and they had less influence over the tribe’s cultural evolution than they previously had. In fact, this tribe saw no value in war, or preparation for war. The tribe’s culture evolved into a “peace-loving” culture.

You know where this imaginary story is going: the tribe’s climate improves and warlike tribes arrive. As the peace-loving tribe is being slaughtered, the philosophers who are facing certain death exclaim in horror “Evil eventually prevails! We’ve been warning about the coming of evil times, but no one listened. Evil has come for us; our ending is now!”

As Bill Maher would say, “I don’t know this for a fact, but I just know it’s true”: Countless peaceful tribes have been mercilessly slaughtered by war-like tribes. If so, then why don’t we know about them? Because histories are recorded by the victors, and the vanquished are always described as deserving their fate.

Chapter 13. Holocene Opportunities

Interglacial warmings brought tribes closer together, and tribal coalescence led to super-tribes that prevailed in conflicts with neighbor tribes that remained small. Super-tribes offered new opportunities for the Enforcers, sociopaths and proto-psychopaths. Governance was invented, and laws were formulated and enforced for minimizing disruption by the sociopaths and psychopaths. Religion may have been modified to deal with sociopaths, but moral arguments and heavenly rewards are unlikely to have influenced the psychopaths. Whereas the proto-psychopath was a rarity in a small AE tribe, in a super-tribe there were many of them simply due to the larger population size. Small tribe methods for dealing with the proto-psychopath would not work in a super-tribe. This has become civilization's big challenge!

Holocene Climate Changes

To understand how civilizations arose, and how new opportunities opened up for proto-psychopaths to prosper and evolve into psychopaths, we must understand early Holocene climate change and how it encouraged small tribes to coalesce into super-tribes.

For more than ½ million years the climate had undergone warming events lasting ~ 10,000 years at intervals of approximately 100,000 years. The warmings are called “interglacials” because they led to partial melting of glaciers. Each interglacial would have improved conditions for fauna and flora. During an interglacial each acre of land could support a greater number of animals, vegetation and therefore humans. Human hunter/gatherers would have roamed over new territory. However, since tribal size tends to be limited to the Dunbar Number (~ 150) tribal territory for those at the Dunbar limit for population size were motivated to shrink territory size. If tribes reduced territory to match requirements for their population, tribal separations would have decreased.

Tribal Coalescence

Since 90 % of the time for ½ million years the climate was cold, tribes would most often be protecting large territories. They had regular border skirmishes and occasional inter-tribal warfare. Sightings of other tribesmen would be rare, and when it happened they would evoke emotions of fear and hostility.

Now consider that during the other 10 % of the time that the climate was warm, territorial size would shrink, and neighboring tribes would be brought closer together. The instincts for hostile interactions would still exist. Opportunities for inter-tribal conflict would occur more often. Each tribe would be aware of more than one neighbor tribe, so rivalries would be more numerous.

During the AE a mechanism for tribal coalescence must have existed because tribes that were “too small” (for defending themselves) would have benefitted by coalescing with

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another “too small” tribe in order to achieve a population size closer to the Dunbar Number. During the AE there must have been a mechanism for tribes that were already near the Dunbar Number to avoid coalescing because they would have created a problem of having proto-psychopaths living among them without being identified as such.

But such coalescences must have occasionally occurred, at least during the early Holocene. We know this happened because today we have societies of millions of people. During the Holocene such coalescences would have been more feasible because tribes would have been living closer together, due to the feasibility of each tribe shrinking its territory in response to a more verdant landscape. The first such coalescence events might have met with resounding success in inter-tribal conflict, due merely to an outnumbering of warriors on one side.

However, among humans there are challenges that would have to be overcome after the coalescence, even when the resulting population did not exceed the Dunbar Number. The two tribes would have had differences in any number of things, such as language, dress, beliefs and rituals, and there would have been resentment in both directions. For probably the entirety of the AE, lasting millions of years, our human ancestors were selected by evolution to dislike anyone who didn't resemble them in all these respects. For this reason it is likely that the first coalescences were between tribes that had recently fissioned because of prior population growth (since they would have had fewer differences than other tribal match-ups).

The successful presence of one large tribe creates an evolutionary pressure for others to also be large. I will refer to any tribe with a population exceeding ~ 200 as a “super-tribe.” Any super-tribe comprised of members that came together from tribes with different customs would face the challenge of achieving mutual toleration. Ingrained instincts worked against such toleration. These super-tribes, as well as those that came together with similar cultures, would have to overcome the suspicion that naturally occurs for strangers. By the definition of a super-tribe some fellow tribesmen will be strangers whose trust cannot be assumed.

This aspect of super-tribe society is the birth of “discontent with civilization” that Sigmund Freud wrote about (without the benefit of sociobiological insight). It started with a resentment of required tolerance of fellow tribesmen strangers that was imposed on all super-tribe members by super-tribe leaders, and as super-tribes grew in size to form a society the same discontent became targeted at the society, as well as the collection of societies that constituted a civilization.

A bigger challenge awaited the super-tribe, however, and to understand it we need to consider some population statistics.

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Global Population Statistics

The next figure shows world population versus time.

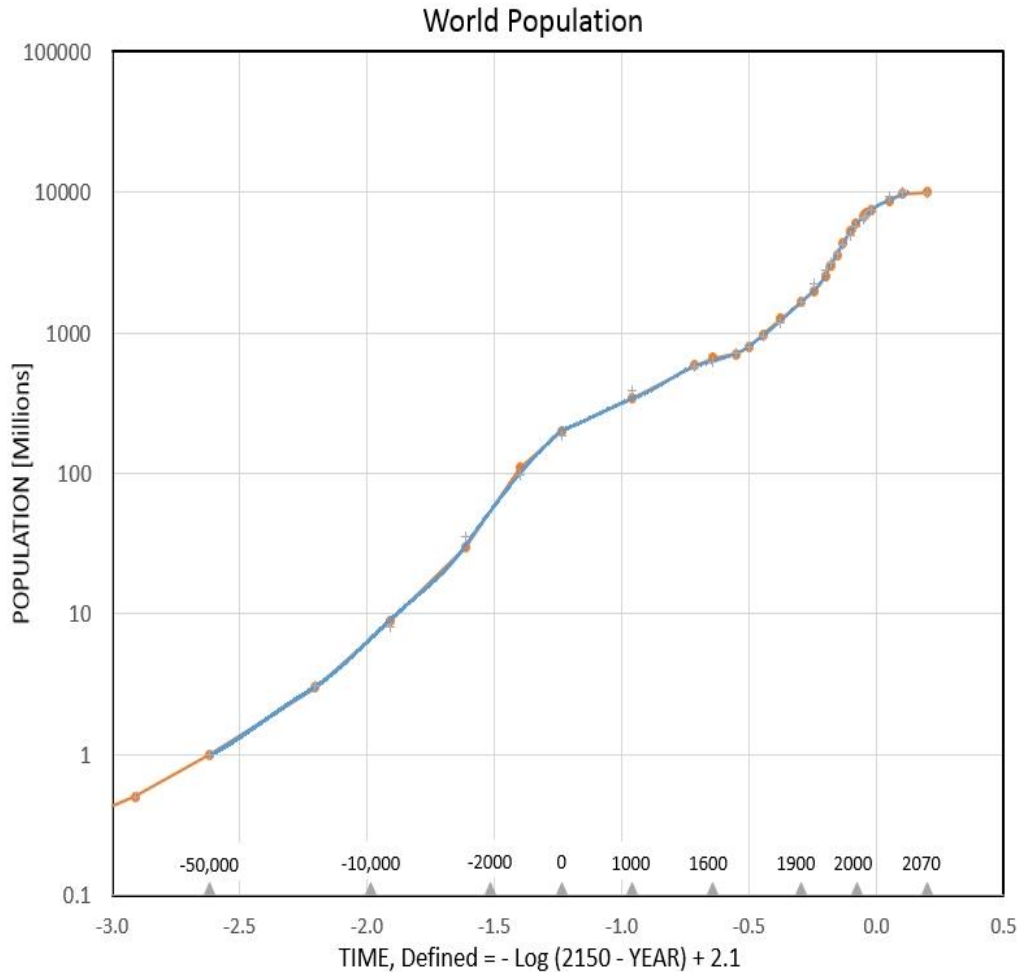


Figure 13.1. *World population versus time, using a special log scale for time. AD year dates are shown above the tic marks at the bottom.*

The number of “societies” versus time is shown on the next page (Fig. 13.2). For this graph I treat a tribe as a “society.” During the AE the number of societies is easily calculated as population divided by 150. For late Holocene dates I use the number of religions for estimating the number of “societies.”

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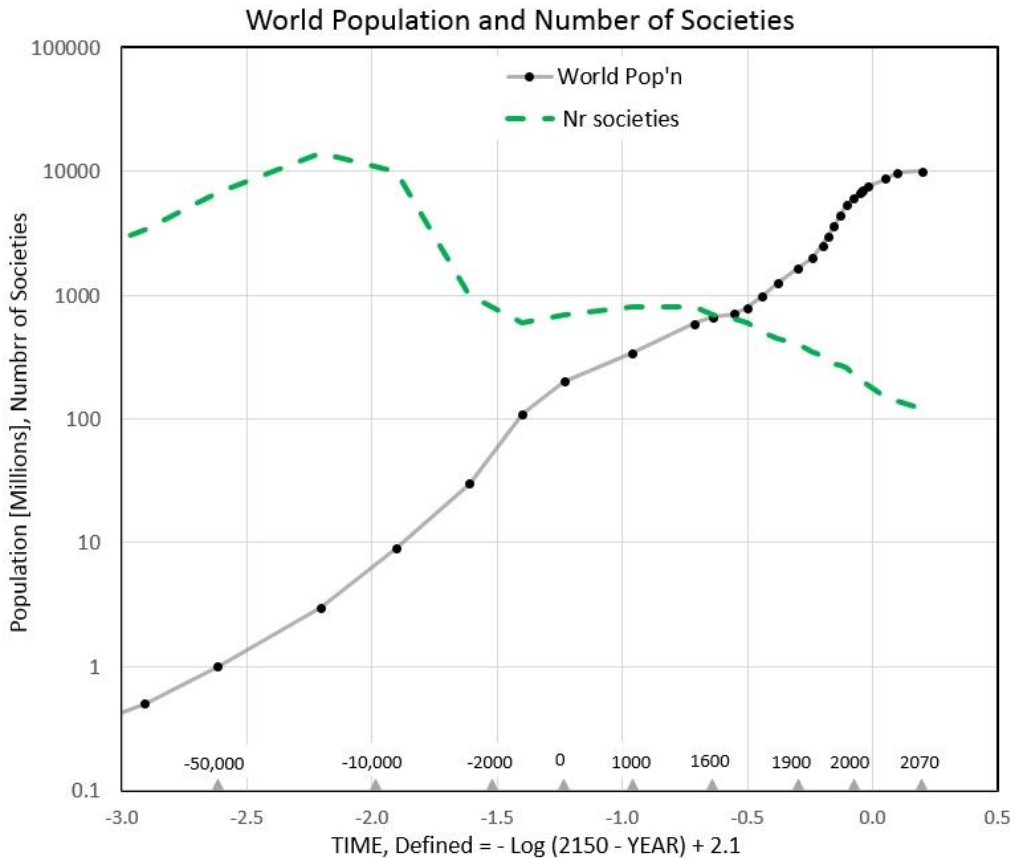


Figure 13.2. Estimate of the number of “societies” versus time. During the AE the number of “societies” is estimated by dividing world population by 150. For the Holocene the number of religions is a guide for the number of “societies.”

The figure on the next page, Fig. 13.3, plots the number of psychopaths per “society” using the assumption that 0.8 % of any population is either proto-psychopathic or psychopathic. There is a dramatic increase starting with the beginning of the Holocene. For as long as this number was < 1 simple ways of controlling their disruptive effects upon a tribe could be employed. A million-fold increase is unprecedented; what could possibly go wrong! The rest of this book argues that this increase constitutes an existential threat to humanity!

As E. O. Wilson has written (Wilson, 2012), humanity’s partial transition to eusociality is responsible for our species having achieved mastery of the planet. But I wish to add that in spite of the “mastery” it has also led to the prospect of humanity’s demise!

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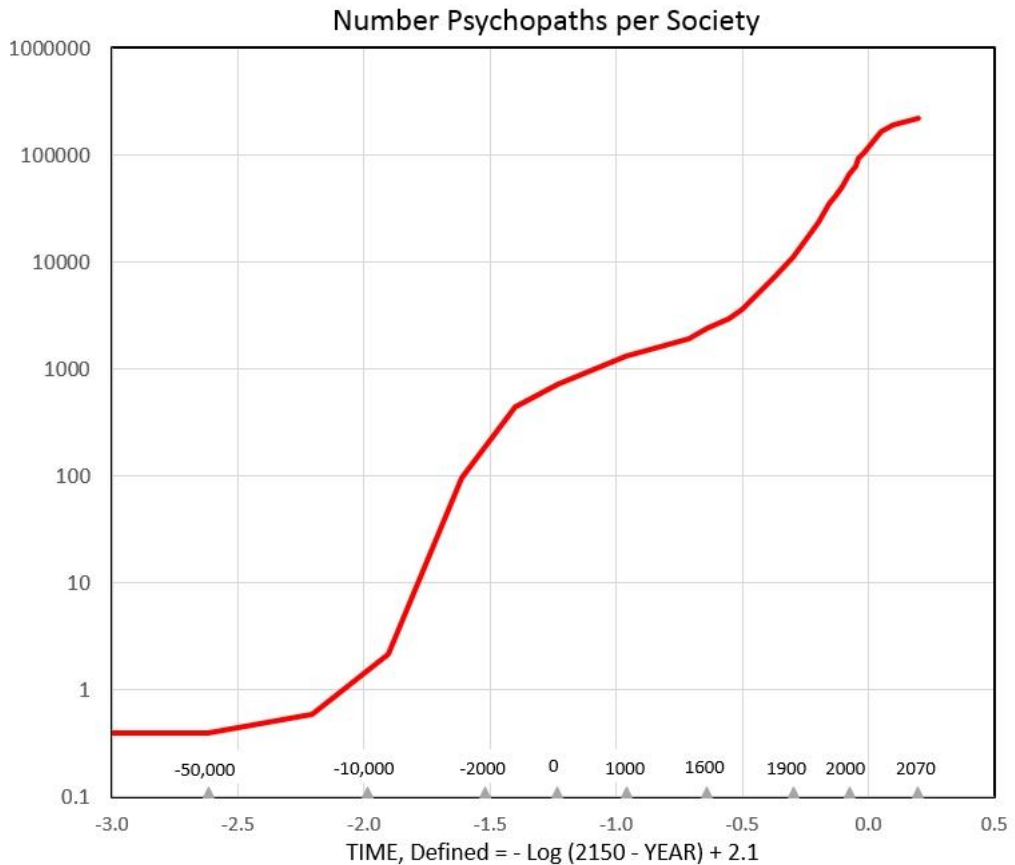


Figure 13.3. *Number of male psychopaths (or proto-psychopaths) per “society” using 0.8 % for the incidence of both male psychopaths and male proto-psychopaths.*

Sociopath and Psychopath Opportunities in Super-Tribes

Sometimes I consider the present-day psychopaths, plus the sociopaths (e.g., PCL > 5), as a group; after all, they both like to “game the system.” This group comprises ~ 7 % of the present-day population. Some social requirements are resisted (or ignored) by all of them. Whereas about half of serious crime is committed by psychopaths, most of the rest is committed by sociopaths, especially the high-scoring ones (I presume). Almost all serious crime is therefore committed by the 7 % of people who are either sociopaths or psychopaths.

During the early Holocene the super-tribe presented a social environment that was favorable for both proto-psychopaths and sociopaths. A super-tribe with a population several times the Dunbar Number should be more favorable to them than a tribe whose

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population is close to the Dunbar Number. The larger the super-tribe, the more likely it is for the proto-psychopaths and sociopaths to remain unnoticed and to thrive. After a cheater cheats, he or she can simply move residence to a new part of the super-tribe where their bad reputation is unknown. Evolutionary pressures will tend to reward proto-psychopath and sociopath genes, and therefore increase the incidence of sociopaths and proto-psychopaths during the Holocene. Indeed, the wonderful environment for proto-psychopaths in super-tribes led to the evolution of the proto-psychopath into a more effective *psychopath*!

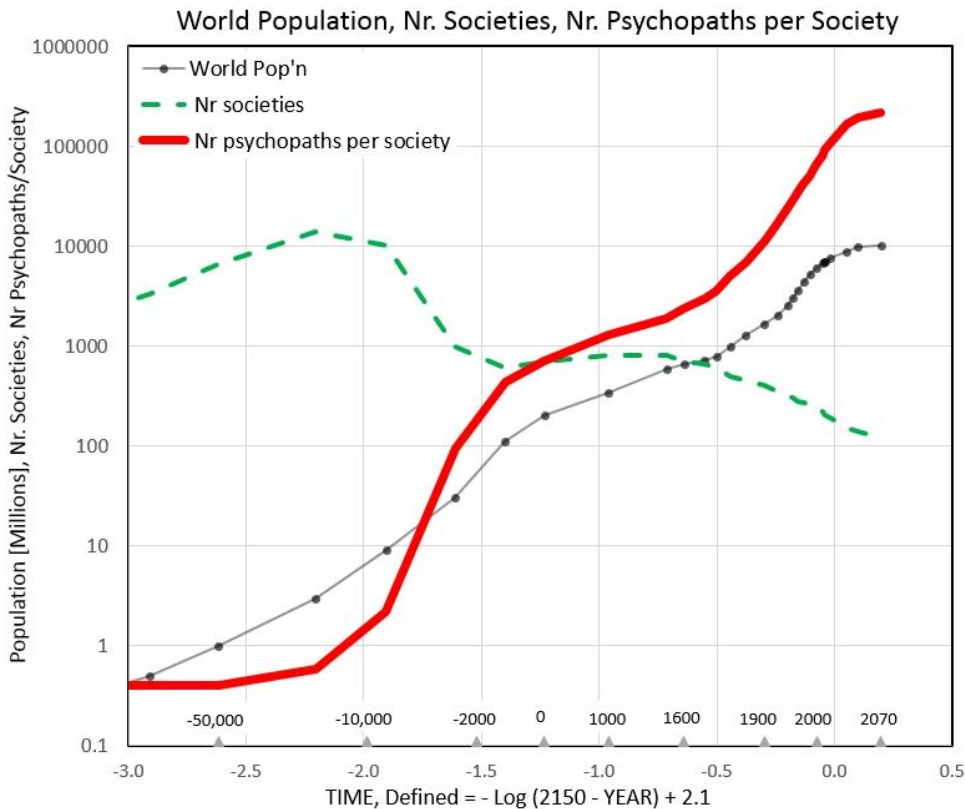


Figure 13.4. Combination of the three previous plots.

Others have speculated about the opportunities for psychopathy presented by large population societies. The concept described resembles mine, but their descriptions appear to apply to sociopaths more than psychopaths (the distinctions are unfortunately muddled in the literature). The articles for these speculations are by Figueredo et al., 2006 and Figueredo *et al.*, 2008 (“Psychopaths Flourish in Mega-Cities.”). A brief review of this work is given by Geher, 2018. It was even suggested that the incidence of psychopathy is currently rising because the proportion of the human population living in

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cities is increasing. The psychopath guru, Dr. Hare, acknowledges this by writing (1993): *“Sociobiologists take the view that behavior development is influenced by genetic factors, and they might argue that the number of psychopaths must be increasing simply because they are very promiscuous and produce large numbers of children, some of whom may inherit a predisposition for psychopathy.”* [Notice the use of “might” and “may” – this is typical writing style for anyone concerned about reviewer comments and criticism by “politically correct” academics.]

Governance

Early in the Holocene the hunter/gatherer lifestyle was gradually being replaced by the more settled lifestyles of herding and agriculture. Agriculture is evident by 9500 BC, and evidence of herding is present at least 10,000 years ago. Both forms of farming involve the storage of food. Food storage sites would have attracted wandering marauder tribes. Farmers, and those who relied upon the farmers for food, would have been motivated to protect these storage sites from the marauders. This provided an opportunity for the Enforcers and sociopaths! They could be “employed” to protect food storage sites, or to fend off the alien tribe marauders whenever they were known to be nearby. (Notice that I didn’t include the home tribe’s psychopaths as employable for protecting food stores; they must have been simply too unreliable for this duty.)

Enforcers might also have been needed for their traditional role of guarding territorial borders, which was what they were good for before the Holocene. More than one roving band of border protectors may have been employed since super-tribes had larger territories and therefore longer territorial borders to patrol. The term “employed” is apt, because the farmer’s food would have been exchanged for the protective service the Enforcers provided.

Whatever the super-tribe size became, a form of “governance” would be needed. The old system of interpersonal relationships, based on trust and social pressure (which is based on experiences from repeated interactions), couldn’t provide the necessary trust of every person with all others in the super-tribe. A super-tribe chief could play a newly important role for addressing these new needs.

Super-tribe rules needed to be explicitly specified, and since lifestyles were changing (with the adoption of new ways of herding and farming) some mechanism for establishing and changing those rules had to be created. The chief needed a “council” to give advice. A rudimentary form of our familiar three branches of government may have been created about 8000 years ago: 1) a council, answerable to the chief, that advises on new rules (congressional), 2) a group of men whose job is to “enforce” those rules (executive) and 3) the chief who hears plaintiffs argue their cases for the chief to rule on (judicial). Notice that this arrangement has no “separation of powers,” as with a modern democracy; the chief headed all three branches.

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The chief and his council would have needed to form an army of sociopath and Enforcer warriors for the tasks of fending off marauding bands. He would also need them for waging war with other super-tribes (defensive and offensive). A standing army would have to be “supported” by the others (farmers, merchants, builders, etc.). This meant that a system of taxation would need to be created. It’s possible that a subset of the warriors was used for the enforcement of tax collection. These “policemen” could also be used for the enforcement of other super-tribe “rules.”

If just one super-tribe adopted these changes, it would enjoy greater prosperity and be stronger than super-tribes that were slower to adopt such changes. An evolutionary pressure would exist for all super-tribes with which the first one came into contact to adopt this governance model.

All of this governance was new and we have to imagine that the populace was resentful, or “discontent.” The most unnerving part of living in a super-tribe would be the requirement of accepting strangers as fellow-tribesmen. Imagine, for possibly millions of years the forces of evolution had rewarded humans who couldn’t tolerate strangers, and suddenly a generation of humans was being forced to tolerate them.

Some super-tribes would have been composed of individuals who had a slightly greater inherited trait for tolerance of strangers than found in other super-tribes. These super-tribes would have achieved a semblance of internal harmony slightly more easily than the others. If all other things about super-tribes were equal, then the super-tribes composed of individuals with a greater readiness for tolerance would eventually prevail. Given that the most tolerant societies today are found in Scandinavia I visualize this gradual evolution of tolerant super-tribes as occurring more rapidly at northern latitudes.

A super-tribe society consists of a high population density central area surrounded by a low population density area where farmers and herders reside. A tribesman who was unable to tolerate strangers would feel more comfortable being a farmer, where he wasn’t forced on a daily basis to be with people of differing backgrounds (e.g., tribesmen who had recently joined the super-tribe). A tribesman who on the other hand was more tolerant of strangers would feel comfortable living in the higher-density town, or city. Such city dwellers could be described as “progressive” (or “liberal”), while the farmer could be described as “conservative.” This pattern of political inclination must have existed for possibly 8000 years, for it is found to exist today (Geher, 2018 and Murphy, 2018).

Warfare

During the early Holocene we may assume that super-tribes occasionally engaged in open warfare with neighboring super-tribes. This is a safe assumption because we know such warfare occurred when the historical record began, in the mid-Holocene, and there

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is paleontological evidence for inter-tribal warfare during the pre-historic early Holocene (Keeley, 1996). It is “human nature” for humans to wage wars, so the impulse to fulfill this need during the early Holocene can be safely assumed.

The sociopaths, possibly under the direction of Enforcers, would have been the obvious recruits for governance-supervised warfare. Any super-tribe that overlooked the opportunities for war-making would be evolutionarily disadvantaged. Also, any tribe that neglected to prepare for such warfare would be evolutionarily disadvantaged. It is safe to assume that any super-tribe that lost a war would suffer serious losses in their genetic contribution to future generations. This could occur through death of individuals, of course, but also by being enslaved, or simply being driven to poverty by being exploited by over-taxation.

Our default assumption should be that super-tribe warfare was chronic, and that all super-tribes needed to remain “war ready.” This, in turn, meant that every super-tribe had to rely upon a standing army with plenty of sociopath and a few Enforcer warriors. A method would be required for recruiting others before actual battle. The most likely “recruiters” and “recruited” would be the Enforcers. This is because their personality is flexibly responsive to social setting and they like being given direction and carrying them out without questioning.

What about the psychopaths? They can’t be overlooked when a population of sociopaths have to be maintained (because any rise in sociopath genes will lead to more psychopaths being born). The psychopaths would be useless. If they were recruited for warrior service they would be the first ones to desert, and somehow escape notice for their desertion. Within the heartland, psychopaths would weaken societal strength because they only care about themselves. Psychopaths were almost always “social parasites” with no redeeming value, at least during the early Holocene. They can be the consummate “social parasites.” (Chapter 21 lists some exceptions, or examples of how psychopaths can actually contribute to contemporary society.)

Holocene Immune System

A tribe of 100 to 200 individuals (35 to 60 adult males) would typically have either none or one male psychopath, assuming their present-day incidence (0.8 % of 35 to 60 is ~ 0.4). Members of the AE small tribe would have been able to identify these cheaters, and they would have been able to deal with them in order to preserve tribal harmony. Avoiding, shunning, banishment and murder may have been employed. In a super-tribe, with a population >100 times larger, for example, there could have been many more male psychopaths ($100 * 150 * 1/3 * 0.8 \% = 40$). It’s possible that most of them could escape detection, because whenever one was detected he could simply relocate to a part of the super-tribe where his reputation would be unknown! We should ask: Were the AE tribal

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tools for detecting and dealing with proto-psychopaths useful in the super-tribe setting? The same question should be asked about the high-scoring sociopaths.

Psychopaths today are fully aware of what behaviors are sanctioned by society, and the high functioning ones are expert in exhibiting the appearance of compliance when others are present. The low functioning psychopaths have trouble with compliance, I assume, and they are therefore often unable to trick others into believing they are normal. There must be a blending of traits from low-scoring sociopaths to high-scoring sociopaths, and from them to psychopaths. High-scoring sociopaths ($11 < PCL < 30$, for example) may have been viewed by others as occasionally psychopathic. There are approximately twice as many high-scoring sociopaths than psychopaths, so the high-scoring sociopath population can't be ignored when considering the feasibility of super-tribe members identifying them and controlling their behavior. Any super-tribe that failed to identify and control high-scoring sociopaths would be at risk for a weakening of tribal strength and a compromise of tribal harmony.

How did super-tribes deal with disruptive sociopaths who were high-scoring but low-functioning (i.e., frontal lobe evil but with low posterior lobe IQ)? They were more likely to be influenced by social pressure than the psychopaths. It is possible that religion was used to deal with the sociopath. Religion promises eventual punishment for misdeeds, even when they are not discovered by fellow humans. By invoking a God who sees all, and who punishes much later, the evil-doer who believes in such a god would be left wondering if their evil deed, which may have escaped notice by fellow super-tribesmen, may in fact be punished at some distant future time. This might produce hesitation before acting selfishly.

For this to make any kind of sense an additional belief is required: life after death. After all, everyone knows of bad people who escape detection and punishment during their life. If this preposterous culturgen ever got a foothold in a super-tribe, starting possibly as an outlandish story that might be believed by a low-IQ sociopath, that super-tribe could reap immense benefits! How can such a preposterous belief system be invented? I don't know, but we know it happened because religions with a life after death belief are widespread today. Every known society has a religion. This theory for the modification of AE religions to Holocene versions is described more in the next chapter.

Another way that a super-tribe could reduce the parasitic behavior of sociopaths, and the criminal behavior of psychopaths, is to enforce compliance with tribal rules. In small tribes, social pressure (e.g., gossip and subsequent avoidance) must have been effective. Of course, this is an ideal role for Enforcers to play. But for super-tribes the tools of governance would have to be employed. The "police" and "judicial" powers of the chief would be available. Super-tribe laws could then be tailored for the control of psychopaths and the discouragement of sociopath cheating.

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Super-tribes that accidentally experimented with religion, in addition to the creation of a governance that formulated and enforced laws, would have an advantage over super-tribes that didn't. The forces of evolution need only small differences in things that matter, plus time, and amazing results can be achieved.

Evolution of Proto-Psychopath to Psychopath

During the entirety of the Holocene the proto-psychopath was transforming himself by genetic evolution from dealing with people who knew he was a psychopath to concealing the fact that he was one. In addition, when people discovered that he was a psychopath he would know that it's time to relocate to a neighborhood where his bad reputation was unknown. These are the main differences between the proto-psychopath and the modern-day psychopath. The psychopath has a big advantage over the proto-psychopath because the psychopath can deceive people into trusting him whereas the proto-psychopath couldn't. I can't prove this, but it's such a straightforward assertion and I can't imagine any other scenario.

Chapter 14. Mid-Holocene Discontents

The latest interglacial warming changed everything for humanity! The new requirements imposed on human nature for super-tribe living were too extreme for a smooth transition. We therefore should not be surprised to find that during the Holocene, as super-tribes and their governments developed, most people harbored an underlying and persistent “discontent” with the new social setting. The closer to “civilization” we came, the greater the discontent! Psychopath corruption contributed to civilization frustrations. The need for minimizing the disrupting influence of psychopaths remained unaddressed.

This chapter presents new perspectives on the major themes described so far. They may seem like miscellaneous ideas for the beginnings of discontents with society but they will be needed for following chapters.

In a small tribe everyone knows who the troublemakers are. In a super-tribe this is impossible because anyone who becomes unwelcome in one neighborhood can simply relocate. Therefore, “social pressure” lost its effectiveness in controlling unruly behavior as super-tribes replaced small tribes. Something had to be done about this problem.

A New Religion Emerges

When super-tribes formed, the old religion was mal-adapted to new needs. The old religion dealt with such inconsequential things as ancestors, or their “souls,” rising up in the sky from funeral pyres and ending-up somewhere among the stars. It also gave meaning to dreams about those ancestors. The old religions tried to give an account for the origin of the Earth, animals and humans. Some of these origin stories are entertainingly funny, but they were harmless.

Super-tribes created new challenges for controlling the disrupting and freeloading problems produced by psychopaths and sociopaths. Anything that reduced these problems would be rewarded by evolutionary forces. I suggest that small changes to religion were (accidentally) introduced that described consequences for bad behavior. According to the new religion cheating and criminality are supposed to be noted by an all-seeing god who keeps track of “who’s naughty or nice” and at the end of a person’s life sends them to either an eternal heavenly home or a hellish purgatory! A sociopath or psychopath may know that they can escape detection by fellow tribesmen for a bad act, but if there’s a possibility that an all-seeing god is watching them, and keeping track of all their behaviors, they might hesitate with what they were considering doing.

In order for the above “warning of consequences” to be effective in reducing bad behavior (i.e., maintaining eusocial behavior) it is necessary to add something equally outlandish to the new religion: life after death. After all, a perceptive psychopath would have noted that most of his like-minded buddies were never caught and punished by fellow humans! This meant that during a lifetime it’s quite possible to escape detection and punishment. Religion therefore needed to add the new “life after death” belief for

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the all-seeing and punishing god to be worth worrying about. Dear reader, you may question how feasible it could be that such a weird idea could be incorporated by the mid-Holocene religions, but I present as evidence for it happening the fact that most humans believe it today. Since various forms of belief in life after death have been present throughout the Holocene, and quite possibly existed in some form before then, it is not surprising that the major religions (Judaism, Christianity and Islam) were capable of adopting this belief a couple millennia ago.

The religions that we know today include a morality that is in approximate alignment with what we can imagine were the needs for preserving eusocial gains by controlling sociopaths and psychopaths. These moralities resemble that of a Normaloid's conscience! Martha Stout agrees (2005, Ch. 12). She wrote “... *conscience is also the place where psychology and spirituality meet, an issue on which the recommendations of psychology and the teachings of the major religions and spiritual traditions of the world completely concur.*” This is indirect confirmation of my speculation that religion was modified during the Holocene in an attempt to control sociopaths and psychopaths.

For such a religion to have credibility it would be necessary for most of the super-tribe to believe in it. This is a job for the Enforcers. They are self-righteous masters of imposing their beliefs upon others. As preposterous as this new religion was to any thinking person, our human ancestors were apparently gullible enough to believe it. The belief might have been provisional at first, but when tribal strength improved for those who were provisional believers it was evolution's turn to take over. Since a super-tribe that was lucky enough to create such a religion benefitted by a reduced level of social cheating and criminality, it would have been rewarded with more victorious outcomes in competition with tribes that had the old religion. Eventually, no super-tribe remained that had not adopted the essentials of the new religion. The new religion could be viewed as a super-tribe's replacement of small tribe “social pressure” for being good.

Oceanic Oneness with the Universe

Religions celebrate something that goes by many names: oneness, unity, inter-being, and an overwhelming and oceanic feeling of connectedness with the universe (everyone and everything)! People who report experiencing this oceanic oneness are grateful for the experience, and portray it as positive, or rewarding. This oceanic connectedness feeling is associated with spirituality, and may be generated by the conscience. Sociobiologists might interpret the capacity for this feeling as an emotional reward for accepting one's place as simply *one component of an all-important eusocial collective!*

The emotions have been described as a genetic reward for being properly enslaved to those genes (Gary, 2014, Ch. 6). For example, sexual union is pleasurable in spite of the risks to individual well-being (a dozen diseases, discovery by a spouse, etc.) because it accomplishes something the genes anthropomorphically want – their immortality in a

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tribal gene pool (and hence species gene pool). The genes appear to pursue this goal at our individual expense, and they trick us into a blind acceptance, or eager appreciation, by creating a genetic reward that is great enough to overcome logical hesitation.

Dancing Bears

Just as a domesticated dancing bear isn't really happy, and would prefer to be living free in the wild, so is the man who has to pretend to be polite with strangers. Being civil with strangers is a requirement of every society with a population larger than the Dunbar Number so we should expect members of populace societies to harbor a measure of discontent about this requirement recently imposed on them by society.

If humans resent the requirement of civility that large tribes impose on them, then the amount of resentment within a super-tribe must affect the super-tribe's success in competition with other super-tribes. All other things being equal, the super-tribe that has the least amount of resentment of strangers among its membership will be stronger and will prevail. This means that "the forces of evolution" will favor genes, and tribal culturgens, that enhance civil behavior for harmonious intra-tribal relationships.

Rejection of strangers within one's tribe because of differences in appearance or beliefs can be described as "intolerance" while acceptance of them is "tolerance." Intolerance and tolerance can also be equated with the terms conservative and liberal. A conservative longs for a return to the old small-tribe lifestyle, where no strangers are present, while the liberal is OK with, and may actually prefer, the presence of strangers and different people. A tribe that welcomes differences should benefit from the enhanced "diversity of labor" that the newcomers bring.

I suggest that conservatives and liberals began their disagreements 10,000 years ago, when tribes began to coalesce into super-tribes. Every society has a history of trying to persuade tribesmen to be more tolerant, i.e., liberal. A society that failed to persuade a significant number of its membership would be at a disadvantage, all other things being equal, in inter-tribal competition.

Both tolerance and intolerance can be extreme. Hyper-intolerance is when "different people" are harassed. This can be good, such as noticing when someone cheats, so that they can be dealt with by gossiping. Psychopaths *should* be noticed and dealt with by avoidance, shunning or banishment. The problem is that some of the psychopaths are adept at appearing normal, and are able to escape detection until it is too late.

Some societies today are hyper-tolerant. For example, an excess of tolerance in Sweden has recently led to an excess of migrants who aren't assimilating, and are abusing welfare privileges, which is producing a backlash of "intolerance" that undermines societal harmony. I will explore this problem in later chapters.

Chapter 15. Psychopath Hijackings

Whereas the small tribe usually did not have any psychopath to worry about, when it did he was rendered harmless through either avoidance, shunning, banishment or murder. Super-tribes lost the ability to deal with psychopaths because after detection they could simply relocate and continue to parasitize the super-tribe. The psychopath was never meant to lead a tribe, or super-tribe. By Mid-Holocene, I suggest, societal structure had changed enough to open opportunities for psychopath hijackings of societies.

So far I have portrayed the psychopath as having no useful role for the tribe (in the AE), or the super-tribe (in the Holocene). The psychopath was a liability for the small tribe whether he was just another tribesman or somehow became leader of the tribe. A small AE tribe that tolerated a psychopath in either role would be weakened and at increased risk for defeat by a neighbor tribe. The Holocene super-tribe was more vulnerable; this is because the psychopath was able to move in response to detection. In addition, some psychopaths were masters of imitating normalcy and could present a charming persona in order to gain trust. We should ask: “Can a psychopath achieve a leadership role within the super-tribe from which he cannot be dislodged.

During the Holocene there was a proliferation of “division of labor.” Artisans invented irrigation, farmers sent their pigs for slaughter and their apples to the cider mill. All of this activity needed protection from marauding tribes. In response to this desperate need a standing army was created, and taxes were collected to pay for the army. Psychopaths and sociopaths are on a spectrum of personality traits. A charming personality could be found among both groups. Some standing armies might have been led by sociopaths, but probably not psychopaths.

Inventing Feudalism

How long would it be before one of the psychopathic leaders of a Mafia-style “protection racket” gained control over civilian leadership, and invent feudalism? I can imagine the situation of a psychopath cleverly presenting himself as a “king,” as if he had a heavenly-granted entitlement, and proceeding to rule as a beneficent protector of the farmer and the others needed for a farming society.

The king could have declared “ownership” of the farmland, and allowed the farmer to work the land in exchange for protection. A small tax was needed to maintain the king’s army. What could be done by “the man with a hoe”? He needed protection, and the protection the king provided was “a deal too good to refuse.” Feudalism is essentially a protection racket on a grand scale.

Whereas feudalism was the main form of societal governance in medieval Europe (from about 800 AD to 1600 AD), it must have had beginnings in pre-historical times during

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the Holocene. Every farm-based society must have attracted marauders, so the need for protection was immediate. Initially, farmers may have informally agreed to come to each other's aid, as if an attack on one was an attack on all. Farmers under this informal agreement would constitute a deterrence that was only partially effective because they would likely be no match for marauding tribes.

Psychopathic Tyrants

Feudalism, in some of its many forms, must have been present during the entirety of the Holocene. The opportunity for achieving more power over society must have been recognized by the feudal kings on many occasions. Leaders with psychopathic behavior have been recorded innumerable times by historians. For example, an Assyrian general who was victorious over a city ordered his men to gouge out the eyes of the losing population in order to secure their servitude as slaves.

Genghis Khan united tribes to form an empire that was safe from external marauders (the Mongol Empire); he then became the world's most infamous marauder by victimizing Eurasia. It has been estimated that one in 200 of the world's men have genes from Genghis Kahn; obviously, one of the goals for marauding is raping. Genghis Khan probably was a psychopath!

Other opportunities for psychopaths existed during the late Holocene. The Roman emperor Caligula (1st Century AD) was described as an insane tyrant, known for extravagant cruelty and insatiable lust.

England's King Henry VIII (16th Century) executed two of his eight wives and an estimated 70,000 others who opposed his rule. Another psychopath!

Russia's "Ivan the Terrible" (same century) "showed signs of cruelty, deviousness and vengefulness since childhood." As a ruler "... he ordered the brutal killing of people without proving their guilt – often just for fun – sometimes together with their kin and familiars. Ivan the Terrible showed great imagination in sentencing people to the most painful kinds of death, including burning people at the stake, impaling and boiling to death. In addition, he was married at least seven times and is believed to have killed at least two of his wives, as well as his eldest son." (Wikipedia).

Adolf Hitler, possibly the most famous psychopath of modern times, received 37 % of the vote in a 3-way 1932 election, and schemed his way to becoming Chancellor of Germany the following year. He is responsible for the death of 1/3 of the Jewish population of Europe, as well as a total of possibly 70 million people during World War II, which he started.

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Joseph Stalin may have defeated an invasion by Nazi Germany, and lifted the Russian economy during his 31-year rule, but he feared the Jews, persecuted them, banished them to gulags, and is responsible for the death of possibly 7 million Russians during his rule.

The evidence is abundant that during the Late Holocene psychopaths have been able to rise to the top of societies and impose horrendous suffering upon a victimized population. This suggests that whatever “tools” were developed by AE small tribes for dealing with the occasional psychopath were useless during the Holocene when all tribes were super-tribes. Somehow, that occasional proto-psychopath of the AE was able to evolve into a psychopath who could escape detection in the Holocene and maneuver himself into positions of power.

The mid-Holocene invention of religion was supposed to keep the psychopaths afraid of after-death consequences for bad behavior, but religion has failed Holocene societies. Instead of curtailing psychopaths, religion has kept Normaloids meek and powerless in protecting themselves from the ascendant psychopath.

What’s wrong with the Normaloids?

Present-day Occupational Hijackings

Today, whereas about half of psychopaths spend some time incarcerated (the “low-functioning” psychopaths), the other half doesn’t (the “high-functioning” psychopaths). Since psychopathy is determined by the function of the pre-frontal lobes (and the paralimbic system) and IQ is determined by the function of posterior lobes, a safe default assumption is that psychopathy and IQ are uncorrelated. I speculate that it’s the below 100 IQ psychopaths who end up in prison while the above 100 IQ psychopaths are successful in society, and they avoid prison.

As documented by several authors there are clear patterns of the prevalence of psychopaths in some of today’s occupation categories (see Murphy, 2018, for an overview). For example, they are over-represented among CEOs and lawyers (Dutton, 2012). Even “police officer” and “clergy person” have a disproportionately higher incidence of psychopaths. Unsurprisingly, the occupations with low levels of psychopathy include nurse, caregiver and therapist. One interesting finding is that whereas doctors are on the low psychopathy list, surgeons are on the high psychopathy list. Apparently psychopaths are not squeamish about cutting human tissue. (Warning: be nice with your surgeon!)

Regional correlations of psychopathy incidence reveal that Washington, D.C. is at the top of the list. In fact, it’s so far above all other regions that it has to be treated as an “outlier” in order to proceed with standard statistical analyses of other regions. This

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finding could be explained in part by the fact that their population includes people seeking power (i.e., politicians resemble CEOs in this respect). Many lawyers and lobbyists are also present in Washington, D.C., and lawyers (and probably lobbyists) tend to be psychopaths. Another factor is that most of the population of Washington, D. C. is urban, and there's a strong correlation of psychopath incidence with urban vs. rural.

Demagogues

Perhaps I have given too much importance to the role of demagogues rousing the rabble. Could it be that the masses of rabble have an insatiable appetite for violence and mayhem, due to genetic influences, and the only role of a demagogue leader is to organize the masses in order to maximize their effectiveness?

Can we find evidence from field studies of our closest related species, the chimpanzee? Michael P. Ghiglieri has written extensively (1988, 2000) about chimpanzee violence. He describes many similarities of chimpanzee and human violence. In addition to border patrolling by small bands (2 to 6 males), and their routine murder of smaller chimpanzee groups belonging to neighboring "tribes," open warfare occurs at less frequent intervals. Their version of inter-tribal warfare can lead to total decimation of the males and youngsters of the vanquished tribe (the fertile females often join the winning tribe). Ghiglieri makes the important point (2000, pg. 176) that "Also significant is the fact that none of these apes learned these violent behaviors by watching TV or by being victims of socioeconomic handicaps ... Nor were these apes spurred to war by any political, religious or economic ideology, or by the rhetoric of an insane demagogue."

Allow me to suggest that human demagogues should be thought of more as opportunists, seizing upon societal unrest, than as ideological persuaders, or originators of social movements. This provides a more nuanced view of psychopath hijackings. The masses want to be hijacked!

When a society is influenced by psychopaths in many job categories, and if in addition the governance of that society is rendered less responsive to societal needs by corrupted people in the government, a recognition of self-impotence by the ordinary person will have a disheartening effect. Optimism about one's future ("social mobility") will be undermined. Societal wealth inequality will be "understood." The belief in fairness in all aspects of life will be undermined. The will to work hard will be weakened.

These perceptions of the lack of opportunities for a good life in society must produce its own type of discontent. The same person, living in a small AE tribe, would have experienced a more "democratic" relationship with the tribe. Small tribe life is without a strong chief most of the time; tribal decisions are often arrived at by consensus. The Holocene brain is no different from the AE brain in its expectation of control over one's

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life, and being an important tribal member. It is easier to feel “relevant” in a small tribe than a super-tribe. The immensity of a super-tribe can make an individual feel irrelevant and relatively unimportant.

There are several reasons the individual who lives in a super-tribe can feel “out of place,” or “discontent.” Two important ones are 1) having to encounter and politely tolerate strangers daily, and 2) feeling the frustration of living in a society dominated by psychopaths. This is the main conclusion of my book *Civility and its Discontents* (2018).

The Geneva Experiment with Hyper-Eusociality

Not every hijacking of a society is done by a psychopath. Occasionally, one of their opposites can achieve control of society. The best example I know about is what happened in 16th Century Geneva.

Religion is sometimes described as “a glue” that holds a society together and renders it a more functional unit for competing with neighboring societies. As described in D. S. Wilson’s book *Darwin’s Cathedral* (2002), in Geneva during the 1530’s John Calvin persuaded the citizenry to adopt strict rules that led to such an efficiently functioning of society that other cities tried to emulate Geneva’s Calvinism. The city was not at war with any other city, so the problems that Calvinism solved was a taming of selfishness. The rules included such things as “obey parents & magistrates, abandon self-will, and do unto others as you would have them do unto you.” (Notice the strong resemblance to authoritarianism, or the use of a strong leader to create a following of Enforcers.)

The “dark side” of Calvinism was with “mechanisms to prevent subversion from within” – i.e., enforcement. The role of church elders was to “have oversight over the life of everyone, to admonish [deviations from sanctioned beliefs and behaviors] Ami Perrin, the top military commander of the city, was imprisoned for dancing inappropriately at a wedding. Unrepentant, Perrin refused to appear” before the church to justify his stance. He was eventually convicted of blasphemy, and a compliant civil court sentenced him to be executed – which occurred!

Poor Ami; he “never got the memo” that compliance and conformity are prerequisites for survival when religion (authoritarianism) rules a society. Compliance is a tool of the group to ensure societal efficiency, but the need for compliance is an enemy of individualism, and the enforcement of it is an insult to humanity. Geneva’s 16th Century experiment with Calvinism illustrates religion’s benefits for group success, but it also illustrates how religion crushes individualism.

Calvin might be thought of as a demagogue, but his effect upon society was positive in the sense that it produced prosperity by enhancing the eusocial bond between the individual and his collective. From the standpoint of the collective (e.g., the tribe’s gene

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pool), religion was good. But from the standpoint of those individuals who just wanted the freedom to think and seek a good life within a tolerant society, religion was bad.

The Geneva experiment is a warning about what happens when an authoritarian strong leader creates a following of Enforcers.

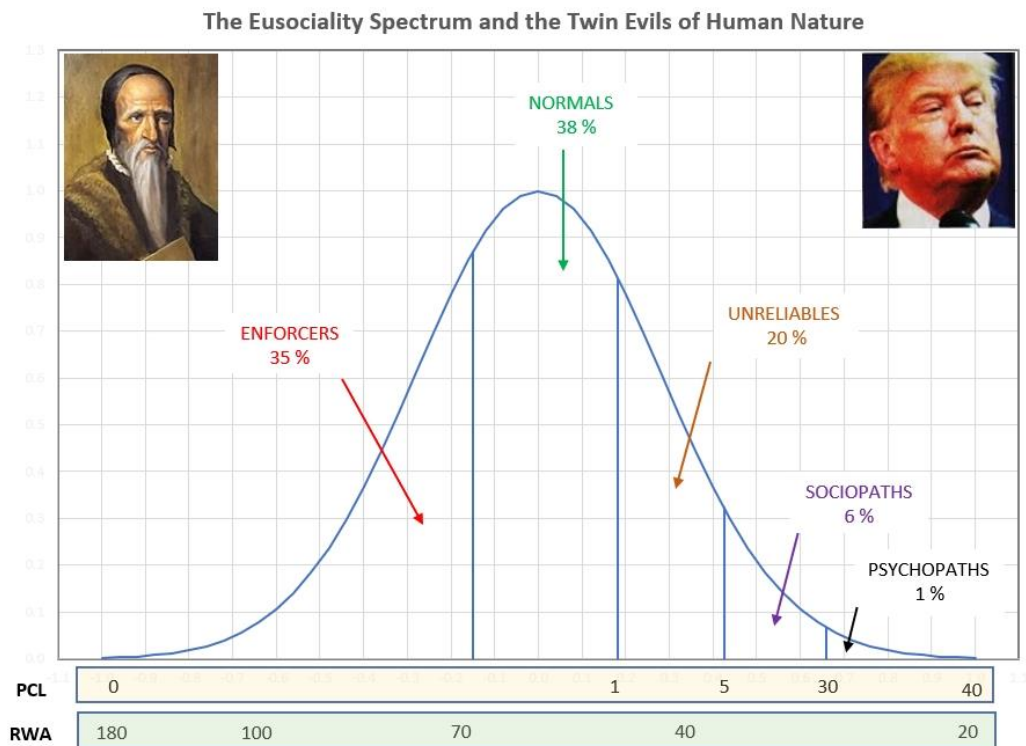


Figure 15.1. John Calvin and Donald Trump are used to illustrate the “twin evils of human nature.” Calvin led the Geneva experiment with authoritarian rule during the 16th Century and Trump endeavors to become the leader of an American kleptocracy. The percentage of acting Enforcers fluctuates between ~ 10 % and ~ 35 % in response to their reading of the level of external threat.

Recall that the Enforcers are “people who are eager to become followers of an authoritarian great leader.” The great leader can either be an authoritarian with a high level of “social dominance orientation” (SDO) or a psychopath imposter. During the Geneva experiment the Swiss were followers of Calvin, a high SDO authoritarian. During the Trump era Trump’s followers are suckered into believing that Trump is one of them and a strong leader who could improve the lives of his followers. Trump is

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instead a psychopath conman, an imposter who exploits the desperation of his cultish followers, someone who understands their need to be led by a strong leader.

Recall that psychopaths have an uncanny ability to size-up a person's weaknesses. This ability enables the psychopath to identify who is a good target for their manipulation. A potential follower can be recognized by a competent psychopath, and a crowd of followers can likewise be characterized by that psychopath. Some psychopaths are also good chameleons, or imposters. They can fake belief in whatever motivates the follower crowd. It is therefore feasible for a clever psychopath to hijack a following and become their craved-for "authoritarian strong leader."

When the strong leader has a small number of followers we refer to it as a cult. When the following comprises an entire society, as happened with Mussolini's hijacking of Italy, we refer to it as a fascist state. It's the same social glue that binds the followers to the strong leader. This glue evolved during the AE in response to the need for a threatened tribe to mobilize for inter-tribal conflict.

The PCL and RWA scales in the previous figure invite creation of a combined scale for Eusociality. I arbitrarily suggest: $\text{Eusociality Score} = (\text{RWA} - 20) / 4 - \text{PCL}$. A new version of Fig. 4.4 using this Eusociality Score is shown here:

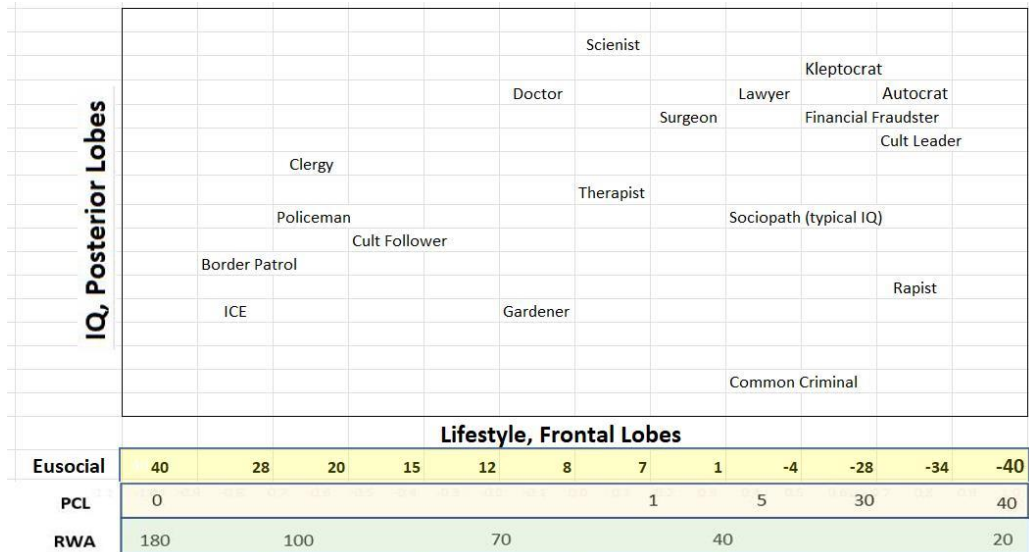


Figure 15.2. Update of Fig. 4.4 using a Eusociality Score instead of PCL for the x-axis. The job entries are merely for illustration; they are not based on data. The x-axis is what will be referred to from now on as "the Eusociality Spectrum."

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The Eusociality Spectrum extends from +40 (extreme Enforcer) to -40 (psychopath). In other words, more positive scores correspond to more eusocialized. Some readers may be upset that the most eusocialized people are at the left-most end of Fig. 15.2, instead of the right end. Sorry for that.

Human nature is flawed by the twin evils: 1) Enforcers, who need to follow an authoritarian strong leader, and 2) psychopath imposters, who snooker naïve Enforcer followers to achieve influence over governance. These twin evils will be an important part of this book's concluding chapters.

Chapter 16. Too Much Tolerance

Psychopaths achieved too much control over societies during the Holocene. Why did the measures that kept psychopaths under control before the Holocene stop working? Tolerance is something invented by super-tribes for preserving harmony among strangers. Psychopaths took advantage of hyper-tolerance, and now it's too late to undo our over-eagerness to be nice.

Tolerance! That's what was needed when the early Holocene tribes coalesced into super-tribes. After a joining of tribes there must have been widespread suspicion and resentment of those strangers who the tribal leader decreed had to be trusted. They dressed differently, spoke with a different accent, used different sayings, practiced different rituals, and believed in different mythologies. Yet, this large and cumbersome tribe was victorious over smaller tribes. So all tribesmen had to keep their instinctive intolerance in check, and feign tolerance.

Super-tribes that made the transition more smoothly were presumably rewarded with more victories. In this awkward manner the Holocene was evolving tolerance, or at least a reluctance to be publicly intolerant of those who we now know could reasonably be considered to be a threat to society – for example, a “slippery” psychopath.

Still, within each society that was successful there must have been a spectrum of tolerance. At one end were those who remained fundamentally intolerant, which we now recognize as political “conservatives.” At the other end of the spectrum were those who made the coalescence work by overlooking differences, which we now recognize as political “liberals.” During the Holocene the conservatives lived in a farming and herding countryside surrounding a more densely-populated center that was dominated by liberals (“That's my story, and I'm sticking to it!”).

Before the Holocene, during the AE, everyone lived in small HG tribes. I can imagine that psychopaths weren't tolerated when they became noticeably disruptive. The sociopaths were probably kept in their place by social pressure, and in this way they were tolerated. The Enforcers were of two types: the core type, who patrolled the border and the proto-Enforcer who transformed from normal to an obnoxious bully when the tribe generally felt threatened. This latter type was tolerated because he was performing a function that was useful to the tribe, “mobilization” for inter-tribal war.

During the early Holocene, social adjustments were required and this involved allowing fellow tribesmen to have roles that didn't exist in the small HG tribes. For example, someone who dug irrigation ditches would dress differently to match digging needs, and his different dress would have to be tolerated by everyone else. Blacksmiths dressed in a unique way, as did carpenters and many other craftsmen. It must have become common to simply notice these differences and assume that they had a useful role to play for the super-tribe. It must have become habitual to assume that someone who looked different, or acted differently, was nevertheless a welcome member of the super-tribe.

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Can tolerance be a problem? Automatic tolerance can be both good and bad, just as a “double-edged sword” can cut both ways. Sure, it’s good to automatically tolerate the ditch-digger with his unusual clothing and work style, but it’s bad to tolerate a psychopath who is pretending to be an innocent shop keeper.

In a tolerant super-tribe it is possible to maintain the attitude that “Yes, he’s quick to anger, but he’s good at what he does, so let him be.” That’s what a liberal might say about a fellow worker who is a psychopath. Or, as one psychologist recently wrote: “...knowing more about disorders makes us less likely to stigmatize those who think or act differently.” (Draaisma, 2018).

It’s possible that unjustified tolerance for criminals is based on a belief that the criminal was rejected by his mother in childhood, or discipline was inconsistent, or frontal lobe development was arrested at the 10-year old stage – none of which was the future criminal’s fault. Liberals simply seem reluctant to hold psychopaths to account for their behavior.

Hare wrote (1993, Ch. 12): “The term *treatment* implies that there is something to treat: illness, subjective distress, maladaptive behaviors and so forth. But, as far as we can determine, psychopaths are perfectly happy with themselves, and they see no need for treatment.”

Imagine the following conversation with a psychopath: “I was in a bar last night, and the guy next to me had a really cool watch. I asked him for it, and he didn’t want to give it to me, so I beat him senseless. I ended up getting what I wanted, plus everyone’s respect in the bar. It was his fault for not giving me his watch. I did what I had to do, and everything turned out fine. So what’s the problem?” What good would it do to wag your finger at someone like that, invoking the concept of “fairness” or “being nice”?

Remember that in a super-tribe when someone is found out to be a cheater, they can move to a new location where they are unknown, and repeat their scam. This illustrates the importance of the Dunbar Number, a maximum tribal size for which it is possible for all men to achieve and maintain assessments of trustworthiness of all other men with whom they must maintain a knowledgeable relationship. Tribes with populations close to the Dunbar Number allowed everyone to know everyone else well enough to know who the cheaters were. In a super-tribe, with thousands or hundreds of thousands of people, it is not possible for a cheating psychopath to be known by everyone else.

A psychopath is therefore able to thrive in a super-tribe; there are two main reasons for this: 1) his faults are “overlooked” in the interest of being tolerant, which is a super-tribe culturgen, and 2) when he is discovered to be a no-good cheater he can move to a new location where his reputation is unknown.

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Religions superficially appear to nurture tolerance. According to one translation the Christian bible states “You have heard that it was said ‘Eye for eye, and tooth for tooth.’ But I tell you, do not resist an evil person! If someone slaps you on the right cheek, offer the other cheek also.” (Mathew 5:39). This excess of tolerance is just one illustration of how culturghens were evolving during the mid-Holocene, making people behave differently from their nature that had evolved to serve small-tribe living situations.

The spectrum of attitudes about how to understand psychopaths is instructive. At the hyper-liberal end we have the expression of those who object to research into the biological basis of the psychopath. Here’s an excerpt from the book *Psychopathy: An Introduction to Biological Findings and Their Implications* (Glenn and Raine, 2014): “... some [suggest] that biological research on crime may open the door to discrimination based on genes ... Some have even alleged that research examining the genetic factors that may contribute to crime is similar to ‘the kind of racist behavior we saw on the part of Nazi Germany’ (Palca, 1992).”

Does Palca realize that Nazi Germany was created and led by psychopaths, and if the world wants to avoid a repeat of the Nazi nightmare we should understand psychopathy better, in order to be quicker in recognizing it, with a hope to avoid being gripped by the clutches of future psychopaths? With scientific cheerleaders like Palca and those who in effect become “apologists” for psychopaths, stifling research into the enemy of all stable societies, we may remain clueless throughout the entire process of a disintegrating civilization caused by the dominance of psychopaths in society and the rise of psychopathic tyrants.

We need a *greater* understanding of the genetics of psychopathy, not polite excuses for them that defaults to the assumption that they’re the product of impoverished childhoods. We also need an increased intolerance for psychopaths and sociopaths. The fact that just the opposite has evolved during the Holocene illustrates how dysfunctional our slow-evolving “civilization” culture has become.

Global Distribution of Hyper-Tolerance

We cannot be sure of the relative importance of cultural influences versus genetic ones in understanding the origins and maintenance of today’s hyper-tolerance. Genetic evolution is much slower than culturghen evolution, but the former keeps a flexible “leash” on the latter (Lumsden and Wilson, 1981).

Maybe there’s a clue in the global distribution of tolerance, which peaks in Scandinavia and is rare in the Middle East. There are many theories for why this global pattern exists (Gary, 2014, Ch. 19), but there is a more important question: Does an intolerant society

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protect itself from tyranny? The answer is “no,” and the evidence is that the Middle East is also the historical center for tyrannies while Scandinavia is the antipode for tyranny.

Does this mean that intolerance is not an antidote to the proliferation of psychopaths (and sociopaths)? No, it just means that human history is too complicated for drawing simple conclusions about what works and what doesn’t for something as complicated as psychopaths hijacking societies.

Perhaps it is misleading to attribute the tolerance of sociopaths and psychopaths on such an overall concept as “tolerance.” Maybe human behavior can be better understood as resulting from a “Hodge podge” of mental activity in a brain that lacks the architecture for maintaining internal consistency. Chapter 18 explores this idea, and it also prepares us for an understanding of why some normaloid people can actually be attracted to psychopathic leaders while others are abhorred by them. But first we need to understand “the Roobification of America,” which is treated in the next chapter.

Chapter 17. The Roobification of America

It is understandable that the triumph of stupidity should occur in America first. After all, it's natural for a person to believe that their ideas on everything have merit because they've succeeded in improving their standard of living. Americans have achieved individual wealth ahead of the rest of the world, and the rise of the Roob, a materialistic version of a rube, is therefore most prominent in America. This explains the coarsening of American culture that has occurred since World War II. It's not only our music, movies, TV, public discourse and interpersonal manners that have declined, it's also our politics. The Republican Party, with which I used to associate, has suffered the most. It is time to wonder if a Putin-style tyranny is on our horizon.

From Rube to Roob

Jose Ortega y Gasset published *Revolt of the Masses* in 1930. In it he described something that puzzled him: scholars were beginning to have trouble being heard above the noise of uninformed men who brazenly presented their opinions as if they were fact. Gasset struggled to explain this, speculating at length about the appeal for believing that Truth should come from within instead of from an objective, open-minded exploration of ideas based on observations of an external reality. Maybe the common man was searching for an explanation of the corruption of society that was ruled by educated people, and the commoner noticed that education involves observation of external reality followed by disciplined thinking. Ortega y Gasset finally hinted at the possibility that commoners were getting "too smart for their britches" because they were becoming successful in earning a living, and in some instances becoming wealthier than educated noblemen and scholars. The commoner's new-found wealth emboldened him to believe that his opinions therefore deserved the same respect as that of generations of nobility. Opinions that command respect help define a society's culture, and this was the beginning of the commoner's takeover of culture.

Half a century later Roger Price wrote *The Great Roob Revolution* (1970), which finally gave this phenomenon a name. He invented the term "Roob" in order to make an important distinction: the country bumpkin was a "rube" out of innocent ignorance of good manners from lack of exposure to the customs of urban living, whereas the Roob was obnoxious for insisting that his stupid ideas should not be questioned. Both the rube and Roob were insufferable, but for different reasons. Price clarified the argument that it was the Roob's growing wealth that was the principal force that gave his opinions power. After all, he argued, the shopkeeper who wanted to sell was not going to question the taste of someone with money in his pocket. If the person who comes to town for a carnival has money in his pocket, and if he wants to hear a certain kind of music, then that's the music that the townspeople will perform. If he wants to see a certain kind of movie, then that's the movie that will be made. It's when a rube has money in his pocket and lives in a city that he becomes a Roob!

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When Roobs became more numerous than scholars and noblemen the new imbalance of buying power translated to an ascendance of the Roob. This, Price explained, was why culture was becoming Roobified. Ideas that came from within oneself, as Gasset had argued, were more valid to the Roob than ideas that others arrived at from disciplined argument based on observation of things outside oneself. This would have predictable consequences on a society's culture.

Politicians took notice of the Roob since his type was numerous and could vote. If the Roob distrusted "pointy-headed" intellectuals, then politicians would mock the puzzled scholars. Adlai Stevenson was the first politician to be mocked as an "egg-head" by a political opponent (in 1956). I remember this well, because I was in high school at the time, on a debate team arguing the merits of "free trade" - and I was puzzled by my analysis of the unsupported arguments used to attack Stevenson instead of his positions.

At the same time I noticed that "rock music" was much more popular than classical music. Whereas one form spoke to the intellect of smart people the other spoke to the heart of unsophisticated people. Movies also celebrated the simple-minded "rebel" instead of the conscientious citizen. What happened, I wondered, to the patriot who saved civilization from tyrannical Nazi fascism a decade earlier?

The cause for conscientiousness and civility wasn't helped by the growth of a questionable war in Vietnam and mandatory military service if called upon to serve by a draft board. A generation of older men who could benefit financially by war was pitted against a less powerful younger generation who would have to fight it. The inevitable protests that erupted brought the concept of civility into question. Folk music became defiant, and it questioned the legitimacy of those who ruled. Hippies rejected their parent's culture, their materialism, and experimented with self-centered and lazy lifestyles. It is ironic that the Hippie Generation was looking inward for a path away from materialism, while their parents continued to embrace a materialism that was created by inward-looking Roobs.

Civility

Good manners is a simple concept. "How do you do, Mr. Smith; I'm glad to meet you." And saying "thank you" or "excuse me." Personal cleanliness, and dressing well reveal civility. When entering a building a man removes his hat, and holds the door open for his woman companion. In public people aren't loud (except at sporting events). Also in public there's no burping, or farting, or picking one's nose. In polite conversation there is no swearing, no vulgarity, and no raising of voice in surrender to emotional outbursts. The English have mastered the art of civil conversation: if uncertain about what to say, just imagine how an English movie would portray the social interaction. If someone wants to put down another, it's not done with overt "name calling" and with a loud voice, but is handled with such subtlety that only a careful notice will register the insult.

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Civility must be an important requirement for holding a society together, for it is found in every society. Even primitive societies have rules governing social interactions. Civil is the root word for "civilization." The implication is that a civilization requires civility!

The Loss of American Civility

In retrospect, I now see why the Roobification phenomenon was more advanced in America than anywhere else in the world. It's because America led the world in the growth of wealth for the individual citizen. Because "no good deed goes unpunished" America is the first society that faced the political victory of the Roobification phenomenon.

The first televised presidential debate was in 1960, when Jack Kennedy and Richard Nixon faced off. When snippets of that debate are shown on television today, it is jarring! Kennedy and Nixon were civil with each other in a way that would not be expected in a debate that included Donald Trump. What happened during the intervening decades?

The transition was well underway when Price wrote his book *The Great Roob Revolution* in 1969 (published in 1970). There's something about "the 1960's" that defy complete understanding. It was a tumultuous time, or, to quote the opening of *A Tale of Two Cities* (Dickens, 1859): "It was the best of times, it was the worst of times, ..." I recall telling a friend at the time that the 1960's would be remembered for being the peak of Western Civilization. It was an awakening of many things: civil rights for blacks, women's rights, the folly of war, the corruptness of the "military-industrial-congressional complex" (Eisenhower's phrasing in an early draft of his presidential departing speech), the dangers of over-population, the dangers of global thermonuclear war, warnings of global warming, opportunities for space travel - but most important, it was the awakening to the idea that humans were enslaved to the genes that assembled us for engaging in tribal gene pool competition. This last awakening was occurring within a small academic discipline that would be known a few years later as "sociobiology." I won't claim that sociobiological thoughts were motivating the common man in any way, because they weren't. But the same audaciousness of thought that influenced those in academia was also influencing the common man, so there is a common-cause connection.

The 1960's was a time for unleashing high expectations for the future! This was a result of the fastest growth of personal wealth for Americans in living memory (starting after World War II). But in an open society, a democracy where public protest was possible, competing factions clashed and sparks sure did fly. Assassinations of public heroes, race riots, Vietnam war protests, student speeches and protests on college campuses - these social disruptions and threats to civility led eventually to a vote for "law and order" presidential candidate Nixon (in 1968). War protests continued in front of the White House, and Nixon's hatred for everyone unlike him, everyone from hippies to reporters, became obvious. This was the social climate when Price wrote his Roob book.

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The Rise of Psychopathic Megalomaniacs

As I wrote in my book *Genetic Enslavement* (2014) "A wealthy Roob is less of a threat to social stability than a recently impoverished Roob" (pg. 264). This observation was inspired by a reading of early 20th Century history. After The World War, as it was called at the time (since no one believed humans would be stupid enough to repeat such a calamity), the victorious Allies punished Germany with the Treaty of Versailles, which imposed harsh reparation costs on the German economy (mostly in response to the French, who wanted to dismember Germany so that it could never start another war). The Germans, who were the best-educated population in the world, and who enjoyed a relatively high standard of living before the war, became paupers in less than a decade. This sudden poverty created a situation ripe for revenge by those with a Roob mentality. Hitler was mocked as a clown during the 1920's, when he was an amateur activist trying to rouse the discontented rabble. But his conniving talents eventually prevailed in 1933, when he became Fuhrer. It has been said that Hitler was kind to his mother, and liked dogs (although his German Shepherd dogs acted wary of Hitler, as revealed in home movies). A more accurate description of Hitler is that he was a psychopath.



Figure 17.1. *Mussolini's postures and expressions reveal arrogance, contempt for others, but mostly (for me) psychopathy. He seems to be saying "I dare you to sock me in the face!" – which his expression invites.*

Benito Mussolini was more successful, for he became Italy's prime minister in 1922, which he maneuvered into a dictatorship in 1925. His goal was to re-create the Roman Empire through fascist rule. However, he suffered from "megalomania" and lacked an understanding of the use of power. Still, he hung onto his dictatorship rule until 1945, when he was shot and hung in humiliation. Mussolini's trademark posture and expression is irresistible for psychological analysis.

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Scoring Donald J. Trump

Keith Olbermann has scored Donald Trump using the Hare Psychopathy Checklist. His results are available in an article for *Vanity Fair*, and also at a web site: <http://www.vanityfair.com/news/2016/07/donald-trump-keith-olberman-sanity-test>.

Here's how the scoring went, with score preceding the trait (details and reasons for the scoring are given in the article and web page).

- 2 = glibness and superficial charm
- 2 = grandiose sense of self-worth
- 2 = need for stimulation/proneness to boredom (e.g., short attention span)
- 2 = pathological lying
- 2 = cunning/manipulative
- 2 = lack of remorse or guilt
- 2 = shallow affect (not understanding of human relationships)
- 2 = callous lack of empathy
- 2 = parasitic lifestyle (e.g., taking credit for work done by others)
- 2 = poor behavioral control (as in tweeting before thinking)
- 2 = promiscuous sexual behavior (e.g., boasting about it)
- 2 = early behavioral problems ("I punched my music teacher because I didn't think he knew anything about music...")
- 1 = lack of realistic long-term goals
- 2 = impulsivity
- 1 = irresponsibility
- 2 = failure to accept responsibility for one's own actions
- 0 = many short-term marital relationships (3 marriages lasting 14, 6 & 11 years doesn't qualify)
- 2 = juvenile delinquency (father says "He was a pretty rough fellow when he was small." and more)
- 0 = revocation of "conditional release" (by a parole officer)
- 0 = criminal versatility

Total points = 32. Donald Trump, by this scoring, is a psychopath.

An even scarier article was published in the *New Yorker*, 2016 Jul 25 issue, by Jane Mayer, based mostly on an interview with the person who wrote *The Art of the Deal*, Tony Schwartz (hereafter, TS). For the record, in spite of repeated claims by Donald J. Trump (hereafter, DJT) that he wrote the book, TS insists that DJT didn't write any of the book, but merely made a few red marks for changes, to make him look better, and TS made the changes. TS thinks that DJT may not have read the entire book since there's no evidence that DJT has ever read any book.

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.Some highlights from the article are that TS spent 18 months trying to get DJT to provide interviews, but DJT had such a short attention span that all interviews were cut short with almost nothing to show for them. After deciding to give up on getting enough material for the book, and on a flight home, he had the idea of listening in on DJT's phone conversations. DJT loved that idea, and so the book project resumed. Unbeknownst to the callers DJT was talking with, TS finally was able to obtain enough information to write the book.



Figure 17.2. *Is Trump trying to imitate Mussolini, or are their personalities similar? The term “looking down one’s nose” means that others are unworthy of respect or even notice.*

The TS interview for the *New Yorker* includes the following. DJT is pathologically impulsive and self-centered. If TS were to write the book today he would title it "The Sociopath." "I genuinely believe that if DJT wins and gets the nuclear codes there is an excellent possibility it will lead to the end of civilization." "Trump's first wife, Ivana, famously claimed that DJT kept a copy of Adolf Hitler's collected speeches, *My New Order*, in a cabinet beside his bed." "Lying is second nature to him." "He lied strategically. He had a complete lack of conscience about it. DJT's indifference to it gave him a strange advantage." "Trump stands for many of the things I abhor: his willingness

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to run over people, the gaudy, tacky, gigantic obsessions, the absolute lack of interest in anything beyond power and money." DJT has an insatiable hunger for "money, praise and celebrity." "He's a transactional man - it was all about what you could do for him."

In a 2016 TV interview (Lawrence O'Donnel's "The Last Word") TS said that DJT has a black hole at his center that needs to be filled with attention from others ("all publicity is good publicity"), and that he has no capacity for empathy. This was brave because TS was inviting a lawsuit by Trump for violating a non-disclosure agreement. TS said that he has kept quiet until now because DJT's mischief was mostly limited to failed building ventures, whereas now TS felt a moral obligation to warn the nation about someone with a serious possibility of winning an election for president of America.

I'm not trying to pick on Trump. He's just the easiest "leader" to study because so much is known about him. Other 21st Century leaders that appear to be psychopaths include Vladimir Putin (Russia), Tayyip Erdogan (Turkey), Nicolas Maduro (Venezuela), Kim Jong-un (North Korea) and many in Africa. The 20th Century has dozens of examples.

The question that interests me more is "Why are so many people attracted to psychopathic leaders?"

What's Wrong with Voters?

Sometimes it's appropriate to consider if the victim of a crime deserves blame. When victims are so numerous, willing and clueless, then why do so many people fall victim to psychopaths?

The Donald Trump type was just waiting for America to evolve a readiness for his pitch! Recall that I wrote "A wealthy Roob is less of a threat to social stability than a recently impoverished Roob." Before the 2008 global financial collapse (that started in America because of greedy and illegal behavior by unregulated investment bankers) America wasn't quite "ready" for a full-blown psychopath leader. The prerequisites for that readiness had been building slowly for 30 years, ever since the Ronald Reagan presidency. During that time wages stagnated, large corporations had become international and had begun to move manufacturing jobs overseas. Workers without a college education couldn't adapt to such a change; they didn't know how to use MS Word or Excel, for example, and their options were limited. With an oversupply of less educated workers they couldn't demand raises if they had a job, and if they didn't have a job they had to accept a lower-paying one to remain employed. Household income didn't exceed inflation during most of the second half of the 20th Century because women were entering the labor force. By century's end most households had already made that transition. Early in the 21st Century household income for the Middle Class began to shrink. But how many of these financially desperate people in America were Roobs?

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Recall the definition of a Roob. He's someone who doesn't trust what educated people have learned through centuries of inquiry, by observing the way the world is and using disciplined thinking to figure things out. The Roob prefers to search inside himself for an inner truth. And if he has achieved wealth sometime during his life, his inner truth will have been vindicated, and no other person, regardless of his learnedness, and in spite of his learnedness, can change his mind.

Our best guide for estimating how many Americans are Roobs comes from polls on what people believe, or “know.” For example:

- 1) 74% know the names of The Three Stooges (Larry, Curly and Moe) while only 42% can identify the three branches of government (Zogby poll).
- 2) 60% of Americans know that Superman comes from Krypton, but only 37% know that Mercury is the planet closest to the sun (Zogby poll).
- 3) 41% of Americans believe that Saddam Hussein had strong links to Al Queda, and 22% believe he helped plan the 9/11 attacks (Harris poll).
- 4) 20% of Americans think the sun revolves around the Earth.
- 5) 29% of Americans can't name the vice-president (Newsweek, 2011 Mar 28).
- 6) 20 % of Americans can't find the USA on a map.

Considering these statistics, we can surmise that the fraction of Americans who are uninformed and self-satisfied Roobs is somewhere between 1/3 and 1/2! Hmm, that's interesting: 33 to 50 % is close to the fraction of Americans who are Enforcers. (More about this later.)

Trump does a masterful job of mimicking the uninformed voter who he hopes to win over. A little-known discipline, called Neuro Linguistic Programming (NLP), urges salesmen, or anyone trying to influence a target person, to observe closely the target's mannerisms, such as their speech patterns, and to then mimic them. The NLP user will note which of three word categories is most used by the target (seeing, hearing and feeling - corresponding to the three posterior lobes of the brain), and to intentionally engage that person with an emphasis on the same word categories. In a similar manner the target's posture is to be observed, and mimicked (arm folding, etc.). I doubt that Trump has studied NLP, but he seems to practice it well. When the voter sees Trump, he sees himself. For example, Trump proudly proclaims that he gets his information from TV, not books or newspapers (and certainly not from experts). Trump's language and demeanor is unsophisticated, low-brow. His words are simple, and often vulgar, like the voter he's trying to mimic. He makes fun of people who are threatening to the uninformed voter, such as intellectuals. Trump's disdain for intellectuals, and those people in government who the Roob believes are blocking the average man from succeeding, is reassuring to the low-information voter. The regular guy believes that Trump is like him, but just brave enough, due to his (imaginary) business success, to speak the truth without

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regard to "political correctness." When interviewed, Trump supporters often say that "he's like me; just more successful." It's a clever trick, persuading the average guy who's temporarily down on his luck that he could someday become successful, like Trump, if only those educated people would stop blocking the little guy's path to success.

Steven Hassan writes in *The Cult of Trump* (2019) that many cult leaders employ NLP techniques for manipulating followers. Hassan has unique qualifications for understanding the blind devotion of cultists because for years he was a "right hand man" beside the cult leader Sun Myung Moon (the "Moonies"). Hassan cites many parallels between Trump and the many cult leaders that he's familiar with.

Once a Roob is created, he cannot be uncreated. The Roob who saw his prospects for prosperity fade after the 2008 recession didn't question his ideas and beliefs; by then he was confirmed in his rightness on all fundamental matters. He knew at some unconscious level that people in government couldn't be trusted. Of course there was some truth to this, because humans in general can't be trusted; but there's a nuance to this problem, and Roobs don't understand nuance. There was a growing segment of the American population who didn't know who specifically to blame, but they knew it couldn't be themselves.

Can American democracy survive the Roobification and dumbing-down of Americans? Consider the case of Tommy Tuberville. The voters of Alabama voted him into the U.S. Senate in 2020. He was a college football coach, and of course a Republican, with no government experience. During an interview after his election victory he referred to the three branches of government as "the House, the Senate and the Executive." A reporter corrected him ("Just so you know, Tommy, the three branches of government are ..."). The stupidity didn't stop there. Tuberville said his father was a veteran of World War II and was a part of "liberating Paris from socialism and communism." His ignorance of fascism at a time when half of America is worried about Trump attempting a fascist coup of America was another eye-rolling moment for the reporters. Tuberville also didn't know that it's illegal to do fundraising from a senate office. He's a climate change denier, he failed grade-school social studies – but his principal appeal to Alabama voters is his willingness to be a Trump puppet. If this political trend continues what could possibly go wrong with American democracy?

I suppose someone could make the argument that every segment of society should be represented in congress. For example, Tuberville could represent the ignoramus segment. In my view such an argument would really be an indictment of the concept of democracy.

I experienced American ignorance first-hand when I was credited with making the first recovery image of Comet ISON ("Comet of the Century") ahead of NASA. This notoriety produced a "fan club" of people who celebrated my revelation that NASA was hyping the comet to get more money; and NASA knew things about the comet's danger

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to humanity but wasn't telling the public because the public couldn't handle the truth. I tried to explain to my cynical fans that NASA was a reputable organization, even though they were part of the government, and they were only guilty of hyping the comet to get publicity. I also saw how news organizations exploited opportunities for improving their ratings by reporting my updates on comet activity with completely fabricated stories that they bought from unscrupulous freelance "journalists." Everyone behaved badly: the news media, bloggers trying to get attention, the readers who were clueless about comets, and to some extent NASA for hyping the comet more than was warranted. My "takeaway message" from that experience was that very few people are capable of good judgement and good behavior.

The point I'm driving at is that today most Americans are incapable of understanding why the economy is unfair to them; they're incapable of questioning their beliefs and seeing the connections between their past voting behavior and the forces that shape our evolving economy to their disadvantage. The Republican Party has snookered them into voting against their own best interests. Most voters are unaware of the gerrymandering of district lines by Republican state governments in a way that promotes conservative extremism and a disregard for the middle class worker.

Most American voters remind me of the early Holocene farmers who feared the next wave of marauders, and who were looking for that "strong leader" who would protect them. Trump is an opportunistic bully, seizing the moment by inflaming fear about those marauders, the ones who come from Mexico and the Middle East. The Roob voter hates intellectuals, so Trump mocks educated people, the government, newspaper and TV reporters and everyone else in the media who asks difficult questions of him. The Roob is tribal and is ready to wage war upon the marauders from that neighbor tribe, whoever they are.

I doubt that any psychologists have investigated the correlation of being a Roob and being an Enforcer (or "authoritarian" as the psychologists refer to those people). Still, there are superficial similarities. The Roob is an obnoxious and uninformed "know it all" who won't listen to a different viewpoint, and the Enforcer is an obnoxious and self-righteous "know it all" who also won't tolerate a different viewpoint. This suggests that Roobs are more easily recruited from the ranks of Enforcers. With 35 % of the population being Enforcers and proto-Enforcers, there is a large pool of potential recruits.

Chapter 18. Generalists and Specialists

During humanity's partial path toward eusociality rewards went to tribes that created individuals with talent in specific but narrow areas. These individuals were specialists. As long as each important area was covered by at least one tribesman the tribe reaped the benefit of being able to assemble teams that were deep with talent for all things that mattered. It was unimportant that the specialist was profoundly incompetent in all other areas. During the AE, when tribes were small, this unevenness of competence did not interfere with the tribe's ability to form teams with all requirements met by specialists. This is because in small tribes people knew who was best for each task. During the Holocene such spontaneous team formation was less feasible, so generalists took on the role of identifying and recruiting specialists and coordinating their activities. In theory, there should be no penalty for a society to consist of mostly specialists who have no overall understanding of anything outside their specialty. But when democracy is adopted there are penalties for widespread "spectacular stupidity."

I sometimes daydream about an ant, or bee, that understands its predicament. For example, consider the following reverie:

I hadn't slept enough the night before, so as I sipped coffee on my patio in the morning I closed my eyes and imagined sleeping restfully. I heard a bee flying nearby, and as it came closer I remembered my daughter bragging about how she would allow a bee to land on her arm, and if she kept still it would never sting. So, I kept my eyes closed and concentrated on the sound. It slowly dawned on me that the bee was alone. "Was it lost?" I wondered. I did as my daughter had done, trusting that the bee would be kind if it landed on my arm. It came closer, and indeed - it landed on my arm! I was very still, and wondered if the bee was looking for food, and did my arm have the smell of food. I thought I heard a faint "Hi," and I grunted "Huh?" without thinking. And there it was again: "Hi!" – this time the sound seemed to come from my arm. Feeling dumb, I said "Hi!" back, as if I was talking to the bee.

"Hi, I'm a bee. Can you see?"

"Oh yes, I can see that you're a bee. You must be a good bee because you're not stinging me."

"Yes, I'm different from the other bees. That's why I'm alone."

"I'm sorry about that."

"Oh no! Don't feel sorry! I'm free. Not like the other bees."

"How could that happen? After all, you have a bee brain. I mean, your brain ..."

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“That’s OK. Yes, I have a bee brain. But my brain must be different from that of the other bees. You see, I figured out that everyone else was enslaved to the hive, and they would give their life without thinking just to protect the hive.”

“Hey, that reminds me of a theory called ‘eusociality.’ It says that only 4 ½ species have made the transition to eusociality, which is an enslavement of individuals to the group.”

“How can there be a ½ species that are eusocial?”

“The half species is us humans. We’re only partially enslaved. Some humans are so enslaved that their helpfulness can come across as self-righteous and insufferable meddling. Others are so un-enslaved that they are hopelessly selfish as they cheat us good ones.”

“Do you mean that the enslaved people are the good ones, and the un-enslaved are the bad ones?”

“I’m sorry. I don’t mean to accuse you of being a bad bee just because you’re un-enslaved to the bee genome. What I mean is that the bad ones are un-enslaved to the human groups, and they victimize the good ones, but still some of the good ones are un-enslaved and we’re good because we don’t victimize the others. We just feel sorry for the other good ones for not understanding their situation.”

“That’s better. I don’t cheat the enslaved bees or victimize them in any way. I just wander around, admiring the beautiful sky, with white clouds, and the silly butterflies that can’t make up their mind. I like pollen, and that’s what I eat. I don’t need the constant lecturing by the other bees to get busy.”

“Good, then we’re alike.”

Just then my dogs barked, which awakened me from a silly dream about a magical bee conversation.

A bee with these insights could never exist, of course. Not only is the bee’s brain too small, and specialized for bee life, but it belongs to a species that has become completely eusocialized during millions of years of bee evolution. In the early stages of this evolution we can be sure that any bee genes that produced older-style bee behavior, neglecting hive needs, would have been cleansed from the bee species gene pool.

Humans, however, by being at the threshold of a theoretically similar evolutionary journey can include individuals with insight and a questioning of unthinking behaviors.

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Generalists and Specialists

Some people have a broad understanding of how things work, generalists, and others have a deep understanding of just one aspect of how things work, specialists. Tribes with a wide range of specialists to draw from can in theory form better teams than the tribe with only generalists. To the extent that tribes are in chronic competition with each other, evolution will reward the production of specialists.

Eusocialized species have taken this “division of labor” to such an extreme that their individuals are born with different anatomy, physiology and behavioral capabilities, and each individual automatically identifies what he’s meant for as he assumes his predestined role. For example, soldier ants always become soldiers, and worker ants always become workers inside the hive. An ant cannot change its role in the colony. When role categories are well-defined and unchanging this genetic fixing of each individual’s destiny for a caste is acceptable.

Animals that are less eusocialized have more flexible roles to fill. Somehow the most qualified individual animal is able to recognize himself for the role, and the others will agree. This is possible when the collective is small, and each individual has had opportunities for interaction that allow evaluations of everyone to be made. Wolf packs have been studied for this coming together to form hunting teams, so they are probably good at assessing each other.

Human roles are less predictable. It is helpful that each specialist is expected to “recognize” when he is the best one qualified for a task, provided the collective is as small as an AE tribe. For such small tribes the other members should be able to know if any specific person is indeed the best qualified.

During the Holocene tribes joined to form super-tribes that were too populous for anyone to know everyone else’s qualifications. This presented a challenge for workers in dangerous jobs. For example, “steel workers” have jobs with different roles that have specific procedures that are optimum for getting a job done safely. A friend told me that when the union for a construction project sends a new worker, the crew monitors him carefully to assess his ability to perform safely. If the new guy just pretends to know his work he is usually immediately recognized as just a “big talker” and he is quickly put in his place in a way meant to return him back to the union hall for a simpler assignment. For this sub-set of modern work category men have an uncanny talent for recognizing competence, and for dangerous working situations they will not tolerate imposters.

However, most of today’s job categories are not dangerous, and a co-worker’s actual competence may require a long time to be assessed by others with different talents. In addition, some super-tribe tasks evolve in ways that require changes to a team’s talent mix. The specialist isn’t expected to have an overall understanding of what is happening.

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A generalist has a better understanding. In theory, therefore, for most of today's job categories a generalist should take on the task of identifying and recruiting specialists. The generalist would then become a leader, coordinating the specialists during the team's performance.

Personal Story Illustrating Generalists Coordinating Specialists

Allow me to illustrate this concept from my personal experience before retirement. I'm a generalist, and I created and led teams of specialists while employed at Caltech/JPL. The process began from a background in radio astronomy, and an understanding of "microwave remote sensing." After being invited to "adopt" a leftover "engineering model" of a satellite instrument for ground-based use I began researching societal needs that could be addressed by this leftover spacecraft instrument. During a vacation flight to Mexico it occurred to me that the instrument could be used to predict clear air turbulence, CAT, because of its ability to measure air temperature versus altitude. After a "marketing trip" to NASA and NOAA in Washington, DC I acquired funding to install the instrument in an aircraft that was already scheduled for evaluating CAT prediction. I recruited specialists for this task, including those in electronics and hardware. The flights were successful, which led to an idea for constructing an instrument designed specifically for CAT warnings. This required writing a more ambitious proposal to NASA for designing and constructing an avionics class instrument for installation on a different airplane. After succeeding in being funded for this, I expanded my team to include people with specific experience in remote sensing programming, and the management of budgets, manpower and logistics. My task was to coordinate all specialists to produce a flight-worthy instrument by the date in my proposal. We all knew each other and could accurately know who was the best person for any specific task. Everything worked as expected, and I eventually acquired three patents for this instrument. (Why, you may ask, isn't my CAT warning instrument used by all airlines? That's another story, quite amusing, but not relevant for this book.)

Generalists and specialists need each other, as my CAT story illustrates. The job of the generalist leader is to recruit and coordinate the appropriate specialists.

Human evolution has probably always rewarded a certain amount of automatic role-taking. For example, I imagine that AE Enforcers instinctively understand that when the tribe felt threatened it was his job to take readings from a strong leader and enforce upon all tribesmen the beliefs of the leader and the behaviors the leader decreed. In other words, the Enforcer was an Enforcer, and his role was to mobilize the tribe for war.

It wasn't the job of the Enforcer to question the leader. A free thinker would describe the Enforcer as intolerant, and of course this would be true. A free thinker would also accuse the Enforcer of lacking critical thinking skills. Again true, but necessary in order for the

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Enforcer to enforce conformance. The Enforcer's job description requires intolerance and a rejection of critical thought.

The Enforcer goes about his business without being recruited by a generalist who coordinates job assignments. This is a risky arrangement! Recall Abraham Maslow's famous statement that "if all you have is a hammer, everything looks like a nail." The Enforcer is a hammer! To the extent that the Enforcer is specialized, his understanding of the overall situation will likely be impaired. His hammer strikes may then be misplaced. The risks for this will be greater when he lives in a society that is complex, or nuanced. For this reason the most dangerous Enforcer in a complex society would be the one with high IQ and a high level of social dominance orientation (SDO).

The Evolution of Capability Unevenness

Evolution rewards individuals for single-trait talent, provided they don't question their enslavement to the collective. The greater their talent in one specialty, the greater will be their reward. In other words, they can be as "dumb as a doorknob" on all matters outside their specialty, and it won't matter to the evolutionary outcome of their collective.

Is the evolutionary reward for one trait likely to bring with it penalties in other traits? Yes, and it's because invariably a single gene has more than one phenotypic effect (this is called pleiotropy). One of the most famous examples of pleiotropy is a gene for the "Ellis-van Creveld syndrome." It causes its carrier to have the following traits: 6 fingers, short stature, heart murmurs, etc. These phenotypic effects are seemingly unrelated, yet they are caused by just *one* gene.

Imagine the appearance for the first time of someone born into a tribe with some special and new talent. It is likely that that person will also have some weird negative traits unrelated to the good one. If the tribe benefits from an increment of competitive advantage because of that person's special talent, the gene with several bad effects may flourish in the tribal genome. It is therefore a reasonable suggestion that as humans evolve toward greater diversity they will also exhibit a greater unevenness of competence. This will occur when the flawed traits are less important than the valued trait.

The greater the reward for a specific trait, the greater will be the flaws that evolutionary forces will "tolerate." Thus, when something becomes important for evolution there will be an accumulation of tolerated negative traits. Group selection, as this is called by sociobiologists, can ruin the "purity" of a gene pool because it will tolerate the accumulation of defects when a more important trait is produced.

As an aside, if human posterior lobe understanding of situational awareness became important, starting 300,000 years ago, for example, oddities for a variety of other things

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would be tolerated and could simultaneously evolve. Some of these unforeseen oddities could be in the frontal lobes, causing inexplicable quirks in lifestyle. (The English should be proud of their eccentricities.)

The penalty to collectives for these oddities would be minimized if individuals within each tribe formed teams for accomplishing important tasks (such as hunting, warfare, infrastructure construction, etc.). Presumably, within each team at least some members would be competent in things about which the others were incompetent.

An Enforcer with a narrow talent resembles an “idiot savant.” Both are stupid about most things but extremely talented about one thing (there’s an idiot savant story in the next chapter). The talented Enforcer doesn’t realize his stupidity on almost all matters; it is merciful that he is clueless about his cluelessness!

Among the population of Normaloids, wedged between the Enforcers and Unreliables, there are “generalists,” or philosophers as I like to call ourselves. Although we aren’t genius in any single realm we also aren’t anyone’s fool about a lot of things.

The genes always get what they “want” – and their payoffs are always short-term. There is no way for rewards to go to good long-term outcomes when short-term payoffs are in the way.

As a result, we are left with most humans exhibiting spectacular stupidity – which is the subject of the next chapter.

Chapter 19. Spectacular Stupidity and the Modularity of Mentality

Humans are “multiple mental module automatons.” Mental modules are, by definition, mostly disconnected from each other. This allows a human to believe in incompatible things, and to behave in incompatible ways. Understanding this helps us fathom how an otherwise intelligent person can support an aspiring psychopath dictator.

My Personal Experience with Spectacular Stupidity

My tax preparer is a Flat Earther! When I learned this I was simultaneously shocked, saddened and ecstatic, for I had just encountered my best personal example yet of “uneven intelligence.” My tax preparer is a smart guy, overall, but like everyone else he has “blind spots.” He is talented in a realm of man-made laws, but his misunderstanding of natural laws is spectacular. I am the opposite, being baffled by man-made laws while being instinctively comfortable in the realm of natural laws. My tax preparer might be amused by my puzzlement about “depreciated income.” When I discover “uneven intelligence” (in people I *don’t* know) I exclaim “spectacular stupidity.”

Probably everybody has “blind spots” in their mental capabilities. Whereas I am unaware of my literal blind spots (unless I cover one eye and prove that it’s there) I am somewhat aware of my mental ability blind spots. I am sometimes baffled by the TV remote and iPhone, and thankfully one of my daughters is good about helping me with these problems. Based on this single example someone might say that I lack “tech savvy” – yet I’ve invented an avionics instrument for “clear air turbulence” avoidance and have written more than a thousand computer programs using FORTRAN and QuickBasic.

Thankfully, everyone has different talents. This is especially true for humans since we are partially eusocialized and our species exhibits an impressive division of labor. For example, Mozart and Beethoven had perfect pitch, in addition to genius-level musical ability. There is little doubt that these abilities are genetic!

The only person I have personally known who had perfect pitch was someone who also had the calendar ability (naming the day of the week for any date in his life), he could name the factorials of a large number, was able to multiply a pair of 2-digit numbers in his head – yet he was unable to explain how any of this was done. In fact, he had trouble talking in a normal manner; he was an “idiot savant”! Technically, this person could be described as having “spectacular stupidity” – but I state this with empathy for his handicap (caused by thalidomide during his pregnancy).

It’s difficult to accept that people have different levels of intelligence in different areas; we instead tend to view people as uniformly smart or dumb. The difficult truth is that any given person can be simultaneously intelligent about some things and spectacularly stupid about others.

19. Spectacular Stupidity

At a young age I learned that human nature had two stark flaws: 1) some people were horribly mean in specific situations, and 2) some people could be spectacularly stupid on specific things. The first of these revelations was natural for someone born the year World War II started, for there were picture books of the war on the family bookshelf. The second of these flaws became apparent when I learned that some people believed in prayer, angels, heaven and Hell and the biggest one of all: God. "How could people be so stupid?" I wondered, at the age of 9.

Societal Evidence for Spectacular Stupidity

Here are three of my favorite idiocies:

- 1) More Americans know the names of The Three Stooges than the three branches of government (74 % vs. 42 %, Zogby poll),
- 2) 20 % of Americans can't find the USA on a map,
- 3) 20 % of Americans believe the sun revolves around the Earth.

The last item is equivalent to stating that 20 % of Americans don't know that the Earth rotates, and that's why the sun rises and sets. When I feel especially discouraged by national trends I shrug and say: "America deserves what's happening to it!" I may then clarify this: "70 % of Americans deserve what Trump is bringing about!" This clarification is described in a clever letter to the editor of a Tucson newspaper:

Most Americans deserve what's coming

Among the 245 million Americans who were eligible to register and vote in last November's election, 31.6% voted for Trump, 30.6% voted for Harris, and 37.8% either didn't vote or wasted their vote on a third-party candidate. Combining those who voted for Trump with votes for a third-party candidate, plus those who didn't vote, adds up to 69.4%. In other words, more than two-thirds of Americans who were eligible to vote deserve whatever happens in America during the next few years or decades.

Bruce Gary
Sierra Vista

Arizona Daily Star, 2025.05.02

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How Can This Be?

Who are those 32 % of voting age Americans who voted for Trump in 2024? There's no simple answer; the two most-cited explanations are 1) the high price of eggs (and other groceries) and 2) a belief that poor people from countries south of us are invading America and causing record levels of crime. Inflation was caused by supply disruptions due to the COVID-19 pandemic, and although by the time of the election inflation had settled down to acceptable year-to-year levels the cost of things remained higher than before the pandemic. Border crossings were indeed too high throughout most of Biden's presidential term, and as usual liberals were unbothered by this. A third reason is getting more attention: young men (who voted overwhelmingly for Trump) are feeling puzzled by how to be masculine, so they are looking for someone "strong" to emulate, and Trump the bully looks strong. I suspect the internet's social media has a role, but I'm still trying to figure it out. Preserving democracy was apparently an unimportant consideration for these low-information Trump voters.

Other factors were important for Trump voters for the 2016 election. Illegal immigration was important. Enforcers saw Trump as their long-awaited "strong leader" who first fueled grievances and created feelings of America being threatened by invading hordes of Muslims and migrants. Another factor was the growing belief that Negroes were taking over America, and white people would soon be overlooked (this started when Barack Obama was president).

However, in accordance with the theme of this book, I must present the following candidate explanations for the amazingly widespread support of Trump. For thousands of years people in populous societies have had to feign tolerance of "other" people who are technically part of the home society. During the 21st Century, there has been a loosening of social pressures that allow the resentments of those "others" to be expressed. The Roobification of America and Europe has emboldened a growing segment of these people to express their real feelings without shame. And these are feelings of Stone Age people forced to live in a civilization where their natural intolerance of strangers has been suppressed for thousands of years. Trump has given these people permission to express their true feelings about these people.

In every modern society people form a spectrum spanning conservative to liberal (i.e., country folk to city dwellers). The rural conservatives are instinctively resentful of civilization's requirement that they pretend to embrace strangers, and finally the time has arrived that allows these people to express their true intolerant feelings openly. When this happens the urban liberals are surprised, because they have been clueless for possibly thousands of years about the true feelings of the conservatives. Sure, there have been episodes of breakdown of outward societal tranquility, but the optimists among liberals instinctively believe that such outbreaks are just brief reversals of the civilized state and that since humans are basically good they will always return to civilized behavior.

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The thing that's unique about our present breakdown of civilized behavior is that the Roobification process has empowered a majority of the *hoi polloi* to become brazen in their shamelessness. Trump is therefore a welcome champion of their complaints about the elites forcing them to pretend to be civilized. Since civilized societies have never been as Roobified as now, there is little reason for believing that civilized behavior will bounce back. So many norms are being broken in America, on an almost daily basis, that there may be no return to the old norms. Timothy Snyder has warned about the dangers of not learning from past experiences that "norm breaking" is a path for weakening democracy so that it can be replaced by tyranny. His book *On Tyranny: Twenty Lessons from the Twentieth Century* (2018) is one of the scariest books on my bookshelf.

Reporter Katy Tur describes in her book *Unbelievable* (2018) a memorable encounter at a 2016 Trump rally. Before the rally started she was in a bathroom trying to curl her hair with a curling iron when a woman entered and offered to help. Katy hesitated, wondering if it would be safe to hand a hot curling iron to a Trump supporter. The woman explained that she was a hairdresser, and this was good enough assurance that the offer was genuine. Indeed, the woman did a good job, and they both left to join the rally with their opposite outlooks. At this rally Trump attacked the press viciously, almost suggesting violence against them. There was thunderous applause, presumably agreeing with the accusation about how unpatriotic and dangerous the press corps was. Katy wondered if the woman who had helped her with the curling iron was one of those cheering.

While in a checkout line I sometimes find myself wondering if the person next to me is the same kind of person who Hitler mesmerized. Human nature doesn't evolve in a mere 8 decades, so people like those who were exuberant supporters of Hitler, and the Nazi agenda, are with us still. Hitler got 37 % of the vote in 1932 (in a field of 3 candidates), and his popularity increased afterward. Considering Hitler's mesmerizing speeches, he had the power of a cult leader. Trump has also been described as resembling a cult leader by Steven Hassan in his book *The Cult of Trump* (2019).

The Heaven's Gate cult provided stark illustration of how smart people could be "sucked into" a fantastically stupid belief system. These were computer programmers (designing web pages) who in their cult lives believed in extraterrestrials coming in a spaceship behind comet Hale-Bopp to take them to a new home in space. In preparation for their rescue, in 1997, they all committed suicide before the comet's approach.

A German Jewish woman who lived through part of the Nazi era wrote that the scariest part of her ordeal was worrying about friends or neighbors reporting her for suspicion of having unpatriotic thoughts (Arendt, 1966). Trump might succeed in becoming America's first fascist dictator. We should therefore be mindful of the same suspicions and apparatus for reporting wrong thinking friends and neighbors to the Thought Police that Arendt warned us about.

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I'm still amazed by a "human nature" that allows a civilized society to make the transition to such reprehensible behavior in just a few years, as Hitler did and as Trump is trying to do. How can neighbors betray neighbors, and friends betray friends, on behalf of a corrupt version of patriotism?

Dissociation Allows Compartmentalization of Mentality

Here's a generic version of the question to be asked, regardless of Trump succeeding in his aspiration for becoming a dictator: "How can an otherwise intelligent and reasonable person become a supporter of a psychopath charlatan?"

My best approach to answering such a question is to recall that humans are "multiple-module mentality automatons." More than 20 % of the human genome has effects upon the brain's "wiring" (i.e., inter-neuronal connections and strengths of inhibitory and excitatory synapses). Human evolution has selected whatever genes led to success in producing grand-children (a shorthand way to measure genetic success). For millions of years this evolutionary selection was made for humans living in tribes with a hunter-gatherer lifestyle. If genetic success required being good with fellow-tribesmen, then a gene (or genes) for a mental module that produces intra-tribal cooperation would be rewarded. If genetic success also required being cruel to neighbor tribesmen, then a gene (or genes) for creating a mental module for such cruelty would be rewarded. Both mental modules should then co-exist, regardless of any theoretical incompatibility. Presumably the modules are not connected with each other.

The "modularity of mentality" theory is a good perspective for understanding human nature. Psychiatry coined the word "dissociation" over a century ago in order to refer to an observed "compartmentalization" of thought processes. Any given person is thus capable of believing two incompatible things. For example, Isaac Newton's Newtonian physics is a very reductionist way of understanding how everything in nature moves, yet throughout his life Newton pursued a study of the bible for revealing religious meaning and predictions of future events. Because religion and science are incompatible it is noteworthy whenever an accomplished scientist is religious. Recent examples include Freeman Dyson (who died in 2020) and Charles Townes (who died in 2015).

Another puzzling phenomenon is how often highly accomplished people are found in the ranks of bizarre political belief systems. For example, Henry Ford was a Nazi-sympathizer who was an inexplicably extreme hater of Jews. New Ford cars had a printed anti-Jewish diatribe placed on the front seat, even after the diatribe had been shown to be factually untrue (Maddow, 2024). Hitler had a picture of Ford on his office wall. Charles Lindberg admired Hitler's revitalization of Germany's economy. He urged America to stay out of World War II. Henry Louis Mencken is believed by many to have been a secret Nazi sympathizer. Vice-presidential Republican candidate for 2024 J. D.

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Vance believes that Americans should reconsider the merits of dictatorship. How is it possible for people with spectacular talent, or achievement, to hold such views?

I mention again that during the Stone Age it was possible to establish an “enlightened dictatorship,” or kingly rule, even when it was not needed by a mobilization for war. Could it be that such a belief remains today, in our super-tribe civilizations, where psychopaths are attracted to the dictatorship position? Singapore notwithstanding, the risks today are too great for dictatorship.

A naïve view of brain function would have trouble accounting for the coexistence of incompatible beliefs, or behaviors, in the same individual. But because different genes assemble different mental modules to meet different needs, it is apparently useful to maintain a lack of interconnection between modules.

Accepting Unexpected Differences in People

The understandings of brain activity, described in Chapter 3, reducing it to a collection of physical mechanisms, helps us understand how someone could be both intelligent and believe in the following hair-brained things: astrology, angels, prayer, God, life after death, flat earth, ancient aliens, alien abductions, intelligent design, global warming is a hoax, Apollo moon walks were a hoax, the new coronavirus is a hoax - and Trump is a great leader who will make America great again.

What are we to think when some of our favorite celebrities are discovered to have a fatal personality flaw? Consider, for example, Charlie Rose, Morgan Freeman, Harvey Weinstein and Bill Cosby: they are very talented men who took advantage of their “power” to seduce or rape women. Rape is an evolutionary adaptation, at least for those who are either desperate or powerful enough to get away with it. The mental module for rape can coexist with mental modules for doing the right thing in other circumstances.

The question I’ve tried to answer is “How come some generally nice people are horrible in other respects, and how come intelligent people are spectacularly stupid in specific matters, spouting beliefs that defy logic. One of these horrible beliefs is support of Trump and thus enabling him to convert the world’s oldest and most entrenched democracy to a dictatorship. Can’t good people see that Trump is a horrible human? Can’t people recognize a psychopath when they see one?”

Alas, I keep returning to the most likely underlying explanation for why almost half of American voters chose Trump is that he resembles that “strong leader” who the Enforcers look for when they feel stressed by concern about looming warfare with a neighbor tribe. The compartmentalization of mentality is just a “proximate causation” evolutionary adaptation that permits the “ultimate causation” of gene pool survival.

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Just a little clarification here: It is irrelevant that a few of Trump's actions are aligned with my policy preferences. It is more important that he is a horrible human, a f'ing psychopath, someone who could replace American democracy with a mafia-style kleptocracy (Burgis, 2020), and consign our society to eternal poverty and loss of individual freedom.

I think about these things when I'm in a crowd. If the person next to me is friendly I am still able to imagine them reporting me to Trump's Thought Police on some future date. It's easier to be brave during my 87th year on this wonderful Earth than when I was 30 and starting to raise a family. But it's also true that when I was 30 America was a different place. America has never been as close to dictatorship as it is now!

Einstein was being badgered by a reporter who insisted on an example of infinity. Finally, Einstein blurted out "The size of the universe, and human stupidity. But I'm not sure about the first one."

I hope this chapter has helped answer the question "How can an otherwise intelligent person be a Trump supporter." Maybe human stupidity isn't infinite, as Einstein jokingly suggested, but it sure is spectacular!

Chapter 20. Psychopathy Examples

In previous chapters I've alleged things about psychopaths (e.g., "too unreliable for warrior duty because they are only concerned with Number One!"), and the reader might have assumed that this was based on my familiarity with psychopaths. Wrong! I am not sure of encountering a psychopath, though it's likely since I've known several hundred people in my life. Whereas recognizing a low-functioning psychopath is probably easy, because they're unable to mimic normalcy, recognizing a "high-functioning" psychopath is definitely difficult. Before the use of the *Hare Psychopathy Checklist* became common input for parole hearings many prison psychologists and psychiatrists were duped by the psychopath being considered for parole. Even the world's expert on psychopaths, Robert D. Hare, was once unaware that he was having dinner with a psychopath who was the organizer of a conference where Hare was to give a talk the next day.

My one suspected encounter with a psychopath was while working at Caltech/JPL. He was at a high level of JPL management, recruited from a major oil company, and his dismissive treatment of me concerning a proposed spacecraft mission (with a scientific goal about which I was a world expert) was classic psychopathic. With sociopaths I have a more personal experience, and I will briefly describe examples of sociopathic behavior at the end of this chapter.

Reviewing a list of 20 items in the Psychopathy Checklist (cf. Fig. 4.3) can produce an "intellectual" understanding of psychopathy. However, I think real-world encounters with them should provide a more emotionally-balanced understanding. This chapter's purpose is to present examples of psychopath behaviors, taken from a couple books, one a classic by Dr. Robert D. Hare, *Without Conscience: The Disturbing World of the Psychopaths Among Us* (1993), and the other somewhat idiosyncratic by Kevin Dutton, *The Wisdom of Psychopaths* (2012). After each entry in the next section I'll give a chapter location for the quote from whichever book is the source.

In the next section some of the traits are starkly evocative of what most people have noticed about Donald J. Trump, who at the time of this writing (2020 July) is currently president of the U.S.. I will append trait descriptions that Trump exhibits with the notation "(DJT)."

Psychopath Samplings from Hare Book

A psychopath was relaxing at a harbor and noticed a couple showing interest in a boat for sale. He walked up to them and introduced himself as the owner. He invited them in to inspect the boat, and before long he had a down payment check for \$1500 – and promptly disappeared.

Before the Hare Psychopathy Checklist was in common use before parole hearings, prisoners did their best imitation of a normal person in order to fake results of traditional psychology testing. The psychopaths were best at this. During one prisoner interview a

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psychopath stated that "... psychologists and psychiatrists were air heads who believed anything I told them." (Ch. 2)

Psychopaths frequently lie about their past, and they have a "smooth lack of concern at being found out." (Ch. 3, DJT)

A prisoner who was the typical "mile-a-minute" fast talker "... with the psychopath's characteristic ability to contradict himself from one sentence to the next." (Ch. 3, DJT)

"Psychopaths view ... the weak and the vulnerable – whom they mock, rather than pity - [as] favorite targets." (Ch. 3)

"Their statements often reveal their belief that the world is made up of 'givers and takers,' predators and prey, and that it would be very foolish not to exploit the weaknesses of others. In addition, they can be very astute at determining what those weaknesses are ..." (Ch. 3)

A woman with a long history of frauds and petty thefts explained her belief that "money grows on trees": "They say it doesn't, but it does. I don't *want* to do it to people, it's just so *easy*." (Ch 3)

Psychopaths lack fear! A prisoner stated that "... he did not really understand what others meant by 'fear.' ... When I rob a bank I notice that the teller shakes or becomes tongue-tied. One barfed all over the money." (Ch. 3)

A disconnection from feelings is common for psychopaths. "'He is truly one of the most dangerous sociopaths I have ever seen' said the Superior Court Judge after sentencing 37-year old San Jose attorney Norman Russell Sjonbourg for the brutal slaying of one of his clients from whom he had embezzled money. His third wife ... [stated] that when she first met him 'He seemed like a nice guy, soft spoken and exceedingly charming.' But she also noted 'From the start Russell spoke about this emotional void, an inability to feel things like everyone else; to know when to cry, when to feel joy.' ... he 'led a kind of paint-by-numbers emotional life,' and 'he read self-help psychology books to learn the appropriate emotional responses to everyday events.'" (Ch. 3)

"... a chronically unstable and aimless lifestyle marked by casual and flagrant violations of social norms..." (Ch. 4, DJT)

"... are highly reactive to perceived insults or slights. ... the slightest provocation is sufficient to overcome them. ... They take offense easily and become angry and aggressive over trivialities... Their outbursts ... are generally short-lived, and they quickly resume acting as if nothing out of the ordinary has happened." (Ch. 4, DJT)

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“An inmate in line for dinner was accidentally bumped by another inmate, whom he proceeded to beat senseless. The attacker then stepped back into his place in line as if nothing had happened. Despite the fact that he faced solitary confinement ... his only comment when asked to explain himself was “I was pissed off. He stepped into my space. I did what I had to do.” (Ch. 4)

“Are psychopaths particularly well suited for dangerous professions? ... a former student of mine ... doesn’t think so. ... He studied British bomb-disposal experts ... [and] found that the soldiers who performed the exacting and dangerous task of defusing or dismantling IRA bombs referred to psychopaths as ‘cowboys,’ unreliable and impulsive individuals who lacked the perfectionism and attention to detail needed to stay alive on the job. ... It is just as unlikely that psychopaths would make good spies, terrorists, or mobsters, simply because their impulsiveness, concern only for the moment, and lack of allegiance to people or causes make them unpredictable, careless, and undependable – likely to be ‘loose cannons.’” (Ch. 4, DJT)

“Obligations and commitments mean nothing to psychopaths. ... Their performance on the job is erratic, with frequent absences, misuse of company resources, violations of company policy, and general untrustworthiness. They do not honor formal or implied commitments to people, organizations or principles.” (Ch. 4, DJT)

“Sociobiologists take the view that behavior development is influenced by genetic factors, and they might argue that the number of psychopaths must be increasing simply because they are very promiscuous and produce large numbers of children, some of whom may inherit a predisposition for psychopathy.” (Ch. 4)

“Unlike most other criminals, psychopaths show no loyalty to groups, codes, or principles, other than to ‘look out for number one.’” (Ch. 6, DJT)

“On average, about 20 percent of male and female prison inmates are psychopaths. Psychopaths are responsible for more than 50 percent of the serious crimes committed.” (Ch. 6)

“Perhaps half of the repeat or serial rapists are psychopaths.” (Ch. 6)

“We found that 25 percent of the men in the sample [of wife beaters] were psychopaths.” (Ch. 6) Note: that statistic means that psychopaths are ~ 30 times more likely than others to be wife-beaters.

“... the behavior of psychopaths is notoriously resistant to change.” (Ch. 6)

“The violent recidivism rate of psychopaths is about triple that of other offenders.” (Ch. 6)

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“... the maximum possible score on the *Psychopathy Checklist* [40, is] ... given to fewer than one in two hundred serious offenders. [this can be interpreted to mean that the incidence of a PCL score = 40 is $\sim 0.5 / 200 = \frac{1}{4} \%$, which is compatible with Fig. 4.1.] (Ch. 6)

“He values people only insofar as they bend to his will or can be coerced or manipulated into doing what he wants.” (Ch. 6, DJT)

“... a characteristic typically found in psychopaths: facile distortions of reality even when they know that others are aware of the facts.” (Ch. 7, DJT)

“... his wish to be ‘liked by everyone,’ his euphemistic view of himself as [accomplished], and his ‘fear of losing face,’ he considered his crimes logical responses to frustration and pressure, or more the victim’s fault than his own. ... anyone who is stupid enough to trust or believe him deserves the consequences...” (Ch. 7, DJT)

“Their job is made a lot easier simply because a lot of people are surprisingly gullible, with an unshakable belief in the inherent goodness of man.” (Ch. 7)

“Most of us would be devastated and humiliated by public exposure as a liar and a cheat, but not the psychopath. He or she can still look the community straight in the eye and give impassioned assurances ...” (Ch. 7, DJT)

“... many psychopaths never go to prison or any other facility. They appear to function reasonably well – as lawyers, doctors, psychiatrists, academics, mercenaries, police officers, cult leaders, military personnel, business people, writers, artists, entertainers, and so forth – without breaking the law, or at least without being caught and convicted. These individuals are every bit as egocentric, callous and manipulative as the average criminal psychopath; however, their intelligence, family background, social skills, and circumstances permit them to construct a façade of normalcy and to get what they want with relative impunity. Some commentators refer to them as ‘successful psychopaths.’ ... Rather than refer to these individuals as successful psychopaths - after all, their success is often illusory and always at someone else’s expense – I prefer to call them *subcriminal* psychopaths. ... I am certain that if the families and friends of such individuals were willing to discuss their experiences without fear of retribution, we would uncover a rat’s nest of emotional abuse, philandering, double-dealing, and generally shoddy behavior.” (Ch. 7, DJT)

“They are particularly good at ingratiating themselves with their seniors but brutalize their juniors.” (Ch. 7)

When a psychopath talks his hand gestures tend to be exaggerated, chaotic and somewhat unrelated to what is being said. Because of the inappropriate and forceful nature of these

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hand gestures they are called “beats” by those who interview people suspected of being psychopathic. In addition to confusing hand gestures “...their speech is full of inconsistent or contradictory statements.” (Hare, 1993, Ch. 8). This resembles the split-brain patient who was buttoning his shirt with one hand and unbuttoning it with the other. One neuropsychology theory for explaining this comes from evidence that psychopaths have language production in both cerebral hemispheres (instead of only the left), and neither is connected with the limbic system (the source of emotions). The speculation is that both cerebral hemispheres are competing for language production, and the gestures which normally are produced by the right hemisphere in coordination with the speaking left hemisphere (also in coordination with the limbic system) is confused about which language generation region to coordinate with. (Ch. 8, DJT)

Psychopath Examples from Dutton Book

Kevin Dutton wrote *The Wisdom of Psychopaths* (2012) for the apparent purpose of showing that there’s an appropriate place in society for low scoring psychopaths. Like most books about psychopathy this one includes many riveting examples of the things psychopaths do.

For example, a psychopath lawyer (in the UK) explained “In the courtroom I have literally rubbed people out, crucified them in the witness box. I have absolutely no problem at all reducing an alleged rape victim to tears on the stand. You know why? Because that’s my job. That’s what my client pays me to do. At the end of the day I can hang up my wig and gown, go out to a restaurant with my wife, and not give a damn – even though I know that what happened earlier might possibly have ruined her life.”

Dutton describes an ethical dilemma presented by Foot (1967), and elaborated by Judith Jarvis Thompson (1985), that has been extensively studied by ethicists. Briefly, a runaway trolley is barreling downhill and the subject is asked what to do given that a switch can redirect the trolley from its current path that would cause five people to be killed to another track that would kill just one person. Essentially everyone would activate the switch. The scenario is then modified by stating that the trolley could be stopped by shoving a fat person ahead of the trolley’s path. What would you do?

As described by Dutton (2012) about 90 % of those presented with this dilemma wouldn’t shove the fat person to a certain death even though it would save five other people, which is the same outcome as in the first scenario. Bartels and Pizarro (2011) discovered that the 10 % who had no hesitation in shoving the fat person scored higher on a questionnaire for psychopathy. It would be reasonable to suggest that while responding to the runaway trolley questions the psychopath’s paralimbic system (c.f. Chapter 4) would be silent for both scenarios, whereas among the 90 % of non-psychopaths the paralimbic system would be active for the fat man scenario.

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As an aside, this finding puts the philosophical followers of “utilitarianism” (an act is ethical when it produces the greatest good for the greatest number of people) in a bad light, given that psychopaths score higher on this particular thought experiment, but that’s not a matter for this book.

The Bartels and Pizarro study used simplified self-report questionnaires for assessing psychopathy (as described by Dutton, 2012). For example, yes or no: 1) “I like to see fist fights,” 2) “The best way to handle people is to tell them what they want to hear.”

Some Miscellaneous Psychopath Examples

I now want to illustrate psychopathy with a stark example from recent history. In 1989 Lyle and Erik Menendez murdered their parents with a shotgun. They lived lavishly on an inheritance during the months between the murders and their arrests. (The father was a successful executive, and it is noteworthy that there is an over-representation of psychopaths among successful executives.) The Menendez brothers were eventually convicted of the murders and are serving life sentences. I would have liked them to have testified at the penalty phase of their trial with the following:

“We are psychopaths, just like our parents. We didn’t ask to be born with psychopath genes. It’s not fair to anyone that our parents brought us into the world. It’s not fair to us and it’s not fair to others, because we can’t help ourselves from behaving psychopathically. It’s not our parent’s fault either for giving birth to us; it’s the fault of society for allowing our parents to have babies. Worse, it’s society’s fault for not acknowledging that psychopaths are born and can’t control their behavior. It’s society’s fault for not dealing wisely with us psychopaths, and instead looking the other way whenever we psychopaths are identified as a problem. Society should thank us for killing two of our kind. We did what society is too wimpish to do. You non-psychopaths who run society are guilty of neglect, and because of that neglect we psychopath brothers were allowed to come into the world. Our actions are therefore your fault. Shame on you!”

What a dramatic defense this would have been! Still, it would have been ignored, because Normaloids are wimps. Especially the clueless and shameless hyper-tolerant (i.e., hyper-liberal) Normaloids, who prefer to blame bad behavior in adulthood on scars from childhood that are somehow caused by society. As long as these apologists for criminals influence societal beliefs, their influence will always be with us, and genetically-created psychopaths will continue to be born and flourish at the expense of us Normaloids.

As an aside, both of the Mendez brothers have been pursued by women wanting to marry them, and several marriages and divorces by them have occurred. Fortunately, California doesn’t permit conjugal visits for those convicted of murder, so no more Menendez psychopath genes are flowing in our species gene pool. But why would any woman be attracted to a psychopath murderer? Charles Manson, one of the most infamous

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psychopaths in American history (PCL = 36), also attracted women while in prison, and he also had a marriage proposal.

The uncomfortable truth is that some women are attracted to psychopaths because they will not hesitate to kill any other man who is perceived to be flirting with his wife. Why does this matter? Because another man might be a “takeover male,” and such men are prone to killing the woman’s offspring after the “take over” (this is found among many species besides humans, such as monkeys and especially lions.) We must confront the possibility that some people welcome the psychopath in their lives. This welcome may include marriage, but also leadership of a company or country.

Consider the following advice by Ruth Westheimer (1986, pg. 21), a woman’s advisor for female sexual fulfillment: "Most married women want pirates, or something like pirates..." and "Here is a good marriage fantasy - to imagine that your nice steady husband, who never inconveniences you by being arrested or a fugitive (*sic*), is really a dangerous criminal..." (You can substitute “psychopath” for “dangerous criminal” in this advice.)

Sociopathic Samplings (from one person)

The person I’ll describe was diagnosed with “borderline personality disorder” (which I translate to mean “sociopathy”) by two clinical psychologists. Her PCL was approximately 13, but this is just an estimate by a non-professional. She died from cancer 3 decades ago.

Her over-arching character trait was a focus of concern for herself, and an imperfect imitation of concern for others. This was difficult to detect upon casual acquaintance.

She was cheerful and generally charismatic. She made friends easily, and everyone liked her from the beginning. One example will illustrate this: When dancing at a party her wig fell to the floor, and without hesitation she picked it up, put it on, and continued dancing. Everyone laughed; the nonchalance about something that would embarrass most women turned into something delightful that was entertaining for all.

She smoothed life’s path with lies that served the moment. Occasionally she would be caught, but was never chastened. Indeed, some of her responses to embarrassing questions were disarmingly humorous for their unexpected candor.

She had a “personal boundary” problem, and with no hesitation would sneak looks at other people’s mail or other private material.

She would ignore normal child-rearing chores and attend to her needs instead.

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Everything was about her, and the needs of anyone else, including her children, were secondary.

She once took the family dog in the car to the mountains, abandoned it there, and drove home. All because she didn't want to be bothered by the obligations of pet ownership (which she inherited after a divorce).

A couple decades after she died, I learned that she had a long history (~ 20 years) of "shop lifting" at department stores. The excuse given was "They owe it to me because of all the purchases I've made there in the past."

In short, this person lacked that most human trait: conscience!

Chapter 21. A Paean to Psychopaths

As humans evolved toward eusociality, with ever more diversity, new job categories were created. It is perhaps inevitable that high-functioning psychopaths were well-matched to some of those jobs. Because the Enforcers are always annoying, it is sometimes a relief to be among psychopaths. The positives for psychopaths are at least worth mentioning.

I'm a "normaloid" with a self-administered PCL score of zero. It would be easy for me to take the position that all psychopaths should undergo a frontal lobotomy, or that they should be either banished or executed. However, the "high-functioning" psychopath (i.e., high IQ, with emotions under control) can have redeeming value in today's society.

For example, I suspect that most trial lawyers are psychopaths (e.g., Thomas, 2013). They like the challenge of maneuvering their opposing lawyer into (humiliating) defeat. If I ever needed to defend myself from an unjust lawsuit, I'd want the services of a "tiger" lawyer. As long as lawyers adhere to established laws they can serve society.

Even the surgeon can be useful, for he is uninhibited about cutting living flesh and organs with a sharp scalpel. My main concern with them as a group is that I suspect they lobby for surgery as a preferred treatment when non-invasive treatments are more effective. Also, if I ever need a surgeon I have to remember to not offend him before the operation!

I suspect that psychopaths sometimes make good entrepreneurs. They can be creative, and fearless with risky new ventures, and they can also be good salesmen for acquiring financial backing for risky start-up companies.

Some CEOs have what's needed to run a large company efficiently. For example, they don't allow (non-existent) friendships to get in the way of firing non-performing people, under-performing divisions and dead-end projects. They also are less emotional and more calculating in their thinking.

Imagine the following business meeting at the Fitbit Company: The CEO starts with "What should we do about the new Apple watch with both pulse and now ECG capability? Should we add ECG to our Fitbit?" One argues "Yes, because we had pulse first, and it's not fair that they crowd us out of a market niche." After a few others express themselves the psychopath in the meeting says "ECG capability is expensive, and the Apple watches with it will always cost more than our standard Fitbit. It's too late for us to climb the curve to compete for the wealthy Apple customers. Let's settle for our reliable market share of those who either can only afford pulse or who use it as a steppingstone to ECG."

These two styles of thinking illustrate the difference between emotional thinking and cold calculating (unemotional) strategizing. The latter is better suited for business decisions, so psychopath CEO's may be better in the role of guiding company decisions. Indeed, psychopaths (or at least those scoring high on a test related to PCL) are about 5

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times more numerous among corporate executives than among the general population (Babiak et al., 2010, Babiak and Hare, 2019). By the way, as these two books make clear not all psychopaths are an asset to a company; it depends on the specific “profile” of the psychopath whether their contributions will likely offset their detractions.

A high performing psychopath has a penetrating insight that places him on an intellectual terrain with a perspective that allows him to see bullshit more clearly than a timid academic, for example. Academics don’t want to displease any of their peers by departing from what’s politically correct (because “you never know” when a peer will be the reviewer of your proposal or article submission). I suspect that most high functioning psychopaths understand clearly that morality, conscience and patriotism are genetic tricks for enslaving the meek, uncritical *hoi polloi* for the “purpose” of strengthening the (eusocial) performance of collectives. These genetic predispositions are a gene’s tricky path to *their* immortality, showing no regard for individual welfare beyond what’s needed for their clueless enslavement.

Notice that the above niches for which psychopaths are pre-adapted didn’t exist in the AE.

My most important paean to psychopaths is their non-judgmental tolerance of other people’s beliefs. If I were to create a list of my favorite “human rights” I’d start with “the right to be left alone.” In 21st Century America we tend to forget the past centuries and millennia of small-community religious zealots who kept track of who “neglected to attend church last Sunday” or who stated an opinion that might be taken as blasphemous. Villages are famous for nosy neighbors gossiping about suspiciously selfish (or unpatriotic) neighbors. Enforcers of conformance are the enemy of the intellectually curious. It’s my understanding that psychopaths don’t care about another person’s religion, or lack of religion. They just don’t want another person to stand in their way and frustrate them. I think I could remain friends with a psychopath (and maybe I have such friends and don’t know it), provided I didn’t tell them what to do or get in their way of doing something that didn’t concern me.

Tolerance of this sort is becoming rare because of the Millennial generation. Their minds are fragile because they were raised by helicopter parents. Instead of being open to consideration of new ideas they insist on suppressing them. Anyone who dares to question their politically correct beliefs is “called out” with righteous indignation; they’re shouted down so others can’t hear them; they’re targeted for “canceling” (i.e., losing employment, being black-listed and publicly silenced). Psychopaths don’t care about these things. I don’t know who I dislike more: Enforcers or psychopaths.

I’ll admit that whenever I drive past a specific church when its parking lot is full I mutter to myself “F... idiots!” My anger is motivated by an awareness that most of those people are intolerant hypocrites whose mentality resembles the ones who burned open-minded

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questioners at the stake (e.g., Giordano Bruno). The same intolerance and impulse to proselytize produced the Crusades. The same people were behind the Catholic Inquisitions. The same kind of people proclaimed Socrates guilty of “corrupting the youth” because he urged them to ask questions. Two millennia later Nazi book-burnings were passively tolerated by the same kind of people. As I mutter my epithet, I know that my moral character is better than probably all of those hypocrites in the church.

Dutton (2012), who admits to having a psychopath father, cites studies that he claims “... show beyond a doubt that there’s most definitely a place for the psychopath in society.” His argument is that CEOs, lawyers, stockbrokers and others with high-stress jobs are dominated by psychopaths, therefore society needs psychopaths (I assume he means those with a certain psychopath “profile”). In support of this position he describes studies showing that psychopaths (uninhibited by emotions) make better bottom-line decisions than non-psychopaths (who are too often inhibited by emotions). I can imagine a counter-argument that a company’s bottom-line may come at the expense of society; recall how the 2008 recession was an outcome of savvy but unethical manipulation of mortgage portfolios.

Preferring Normaloids

In spite of some laudable aspects that at least some high-functioning psychopaths exhibit there are downsides to living in a world with sociopaths and psychopaths. I prefer to live among Normaloids.

For example, I don’t like crime. Shoplifters just increase the price of things for honest people. Telemarketing robocalls are done by white collar (sociopath) criminals who have no concern about who is annoyed by the way they conduct business. House break-ins, whether by drug addicts who can’t function as wage earners, or criminals who are too lazy to work, force everyone to lock doors, pay for surveillance systems; they undermine social harmony.

Another of my gripes with having to share the world with psychopaths is their corrupting influence over governance. Almost every problem has a straightforward and “common sense” solution. The reasons they’re not discussed is often because a solution would interfere with a business run by a psychopath who has ways to lobby or argue against the solution.

I prefer to live in a world with a high standard of living, based on the labors of devoted and conscientious workers. As long as conscientious workers ply their trade unquestioningly, trusting that just rewards will happen and that the world is a fair place, the community will prosper. I am willing to be one of those conscientious workers for as long as I believe in the return of just rewards.

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I sometimes think of psychopaths as “robots without emotions.” They can think, and they can learn to imitate us Normaloids, but beginning a friendship with a robot must eventually become unsatisfactory for the void of shared emotional experience.

None of these concerns is worth dwelling upon because psychopaths and sociopaths are going to be with us forever! By “forever” I mean for a century or two – i.e., for as long as humanity will exist in a civilized state. Their threat to civilization is insidious and unstoppable. Utopias are only for imagining.

Are Sociopaths and Psychopaths Really the Victim?

It is sometimes suggested that psychopaths have worse overall lives than Normaloids, considering that psychopaths often have premature and pathetic endings (Stout, 2005, Ch. 10). Their threshold for boredom causes an excessive need for stimulation, and this leads many of them to suffer from addictions, such as alcohol, drugs, HIV and sex. I think an argument could be made that psychopaths are the product of a mutation that benefits only the gene for an excessive need for stimulation. The reason the gene mutation spreads is from the higher than normal fecundity associated with the psychopath lifestyle (Hare, 1993). Whereas expanded paternal investment is one strategy for genetic payoff, another strategy is expanded fecundity plus minimal paternal investment (but greater maternal investment by the victim). If this turns out to be a principal reason for the existence of psychopaths then it would explain why most psychopaths are men.

Another possibility, suggested earlier, is that when a tribe’s population grows well above the Dunbar Number it may be the charismatic psychopath who becomes a cult leader and leads his following toward an imagined promised land. This always benefits the home tribe. Occasionally it leads to a new “founding” society, but usually the cult starves to death. Whenever this happens the psychopath can be viewed as a victim of the tribal genome.

How ironic it would be if through some scientific process it could be shown that psychopath males are the true victims of their victimizing personality, and they pay the price of their lifestyle by having bad life outcomes and endings.

Chapter 22. A Paean to Conservatives

Some conservatives have different life experiences, lack the wisdom and self-control for making intelligent lifestyle decisions, and some are simply so genetically adapted to tribal life that they are unable to comprehend the nuances of governance. Liberals should understand this and refrain from their mocking. Conservatives would immediately understand and agree with the saying “Conservatives want equal opportunities; liberals want equal outcomes.”

Whereas the last chapter “praised” that ½ % of the total population that is psychopathic, mostly males living in cities, this chapter will “praise” the 50 % of people living in rural America. Instead of “praise” this chapter is mostly an “explanation” to city folk by an author who still views himself as a Michigan “farm boy.”

It is human nature to cast others as either “all good” or “all bad.” My experience earning a living in the physical sciences involved the ability to maintain several incompatible theories as *possibilities* until mounting evidence favored one of them. The same mental approach is useful in understanding why people adhere to their political beliefs.

I may be better qualified than most for explaining liberals to conservatives, and conservatives to liberals – because I have been both and am now neither.

Seven decades ago (the 1950s) conservatives emphasized “personal responsibility.” This meant accepting responsibility for oneself instead of expecting others to provide help. When a person was demonstrably incapable of taking care of themselves it was their family’s responsibility to help, not a government agency. This may seem harsh, considering that America had recently spent more than a decade in an economic depression that inflicted suffering upon people who had no role in creating it. But part of the explanation could be that people living in the country were able to grow their own crops and maintain a level of self-sufficiency that was impossible for city dwellers; in this way conservatism may have retained a foothold in American rural regions. My father grew up on a farm, and so did I. We were therefore somewhat insulated from the urban plight of economic helplessness.

Every country boy will admit to feeling superior to city boys. We had chores and did work outdoors that made us strong, we felt important for our assigned responsibilities that supported our family, we had guns and could hunt rabbits, we knew the outdoors and weren’t afraid to explore, we trapped muskrats, we knew when it was safe to walk on river ice, when we swam in the river we knew how to avoid whirlpools, we camped out, sometimes in abandoned shacks that were said to be haunted, we walked miles to school, we conquered our fear of the dark, we learned to assess which dogs merely barked and which would attack, we could walk in a field of cows and know when a bull’s aggression was real – in short, our maturity was years ahead of our sissy city cousins.

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Being self-reliant seemed natural because all the wild animals were also self-reliant. Rabbits figured out how to survive cold winters, squirrels provisioned nuts for the winter, raccoons figured out how to build tree nests and sneak into chicken coops. The phrase “A wounded eagle, eying the sky” has extra meaning for a country boy: if the eagle doesn’t heal in time it will die. There’s no “Association of Eagle Assistance,” just as there’s no “Association for Farm Chores” to help the wounded farmer. Farmers, like wild animals, must be self-sufficient.

It’s normal for country boys to become young men who value self-reliance. It is also understandable that we viewed reliance on others as a weakness, a failure to mature. Farm families were usually large, and when a boy was unable to handle country challenges, he was considered unworthy – if he died, that was nature’s way. One of my cousins died at a young age when he foolishly drove a tractor on a hillside in the wrong way. There was no coddling of boys on a farm! We knew that city boys were coddled, and they were probably afraid of the dangers we had mastered.

I don’t know if city boys understood how we country boys viewed them. Being shielded from work, responsibility, danger and all the challenges of country living meant that they didn’t understand the value of maturing in the manner that country boys had to. They may have had other challenges, such as learning the rewards of helplessness. (Sorry, I’m getting carried away with my disdain for coddled child-rearing.)

Conservatism is a natural outlook for country folk. Liberalism, to the extent that it preaches helping each other, is a natural outlook for city people. This dichotomy must have existed for the entirety of the Holocene epoch, when urban life first appeared.

As an 85-year old adult I am both conservative and liberal. I want to try to explain to my liberal readers a way to understand conservatives. I will continue to use my life experience for illustrating this.

During all my school years I never saw a foreigner, and only one Negro (using a term of the times, the 1950s, but referred to today as an “African American” – a term used even when the person isn’t even an American - stupid). Our country was made safe from Nazi and Japanese fascism by our fathers (mine served in the Army, as did uncles and most other able-bodied men). The privations of World War II affected all Americans: our mothers who stayed home to maintain the farm, and the children who missed our fathers at an important age. These patriotic sacrifices were unremarkable, given the knowledge of our family ancestry: a great uncle who served as an aviator during World War I, a great-great grandfather who founded a city (bearing my name) in Indiana, distant ancestors in the Civil War, and 7 generations of my ancestors who arrived in America a few years after the Mayflower. My family and relatives have invested in the proud growth of America through civic and professional accomplishments. A parent wants a better life for their children, and grand-children, and they will sacrifice in order to

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achieve that result. Perhaps this is why we feel entitled to the enjoyment of what our parents and grand-parents sacrificed to create. Why, then, should we welcome illegal immigrants to our land who are seeking better opportunities than were provided by *their* ancestors in *their* home country?

Today when I shop in a supermarket, I am sometimes struck by my minority appearance: firstly, I'm not fat, I dress properly, I speak English well, my race is the one that has been creating America since my ancestors arrived in 1630. I'm also one of those "old white males" that contemporary liberals like to mock.

It is telling that the ones who are most prone to mock "old white males" are the new arrivals to America; they must be unsure of how they fit in! There might be an underlying insecurity prompting coddled liberals to fear everything, and to blame the self-sufficient conservatives for creating a world in which they are not sufficiently protected! The coddled liberal has the fragility of a "snowflake," hence this derogatory term for them. The snowflake liberal never learned how to walk on river ice, or swim among dangerous river whirlpools, or hunt rabbits and squirrels, or conquer the fear of camping overnight in a haunted house, or walk miles in all weather conditions to a country school, or have pissing contests in the country school's stinking outhouse. For my first 5 years of school I walked 4 miles of country roads every school day, in rain, snow, icy conditions as well as warm and clear sky weather. The snowflake liberal senses their weakness, their vulnerability, and they feebly blame their betters for their fears. The snowflake liberal fears new ideas because they are aware, perhaps at a subconscious level, about the precariousness of their argument. They shout down speakers with different views without realizing that, as the old Chinese proverb states: "The person whose argument descends to shouting thereby reveals that his ideas have given out."

A person who goes into nature alone is engaging in a "veridical experience" – to use a favorite phrase of child developmental psychologist Jean Piaget's protégé Newell Kephart. Nature can't be negotiated with; it is predictable and has no interest in either helping or hurting a person. For example, if you fall out of a tree, it's not the tree's fault; it's the fault of the climber. If a tree climber hears a limb start to crack, the person can't negotiate with the tree limb to not crack further.

A person who spends a lot of time in the outdoors learns to accept responsibility for their decisions. They also learn how to disregard wishful thinking about a situation and to face it objectively. Anyone who simply prays when they have found themselves in a dangerous situation is less likely to survive than the person who honestly comprehends the situation and formulates a plan of action.

A city person has fewer of these "veridical" experiences. Many of the dangerous situations faced by a city person are more likely to involve social conflicts, and these can often be survived by clever talk.

I claim that a country boy's bravery, developed by outdoor veridical experiences, is good preparation for bravely exploring the world of ideas with a proper disregard for

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conventional wisdom. I will forever remember a lecture by an explorer who survived on Antarctica alone by learning which pre-trip advice was good, and which was bad, by relying upon honest assessments of what worked. For example, in a very cold climate fat foods were good and sweet ones were bad (as I recall). One “takeaway” from his talk was that I too was an explorer; I explored the realm of ideas instead of the realm of a cold and unforgiving Antarctic landscape.

The same self-reliance developed for assessing the strength of river ice for walking upon could also be used for assessing a philosophical argument. My attitude toward ancient philosophers changed from awe to disappointment as I matured. I have no fear of contradicting the most esteemed philosopher, and I bring the same attitude in my approach to the academic baloney coming from sociologists, or any other academic argument. I have self-confidence in assessing where the ice is thin, on both a frozen river and in an academic argument.

Maybe it could be argued that my ability to extend self-assurance from experience in the outdoors to academic matters is due to intelligence. If my IQ were 3-sigma *lower* than average I might still know where the ice is thin but fail to know where an academic argument is thin. Nevertheless, such a person could still be able to sense when to distrust an academic without understanding the points of the argument. A person can have a low IQ and still sense that another person is tricking him. This ability may come from experiences in which the person was in fact taken advantage of by a more intelligent person. This happens! It’s human nature.

Now I can bring my argument to the task at hand for this chapter. Most country folk have a healthy disregard and distrust of “city slickers.” The country bumpkin may hear the salesman’s pitch for a life insurance policy when there are no dependents, and intuitively sense that there’s something wrong with the salesman’s pitch.

I try to put myself in the shoes of my old high school friends, most of whom were also farm boys, and I ask myself how they might view America today, as “old white men.” Whereas when I was a farm boy a living could be made on a farm by knowing how to mix “slop” and pour it into a pig trough, today a few factory farms have replaced the many family farms. Even the factory farm is computer-dependent, with spreadsheets for everything and computer-driven tractors. My farm boy friends must have first worked in factories after leaving the farm. But slowly the factories were bought by large, international corporations, and the jobs moved overseas where there were fewer to no safety and environmental laws and labor was cheap. The factory workers knew where their jobs had moved to and they must have sensed that worker livelihoods didn’t matter to the city slickers running the corporations – which was an accurate surmise.

My old farm boy friends must then have been forced into working at city jobs, probably retail related. As small shops closed in response to super-store openings, they would then have worked at places like Walmart. They would possibly be selling things that they used to produce in the long-closed factories, which were now made by cheap foreign

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labor; that must have hurt. Other alternatives would have existed, but some of them would have involved learning MS Word and Excel, or special-purpose programs resembling Excel. These new jobs made them feel like “cogs in a wheel” with minimal control over their lives.

At least on the old family farm there was more control over life; you could gather eggs before feeding the pigs, and you could decide when a pig was ready to be slaughtered. The family garden was subject to even more personal control, such as which vegetables to plant and how many of each, and how the tomato planting could be staggered in time for a lengthened ripening season.

Then there are cultural changes that happen at an ever-quickening pace. The old land-line phone was replaced by a smart phone, but the smart phone had so many new features that it became difficult to do what the old land-line phone had done. The home computer was nice, but it soon became necessary to install virus protection software, and danger was lurking when browsing the internet. Identity theft began, and credit bureau accounts, which no one asked for, had to be frozen between big credit purchases. Cars evolved, and they didn’t just drive from place A to B, but they had entertainment centers, and the radio pushbuttons disappeared for something mysterious taking their place.

In short, life became more complicated, and there was a sense that you had to keep learning new things in order to keep danger at bay. And whose fault was it, for making life ever more complicated, and keeping wages from growing, causing a stagnation of living standard? It was some unseen entity in the city, some coddled city-slickers who never learned how to walk on river ice!

For my old farm boy friends, who are now old white men, there must have developed a secret wish for a return to simpler times. The motto “Make America Great Again” is meant to bring to consciousness this secret wish for the past. It also causes the nostalgic person to wonder who has been changing America, causing it to become a more frustrating place to live in. The MAGA motto is aimed at conservatives. It’s the liberal city slickers who are victimizing us, taking away our old self-reliant selves and delivering us into servitude to some secret city collective.

There is some truth in the suspicions of middle-of-America conservatives. After all, who created the 2008 recession? And was any banker punished for that?

I acknowledge that some of the “fly-over” Americans have made bad personal decisions. Drug addiction can begin innocently by a lazy doctor’s prescription, but other addictions are prompted by the need to blunt the frustrations of failure. Alcoholism is, in my opinion, a personal failing resulting from a combination of bad genetics and an inability to cope with life’s sometimes unfair setbacks. Voting for self-harming policies, such as cutting taxes for programs to help the genuinely needy, may be explained, but not excused, by the fact that most people lack a genetic readiness for super-tribe democracy. Being attracted to charlatan politicians may also be due to a genetic unreadiness for super-tribe democracy.

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Here's a letter to the editor of a Tucson newspaper, *Arizona Daily Star*, that captures a difference in cultures of those who grew-up on a farm versus those who grew-up in a city. In the letter "food lines" refers to SUV vehicles driven by people who lost their job during the COVID-19 pandemic recession and can't afford to buy groceries:

'Personal responsibility' is a forgotten concept

Ask anyone who grew up on a farm last century to describe a core value of their country lifestyle and you'd probably hear "personal responsibility." I was born in Michigan during the Great Depression and am still proud to say that I'm a "farm boy." The country values of my upbringing explain why I deferred getting married until I had a secure job and savings, at the age of 29.

I've always believed that saving money for a cash purchase was better than buying on credit. So, what am I supposed to think of TV news showing food lines of cars better than mine? Or parents with many children and no health insurance?

Are these 21st century "city values?" Social activists tend to blame the well-off for the plight of those living paycheck to paycheck. There's more involved, such as taking "personal responsibility."

Bruce Gary
Sierra Vista

2020.05.02

The letter was prompted by TV news stories showing long lines of cars waiting for free food. The cars, however, were mostly SUVs of recent year model, suggesting that they were purchased on credit instead of from savings. It is apparently common for people today to spend money as soon as its earned. A frequently cited statistic is that half of Americans have no more than \$400 of discretionary spending for emergencies. Farmers would say that this is as short-sighted as eating your "seed corn,"

I have been a beneficiary of the changes during the past half century, so I have no personal experience to complain about. However, a little understanding about this, especially by liberal politicians, would be helpful. It would not be too difficult to acknowledge the experience of the disheartened, former rural people. Job retraining legislation would be a small first step. Tariffs are needed for imports from countries without worker safety legislation, or environmental protections, or very low wages.

I'm still conservative on some things, and liberal on others. The only things I'll never embrace are the snowflake liberal positions that are a result of sissy, coddled upbringing (Lukianoff and Haidt, 2018). I'll return to some of these topics in Chapter 24. But first, let's consider how the rabble can be roused by charlatan psychopaths when the *hoi polloi* feel overwhelmed.

Chapter 23. Hyper-Eusociality (Fascism)

Tribal life has two states: war and peace. Different tribal organizations are needed for each state. A well-adapted tribe must not only be capable of the two organizations, but the tribe must know how to navigate the transitions. These tribal wisdoms reside in the tribal genome, and they are implemented by tribesmen without any academic understanding of eusociality. This chapter explores what can possibly go wrong for a Holocene society when it is at peace and a psychopath hijacks it for a transition to war.

Before we try to understand how a Holocene super-tribe society blunders into war, we must understand how AE tribes were organized for peace and war, and how they made the transitions between these two states. Chapter 11 introduced the relevant concepts, but I want to review and expand them here.

A tribe at peace is really a tribe preparing for war. It may look like fun as sports games are played before cheering crowds, but sports competitions are an important practicing for war. The best athletes gain status and will have more children, which contributes to the physical prowess of the next generation. In non-sports arenas individuals discover what they're good at, and as they pursue whatever that is they improve their value to the tribe by contributing to tribal prosperity by being excellent at their chosen role. Peaceful interludes are supposed to improve a tribe's division of labor, and this will strengthen the tribe for that looming measurement date, the next war.

The best tribal organization for these peacetime benefits resembles "egalitarianism." The essence of egalitarianism is equal opportunity for excelling and achievement. Since "equal opportunity" guarantees "unequal outcomes" the tribe with this organization will reap close to maximum benefits from the exceptionally well-endowed individuals in the tribe. A peaceful tribe may have a leader, but he will not sit atop a strong governing hierarchy. The leader of an egalitarian tribe will not be kingly, or regal. His role is to oversee the best possible strengthening of the tribe by allowing individual differences to develop; he will promote an optimum division of labor based on egalitarian governance.

Imagine a tribe that is besieged by a stronger tribe. Dire prospects call for an extreme strategy. A tribe in this situation should adopt, temporarily at least, a belief system that calls upon all individuals to devote themselves exclusively to tribal defense. Individuals must place greater importance on serving the tribe than serving themselves as individuals, or to serving family, friends, truth or even an ideology. If the tribe were a thinking entity, and could invent the perfect tribesman, somewhat resembling an unthinking tribal robot, that tribesman would respond to a general perception of threat by becoming anxious to take orders from a strong tribal leader. "Individualism" would have to take second place to the collective. Such a tribe would have become fully eusocial. From the tribal genome's perspective, this is a winning strategy.

The following figure is a repeat from Chapter 11 showing how this transition takes place.

23. Fascism

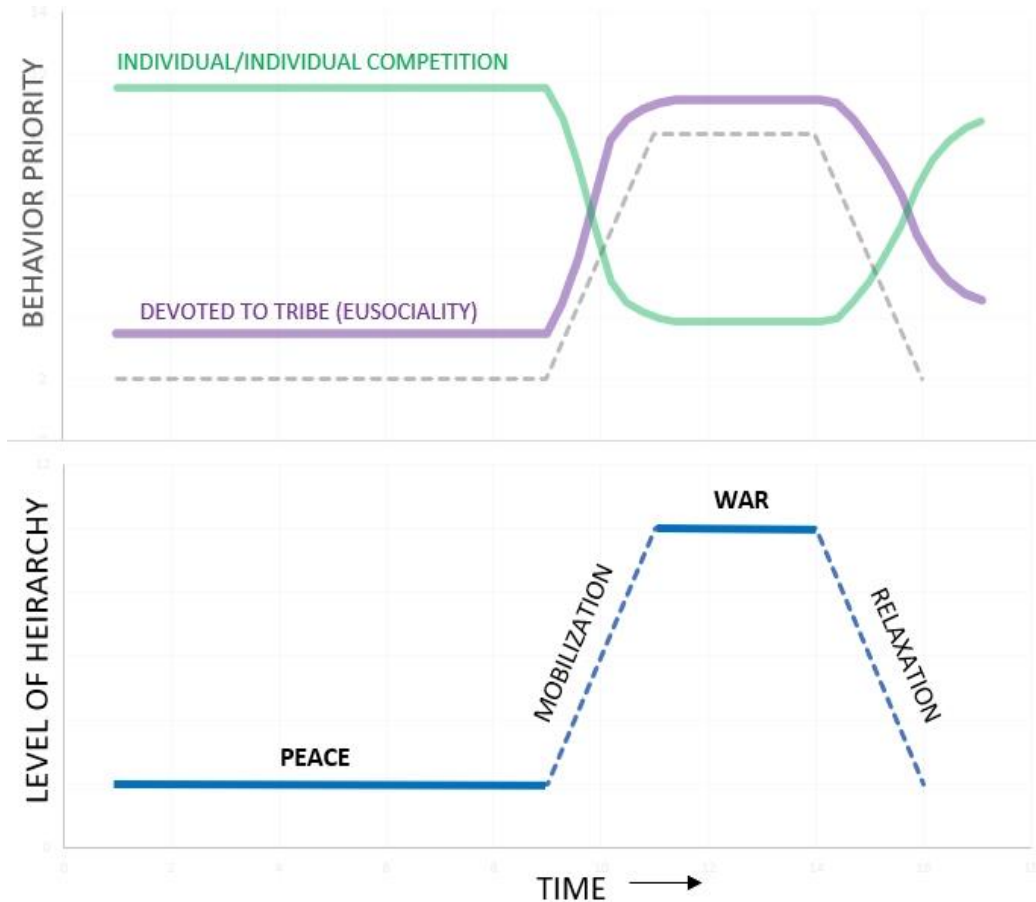


Figure 23.1 Lower panel depicts the need for a tribe to undergo a transition from a low hierarchy organization to a high level of hierarchy prior to an outbreak of war. The upper panel depicts how tribesmen are permitted to be engaged in individual/individual competition during peacetime but must forego that type of competition during wartime (green trace). This competition transition is accomplished by a population of Enforcers who become active when the prospect of war is evident. Whereas the Enforcers consist of mostly border patrollers during peacetime, their population swells due to personality changes that occur among a subpopulation that is prone to assume Enforcer roles in response to a sense that war is approaching.

I suggested in Chapter 11 that Enforcers come in two flavors: 1) border patrollers, and 2) enforcers of a strong leader's beliefs and commanded behaviors. The first category detects the state of neighbor tribes and alerts the tribe when war looks possible. The second category does the enforcing by harassing and even bullying, if necessary, the rest of the tribesmen to start making the transition to serving the tribe patriotically.

23. Fascism

The previous figure attempts to show how the intensity of devotion to the collective, the tribe, varies with time as the tribe goes from a state of peace to a state of war, and then a return to peace. It calls attention to the fact that every tribe experiences the states of peace and war. During the war state the tribe should be organized in a way that allows for a leader, such as a tribal chief, to issue commands and have them executed by lower levels of authority. This organization type is referred to as hierarchical. Every tribe must undergo the transition from a relatively egalitarian state to a highly hierarchical state prior to the outbreak of war. This transition can be referred to as a “mobilization.” After warfare, when the home tribe is triumphant, the tribe should make the opposite transition, from highly hierarchical to relatively egalitarian. This transition can be referred to as “relaxation.”

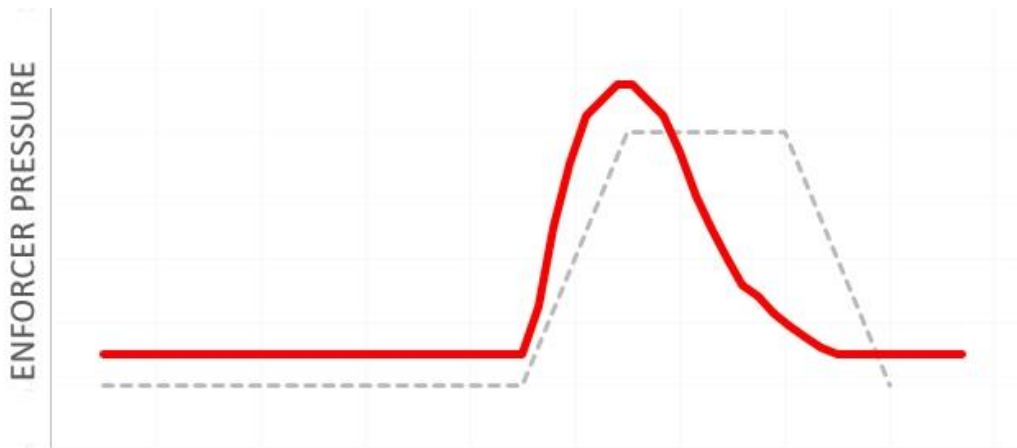


Figure 23.2. (Repeat of Fig. 11.2). The red trace shows how the Enforcers influence tribesmen for the goal of total tribal devotion to achieving tribal victory.

In this figure the red trace indicates that during peacetime the only presence of Enforcers is a band of border patrollers. This is the “hard core” of 5 to 10 % Enforcers referred to earlier. When the prospect of war is sensed, first by the border patrollers, and eventually by a loosely organized leadership, a sub-population (of maybe 25 to 30 %) change personalities and become Enforcers. They pressure and bully the rest of the population to stop competing as individuals, individual-to-individual, and instead become exclusively concerned about tribal survival. When this transition is successful individuals start cooperating instead of competing! Sports games cease, and war games commence.

Every person must hear and answer the patriotic “call to arms.” The farmer sets aside his hoe and picks up a spear. The city shopkeeper closes his business and he also picks up a spear. Everyone leaves what they had been doing as they set aside the enjoyment of

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peaceful lifestyles when they join an army to defend the homeland. The tribe's Enforcers make sure everyone undergoes this transition.

Fascism is sometimes described as the melding of private companies with government. Benito Mussolini defined fascism as *"...a system of government that exercises a dictatorship of the extreme right, typically through the merging of state and business leadership, together with belligerent nationalism."* The merging of the business sector with government is just an example of increased hierarchy. It allows a faster response to the needs for a tribe, or society, to survive. During the AE there was no business sector, but the same need for increasing hierarchy was present. Mussolini's reference to "belligerent nationalism" is another way of saying that the home tribe must do everything it can to survive. Mussolini's use of the phrase "dictatorship of the extreme right" simply means dictatorship by a strong leader who suspends the former rights of individuals.

An important challenge for the tribe that must become fascist is the need for all fellow tribesmen to follow directions from the tribe's leader. This is a job meant for the 25 to 30 % of newly emerging Enforcers. They will come across as self-righteous know-it-alls who love to bully others about what to believe and do. The fascist dictator's pronouncements are internalized by the Enforcers and are imposed on everyone else. When such a society is fashioned, it can be formidable – but only for the brief time that the tribe is at war. If it remained fascist after the need for it expired the tribe would lose strength because individuals would not be allowed to perform and discover what they are good at.

We should assume that such tribal events existed in the past, and that some people among us today are prone to becoming unthinking robots (saying "I was just following orders"), needing only a strong leader capable of giving direction to an Enforcer following, who would then enforce conformance with the leader's directive upon everyone else. Hitler was a charismatic leader who was adored by almost all Germans, and his authoritarian stormtroopers "persuaded" the rest of Germans to be followers. Analogs of the Nazi conversion of a society to fascism must have happened many times during the AE. These people, fascist cult leaders and unthinking Enforcer followers, were the winners of past conflicts, and since we are their descendants, their nature must be "in us" today.

During the Holocene the need for temporary transformation to fascist rule can be misused. I can think of three ways for its abuse: 1) initiate a transition to fascism when it's unnecessary, 2) extend the fascist state beyond the time it's needed, and 3) both of the above. The term "autocracy" is customarily used for Abuse #3. Let's consider how this abuse may occur.

Since a fascist dictator can enjoy a prosperous lifestyle, there is an incentive for the unscrupulous psychopath to mislead society into thinking that they are about to be destroyed by some "other" entity. The threat could be an invasion, or it could come from

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the uppity assertion of a long and wrongly suppressed minority (e.g., Negroes in America). We should be wary of anyone rousing the rabble by claims that the “other” is preparing to invade or overtake us. Their apparent goal is to achieve dictatorial control over us for as long as it takes to fend off the invasion by the “other,” but their real goal is to prosper as dictators for the rest of their lives - and to father many children. The next figure illustrates how this is achieved by extending the Enforcer role for maintaining a corrupt hierarchical governance structure beyond the time it was ostensibly needed.

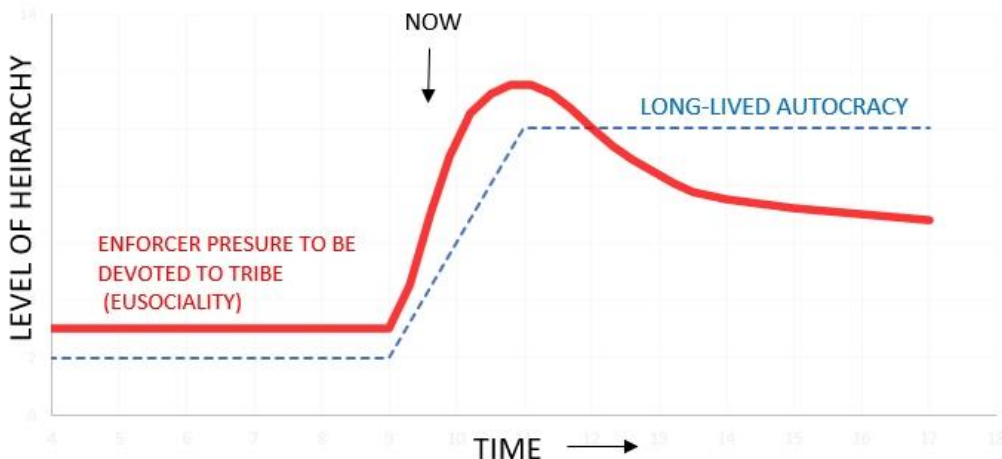


Figure 23.3. (Repeat of Fig. 11.3). The red trace shows how the Enforcers continue to influence tribesmen for the goal of maintaining tribal fascism after the need for it has expired, leading to an “autocracy.” (The creation and maintenance of a “kleptocracy” is treated in Chapter 28.)

The willing followers of an autocratic dictator may have had AE ancestors who in fact survived tribal challenges by being capable of replacing individual goals with group survival goals for as long as was necessary for tribal survival. It is possible today for a society to be converted to an autocracy by a clever cult leader with enough charisma to convert the populace to succumb to fascist rule. His rabble-rousing cry would be to create fear that we are at risk of being invaded by “others,” and only he can save us from this invasion. (In case you’re connecting this thought with Donald Trump, be patient; I’ll address the matter later.)

If a peaceful interval lasts too long, growing selfishness may subtract from the initial diversity of labor gains. When this happens the tribe’s best course is to initiate war with a weaker tribe. The goal of such a war is to halt the growth of selfishness and remind the individual of his commitment, when necessary, to patriotic self-sacrifice. This tribal behavior is optimum for the tribal gene pool, which, after all, is the ultimate measure for the evolution of even a partially eusocial species.

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This speculation is both reasonable and inevitable. During the AE any tribe that neglected to defend itself with total resolve when seriously challenged would be vanquished and disappear from evolutionary relevance. Also, any tribe that squandered interludes of peace by neglecting the exploration of diversity for improving tribal prosperity and strength would eventually find itself weaker and more vulnerable than nearby tribes.

I would like to enlarge upon the parochial altruism theory. In anticipation of this I expanded the previous paragraphs to convey more than was given in published accounts of parochial altruism. Whereas the published accounts emphasize the rise and fall of “altruism” during the alternations between warfare and peaceful interludes, my enlarged version states that more things than altruism change during these war and peace transitions. Eusociality provides a larger context for understanding all aspects of individual and social behavior during these two states. Altruism is just one such aspect.

Psychopath	Normaloid	Fascist Disciple
SELF	SELF	SELF
FAMILY	FAMILY	FAMILY
FRIENDS & NEIGHBORS	FRIENDS & NEIGHBORS	FRIENDS & NEIGHBORS
TRIBE OR COUNTRY	TRIBE OR COUNTRY	TRIBE OR COUNTRY
HUMANITY	HUMANITY	HUMANITY

Figure 23.4 *Where concern is focused by different people at different times.*

The above figure illustrates how a person’s behavior can be focused on different levels of the social realm. A psychopath is always focused on “self.” A Normaloid is usually focused on “self, family, friends and neighbors.” The novel message of this chapter is that Normaloids can be changed by tribal necessity, or the belief that there is a tribal necessity, to an allegiance to “tribe or country” (almost exclusively). There were times in the AE when tribal survival required that essentially everyone in the tribe had to reduce their concern for self, family and friends in order to be fully devoted to helping the tribe survive. When this transition was accomplished, all tribesmen were 100 % eusocial, or to use common vernacular, the tribe became “fascist” – at least for the duration of warfare.

This may sound extreme but consider some of the terms used to define fascism (from Wikipedia): “ultra-nationalism, authoritarian leadership, suppression of opposition, regimentation of society and the economy.” These measures are in theory needed for only as long as an external threat existed. In modern times leaders who usurp power usually hold on to it far longer than necessary.

I claim that there are three situations that can cause the transition from peacefulness (concern for self, family and friends) to warfare (exclusive concern for the collective):

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1) when the home tribe is attacked, and 2) when the home tribe notices that a neighbor tribe is weak and their territory is available for seizure, and 3) when the home tribe has been at peace too long and it needs to maintain attitudes of readiness for transitioning to patriotism. Whichever of these three situations apply it would have been adaptive at times for tribesmen to suspend their experimenting with diversity and the improvements of division of labor, and instead prepare for war, either defensive (case 1) or offensive (cases 2 and 3). Any tribe that failed to do this in response to being attacked (case 1) would likely soon disappear; any tribe that overlooked opportunities for enlarging their territory (case 2) would give a weaker tribe unearned opportunities; and any tribe that neglected to respond to a long interlude of peace by looking for a neighbor tribe to attack (case 3) would slowly weaken and become vulnerable to being attacked sooner than otherwise. The required transition involves the following steps: detecting real danger (case 1), detecting a neighbor tribe's weakness (case 2), and inventing danger where there is none (case 3). Case 3 involves persuading the entire tribe that the identified danger exists, enforcing conformance with a transition to a patriotic stance (this is what Enforcers are for), and abandoning all caution when warfare erupts.

How all these things are accomplished to successfully achieve a transition to fascism have been written about by many scholars. There are many books on the subject of how democracies transition to tyrannies. Those in my library include: *On Tyranny: Twenty Lessons from the Twentieth Century* (2018) by Snyder, *How Democracies Die* (2018) by Livitsky & Ziblatt, *Twilight of Democracy: The Seductive Lure of Authoritarianism* (2020) by Applebaum, *Autocracy, Inc.: The Dictators Who Want to Run the World* also by Applebaum and *Warlike and Peaceful Societies: The Interaction of Genes and Culture* by Anger Fog.

My purpose in presenting a brief discussion of the fascism transition is to call attention to the possibility that the super-tribe is vulnerable to abuse. The abuser I have in mind is a psychopath who has learned to "game society." Recall that in the AE, tribes were small enough that most of them did not have a psychopath among their adult male membership, so there was little danger of tribal hijackings by a psychopath. Even the occasional tribe with a psychopath was unlikely to be abused by him because everyone knew everyone in the tribe, and when a psychopath was present he was most likely being shunned and prevented from prospering. The super-tribe, on the other hand, will have many psychopaths among the adult male population, and most people in the super-tribe will be clueless about who they are.

Germany was unprepared for Hitler. He railed against vengeance by the rest of Europe after the Treaty of Versailles left Germany weak and humiliated. Hitler scapegoated the Jews, the communists and all elites – blaming them for conspiring to destroy Germany. It is possible that Hitler believed his rabble-rousing speeches. But it is also possible that he was aware that he was tapping-into a paranoid vulnerability of the German populace, and that by leading Germans to a new social order, what we refer to as fascism, he could

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achieve relevance, power and adoration by followers – all of which could lead to him leading a lavish lifestyle.

During the same decade Stalin also lived lavishly after hijacking Russia. It is ironic that Russia was supposedly founded on the communist idea that “everyone receives equal shares of the benefits of societal wealth.”

Mussolini, the “fascist Casanova,” also enjoyed popular support and a lavish lifestyle during his time as dictator.

Clearly, the rewards for relevance, public adoration and living lavishly, based on whatever ideology would lead to it, was something that would appeal to any ambitious psychopath. It’s as if the genes that assemble psychopaths knew that more offspring could be created by achieving power and wealth.

Every society that is stressed should be wary of the danger that an ambitious psychopath will try to exaggerate the level of existential danger in order to become a leader who will protect the people. America: pay attention!

Nazi Germany is a good example of how a society can undergo a baffling transition to “temporary insanity.” During the 19th and early 20th Centuries Germany was the center of civilization, dominating music, philosophy and physics, for example. But Germany’s initiation of World War I started a chain of events that changed everything. I want to speculate, briefly, on why such a transformation is feasible.

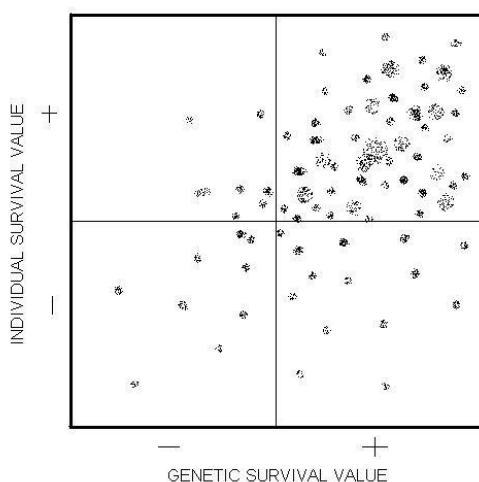


Figure. 23.5 (Repeat of Fig. 5.01), showing my 1963 speculation that genes could produce negative or positive effects upon either genetic survival or individual welfare.

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Recall from Chapter 5 the matrix (repeated here) relating the welfare of an individual and the genes that assembled that individual.

Consider the matrix that relates individual welfare to collective welfare, shown in the following figure.

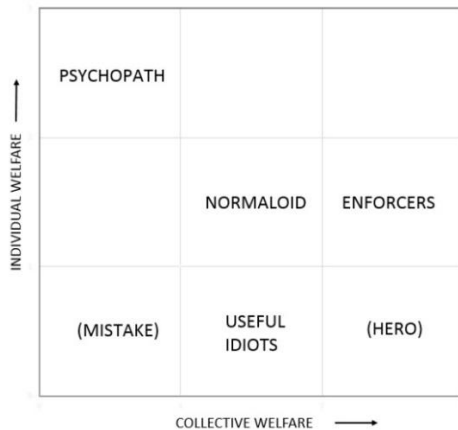


Figure. 23.6. *Relationship between categories of individuals and their personal welfare versus their usefulness to the collective. The parenthetical sector should be only occasionally populated.*

Here's how to read this figure. In a super-tribe, or society, psychopaths are always present, and they are usually successful in achieving good personal welfare while subtracting from the welfare of the collective – provided their numbers are small. Heroes are occasionally present, and they enhance the collective's welfare strongly while being at high risk of loss of personal welfare. Normaloids are always present, and perform the bulk of tribal work; they can be unremarkable in terms of achieving personal welfare; however, at times of great collective need a few of them can undergo a heroic transformation. Enforcers have modest aspirations and achieve modest personal welfare while contributing significantly to collective ends; they are “useful idiots” who serve the tribal genome. Some people are “genetic mistakes” and serve no purpose (the “mistake” quadrant). During a fascist episode some Normaloids can be transformed by Enforcers to Heroes.

So far I haven't dealt with the difference between an autocracy and a kleptocracy. Here are a couple books about the latter term: *Kleptopia* (2020) by Tom Burgis and *Autocracy, Inc.: The Dictators Who Want to Run the World* (2024) by Anne Applebaum. They provide a provocative treatment of how a kleptocracy differs from an autocracy, and how the 21st Century invited bad people to transition from one to the other. I will address this topic further in the penultimate chapter.

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It's time to consider a different relationship between people "types": the relationship of behavioral shifts by different "generations" of people. As suggested in the previous chapter, a Millennial "snowflake" won't respond to social conditions the same way as a Silent Generation "farm boy" from Michigan (the author). This subject is treated in the next chapter.

Chapter 24: The Generations: A Fourth Turning?

One generation begets the next, which begets the next, and so on. Is there a repeating pattern? If so, we're in deep trouble!

An individual's "phenotype" is "the way it is" – which includes anatomy, physiology and behavior. An individual's "genotype" (inherited genes) interacts with environment to produce "phenotype." Thus, a person's phenotype is who the person has become, as opposed to who he might have become had his environment been different. This powerful concept (Symons, 1979) can be referred to by the equation: $G + E = P$, or GEP.

Whereas Americans were born with essentially the same genotype during the past century their phenotype has undergone interesting changes. It seems like a new "phenotypic generation" appears at approximately 20-year intervals.

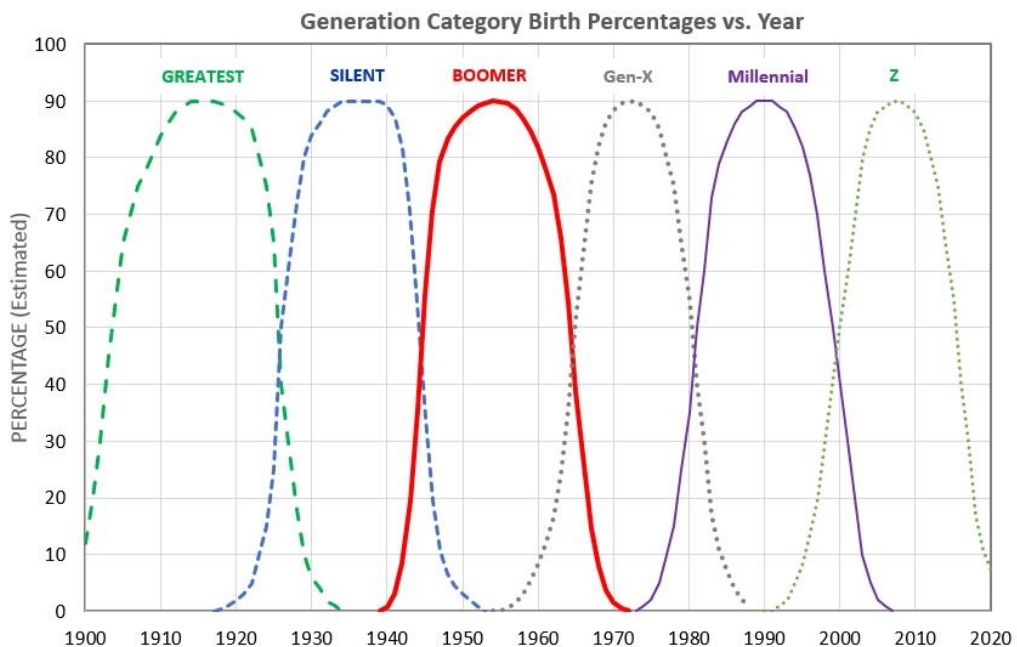


Figure 24.1. *Approximate birth date ranges for the 6 recognized generation categories.*

This graph shows when the 6 generally recognized generations were born. I have arbitrarily used 90 % as a maximum percentage for each generation to allow for the fact that not everyone in a generation feels the full effect of cultural changes (e.g., rich kids didn't experience the poverty of the Great Depression). Keep in mind that in spite of the similar date ranges for each generation their total populations will differ significantly. For example, the birth rate per female was more than double for the Boomer generation compared with the Silent generation (e.g., the Boomer generation has more than twice as many people than the Silent generation). Also, due to the lower population for earlier

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generations compared to later ones the total population per generation has been gradually increasing. This is illustrated by the next figure.

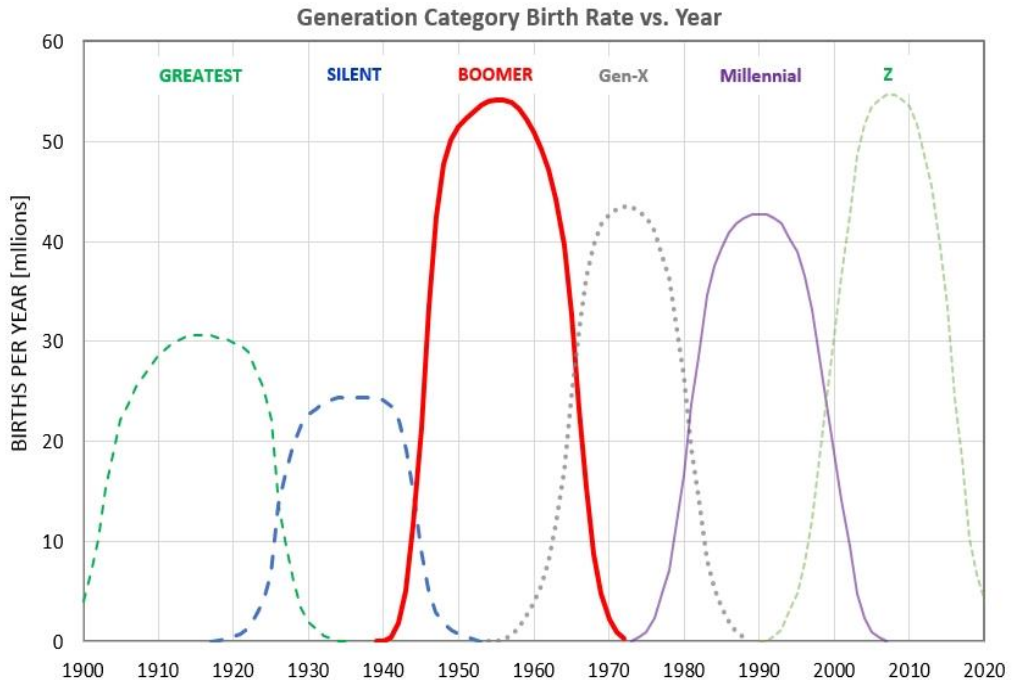


Figure 24.2. Birth rates for generation categories.

Even if a cultural change were to occur abruptly there should be a gradual transition from one generation category to the next. This is based on an understanding that environmental influences, such as child rearing practices, have significant effects for the first 6 to 10 years of a child's life. Therefore, a child born in 1946 may experience the entirety of these formative years raised by parents following the advice of Dr. Spock's 1946 book on permissive child-rearing practices, whereas a child born in 1941 may have as few as one of those formative years with the same influence. For this reason, it is appropriate for the transitions between generation categories to be gradual.

Greatest Generation, centered on 1915

The "greatest generation" was described by Tom Brokaw (1998). Their birth date range has been given as 1901 to 1927. Brokaw described them as motivated by knowing "the right thing to do." They endured the hardships of World War I, a pandemic (1918-19), the Great Depression and they fought and won World War II. If any generation was capable of meeting these challenges, it was this one!

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Silent Generation, centered on 1935

This is my generation. We were born during the Great Depression and our childhood was formed during the depression and World War II. As young adults we believed that “there’s no use in asking for things” because our families were poor. As adults we believed that “it’s dangerous to speak out as an activist for social change” because we still believed that national survival was paramount. Our birth date range is approximately 1925 to 1945. Our numbers are few because most of us were born during the Great Depression, when birth rates were low. Our upbringing was by parents who were poor, so unsurprisingly we were not spoiled. Our generation was self-disciplined, and we went to work as adults with an unquestioning belief in work as the only path for survival and possible prosperity. We combined forces with the Greatest Generation to build a nation after depression and war years. We are responsible for one of humanity’s greatest technical achievements, the Apollo project, sending men to the moon. The generation members age range for the Apollo years is illustrated in the next figure.

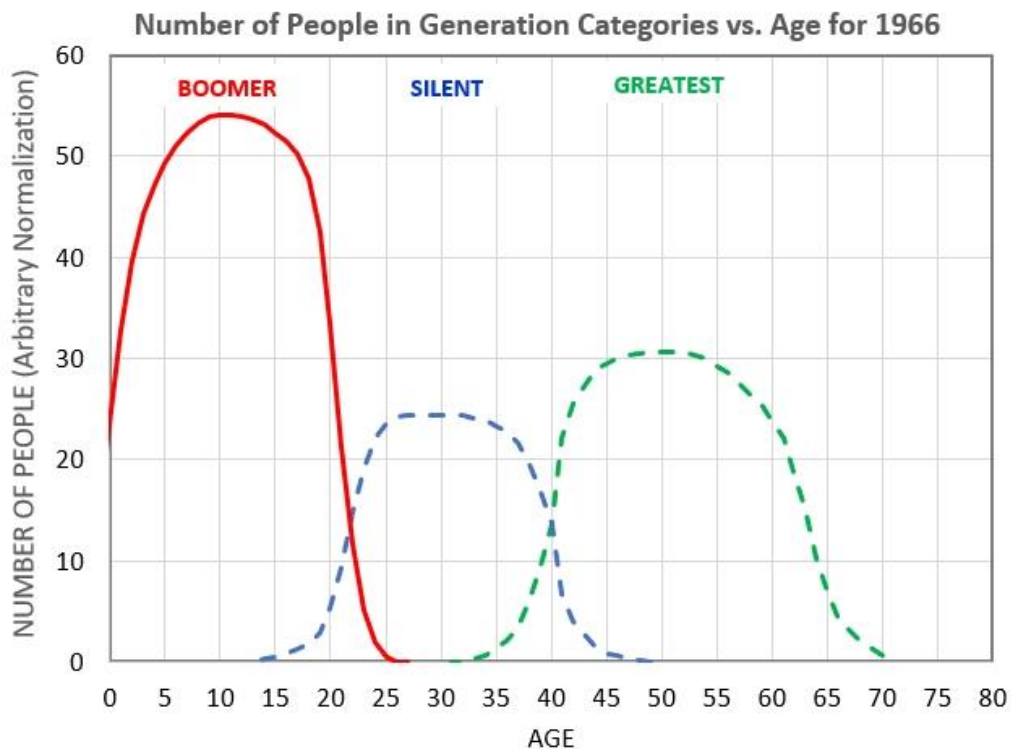


Figure 24.3. *Number of people vs. age for each generation category, in 1966.*

The NASA Apollo project was at critical stages of development in 1966, when the Greatest Generation and the Silent Generation dominated the workforce. The oldest

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Boomers (age 15 to 22) stood on the sidelines and shouted for defunding Apollo in order to help the poor (who will always be with us no matter how much help we provide).

Boomer Generation, centered on 1955

The birth date range for Baby Boomers is 1946 to 1964 (some writers prefer using a start date of 1941). Whereas the Silent Generation was one of the least spoiled, the Baby Boomer generation is the most spoiled. Their parents didn't want to perpetuate the poverty and deprivation that they had endured upon their precious children. This child-raising goal was made possible by a booming post-war economy. Dr. Spock's 1946 book *The Common Sense Book of Baby and Child Care* has been frequently cited as an important additional factor for the abrupt change in child-rearing practices leading to a generation influenced by a spoiled childhood. The book states that "The desire to get along with other people happily and confidently develops within the child as part of the unfolding of his nature, provided he grows up with loving, self-respecting parents." Contrast this with wisdom from an earlier era: "Every year civilization is invaded by millions of barbarians; they are called children." (Hannah Arendt, reference lost).

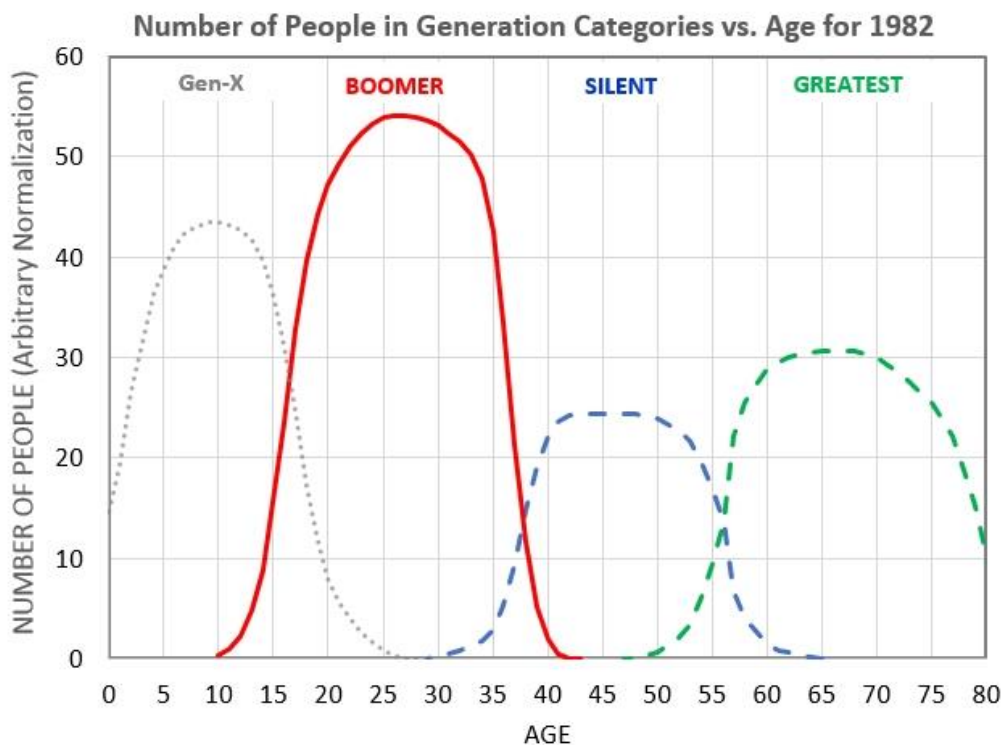


Figure 24.4. Number of people vs. age for each generation category, in 1982.

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The Boomer generation has been criticized for thinking of themselves as “special,” and given their childhood of “plenty,” as adults they became excessive consumers. They helped shape the American economy from about 1970 to 2010, when “bottom line for oneself” competed with “doing the right thing for society” and for later generations. I first encountered the Boomers when I lived in Pasadena, CA and mid-western hippies began flocking to California (mid-1960s). I couldn’t figure out where their money came from since they thought work was for suckers. (I was a hard-working “sucker” working at JPL, hustling funds from NASA.) It finally occurred to me that their parents were sending money to them, feeling relief that the spoiled brats had moved out of the house.

Notice in the previous figure that by 1982 most Boomers were of voting age. Their influence helped change politics – for the worse. Nastiness (*a la* Gingrich) became a staple in the Republican toolbox. Union busting gained speed. Reducing taxes, even if it meant unbalanced federal budgets, became acceptable. In 1982, when Reagan was president, America underwent a transition from being a creditor nation to debtor nation.

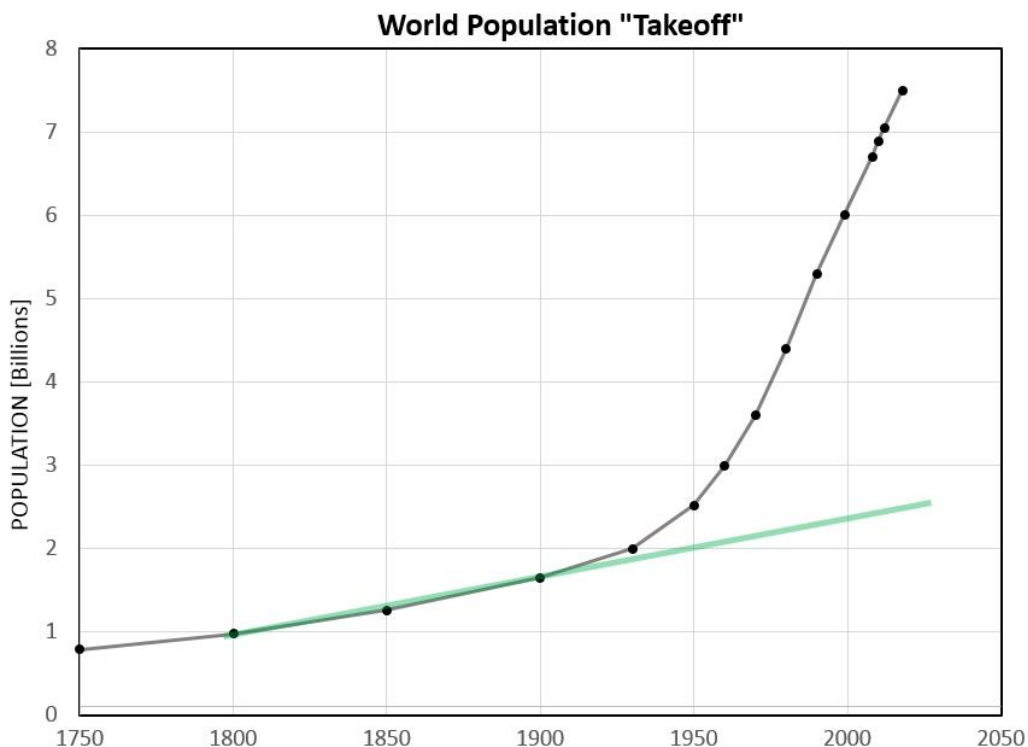


Figure 24.5. World population, showing an inflection after World War II.

The above figure illustrates how the world’s population “took off” after World War II. This “population bomb” is due to the Baby Boomers. Boomer numbers and their

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consumerism has compounded environmental stress on the Earth. Consider the astounding fact that more than half of all human-caused CO₂ emissions have occurred during the 30 years 1990 to 2020 (when this chapter was written). During this 3-decade interval the Boomers were consumers (driving SUVs, neglecting the environment, etc.).

The economist Bruce Cannon Gibney described the boomer generation in *A Generation of Sociopaths* (2017), "...a generation that - in the many decades that it has dominated political and corporate America - squandered its enormous inheritance, abused its power and subsidized its binges with loans collateralized by its children." More about this topic is presented later in this chapter.

Generation X, centered on 1972

Those born between ~ 1965 and ~ 1980 are referred to as Generation X. They have also been described as the "latchkey" generation because of reduced parental supervision and increasing divorce rates (related to adult Boomer inability to accept the responsibilities of parenting). During the Gen X childhood years society was focused more on adults than family. Women began to enter the workforce in greater numbers during these years. The early-phase Boomers became obsessed with "self-actualization" and this led to a peak in divorce rates in 1980. Unsurprisingly, Gen X resents materialism and status-seeking, because that's what their parents did, causing them childhood loneliness.

Millennials (also Me Generation, or Snowflake Generation), centered on 1990

Births between 1981 and 1999 produced a generation usually referred to as "Millennials." Another name in common use is "Generation Me," an apparent reference to their resemblance to the Boomers who thought of themselves as special. As young adults the Me generation felt entitled. They were more assertive, and this is the trait that most interests me. They created "cancel culture" - where anyone who departs in the slightest way from being "politically correct" must be called out and shamed! This generation dominated college campuses from 2000 to 2018. They are intellectually fragile, and colleges have created "safe zones" where no threatening new idea is allowed. They need "trigger warnings" when class material might upset them (see Nichols, 2017 for an extensive discussion of this). They are the first generation to be obsessed with "micro-aggressions" - which is anything said or done that upsets them, regardless of intent. Part of the blame for these traits is "helicopter parenting" (by late-phase Boomers). These parents cleared the path ahead of their children, thus denying the child from learning how to overcome obstacles ("Prepare your child for the road, not the road for the child"). Such a child grows up unprepared to deal with anything new, including ideas. This book is a good example of what the fragile Snowflake cannot tolerate!

The Snowflakes currently don't read newspapers or books; everything they know comes to them through their smart phones. Some of them never learned to write cursive, but

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they have super-fast thumbs for their smart phones. They can multi-task, but they have short attention spans. They believe in teamwork and are suspicious of anyone who works alone. Their lives have a stretched-out schedule; like Peter Pan, they are reluctant to grow up. They think they're smart, but they're clueless; they think they're influential, but they're impotent. Donald Trump is an offense to everything they claim to stand for, yet he simply ignores them. They spend so much time with their digital devices that they use abbreviations for words and phrases. Some have the inflated sense of self-importance to suggest that they will be the next Greatest Generation. LOL!

Generation Z

Little is known about this generation, except that they are somewhat arbitrarily assigned a birth date range from 2000 to 2020. They are in the unfortunate position of inheriting a host of global problems that are destined to plague earth during the 21st Century. I feel sorry for them, and wish them luck.

Are Boomers Sociopathic?

Bruce Cannon Gibney (Gen X) wrote *A Generation of Sociopaths: How the Baby Boomers Betrayed America* (2017). His thesis is that the Boomers were raised by well-meaning but clueless parents who spoiled their children in a way that allowed them to remain self-centered throughout adulthood. Every baby is naturally self-centered and demands all the parental attention it can get. Childhood is supposed to be a transition period to adulthood, when self-centeredness yields to caring for others and society at large. The goal of parenting is to achieve that transition. Gibney is careful to specify that poor families didn't (because they couldn't) raise children who became sociopathic adults; rather, it was the newly prosperous (late-phase Great Generation) parents who could, and did, coddle their children so much that their children kept thinking of themselves as worthy of their good fortune for having every need met by others.

The self-centered Boomers began to have influence over national policies in the early 1980s because that's when they became a majority of the electorate. By keeping taxes low the Boomers had more money to spend on themselves. Boomer Grover Norquist (born 1956, exact middle of Boomer generation) is famous for persuading politicians to sign a pledge to not raise taxes, and for bragging that he wanted to "shrink government to the size that he could drown it in a bathtub." As of 2012, 95% of Republican congressmen signed this pledge. Keeping taxes low meant neglecting infrastructure investment; and this neglect of the welfare of a later generation is another hallmark of Boomer Republicans. The Boomer influence over economic policy kept getting refined to serve Boomer desires, regardless of the postponement of corrective measures that would be the responsibility of Gen-X and Millennials. Gibney notes that Social Security is scheduled to be insolvent in the mid-2030s, which just happens to coincide with the end of the Boomer need for it. The national debt, which is estimated in different ways to

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be in the range of 37 to 60 trillion dollars, is close to being theoretically unpayable; the looming federal bankruptcy will be the problem of Gen-X and Millennials. Boomer wages experienced a nice rise versus Boomer age, as did most aspects of financial security - such as home ownership.

Look at the next figure, Fig. 24.6. Notice how in 2005 the age distribution for Boomers coincided with dominance of banking and investment companies. They were poised to cash-in on lax financial policies that had been established by them during the previous two decades. The Great Recession that began in 2008 was a time when the savviest sociopathic (and psychopathic) Boomer players cashed-in! The biggest victims of this semi-legal theft were the Gen-X and Millennial generations.

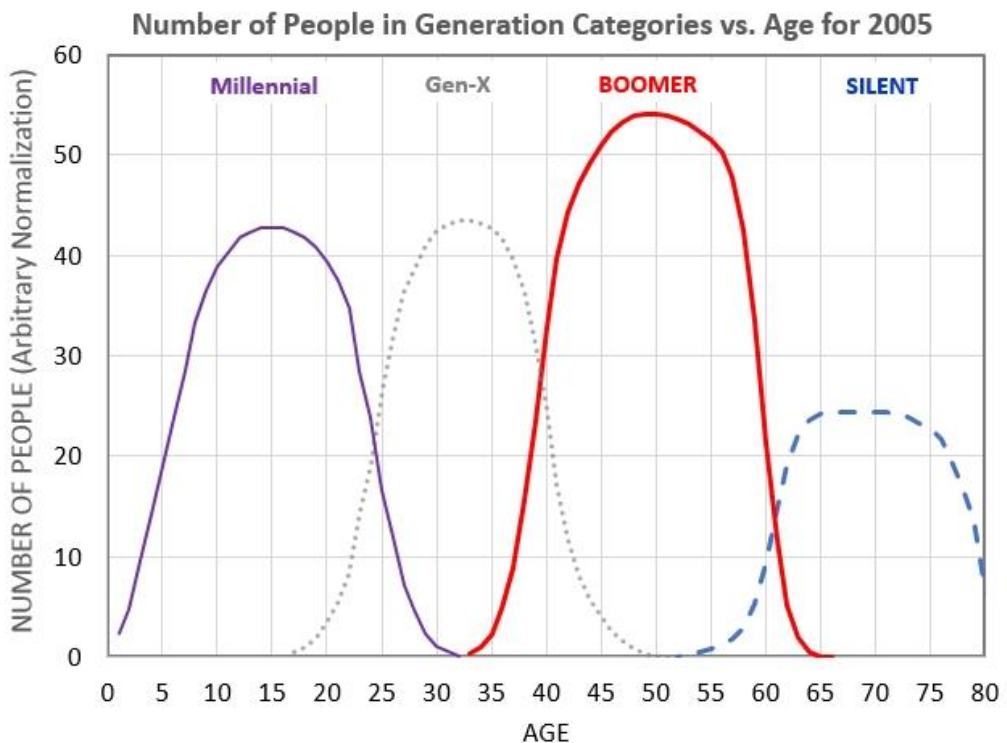


Figure 24.6. *Number of people vs. age for each generation category, in 2005.*

Now look at the next figure, Fig. 24.7. This is the current generational age distribution [this chapter was mostly written in 2020]. It should be no surprise that our government should be led by Boomer Donald Trump, the King of Psychopaths (“born on third base”), with ample enabling by the most sociopathic Republican Senate ever.

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It is fair to ask why the current Senate consists of Republicans who are loyal to Boomer policies and are enablers of Trump, who has opportunistically embraced Boomer policies in recent years: low taxation, large federal budget deficits, reducing business regulations, neglect of infrastructure, abandonment of conservation concerns, disregard for global warming and climate change, etc. I suggest that ever since the 1980s Boomers have been attracted to some pre-existing Republican positions (low taxes and small government) and have by now completely infiltrated the federal Republican congress and transformed the Republican agenda to include everything Boomers want. In other words, the Republican Party is now the Boomer Party!

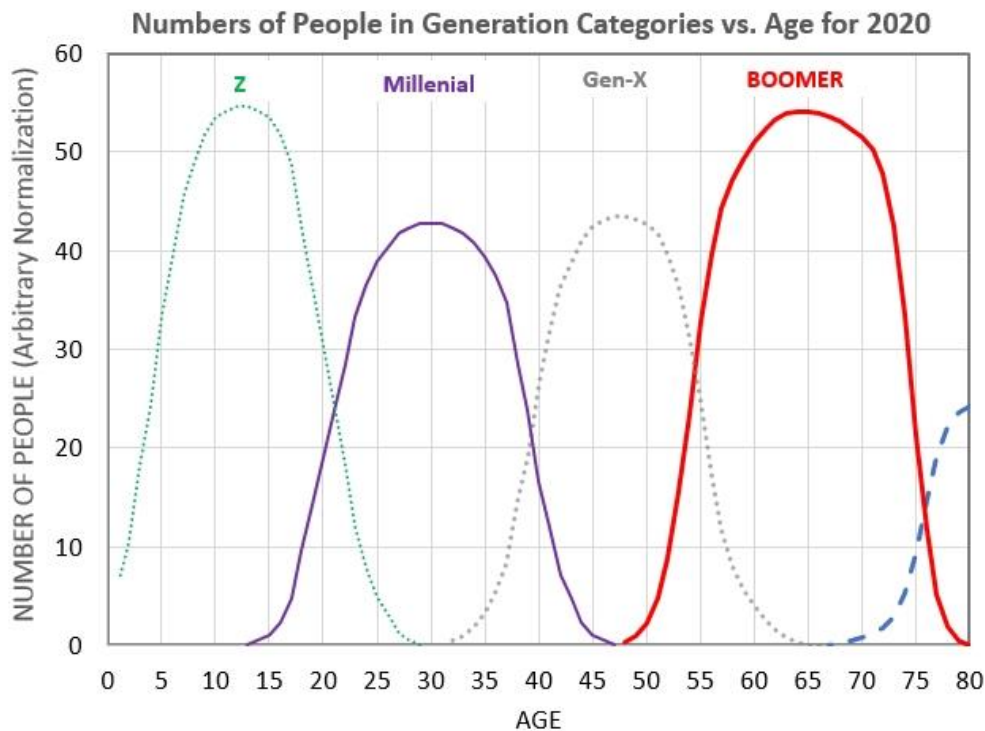


Figure 24.7. *Number of people vs. age for each generation category, in 2020.*

Figure 24.8 shows that the Boomers will be a major influence in congress, and those running for president, for at least another 20 years. By then the accumulated amount of CO₂ emissions will have reached levels that guarantee global warming tragedies. Coastal areas will begin to become permanently flooded, or episodically flooded in the manner that Miami now experiences. This will lead to growing migration from coastal areas to inland ones, where the migrants will not be welcome. Because of regulation neglect by Boomer governments inland water tables will produce water scarcity conflicts between deep-well drillers (by agricultural corporations from the Middle East) and shallow well-driller farmers (as is occurring now in Arizona). These and other societal tragedies

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awaiting near-future generations are described in scary detail in the book *The Uninhabitable Earth: Life After Warming*, by David Wallace-Wells (2019).

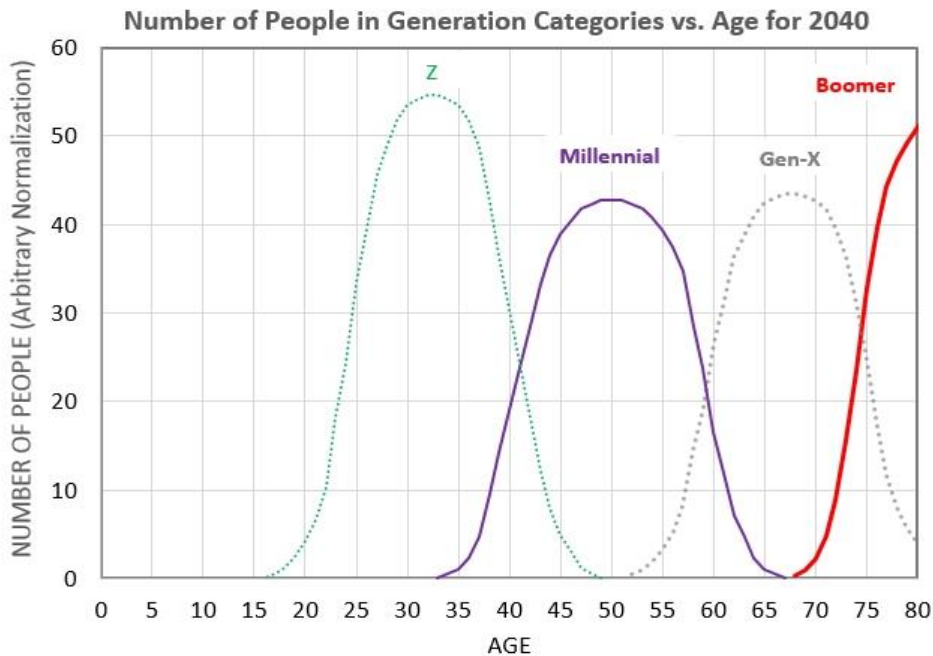


Figure 24.8. Number of people vs. age for each generation category, in 2040.

Where Were the Enforcers?

The Baby Boomers are the closest any generation has come to being hyper-individualized. For them, society was a “golden goose” ready to be plundered. The excesses of the Sixties, which the Boomers caused, began a reaction among big business executives as well as by voters of earlier generations. Hard hat workers would sometimes beat up hippie activists on parade for some worthy cause. Nixon’s “law and order” presidential campaign got him elected president, twice. So the Enforcers were present and tried to suppress the rise of individualism. But there were so many Boomers, and the economy was so prosperous during the rest of the century, that the transformation of Enforcer-prone to Enforcer-actual was subdued, so they never roused the country to become ready for an invisible outsider invasion.

The population of Enforcers varies with conditions. The Enforcer-prone are always present, but their phenotypic expression of the Enforcer personality depends on the level of threat from whatever resembles “the others.” The threat level from “the others” was growing during the first decade of the 21st Century, and it was poised to reach a level that would trigger release of that inner Enforcer among a still contented populace. Trends

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were already underway that would eventually give birth to an Enforcer-controlled society: stagnant wages since 1990, the onset of the Great Recession in 2008; but it was the election of a “Negro” president the same year that provided sufficient fear of attack from the “others” that many Enforcer-prone people became Enforcer-actual people. It is generally believed that the Tea Party was created by them in response to Obama becoming president. The Tea Party was viewed as “fringe” at the time, and they never constituted a significant fraction of voters, but they were a clear signal that trouble was brewing. Thanks to Fox News, and to internet platforms for self-appointed “influencers” to share idiotic opinions and conspiracy theories, the Tea Party showed itself to be just the opening salvo in a new internal campaign for “mobilization” that was needed by an ever-growing population of Enforcers. They were becoming ready for the coming of a “strong leader” – and Trump read the call. This is how the Cult of Trump was born. A more extensive analysis of this phenomenon is given in Chapter 28.

A Third Dimension for Personality

As a member of the Silent Generation I have a harsh assessment of the Boomers. We differ on a matter that I want to use as a “third dimension” of personality. The first two dimensions were introduced conceptually in Fig. 4.4, as PCL and IQ. Chapter 7 expanded the PCL dimension by adding authoritarianism (the RWA score). This allowed for the creation of an arbitrarily defined Eusociality Score involving both PCL and RWA (see pg. 119 for details). Below is a repeat of Fig. 15.2, showing the Eusociality Spectrum (a two-dimensional plot of personality type).

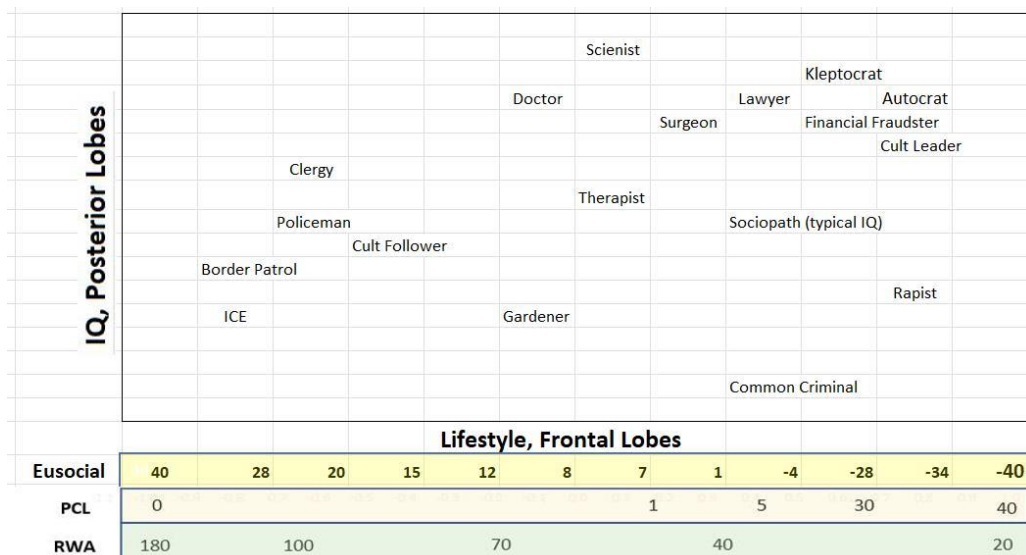


Figure 24.9. Repeat of Fig. 15.2, a 2-D representation of personality types. The x-axis is referred to in the text as the “Eusociality Spectrum.”

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What about the 3rd dimension? Let's give it a name and then describe it. Let's name the 3rd dimension "Drive."

"Drive" is established in a childhood with hardships that offer opportunities for learning how to overcome them. Parents play a key role in this; recall the old wisdom of *preparing the child for the road, instead of preparing the road for the child*. The term "free ranging" as a parenting style became a popular topic in response to over-protective parenting during the 2000 – 2010 decade. A video of a 6-year-old Japanese child taking public buses as a learning challenge must have horrified American "helicopter parents." But the experience of these challenges is what provides a child with the self-confidence needed in later life to overcome obstacles and pursue big challenges.

Another contributor to Drive in childhood is daily chores. As a school-age farm boy I fed the pigs and chickens daily. It never occurred to me that a day without feeding would be acceptable. This experience develops the notion that there's a category of things that are to be done without questioning. Accepting responsibility without questioning for one thing makes it easier to accept responsibility for others.

I view Drive as mostly a product of nurture, but there must also be a contribution from an inherited nature. A person with Drive is likely to seek "relevance and respect" from fellow tribesmen. Pleistocene small tribes with individuals having Drive should have been rewarded by evolution since those tribes should have been stronger. This means there should be a component of genetic inheritance producing individuals with this trait.

Imagine that the previous figure is the base for a volume, i.e., that there's a z-dimension for Drive. Each person could then be at a specific location in this box-shaped volume.

The fact that men of accomplishment were over-abundant during periods of hardship during their childhood, with birth dates from 1866 to 1882 and from 1929 to 1942 (Gary, 2021, Ch. 25) means that environmental influences contribute to Drive. For example, I was born during the second interval, and my Drive score is high (105 publications, 4 patents, 8 books, etc.). My 3-D location in the previous figure is high above the "Scientist" label.

If all adult men in a Pleistocene tribe had a location in the previous figure, then we can imagine each tribe being described by a cloud of dots. At any specific time during the Pleistocene there must have been an optimum cloud distribution. Evolution's "job" was to achieve that optimum cloud distribution.

The same concept should apply to a Holocene super-tribe, or society. But things are even more complicated, because a society's cloud varies from one generation to the next. I claim that the Silent Generation was located at a higher Drive region than later

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generations – especially higher than the Millennial Generation. We should ask if the history of nations can be understood better using these concepts.

Trends

When I view the previous generational changes, I see a trend, and it's downward!

During the past 100 years America has gone from the greatest generation to the worst generation (Boomers), and then the most clueless generation (Millennials). The Snowflake Millennials don't know how to walk on ice because they're too sissy to have even been on ice. If they were inspired to "right a wrong" they would stand on the sidelines and shout "shame on you." The sociopaths and psychopaths that now dominate the Republican Boomer Party are incapable of shame, so they would just laugh-off the ineffectual Snowflakes. It would be a mistake to believe that the Millennials will save us from a tyrannical hijacking by the sociopathic Boomers, who are loyal followers of their psychopathic leaders.

Another hope that can be abandoned is that a "fourth turning" will save us any time soon. The book by Strauss and Howe, *The Fourth Turning* (1997), predicted the start of a Crisis phase ("... disorder and great changes brought on by a breakdown of the systems and operating principles ...") sometime near the year 2005, which is about the time of the 2008 recession. Co-author Neil Howe has an updated assessment (March 2019) that claims we're still adhering to the fourth turning pattern, with 2008 being a repeat of the 1929 economic crash heralding the Great Depression. He predicts that we won't encounter this Crisis phase until 2030 or later. The book (written in 1996) concerning the next Fourth Turning (i.e., the Crisis phase that we're now in) predicted: "The Fourth Turning will be a time of glory or ruin." And "What will America be like as it exits the Fourth Turning? History offers no guarantees. Obviously, things could go horribly wrong ...debasement and total ruin. ... History provides numerous examples of societies that have been wiped off the map, ground into submission, or beaten so badly they revert to barbarism." For that assessment, Neil Howe, thanks a lot!

What's the most likely outcome of the present Crisis phase for America? Since Trump was elected in 2024 he's doing a much better, and faster, job of following Putin's playbook as he turns America into a kleptocracy. (An autocracy is designed for maximizing the transfer of wealth to a dictator and his oligarch enablers.)

Maybe we should be reminded about the fate of those 87 civilizations studied by Kemp (2019) and displayed here as a histogram that I have created from Kemp's data. The median longevity is 250 years. The quartiles are at 150 and 465 years. In other words, 25 % of civilizations collapsed within 150 years, 50 % collapsed within 250 years and 75 % collapsed within 465 years. America will be at the 250-year mark of its democracy

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in 2026. We can now visualize today's Western Civilization collapsing into a new Stone Age.

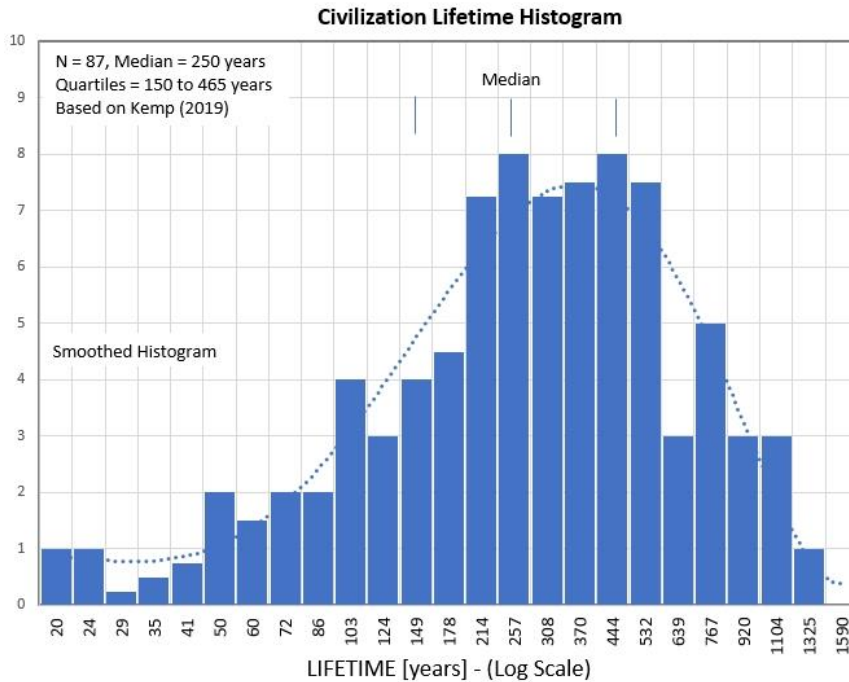


Figure 24.10. Histogram of 87 civilizations shown using a log scale.

Chapter 25. The Peter Pan Surrender

The Boomers have “arrested development,” and their lack of concern for the big problems of global warming and the fate of humanity explains why they neglected addressing these and other problems that are now probably beyond repair.

A nursing baby cries when the tit is withdrawn early. This is how I view the Boomers. As children they cried, and their parents gave in. It's understandable that a Greatest Generation parent doesn't want to see their children suffer the way they did as children. But growing-up was never supposed to be easy.

A positive correlation between childhood hardship and later life achievement has been alleged (Gary, 2014, Chapter 25). A greater number than average of high-achievers were born during the intervals 1866 – 1882 and 1929 – 1942. These were hardship years for everyone, including children.

My generation, the Silent one, belongs to the second of these two hardship intervals. We and the Greatest Generation are the “grown-ups.” The Boomers underwent a maturing process that was delayed and arrested at a stage just short of traditional adulthood. I was puzzled by them during the 1960's; our outlooks were starkly different! I was hard-working and they were lazy, unmotivated and spectacularly spoiled. I now view them as resembling Peter Pan, the mythical boy who never grew up. Peter Pan believed that earnestly wishing for something was good enough. The Silent Generation's belief in hard work, disciplined by an unflinching acceptance of reality, was never part of Peter Pan's thinking.

When I lived in Pasadena I took my children and out-of-town visitors to Disneyland more times than I want to remember. The place symbolizes a world that children want to believe in, and may resist surrendering, in contrast with the “real” world. At Disneyland the pirates are just a little bit “naughty” for chasing women and drinking a wee bit much, and there's no reference to the fact that they were criminals of the Caribbean. It's fitting that the first Disneyland, in California, was created in time for the Boomer children.

Boomers Ruin Academia

There were implications for the state of academic discourse when immature Boomers started “infiltrating” academia and were in conflict with reality-based adults. During the 1960's and 1970's the adults were forging new paths, some of which made the Peter Pan Boomer uncomfortable. A transition occurred in the climate of academic thinking during the 1980's, which just happens to be when the Boomers became a majority of adults.

For example, Paul and Anne Ehrlich published *The Population Bomb* (1968), which called attention to negative aspects of there being too many people sucking resources from Mother Earth. It was apparent that the most out-of-control populations were in

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undeveloped countries (or “developing” countries, as the PC people prefer to say). The Boomer hippy was a defender of everyone like them: powerless and poor. The poor Africans and Indians couldn’t defend themselves against Ehrlich’s criticism of explosive population growth, so the self-appointed defenders of the defenseless objected to any suggestion that poor people were hurting humanity’s chances for survival. The hippies got it half right when they shouted “Make love, not war.” However, making love has more than doubled the world’s population since then. Today there is minimal discussion of the need to control population growth, thanks to the Boomers.

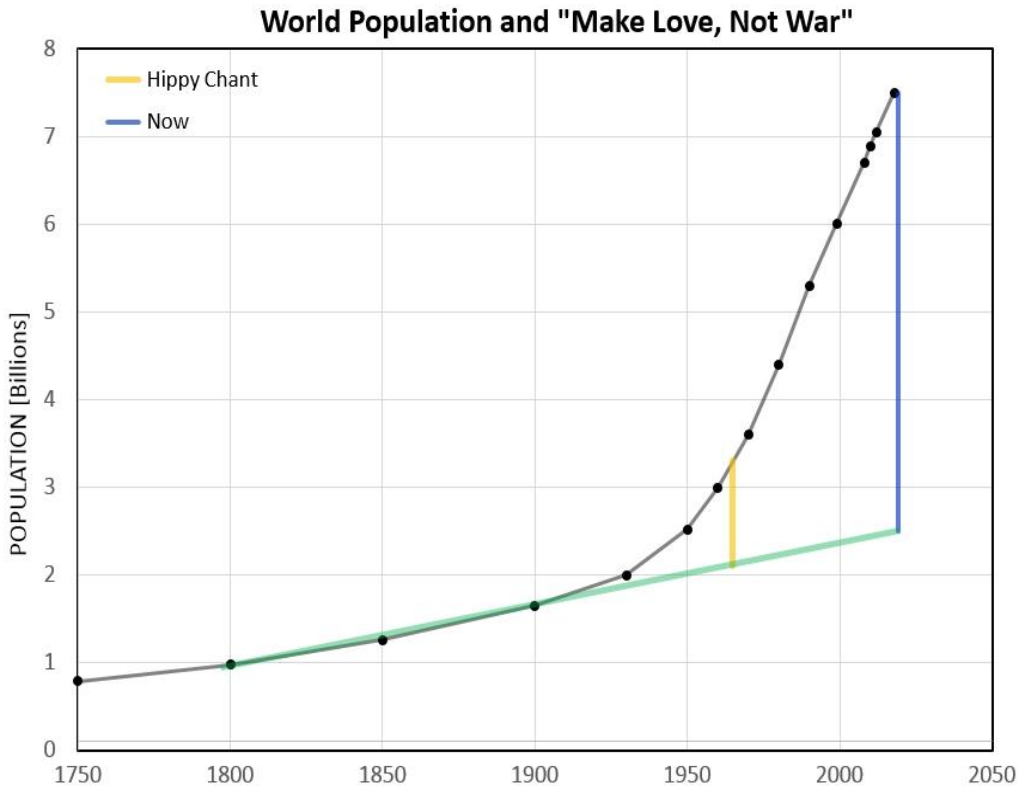


Figure 25.1. *The Baby Boom generation began a departure from a previous trend of slow population growth. The “excess” growth went from a billion people in 1965 to 7.5 billion extra people in 2021. This is the “population bomb” that the Ehrlichs warned us about in 1968.*

The Club of Rome project performed computer simulations that attempted to quantify the exhaustion of resources, and how an exploding population was making the problem almost insolvable. These “left-brain” analyses have been ignored by “right-brain” Boomers.

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One of the most humorous episodes of academic charlatanism was the appearance of “postmodernism” (also called “deconstructionism”) in the 1980’s. According to them everything is relative, and a spiritual description of reality is just as valid as a physicist’s (employing concepts like gravity, forces, fundamental particles, etc.). They claimed that it was impossible to achieve reliable knowledge. Ellis (1997) criticized postmodernism’s effect on university literature departments by writing “In the span of less than a generation, university humanities departments have experienced an almost unbelievable reversal of attitudes, now attacking and undermining what had previously been considered the best and most worthy in the western tradition.”

The most significant new academic development during the Boomer ascendance was sociobiology. The pioneers of this field were disciplined, fact-based and unconcerned about how findings made others feel. But some of the others were social activists and they felt threatened by what the sociobiologists were discovering. A Marxist following at Harvard poured cold water on sociobiologist founder E. O. Wilson, literally, while he was waiting for his turn to speak at a conference. The West Coast sociobiologists (U.C. Santa Barbara) took note of the controversy and unwanted publicity that their field was getting, so they changed the name of what they were doing to “Evolutionary Psychology.” This surrender was a signal to the Boomer social activists with their wishful-thinking agendas that they could intimidate adults who threatened them with reality. After another decade or two the Boomers gained control of funding decisions and essentially banished sociobiology from academia.

A similar scenario occurred in neuropsychology. The field became vibrant in the 1960’s partly from discoveries with split-brain patients. Some seizure patients were helped by the cutting of the corpus callosum, a bundle of nerves that connect the left and right cerebral hemispheres. Studies of these patients revealed amazing differences between the two brains (cf. Chapter 3). It was as if there were two people inside every head, and they had different goals in life and different ways of perceiving the world. Other investigations showed that brain function was very specific, in the sense that a perception or task was always found to be performed by the same brain region. The new generation of neuropsychologists were showing the brain to be a mechanism, and not the traditional notion of a mysterious “homunculus.” The old-fashioned psychologists, who relied on surveys and arm-chair speculation, must have felt threatened by the new generation of technologists. Some used the derisive term “dichotomania” as an insult to those who were revealing brain half differences. During the decades following the neuropsychology heyday of the 1970s there was a gradual withdrawal of emphasis of the brain as a mechanism that met evolutionary demands, and in its place the brain became something to be studied with an emphasis on minutia. The scientific literature now deals with trifling proximate causation matters (involving chemistry and connections), and no mention is made of the distal causation matter of the brain being an organ designed for the purpose of preserving gene frequencies in gene pools.

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The pattern I'm trying to convey is that whereas the Silent Generation of scientists went about boldly seeking explanations without regard to the sensitivities of the immature Boomers, the Boomers took advantage of their greater numbers (twice as many) and growing influence in relation to the bold and aging scientists, by slowly silencing the Silent Generation and anyone else who adopted their approach to sensitive matters. Another way to say this is that the Boomer's political correctness triumphed over the Silent Generation's unflinching exploration of reality.

Bold thinking is still not welcome because it might upset the Snowflake Generation (the Millennials). If I attempted to publish this book in a traditional way, the publisher's editor would object to every new idea in the book that might make faint-hearted Snowflakes uneasy, which is one reason this is a "self-published" book. No amount of "trigger warnings" for those snowflake readers would render the book acceptable for today's readership. If an existential threat to humanity loomed, would the aging Boomers and the young Snowflakes allow it to be discussed? No, and for different reasons. Consider how it became illegal during Trump's first presidency for government agencies to even mention global warming, let alone study it.

Global Warming

I spent more than half my career in the atmospheric sciences. I was one of the principal investigators for the 1989 international team that showed that the Antarctic "ozone hole" was man-made. In 1991 I was the lead author of an article about global warming published in *Science* magazine. I'm familiar with a professional custom for atmospheric scientists to under-publicize atmospheric problems (I saw this up close in 1989 during deliberations for what to present about the ozone hole project final report). After retirement I have seen many instances of under-reported new measurements leading to evermore dire predictions.

With this background I can say that things are worse than they are being reported by atmospheric scientists. This message is clear from a reading of the book *The Uninhabitable Earth: Life After Warming*, by David Wallace-Wells (2019), which I highly recommend. On the first pages we learn that half of human contribution to atmospheric CO₂ occurred since 1990. Just one generation's profligate and wasteful economic activity is responsible for half the problem the next generation will be tasked with fixing. Other global warming risks are shown to be more serious than the general public is aware of: forest fires, flooding, hunger, heat death, fresh water depletion, dying oceans, plagues, mass migrations and collapsing future economies.

If humanity ends during the next century the ending will probably be triggered by global warming. Climate change is almost as important as global warming, and both are caused by the rise of atmospheric CO₂. Global warming has cascading effects. Crop failures lead to societal collapse, leading to migration, which can lead to war, etc.

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Since the Boomers will continue to influence governance for another two decades, any serious consideration of humanity's prospects for passing safely through the gauntlet of threats that are now unfolding must take into account the character of the Boomer generation and their history of woeful neglect of matters affecting that safe passage.

The neglectful Boomers, the ineffectual Millennial Snowflakes, the rising tide of Enforcers – what could possibly go wrong?

This book may be the first to address this topic, and I hope it won't be the last.

Chapter 26. Evil Geniuses

America during the 1960s saw an awakening of individualism. The call to action was heard by two groups, or extremes on a spectrum: those who were concerned with creating a more just and moral society, but also by the titans of commerce who felt threatened by those in the first group. The titans began to wage war during the 1970s and have been ascendant ever since. Their first major success was electing Ronald Reagan to the U.S. presidency, and their latest success was electing Donald Trump.

This chapter [written in 2020] was inspired by Kurt Andersen's book *Evil Geniuses: The Unmaking of America: A Recent History* (2020). Although I heartily agree with the book's thesis and conclusions, my purpose with this chapter is to recast Andersen's message in the context of the conflict between eusocial collectivism and psychopathic extreme individualism.

The Baby Boomers grew-up spoiled. Their generation rejected any self-sacrifice needed by the collective. There opposite is illustrated by 16th Century Geneva, when John Calvin persuaded his fellow Genevans to trade their self-centered individualism for (eusocial) collectivism (cf. Chapter 15). The city's economic success was so amazing that other cities in Europe tried to emulate Geneva's experiment with religion.

For most of America's history individualism was celebrated, but never to the exclusion of consideration for societal good. It took the Baby Boomers to give full expression to the worship at this un-sacrificing altar. Like every generation, the Boomers exhibited a widespread range of temperaments. The lazy ones became dropout hippies and the ambitious ones took up business careers in pursuit of wealth. The ambitious Boomer's orientation to wealth came naturally because money is the key to satisfying every passing need, reminiscent of babyhood when needs were met by parental indulgence.

Both Boomer extremes came of age during the roaring 1960s! Unsurprisingly, conflict ensued. The hippies adopted righteous shaming, wagging their finger at the high-achievers for not caring about others – e.g., the hippies living in poverty. They called-out big businesses for their callous practices. The ambitious Boomers felt threatened. Some would rant about socialists who were behaving like “Hitler and his stormtroopers” because of the way they were trying to dismantle the “American free enterprise system” (Powell, 1970). They also accused the academics and the media of glorifying socialists who spoke about the free enterprise system being rotten (e.g., *The Greening of America* by Reich, 1970).

One of the most telling examples of a free enterprise Boomer's attitude is reported by Andersen (2020, pg. 16). During a late 1970s Harvard Business School class a hypothetical question was posed: Suppose a CEO discovers that his product could kill customers; what should he do? A student replied that “he would keep making and selling the product. My job as a businessman is to be a profit center and to maximize return to

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the shareholders. It's the government's job to step in if a product is dangerous." The student was Jeff Skilling, who later became CEO of Enron, whose financial fraud led to scandalous company ruin, for which Skilling spent 12 years in prison.

Skilling is just one example of the new titans of commerce who emerged when the Boomers discovered individualism during the 1960s and felt the need to defend themselves from 1960s finger-wagging hippies. I'll refer to these "titans of commerce" simply as "titans." The titans were conservative because they sought to reject everything created by president Franklin Roosevelt's New Deal and return to the times with few regulations and no taxation, as enjoyed by the Robber Barons of the late 19th Century Gilded Age.

The titans had more than hippy shaming to deal with; they had to respond to lawsuits brought by advocates, such as Ralph Nader, whose lawsuits were aimed at restraining corporate social irresponsibility. The titans accused Nader of wanting to destroy the free enterprise system. The manufacturers of pesticides (Olin Corporation, principally) tried vitriolic personal attacks on Rachel Carson for publishing the book *Silent Spring* in 1962, which blamed DDT for threatening bird populations and human health. The titans promoted public-relations campaigns that were essentially assaults on science. The anti-science movement may have many births, but one of them was during the 1960s, and it has only grown stronger since then – thanks to the titans.

It is ironic that both the righteous hippy and the titans were formed during the 1960s, but it is also understandable. That was a time for an awakening of individualism, a time for questioning collectivist, eusocial behavior. For two decades America had felt threatened by atomic bombs launched by communist Russia. The "climate of opinion" had tilted away from the collective, toward the individual. The titans, as well as the hippies, heard the call "If it feels good, do it, follow your bliss, find your own truth." An individual resents being told what to do by society. Regulations on business were viewed by the titans as a form of collective over-reach. They also viewed taxation of business as another abuse of the collective. Since both regulations and taxation are performed by government, government became the enemy of titans. And to the extent that academics favored regulations, taxation and democratic governance, academics were attacked as unpatriotic and socialist "elitists" bent on destroying the free enterprise system.

Andersen's book states that although titan complaints began decades earlier, in response to Roosevelt's New Deal, and were revived during the 1960s in response to advocates for constraints on immoral corporations (Ralph Nader, Rachel Carson, et al.), the campaign for restoring the good old days of the 19th Century Gilded Age began in earnest in 1970. First came the University of Chicago's libertarian economist Milton Friedman, with his *New York Times Magazine* article under the headline "A Friedman Doctrine – The Social Responsibility of Business is to Increase its Profits." Friedman heaped scorn upon the CEO who apologized for neglecting corporate social responsibilities; he said

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that they should instead defend themselves by attacking their attackers as unpatriotic socialists intent upon destroying American capitalism.

In 1971 Lewis Powell submitted to the U. S. Chamber of Commerce a confidential memo “Attack on American Free Enterprise System” (publicly available in 1972). He referred to “celebrity traitors” (like Nader) and suggested that “leftist government bureaucrats were intentionally pursuing anti-capitalist ends.” He counseled “No more Mr. Nice Guy!” From now on no businessman should be “tolerant of those who attack his corporation or the system.” Powell proposed waging war on academia, the media, politics and the legal system. Wealthy ultraconservatives (e.g., Charles Koch) rose to the challenge. They began funding “think tanks” with a partisan mission, engaged in confrontational politics, and they worked to change the U.S. Supreme Court to be more conservative. President Nixon appointed Lewis Powell to the U.S. Supreme Court shortly after Powell submitted his “confidential” master plan to the U.S. Chamber of Commerce.

In 1972 the Business Roundtable was created. It consisted of the CEOs of only the biggest businesses. One of its purposes was to lobby elected officials and weaken organized labor. Its current chairman is Jamie Dimon (CEO of JPMorgan Chase, born 1956 – middle of the Baby Boom generation). During the 1970s lobbying of the U.S. Congress grew rapidly, from representing 175 corporations in 1971 to 2500 corporations in 1978. In 1975 the Supreme Court ruled that it was legal for corporation Political Action Committees (PACs) to contribute as much money as they wanted to political causes, i.e., politicians. The majority opinion for the ruling was written by Lewis Powell. This could be done by company’s executives without the approval of shareholders. This ruling set the stage for the 2010 Citizen’s United Supreme Court ruling.

In Reagan’s first term inaugural address in 1981 he said what big business wanted America to hear: “government is not the solution to our problem; government *is* the problem.” Reagan had been introduced to Arthur Laffer’s wacky idea about supply-side “trickle-down” economics in 1975, and when he became president he immediately set about to implement drastic tax cuts. The new director of OMB, David Stockman, was charged with this task. Just 9 months into Reagan’s administration he told a reporter: “Do you realize the greed that came to the forefront. The hogs were really feeding. The greed level, the level of opportunism, just got out of control. ... The power of [big business and the rich] turned out to be stronger than I realized. [They] know how to make themselves heard. The problem is, unorganized groups can’t play in this game.” The final tax rate cut was 40 %.

When the wealthy got their tax breaks they didn’t invest it in new economic activity, so there was no “trickle down.” America’s debt soared, and we underwent a humiliating transition during Reagan’s administration from being the world’s most important lending

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nation to a borrowing nation! So much for Laffer. (Trump gave the Presidential Medal of Freedom, the nation's highest civilian honor, to Laffer in 2019.)

Andersen's book has extensive discussions about other aspects of Powell's four-front war on anti-capitalists. One of these wars led to a reshaping of the judicial system by such "originalists" as Anthony Scalia, who believed that if an offense wasn't in the constitution it was off limits for congress to pass laws about it. The new "judicial climate of opinion" led to fewer regulations on business. In particular, the Justice Department showed less interest in bringing anti-trust lawsuits, thus allowing the growth of big business monopolies.

Another war front was about relaxing laws regulating the financial industry. This led to an inevitable increase in the embrace of "greed is good" generally, but particularly by Wall Street. The accumulating abuses, permitted by new laws, led eventually to the 2008 Great Recession.

Another war front was weakening the importance of labor unions. During Reagan's first year as president he fired 11,000 striking air traffic controllers for ignoring his order to return to work. Working as an air traffic controller requires three years of training, and it took 10 years for the fired workers to be replaced by new government employees. The percentage of workers belonging to a union reached a high of ~ 30 % in the 1950s and began a steep decline in the 1970s to a current level of 10 %.

Let's skip forward to 2016. Trump's campaign was supported by wealthy conservatives in addition to Vladimir Putin. We may presume that the first group wanted to continue the 4-decade war waged by big business upon regulations, taxation, organized labor and the liberal media. The second group wanted to weaken America so that Putin could reconstitute the Soviet Union. Each group wanted to return to former greatness. The MAGA slogan could more honestly be called "Make Business Great Again" and "Make Russia Great Again."

During Trump's first presidency he served both masters. The 2017 tax law, passed by congressional Republicans, was a repudiation of an old conservative principle: Balance the budget when the economy is strong! But the law did stay true to another conservative principle: Reward those who donate to your campaign (i.e., wealthy businessmen). The Supreme Court was also rewarded in the way the titans of business wanted, with two business-friendly appointments [this was written in 2020, before the third appointment]. Federal regulations have also been rescinded with a brazenness never seen before. Nixon's EPA became a hollow shell of its former self. The FDA took orders from the White House. The Consumer Financial Protection Bureau became essentially leaderless and moribund. The mainstream media was attacked daily by Trump, and Fox News functions was his mouthpiece.

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What else could the titans of business want, besides a permanence for these changes? My greater concern is “What more could Putin want?” The short answer is “American impotence!” In other words, Putin wants “to make the world safe for autocracy.” And what’s the plan? For Trump to become a dictator. What does Trump want? He wants to lead an oligarchy in the same style that Putin leads a Russian oligarchy. [This paragraph is slightly dated since it was written in 2020. However, I like retaining the flavor of that year by not changing this “rant.”]

Chapter 27. Class Warfare

Poor people like making more babies than they can afford to raise. Everyone else ends up subsidizing these excessively large families. Rich businesspeople exploit poor people who are desperate for employment, and the super-rich create financial structures that benefit only themselves. Each class has a legitimate gripe about the other. The growth of resentment in both directions undermines social stability. The main victim is effective governance, and this can eventually lead to ruin for all.

Reproduction Strategies

It is well known among sociobiologists that the reproductive strategy of species can be characterized using a spectrum with r-strategy at one end and K-strategy at the other. The r-strategy is defined by minimal parental investment in raising offspring, and because of this lack of investment the r-strategy species create immense numbers of offspring. For example, female fish lay thousands of eggs which are later fertilized by a passing male, and that's the extent of their parental investment.

The K-strategy involves the creation of only one, or very few, offspring at each birth event, which can be spaced years apart. During the long raising of the offspring parental investment is constant and adds up to a large effort. Think about elephants as a K-strategy species. Humans are another.

But wait! Humans are different from most species. Thanks to our partially eusocialized nature we exhibit a greater diversity of just about everything. In fact, *within* the human species there is a range of reproductive strategies that can be characterized as belonging to either the r- or K-strategy.

Apparently the r-strategy was adaptive when conditions were harsh, and the K-strategy was more adaptive when conditions were good. The evidence for this is the presence of a strong positive correlation between fecundity and poverty. Poor people tend to have large families and wealthy ones tend to have smaller ones. The exceptions (e.g., the Kennedys) don't invalidate the "rule."

This correlation is ironic! Poor people are the least able to raise a large number of babies to a prosperous adulthood, yet they act as if they are more able to do this than wealthy people. This is illustrated by Fig. 27.1 (on the next page).

Consider an article in *National Geographic* (2019 October) about a large refugee camp, which must be one of the least promising settings for expecting to successfully raise even one baby. "At the world's largest refugee camp, in Bangladesh, dozens of Rohingya babies are born each day..." According to United Nations reports the number of homeless refugees globally has risen from 51 million in 2013 to 68 million in 2017, and it is expected to reach 143 million by 2050." One of the drivers for this problem is population growth that outpaces resource availability. This problem isn't going away in

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the foreseeable future. The root cause for the problem is an eagerness of poor people to do whatever it is that makes babies.

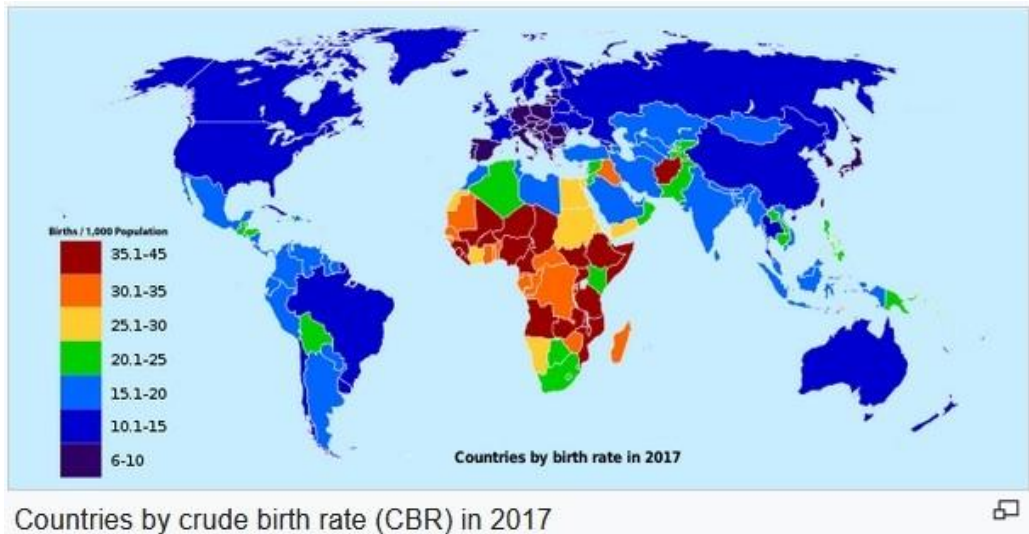


Figure 27.1 *The poorest people are the most fecund.*

Decades ago, when one of my daughters was having trouble finding employment as a teenager, she joined a “job corps” program (living away from home) to receive job training. She reported that the (Negro) girls kept talking about wanting to get pregnant. Learning a job skill seemed less important. This puzzled my daughter because it made more sense to become employed before becoming pregnant.

What are poor people thinking? Can’t they control sexual activity and wait until conditions permit them to properly raise the resulting babies? “No!” They fit the pattern of poverty causing people to have more babies than can be properly raised.

From the perspective of someone who cares about individual welfare there’s something wrong with human nature that this pattern exists. But the genes have no “concern” for individual welfare, and their “wisdom” is confined to what worked for the genes that assembled people during the Pleistocene.

What could be the “wisdom of the genes” that causes poor people to react to their poverty by wanting to make more babies? Why are poor people like fish! They can’t afford to provide parental investment in their offspring, yet they make as many offspring as possible with an ancestrally validated expectation that at least one of them will survive.

27. Class Warfare

Poverty and Profligacy can be a Winning Strategy

When conditions are generally good the poor person's strategy of reproducing beyond one's limit may be successful. I can illustrate this by describing an example from my personal experience.

Decades ago a neighbor family had 7 children, and the father was erratically employed as a restaurant table clearer. After I moved my family away we lost contact with them. A couple decades later one of my daughters returned to the neighborhood to look up old playmates, and she learned that most of the generation of children in that family had their own new families, totaling about 30. One of the playmate boys was in jail, others were on welfare and the father was unemployed. The contrast of lifestyles between this family and mine was stark. I postponed marriage until I had a secure job (employed by Caltech) and had saved money for unexpected emergencies, which happened at age 29. At the time my daughter reconnected with the Costello family playmate I had four patents, I had participated in solving the "ozone hole" problem, I had a vasectomy to assure that I wouldn't have more children than I felt I could responsibly raise, and my daughters had resolved to not have children (and to this day they don't have children).

From the standpoint of the genes, the Costello family was a huge success, and the Gary family was a total failure! It is tempting to say that "the genes know what they're doing." I doubt that the Costellos knew what they were doing, and how successful it was from their genes' standpoint. I also doubt that taxpayers in society who unknowingly helped the Costellos knew what suckers they were – at least at a conscious level. But I do think there is an unconscious understanding of people in both categories that something is going on that isn't fair. Even an unconscious understanding of how the "profligate poor" were scamming society would be sufficient for creating a feeling of resentment by the well-off class against the poor. The thing that is sensed is what I refer to as "class warfare."

The Essence of Being Low Class

What's the difference between upper, middle and lower social classes? Is it just a measure of wealth? Or maybe how much power over community affairs a person has?

The example I described in the previous section provides a good illustration of what low class means. Lack of responsibility is an essential trait. It is irresponsible to have many children without job security. Being in jail happens to people with irresponsible or selfish behavior. Erratic employment can signify lack of seriousness as well as lack of competence. A low-class person ignores consequences of their behavior. Such a person acts as if there is no tomorrow; only the present matters. The central theme for being low class can be summarized by one word: Neglect!

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At conception a person is endowed with a level of intelligence (residing in the posterior lobes) and a personal lifestyle predisposition (residing in the frontal lobes). This was described in Chapter 4 (c.f., Fig. 4.4). A baby is destined to be an adult somewhere on a spectrum that ranges from neglectful to conscientious.

I argue that a person who is congenitally neglectful will end up as a low-class person. Their handicaps are so profound that they could rarely achieve, and never sustain, an upper-class station in life. For the conscientious person, on the other hand, there is a possibility for achieving and maintaining an upper-class station.

Since there is a correlation between the kind of job a person can perform and what the job pays it is inevitable that there will be a correlation between social class and wealth. The correlation between wealth and class is of course imperfect because a low-class person can become wealthy by unfair means (e.g., mafia extortion, etc.), and an upper-class person can fail to achieve success due to bad luck.

When a society becomes prosperous it will tolerate low-class people more than before. This is because the “cost” for toleration becomes a smaller proportion of upper-class income. Toleration can take the form of subsidizing unemployed people. Welfare programs are a tolerable price to pay for keeping low-class people’s desperation under control. Societal harmony is required for the upper-class to maintain their prosperity.

We should consider the possibility that when a society enjoys a rise in prosperity low-class people will reproduce faster than the middle- and upper-classes. This is an important speculation, so keep it “in mind.”

Upper-class people understand lower-class desperation, and the relationship between the classes can be unfair in both directions. An employer can under-pay workers or fail to maintain safe working conditions. The late 19th Century Gilded Age was a time of growing prosperity, and possibly increasing low-class fecundity; this may explain the rise in abuse of workers by the upper-class employers.

It is inevitable that each class can harbor legitimate resentments against the other. Mutual exploitation can be finely tuned to avoid miscalculated collapse. However, when external forces create change (e.g., a natural disaster, a pandemic, change in climate) open warfare between the classes may occur.

Tragedy of the Commons

Miscalculation can lead to societal collapse. An oft-cited example was described in a 1968 article by Garrett Hardin (though the idea dates to 1833, when British economist William Forster first presented it). The concept goes by the name “the tragedy of the commons.” It refers to any situation in which a finite resource is available for use by

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many individuals who are free to decide how much of the resource they shall exploit. For example, a “commons” can be a field for grazing sheep. Each farmer has a flock of sheep that grazes with other flocks. If each farmer is free to increase the size of his flock based on only expected financial return to himself, and even if the total population of grazing sheep is close to the maximum carrying capacity for the field, the farmer’s rational decision is to add more sheep to his flock. This is because his percentage payoff is greater than the percentage increase in total flock size. In the absence of a coordination of all farmers motivated by a concern for the loss of the commons and all grazing sheep, there is no incentive for an individual farmer to limit the size of his flock. The inevitable result is an over-grazing that ruins all farmers.

There are many “commons” that humans rely upon: the atmosphere, a lake or river, fish stocks and a territory with food ready for picking. If a tribal territory is viewed as a “commons” then we are ready to understand why poor people produce more babies than they can afford to raise. In an AE small tribe when a baby can’t be provided for by its parents the rest of the tribesmen provide the missing parental investment. This is a tribal adaptation for the case when a parent is unable to continue parenting through no fault of their own, such as when they are injured or killed in an inter-tribal conflict, or when they die from disease. In these cases, the parents of an orphaned child were not intending to exploit the tribe unfairly; fate of bad luck merely forced this dependence upon the tribe.

It is easy to understand why the genes would co-evolve with culturgenes that accomplished the saving of an orphaned child. After all, a child who is already half-raised has a significant investment, and less investment is needed to finish the task of raising it to adulthood than to begin anew with another birth.

Poor People Cheating

If the aforementioned culturgen is present in all AE tribes there is will be an incentive for cheating by the profligate poor.

Presumably, human nature hasn’t changed much during the Holocene, so profligate poor people are present-day cheaters. They have a sub-conscious understanding that “society” will contribute to the raising of their extra babies. The original purpose for tribal acceptance of this provision of foster parental investment for babies or children was forgotten, as if left behind in the AE. In contemporary times defenders of this culturgen may feel the need to argue that anyone who is poor is a victim of bad luck. Sometimes this is true, but usually it isn’t.

Class Warfare

Class warfare is a somewhat taboo topic. Like all taboo topics there’s an underlying truth to the disputed topic. But are the words “class” and “warfare” appropriate? Recall that

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low-class is determined by a congenital predisposition for Neglect, while upper-class is usually determined by a congenital predisposition for Conscientiousness. The two class extremes are therefore usually seen as standing for wealth and power versus poverty and powerlessness. Warfare refers to a struggle for survival through competition. I think both terms are fairly used with the term “class warfare.”

Consider the complaint by defenders of the poor that they are victimized by the powerful. It is true. Human nature evolved to never miss an opportunity to exploit the vulnerable. Poverty means hunger, and the hungry are willing to accept lousy employment offered by the wealthy. Recall the origins of feudalism: the “man with a hoe” needed protection from marauders, and the strong man’s offer of protection in exchange for taxation was a win-win offer. For this case the arrangement was entered into with a mutual understanding. Then there’s the case of forceable enslavement. America’s rise in strength starting in the 17th Century was based in part on slavery. Free labor wasn’t entirely free since slaves had to be housed and fed in order to be useful to the slaveholder. But the terms of this arrangement weren’t negotiated by both parties, the results were therefore not fair, and the slaves were clearly victimized.

Then there are child labor abuses, company store abuses, Mafia-style shakedowns of helpless store owners – the number of examples of wealthy and powerful people exploiting the poor and weak people is essentially countless. Victimization of the poor is so common that it could be included in the list of “human universals.”

The grievances of social activists who defend the poor by attacking the wealthy are legitimate, but the wealthy also have a case against the poor. Anyone who carelessly makes more babies than they can care for is appealing to the good nature of those better off to take pity on poverty and willingly offer help. These good people may be swayed by accusations that the poor have been victimized, for there is truth in these accusations. But careless neglect of moral obligations associated with sexual profligacy cannot be excused. This is a legitimate answer to the accusations by social activists. Hence, there is a valid “war of words” to be waged by both sides of the class warfare.

Risks of Population Explosions

The world’s population is plotted vs. time in Fig. 27.2 (on the next page).

Notice two population rise episodes, one starting at the beginning of the Holocene (9,700 BC) and the other starting at about the time of the invention of the steam engine (~ 1800 AD). There’s a third rise after World War II, but it’s difficult to see in this graph (shown better in Fig. 27.5). The first rise was produced by the adoption of farming and herding when the Holocene climate became favorable for these lifestyles. The second rise was produced by the start of a series of inventions (also referred to as the Industrial Revolution) that allowed machines to replace human physical labor.

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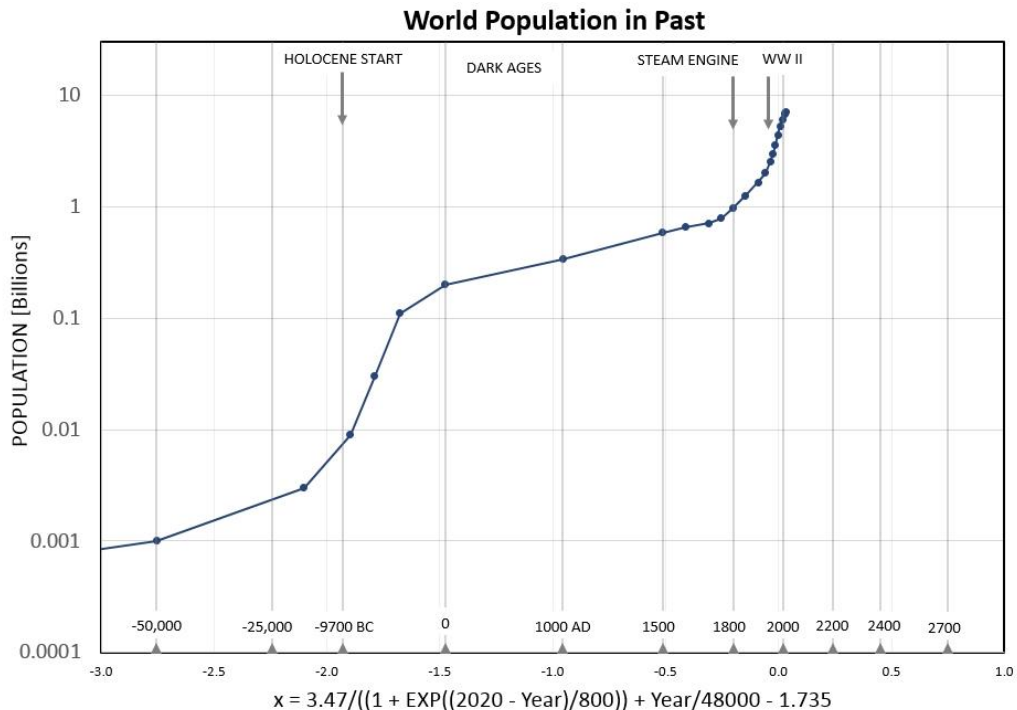


Figure 27.2. *World population versus time, using a scale for time that stretches-out dates near the present (similar to a “sigmoid function”).*

It can be assumed that a society’s population always rises to match “carrying capacity.” Episodes of carrying capacity increases lead to the question “What kind of people increase their numbers during a major carrying capacity increase? Is it mostly low-class people, middle-class or upper-class people?”

When conditions are harsh fitter people have a greater probability of surviving to adulthood, and they have a greater probability of raising children to adulthood. This is a tautology, for this is how “fitness” is customarily defined. People whose offspring are genetically less likely to survive make up for this by producing more offspring than fitter parents. Low class people are statistically more likely to be in this genetically inferior category. Therefore, during harsh conditions the percentage of offspring that survive to reproductive age will depend on class – statistically. Let’s assume that approximately 50 % of offspring survived to adulthood during the AE. This is a “class-average” and it is based on typical births per woman of four with an average of two surviving to adulthood. Conceptually, it is easy to say that the fitter offspring would have a higher survival rate than the less fit, e.g., 60 % versus 40 % (as explained in the next section.)

Now, imagine that a society suddenly becomes prosperous and all classes benefit. Suppose the survival rate to adulthood becomes close to 100 % for all classes. For as

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long as this situation persists the less fit will increase faster than the more fit. There are two reasons for this: 1) the rise from a childhood survival rate from 40 % to 100 % is greater than from 60 % to 100 %, and 2) the less fit have more offspring than the more fit. The result of these two effects will be a rise in the proportion of the population that is unfit. In class terms, the number of genetically-destined lower class people will rise in relation to the number of genetically-destined upper class people. We are therefore invited to view the three global population rises (9700 BC, 1800 AD and 1950 AD) to be times when the percentage of lower-class people increased.

Mutational Load

If the above is true, then we must wonder if the population with a new composition is better able, or worse able, to secure a stable and harmonious society. A 1988 article by Alexey Kondrashov, in *Nature* (the most-respected science journal), modeled the implications of accumulation of deleterious mutations in humans when a high percentage of births are successful in surviving to reproductive age. His “mutational load” theory implied that what looks like success, with most newborns reaching adulthood, is actually a recipe for genetic decline for future generations. Our ancestors relied upon a “birth to adulthood ratio” of 30 to 50 % to maintain an elimination of deleterious mutations. This weeding out of deleterious mutations was needed to sustain genetic vigor, i.e., mental and physical health. A modern society boasts a ratio close to 100 %, and this means each modern generation is accumulating more deleterious mutations. Ironically, it is the upper class, with a higher success ratio, who should suffer the faster decline in genetic vigor.

Gerald Crabtree, a distinguished biochemist and geneticist (and member of the National Academy of Sciences) presented a similar argument (2012). He argued that over millennial timescales, since humans began living in cities instead of H&G tribes, human intelligence has been in decline. His argument is well summarized by the following *Cell Press* publisher of his 2012 pair of articles: *Human intelligence and behavior require optimal functioning of a large number of genes, which requires enormous evolutionary pressures to maintain. A provocative hypothesis published in a recent set of Science and Society pieces published in the Cell Press journal Trends in Genetics suggests that we are losing our intellectual and emotional capabilities because the intricate web of genes endowing us with our brain power is particularly susceptible to mutations and that these mutations are not being selected against in our modern society.* Crabtree says “I would wager that if an average citizen from Athens of 1000 BC were to appear suddenly among us, he or she would be among the brightest and most intellectually alive of our colleagues and companions, with a good memory, a broad range of ideas and a clear-sighted view of important issues. ... Furthermore, I would guess that he or she would be among the most emotionally stable of our friends and colleagues.”

Crabtree’s argument is based on the fact that mutations occur at the rate of 3 or 4 dozen per generation (most of which are neutral, a few are bad, and only rarely are any of them

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good). Since today nearly all births reach the age of reproduction (unlike for AE ancestors) there is no longer a weeding out of the bad mutations. As a result, each generation is accumulating more undesirable mutations. Since about half of genes have effects upon the brain we should expect declines in intelligence and emotional health.

The only way to avoid an accumulation of “mutational load” deleterious mutations is to discourage defective adults from having children. This could be done using financial incentives, such as a guaranteed income for defective people in exchange for a promise to not bear babies. That would be a “civilized alternative” to nature’s way - allowing defective children to die before reaching reproductive age at the natural rate of about 50 %. However, this civilized alternative will never happen, and it’s because discouraging anyone from having children resembles a “eugenics” program. Eugenics has a bad reputation that it will never overcome due to mistakes that were made by over-zealous eugenicists during the early 20th Century. All future proposed interventions that involve genetic information will be tarnished by association, regardless of whatever safeguards are proposed and regardless of promised future improvements. Humans have therefore condemned themselves to a path of genetic degeneration for the foreseeable future.

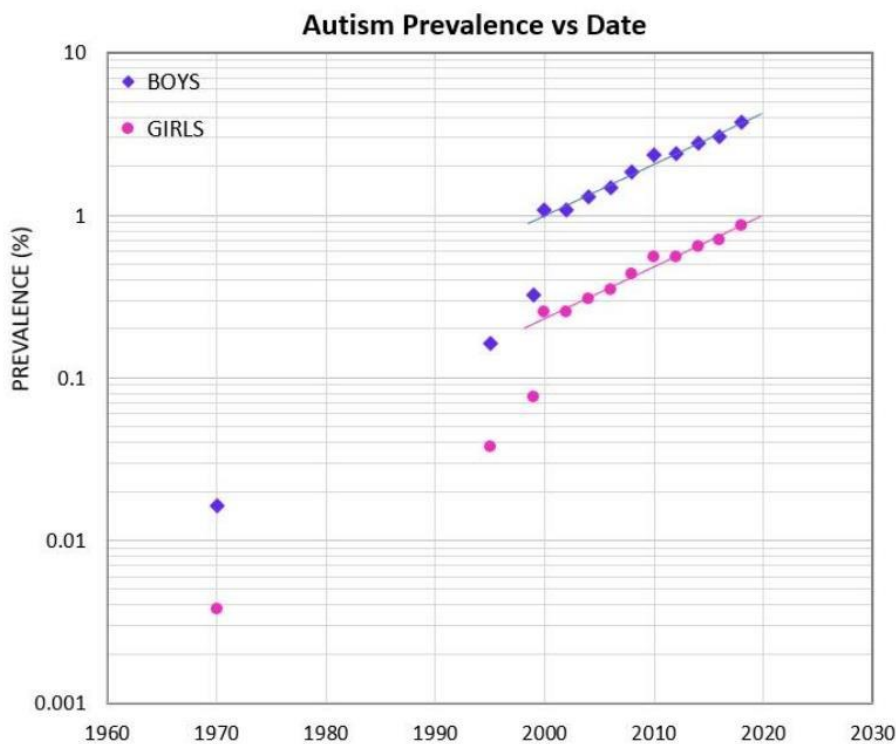


Figure 27.3. *Estimated incidence of autism for 8-year-olds (from Autism Speaks, Autism Society, CDC, The Autism Community in Action, NIMH, Cleveland Clinic).*

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“Autism Spectrum Disorder” is just one affliction that is becoming more common. For decades the community dealing with “learning disabilities” has been complaining about a similar trend. Asthma is another disease on the rise. These, and many other health problems, are initially explained away using such terminology as “recategorization,” or more comprehensive testing. Some of this is surely true (as the early measurements in Fig. 27.3 suggest), but we should also consider the possibility that these afflictions may in fact be increasing (as the same graph’s later measurements strongly indicate).

If this figure’s autism trend is real, and if it continues at the rate in the graph, by 2030 about 10 % of boys will be autistic. That means that boys born now have a 10 % chance of being diagnosed (in 2030) as autistic. But wait! Why stop at 2030? Figure 27.4 is an extrapolation to the end of the century. It shows an asymptotic approach to 100 % for boys by then. The girls extrapolation has about a 20-year lag. By 2070, for example, it is projected that 60 % of boys and 25 % of girls will be autistic. Will women be taking over control of human affairs during the waning decades of this century?

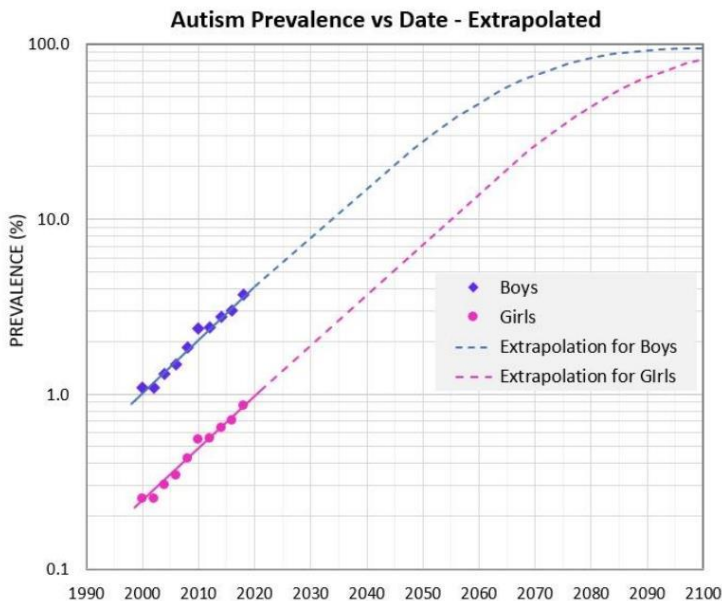


Figure 27.4. Same data as in the previous figure but extrapolated to the end of the 21st Century (and invoking a saturation model as 100 % is approached).

If this happens adult men will be mostly autistic a couple decades later, and for all subsequent decades there will be a vanishingly small number of adult men to sustain western civilization. Of course, an extrapolation is only as good as the data being extrapolated, and also only as good as the underlying assumptions of the extrapolation. I’m unqualified to assess both of these matters. Nevertheless, I wonder if this is something we should be worrying about?

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Weakening of Society by Low-Class Over-Representation in a Population

At the time of this chapter's writing (mostly 2020) there were widespread protests about police abuses. Such abuses are of course inevitable when police are recruited from a population of Enforcers. The authoritarian literature shows that the Enforcers lack empathy. Recall Dean and Altemeyer (2020) description of how high-scoring authoritarians (Enforcers) felt little sympathy for classmates in high school who suffered embarrassing mishaps, and how some even experienced "secret pleasure" about the other student's mishap (cf. pg. 60). Enforcing laws resembles enforcing a strong leader's edicts, so the notion that police and other law enforcement people are Enforcers is an easy suggestion to defend. It should not be surprising that most white policemen enjoy mistreating Negroes and other minorities.

At times when there is a general public uprising, regardless of its legitimacy, there is an opportunity for "anarchists" to bring mayhem to the protests. In response, unscrupulous leaders will abuse their power by quelling dissent forcefully. This of course will be done in the name of "law and order." Nixon did it in 1968, and so did Trump in 2020. During the entire process of public protests, and abusive policing, the work that keeps society running suffers. Society is currently in a weakened state due in part to the protests.

The composition of today's society is different from the past, at least in America. Maybe this is more apparent to this 86-year old author than to younger people. In part, this must be due to the changing of attitudes as new generations displace older ones in the influence of societal character. This is described in the Fourth Turning theory. But it may also be due to the accumulation of deleterious mutations that affect genetic physical and mental resilience. There are disturbing trends of sickness in America. Asthma, learning disabilities, autism, diabetes – but most importantly, stupidity. Can the growth of Roobish stupidity really be blamed on the unpreparedness of commoners for wealth, as I argued in Chapter 17? Or must we consider the accumulation of deleterious mutations as an alternative explanation? Regardless of which speculation is more important, the problem of a dumber acting *hoi polloi* is a new challenge confronting humanity.

Population Rise Challenges

Let's consider the matter of the world's most recent population explosion. The next figure (Fig. 27.5) shows how the world's population increase has exhibited an upward inflection during just one lifetime (mine). Since about 1939 (when I was born) it has quadrupled! This was possible due to technology improvements that occurred during World War II, which increased population "carrying capacity."

During the "blink of a lifetime" four times as many people have arrived to occupy each square foot of dry land! Agricultural acreage has been decreasing while the demand for food has been increasing. Fortunately for the hungry masses, and partly due to genetic

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tricks by agronomist Norman Borlaug, a Green Revolution has kept pace with demand – until recently. We’re running out of new tricks and a return of starvation as a population stabilizer is inevitable.

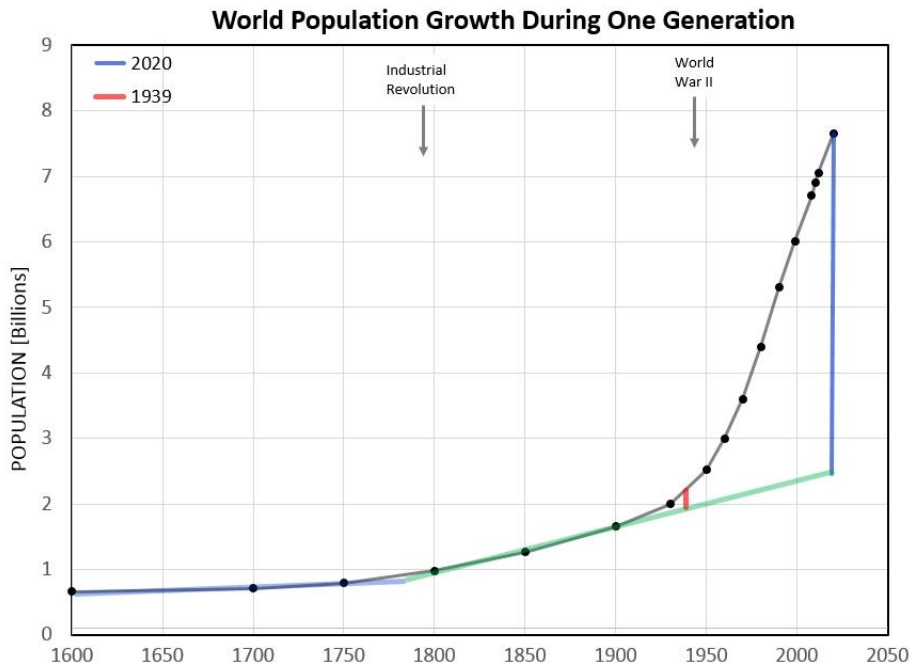


Figure 27.5. *World population explosion during one lifetime (the author's, between red and blue lines).*

If everyone's standard of living had remained constant during the past 80-year transition Mother Earth wouldn't have suffered as much as she has. But the standard of living has increased at the same time that more people came into existence. We're used to thinking that lifting people out of poverty is good. Yes, it's good for the people being lifted, but bad for Mother Earth. Resources of all kinds are being depleted. Some resources are renewable, but others aren't. And waste products pollute the air, ground and water.

Presumably the world's population will level out at 11 or 12 billion; at least this is what the optimists predict. If it happens it will be during the second half of the present century. During the 1-century transition from 2 billion to 12 billion, the age distribution will have undergone being skewed toward an excess of young people to the opposite. This means that during these two transitions the labor force will be out of balance with the demand for goods and services. During the first of these imbalances a greater supply of labor than required contributes to unemployment. Add to this, an increase in robots that eliminate low-skill jobs. Chronic unemployment could exist during the first imbalance, translating to social discontent and unrest.

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One response to exploding demand for goods has been the development of high efficiency production and distribution systems. An important example is “just in time” delivery. There’s a downside to JIT: its efficiency comes at the expense of loss of resilience. Small failures, and natural disasters, can lead to extensive and lengthy shortages on store shelves. This occurred during the COVID-19 years. There is growing concern among futurists that today’s civilization is becoming ever more dependent upon efficient but fragile technologies – such as JIT.

A century ago approximately 1/3 of American families lived on family farms. Today that fraction is about 2 %. This 15-fold decrease can be viewed as a 15-fold decrease in lifestyle resilience. It is not outrageous to imagine a hostile country crippling the power grid of a large portion of America (Koppel, 2015). Replacing key generators could require 6 months. A century ago every farm produced power using a wind mill. The increase in fragility of our modern infrastructure is staggering.

Pandemics ravage cities more than rural places. This is due to the “spreading rate” of a virus being proportional to how many new people a typical person comes into contact with per day. A farmer may go to town once a week, for short errands, whereas a city dweller may spend much of each work day in the company of other people. It has been known for centuries that during a pandemic there is safety in country living. Isaac Newton famously survived the Bubonic Plague (1665 – 66) by relocating for 18 months to a country estate. During his self-quarantine almost a quarter of Londoners died from the virus. The proportion of the world’s population living in cities is rising steadily. Globally it is 55 %, and is expected to rise to 68 % by mid-century. In America the percentage now living in cities is 82 %.

Chapter Summary

We have inherited a culture that accepts responsibility for raising orphaned babies and children because it was adaptive in the AE. Poor people take advantage of this readiness to help; they are predisposed to produce more babies than they can afford to raise. The middle- and upper-classes who subsidize the oversupply of poor people’s babies are themselves instigators of their own version of inter-class victimization: they take advantage of the desperation that poverty produces by offering jobs that are under-paying, insecure and unsafe. Each class has a legitimate complaint about the other. Resentment in both directions is present, and this is what is referred to as class warfare.

Gene mutation theories provide a strong argument for dystopian declines of physical and mental health whenever the fraction of babies who survive to adulthood exceeds a critical level of about 50 %. During the AE the fraction of babies who survived was below this critical level. This allowed for the elimination of deleterious mutations which allowed IQ, mental health and physical health to remain stable. Throughout the Holocene there have been many improvements in wealth that led to a higher survival rate for newborns.

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The resulting population increase should be accompanied by declines in IQ, as well as mental and physical health. There is a theoretical solution for this problem, to discourage defective adults from having babies. However, this will never happen because it resembles eugenics, which has a bad reputation from over-zealous eugenicists during the early 20th Century.

In addition to these dystopian effects upon all classes of people accompanying improvements in “carrying capacity,” there should also be increases in the proportion of low-class people during dramatic population increases. The essential traits characterizing low-class people is Neglect; they ignore the consequences of shirking responsible behavior. The essential trait for upper-class people is Conscientiousness. We, the conscientious, are more aware of long-term consequences of our decisions. Because a society’s stability is influenced by which lifestyle type is dominant it matters whenever there is a change in the population mix of low- versus upper-class people. Whenever a society’s population undergoes a large increase, a theoretical argument shows that most of the increase will consist of low-class (neglectful) people.

There was a rise of world population starting about 11,700 years ago, at the beginning of the Holocene when the climate warmed and farming lifestyles were adopted. Another rise occurred at about 1800 AD, when the invention of the steam engine began the Industrial Revolution. A third rise occurred after World War II, when the “can do” attitudes that developed by the Axis powers for winning the war created an efficient American society (relatively un-influenced by psychopath hijackings). We can speculate that each of these three population increases, especially the current population explosion, has led to a loss of human intelligence, mental health, physical health and a decline in the proportion of the population that is conscientious – i.e., the upper-class. All of these factors compound the challenges of societies under threat of psychopath hijackings.

What could be the long-term implications for these troubling problems? The next two chapters explore the implications.

Chapter 28. 20th Century Set-Up

The importance of psychopaths in corrupting governance with their creation of fascist autocracies peaked during the first half of the 20th Century. Following World War II America led a trend for replacing autocracies with democracies. Technology exploded, leading to the internet by the end of the century. The internet had not yet shown how dangerous it could be, so it was possible for there to be a widespread optimism that it would give the Little Man a voice. That voice would be used to hold the powerful accountable using a barrage of Truth. If this led to a reduction of corruption, then wealth equality might be achieved, and once again it might be possible to dream about achieving a utopian paradise. In retrospect, this optimism was naïve.

Millions of years ago, when our ancestors began the eusocial transition, the genes that dictated the assembly of brain circuit pre-wiring could not achieve the eusocial goal in the same way as was done for ants, bees and termites. These earliest eusocial species could be programmed to act on behalf of the collective, their colony, in a robotic fashion. For pre-humans, however, it was more difficult for the genes to fit their nature into a eusocial mold. This is because pre-humans had thinking brains, and a thinking brain is theoretically capable of asking “why?” Insects can’t think, so they can’t wonder about “why” they must sacrifice themselves to serve their collective!

Before describing how the 20th Century served as a “set-up” for the 21st Century, I want to present a brief review of the set-up to the 20th Century.

Stone Age Evolution of a Conscience

When pre-humans began the eusocial journey a new brain circuit was needed to curb the ability to ask “why.” This pre-wired mental module was probably located in the left pre-frontal cerebral cortex, and we now have a name for it: **conscience**! A functioning conscience must have evolved slowly in pre-humans, and today it is present in 99.5 % of humans. This number assumes that all Normaloids and Unreliables have a conscience, sociopaths have a weak conscience, psychopaths lack a conscience and 0.8 % of men and 0.1 % of women are psychopaths.

Why isn’t a conscience module present in 100 % of present-day humans? It would have been good if sociobiologists had at least acknowledged this matter last century, when they were an intellectual force. If they had addressed the topic, one of their responses would have been the counter question “Why are some cells in a body cancerous?” This response would have suggested that psychopaths are successful enough in producing offspring, provided their numbers are not too high, that they are able to maintain a steady-state presence in men at the ~ 1 % level. This argument belongs to the Evolutionarily Stable Strategy (ESS) category. If true, it could be used to explain the presence of sociopaths – that they are simply people with some of the genes for psychopathy, but not enough to become psychopaths.

28. 20th Century Set-Up

An alternative answer was described in the First Edition of this book, that sociopaths were an asset to the tribe (because they patrolled the tribal territory border, and their “ruffian genes” were present in the tribal genome). When too many ruffian genes were present in an individual that person would be a psychopath. Appendix B explains how this might work.

Whether either of these explanations is true, we must accept the fact that psychopaths exist, and they are pre-adapted to many of the jobs in a civilization. Consequently, their prevalence is probably increasing. The most worrisome job that they seem able to achieve, and stay occupied in, is governance. Occasionally, a psychopath arrives at the top position of governance, and becomes a dictator. As Anne Applebaum warns (2020 and 2024), the world is slowly being “made safe for autocracy.” This is being achieved by autocracies joining in mutual supportive arrangements that renders them less affected by penalizing sanctions imposed on them by democracies (treated in the next chapter).

Stone Age Hierarchies

For small tribes the role of Enforcers was straightforward and adaptive from the tribal genome’s perspective. These tribes were at any one time either engaged in war or were at peace. During peace they were becoming stronger, and therefore preparing for war by tolerating an individualism that division of labor requires. The baby brain grew into adulthood, ready for living both lifestyles and for making the transitions back and forth by reading trends. When war loomed, some adults assumed the role of enforcing a suspension of individualism and replacing it with patriotic devotion for defending the collective.

A tribe that was preparing for war elevated a wise elder to be chief. He knew that a tiny fraction of people should be exempt from warrior duty: the artisans, because they made weapons used by the warriors. The Enforcers don’t understand this nuance, for they are a “blunt instrument” – that proverbial hammer that sees everything as a nail. (If the Enforcers of today had their way they would put someone like Einstein in a uniform and turn him into a foot-soldier.)

During the Pleistocene, Enforcers knew how to read signs of looming war in a tribal setting, but in our civilized state, a new and novel setting, they can be profoundly mistaken. It may be helpful to consider that every baby is a barbarian invader whose brain was designed by evolution for life in a small-tribe, Stone Age setting. Some of what the Enforcers do in contemporary society is still adaptive. For example, marching is used as a symbolic repudiation of individualism. So is the “uniform” that’s issued to every Army recruit. Every effort is made to convert the civilian individual to a robot in the service of the collective. An Army drill Sargent epitomizes what the Enforcer is all about as he converts civilian individuals into “marching morons.”

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But during the Holocene, with super-tribes in which most people are strangers, the Enforcers behave like automatons from another time who play an unwitting role in destroying their society. Their main weakness is that competent leaders sometimes fail to achieve leadership because the Enforcers are impatient as well as clueless, and they are prone to succumb to the faux leader, a stranger who turns out to be a psychopath.

20th Century Autocracies

The Enforcers were never meant to understand their role at any depth or with any nuance. They have always been unsophisticated followers of whoever succeeds in presenting themselves as a strong leader claiming to be the only one who can save the tribe from a threatening trend. Since psychopaths were rarely present in small tribes, and if present everyone recognized them as untrustworthy, it must have been rare for a psychopath to be accepted as the best person for preparing the tribe for war. But during the Holocene, with thousands of psychopaths living unnoticed for who they were, the chances of an ambitious and charismatic psychopath achieving that “strong leader” role were greater.

Moreover, a talented psychopath could even orchestrate a common belief that society was being threatened when it wasn't. Psychopaths have an uncanny ability for detecting weaknesses in potential victims, and this ability must also apply to a psychopath's reading of the general population. Hitler understood that Germans felt humiliated by their loss of World War I, as well as the Treaty of Versailles, and he knew that the Germans wanted someone to blame besides themselves, so he depicted the Jews as an elite force whose greediness for money and hidden power was thwarting Germanic greatness.

When Hitler became Fuhrer he did a masterful job of “mobilizing.” Government power soon resided in only the executive branch, and the executive became hierarchical with Hitler at the top in complete control. No neighbor country was threatening Germany, so Hitler had 6 years of uncontested mobilization for war. The German people adored Hitler, so he could have remained in power, and at peace with his neighbors, but when a thing is created for one purpose, and it is powerfully prepared for that purpose, there must be forces for unleashing it that are difficult to restrain. In fact, if it weren't for a few lucky breaks (e.g., code breakers in the UK and America) Germany could have won the war and become rulers of at least half the world.

Hitler provided us with a template for how this was done, for the 20th Century at least. An ambitious and charismatic psychopath would invent a need for him to become a strong leader, and after achieving leadership he would mobilize that society for a (non-existent) threat by converting governance to an extreme of hierarchy. He would then reign for as long as his appetite for relevance was sufficiently satisfied and the forces of military ambition could be restrained. During this regal reign our kingly psychopath would be presiding over an autocracy.

All of this was made possible by the gullible Enforcers. They enforced a rise of patriotic hierarchy, and the tribal leader persuaded them to maintain this hierarchy long after it

28. 20th Century Set-Up

was needed, which permitted the dictator to maintain his autocratic rule. This is depicted in the next figure.

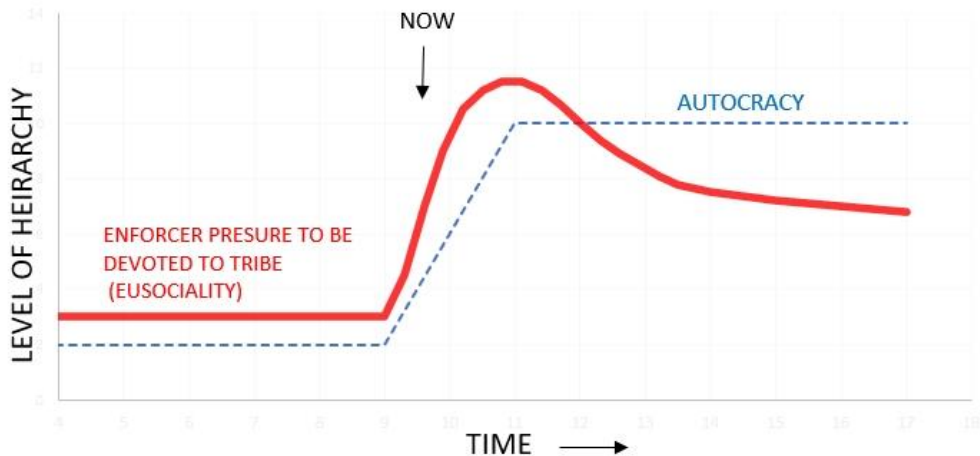


Figure 28.1. *Distorted trajectory of Enforcer influence for 20th Century transitions from democracy to autocracy. The red trace didn't decline to zero after achieving an autocracy, as it should if its purpose was to merely establish a hierarchic form of governance for the duration of the inter-societal conflict.*

There are many ways to view the 20th Century with the aim of understanding why it was becoming a “set-up” century for bad things to happen during the 21st Century. Some of these 20th Century things seem unrelated to a progression toward the next century's kleptocracies. But in retrospect, I think a lot of the developments of the 20th Century did in fact contribute to the present century's replacement of democracies by kleptocracies. Some of the following sections describe these developments.

The Loss of religion

Religion has been in decline in Western Civilization for several decades. In America the rate of “religiously unaffiliated” rose from 10 % to 29 % between 1990 and 2021. Similar trends were present in Europe. We can assume that during the Pleistocene whenever a tribe's level of devotion to the tribe was seen to waver it was the Enforcer's job to re-assert devotion to the tribe's religion as a way of reinforcing patriotism.

It is noteworthy that the strongest sector of America that supports Donald Trump (as of this writing, in mid-2024) are white evangelical Protestants. They have a 68 % approval rating of Trump according to one poll. Their support isn't based on Trump's personal

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life, but his stated desire to advance the agenda of “white Christian nationalism.” This rising movement is devoted to establishing religion as a force in America despite it never having been acknowledged as having a legitimate role in our governance in the constitution. I suggest that Christian nationalism is on the rise in America because of the unprecedented increase in the percentage of people professing a disinterest in religion, and the notice of this by the Enforcers.

Expanding Job Opportunities for Sociopaths and Psychopaths

The present predicament is also partly due to a proliferation of new job opportunities for sociopaths and psychopaths in contemporary societies. Modern societies just happen to create jobs that seem tailor-made for sociopaths and psychopaths. These include trial lawyers, business executives, politicians, lobbyists, surgeons, Wall Street stock traders, etc. None of these jobs existed before the Holocene, when the social unit was a small tribe. It would have been good if job opportunities for psychopaths diminished as a society became more civilized, but the opposite occurred. Because of this there is a growing belief that the incidence of sociopaths and psychopaths is increasing on generational timescales.

Reading the newspaper, or watching the TV news, provides a seemingly endless list of examples of sociopathy and psychopathy at work. Essentially every criminal act is by a sociopath or psychopath. Every white collar criminal act, including political scandals, is due to sociopaths and psychopaths. If all of them could by some magic disappear, what a wonderful world this would be! Crime would essentially disappear, and society could be run much more efficiently.

At some level of conscious thinking this is the goal that has inspired utopias. The universal failure of all utopias may be rooted in their cluelessness about the root cause of failures of traditional societies: unchecked sociopathy and the hijacking of their utopian dreams by psychopaths.

Progressive idealists are really aspiring for transforming their society into a utopia. They preach an old sermon, that the road to “a more perfect society” is more tolerance. How ironic that this is, in fact, the opposite of a path to a winning place. More tolerance just widens opportunities for rule by psychopaths.

The Normaloids will never unite to rid society of sociopaths and psychopaths. One reason for this is that the psychopaths and sociopaths rule society! Another reason is that Normaloids are intimidated by psychopaths, like meek children avoiding the schoolyard bully. Finally, another is that most Normaloids are too clueless to understand their situation. Maybe we should consider the possibility that there is no path to a utopia!

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Political Realities in the United States

I voted for Republicans for 20 years, until 1984; that's when I sensed that Reagan's re-election campaign was undergoing a shift toward mean-spiritedness. Decades later it was revealed that in 1978 Newt Gingrich started exhorting young Republicans to adopt unethical tactics in support of Republican political campaigns. After about 1988 a small group of Republicans created a project to increase Republican representation in state congresses for the purpose of gerrymandering districts to favor Republicans in their bids for winning seats in the U.S. House of Representatives. In the mid-1990s, when Gingrich had become Speaker of the U.S. House of Representatives, he demonstrated the value of "dirty politics" in winning U.S. congressional races. Consider the following description of Gingrich: "...he pioneered a style of partisan combat – replete with name-calling, conspiracy theories and strategic obstructionism – that poisoned America's political culture and plunged Washington into permanent dysfunction." (Coppins, 2018).

Can the U.S. Congress protect us from future authoritarian take-overs? The Republicans in the House of Representatives won their elections by appealing to only Republican voters, thanks to gerrymandering. Primary elections in these gerrymandered districts favor the most extreme display of conservatism, so at the time of the general elections there is usually no contest. What kind of people does this situation attract for entering politics? Psychopaths and sociopaths. It is my impression that almost all Republicans in the House of Representatives are mean-spirited sociopaths and psychopaths.

What about the U.S. Senate?

The "founding fathers" created a monster when they specified two senators for each state, regardless of the state's population. California has a population of 39 million, while Wyoming has a population of 0.58 million. Wyoming has 67 times the per capita representation in the senate as California. The unfairness is compounded by the fact that California's population is mostly urban while Wyoming's is mostly rural. Because there is a strong correlation of urbanism with liberalism, and rural living with conservatism, the states with the lowest populations send conservatives to the Senate while the most populous states send liberals to the Senate. Therefore, there is a built-in advantage for the Senate to be unfairly dominated by conservatives.

Sociopaths and Psychopaths as Leaders

Sociopaths and psychopaths are, by definition, unpatriotic: they behave in ways that serve only themselves, as individuals, and they secretly flaunt the needs of any collective. It is easy to imagine a sociopath or psychopath thinking of people who volunteer for military service as "fools" and "suckers" – as Trump has expressed. It is also imaginable for a psychopath to stand over the grave of a warrior in the Arlington cemetery and wonder out loud "I don't get it. What was in it for them?" – as Trump reportedly said while standing beside the fallen soldier's father, General John Kelly. A psychopath would never volunteer for military service if there was a prospect of danger involved.

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The sociopath or psychopath gains strength by stealing from the group, just as a real life “blood sucker” sustains itself by extracting blood from a victim. Psychopaths are the consummate parasites of civilization.

The elites are not without blame. Their hyper-tolerance means that they take silly positions, such as “when people behave badly, the fault lies with society,” i.e., societal corruption is to blame, not the criminal’s nature. This was the position taken in the early days of anthropology, as argued by Margaret Mead, Ruth Benedict and other disciples of Franz Boas. Elites cannot accept the thought that the genes assemble humans for enslaving them into the service of genetic immortality, and that this predisposes them to horrible behavior! Stated another way, liberal elites are unwilling to consider that human nature includes a measure of evil in almost everyone!

It is the liberal elites who prevent us from viewing sociopaths and psychopaths as “evil” and for acknowledging the small good and vast bad that the sociopaths and psychopaths inflict upon society. It is possible to assess the severity of a person’s psychopathy in a crude way using fMRI (Kiehl, 2014). It is also possible to assess anyone seeking public office using the *Hare Psychopathy Checklist*. Therefore, the hyper-liberals have no basis for arguing that assessments of psychopathy are subjective and therefore shouldn’t be used in denying jobs to applicants. These hyper-liberals would never consider legislation restricting the liberty of evil people who cleverly manage to escape arrest and conviction for law breaking. Therefore, there will never be a law requiring politicians to pass Hare’s *Psychopathy Checklist*, or undergo a fMRI test, as a precondition for seeking public office.

Can Sociopaths and Psychopaths be Rehabilitated?

Mostly as an aside, let’s ask the above question. The short answer is “no,” but a longer answer is “somewhat, and for some juvenile offenders.” (Note: The rest of this section is about psychopaths, but keep in mind that the same results probably apply to sociopaths as well, especially those with high PCL scores.)

As described by Kiehl (2014) in 1995 the state legislature of Wisconsin established the Mendota Juvenile Treatment Center, MJTC, as an experiment for the goal of reducing recidivism among released juvenile offenders. It developed a “decompression model” that emphasized reward instead of punishment. Kiehl states “The results were nothing short of staggering.” Re-arrest rates during the 4 years following release from juvenile prison were 98 % for a control group and 64 % for the MJTC intervention group. The reduction in violent crime re-offenses was better. An economic analysis showed that for every \$10,000 spent in MJTC treatment there was a \$70,000 savings from un-committed crime. As Kiehl notes, “incarceration in a maximum-security juvenile prison can cost \$514,000 per year per youth.”

This all sounds good, but consider the logistics of the problem: 1) there are 900,000 male psychopaths in the US, 2) globally, a male psychopath is born every 47 seconds, 3) identifying a psychopath is costly and time-consuming, whether a detailed interview by

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a specially-trained person is conducted or a fMRI test is performed, 4) treatment is not 100 % effective for juveniles, 5) it is not known if the MJTC treatment works for adults.

We don't know if the MJTC treatment works at the same rate for sociopaths. Even if it did, there are 13 times as many sociopaths as psychopaths, so the numbers for un-rehabilitated sociopaths would be even greater than for the un-rehabilitated psychopaths.

Consider the cost of treating a million psychopaths. Multiplying a million by \$10,000 = \$10 billion. If these treatments are successful in 36 % of cases we'd be left with more than ½ million psychopaths whose treatment was unsuccessful. This isn't a solution for the grave risks posed by psychopaths, nor for the risks of the more numerous sociopaths.

The most important reason that treatment for psychopaths will never become a national policy is that psychopaths have hijacked governments in America, and throughout the world, and they would never agree to being subjected to testing and treatment!

The Folly of Ignoring Flyover Americans

Much handwringing has gone into trying to understand why 35 to 50 % of Americans respond to the absurd appeal of a New Yorker charlatan. I am somewhat qualified to explain, given my origins as a white male raised on a farm in rural Michigan.

First, the traditional small family farm is no longer "competitive." Only the large "factory farms" can produce grains, pigs, chickens and eggs for the prevailing price. These farms are so expensive to set-up that financing comes from international corporations. The local environment is damaged by these factory farms because the decisions for their operation are made by corporate leaders in distant locations. The small farmer, who long ago gave up competing with the factory farms, has a legitimate complaint – but no one among the governing elite wants to hear these complaints and promise to do something about the injustice. It's as if congressmen are being influenced by factory farm lobbyists instead of the farmers who voted for them – which is probably true.

Second, TV advertisements portray families who appear to have limitless wealth for whatever frivolous item is being sold. Humble settings are never portrayed. The average viewer must wonder "What's wrong with me? I could never afford that!" When I was a child, TV advertisements were for things like a refrigerator. Today they are for luxury vacations! A subconscious feeling is nurtured by advertisers that "I'm being left behind by a prospering America." Politicians who refer to some voters as "a basket of deplorables," or some voters just "cling to their bible and guns," come across as elite city slickers who don't care about the struggles of ordinary people. The rural voter is not happy to be portrayed this way by city elites.

Third, minorities are becoming a majority, leaving Caucasians wondering if it's becoming their turn to be ignored or victimized. Starting in the 1990s social activists urged more Negroes to appear in advertisements, and by now they are over-represented. Instead of appearing in approximately 13 % of commercials, their representation is within a range of 20 to 80 %. Mixed marriages are portrayed, usually a Negro man and

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Caucasian woman. Gay men kissing (both Negroes) is featured in one TV ad. It's as if the marketing class is dominated by woke Millennials who are competing with each other for appearing more woke! The Middle America viewing audience is not amused by these commercials. They are a reminder that America is changing fast, or even faster than it really is, and rural Americans are losing influence. These trends are in fact true, but why force rural Americans to face it?

The self-righteous Millennials may think that what they're doing is advancing worthy social causes, but they're seemingly oblivious to the real effect it's having on the American cultural divide. Even before I noticed these trends I had always viewed "marketing people" as the "scum of the Earth," and by worsening the divide between the two Americas they are making it harder to achieve sane political discourse.

The sad truth is that there are Two Americas: rural fly-over America (financially struggling) and wealthy urban America. (Yes, there's plenty of poverty in cities, but they're culturally affiliated with their wealthy urban neighbors.) The wealth gap has been widening ever since 1980. Another way to describe the two Americas is to say that one is desperate and the other is smug.

The rest of this chapter describes events in America that occurred during the first 15 years of the 21st Century. That material belongs in this chapter because America's transition to much of what was experienced in the rest of the world, the rise of kleptocracy, did not occur in America until approximately 2016. I therefore view events in America up to about 2016 as belonging to the 20th Century *set-up*, so they belong to this chapter.

The 2000 Bush/Gore presidential election was close, and the Supreme Court decided it in a partisan manner that is still controversial. After Barack Obama won the presidential election in 2008 the "Tea Party" arose in defiance of the rising influence of liberalism – such as a Negro being president.

Trump has consistently had the support of more than 90 % of Republicans. Like Trump, his supporters "have no shame!" They will allow him any transgression of normal decency, and of informal norms that have held the American democracy together for 249 years. Civility seems like some quaint custom from the past.

Because Trump had adopted a conservative agenda he had the Senate's support while it was controlled by Republicans. We therefore should not be surprised by the fact that Republicans in congress were silent when Trump tried to navigate a tyrannical takeover of government – until the horrible events of 2021 January 6. The current Trump presidency is so far more successful.

Science and technology advanced spectacularly during and following World War II. Whereas the US government's DoD created the ARPAnet starting in the 1960s, it was really an "intra-net" since only invited nodes could communicate. Following collaborations among the US, United Kingdom and France, in 1980s a standard protocol for communication was adopted and the first commercial Internet Service Provider (ISP)

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was founded (in 1989). According to a Wikipedia article, the information flowing through two-way telecommunications networks in 1993, 2000 and 2007 were 1 %, 51% and 97 %, respectively. So, the year 2000 is a good date for identifying when the internet began to dominate personal and business communications. As described in the next chapter the internet became an essential tool for leaders of autocracies to transform their governance to a kleptocracy.

Restatement of this Chapter

The first half of the 20th Century was an unsurprising culmination of a Holocene trend: psychopath hijackings of societies followed by inter-society warfare. Two world wars coincided with the rise of the world's most expansive democracy, America. Not only did America end both world wars, it also ended the trend of psychopath hijackings and ushered in the proliferation of peace-loving democracies for over a half century.

Democracies have a recurring flaw: they allow the people to vote for laws and leaders. Since “the people” includes a broad spectrum of types, from Enforcers to psychopaths, there are many opportunities in a democracy for mischief to occur. And in America, mischief did occur. The expansion of job types attracted more sociopaths and psychopaths to positions of influence. They insinuated themselves into the Republican political party, and they connived to undermine previous liberal governance gains. The Democratic political party seemed oblivious to the Republican mischief. It shifted its audience from “the blue-collar working man” to the “college-educate elite” with new social activist agendas (women's rights, minority rights, rights of the impoverished, etc.). The two parties continued to diverge every decade since the Roaring 1960s.

During the second half of the century some fascist societies continued to exist and compete for credibility, even though they were in decline. The collapse of the Soviet Union in 1991 gave hope that totalitarian rule might someday belong to the dustbin of history.

Throughout the second half of the century America led the way in technological development. Apollo's “man on the moon” in 1969 was the most dramatic technology achievement in human history. Development of a world-wide internet during the late 1990s was another technology achievement, but it had unexpected consequences – which is central to the subject of the next chapter.

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When the internet became widespread during the first decade of the 21st Century, new opportunities were created favoring high-functioning sociopaths. Effective use of the internet, for money laundering and propaganda, requires more self-discipline than most psychopaths are capable of, whereas the sociopaths with PCL scores almost as high as for psychopaths are more likely to have the required self-discipline. What had been autocracies could now more easily become kleptocracies. Whereas an autocracy is inherently short-lived when led by an impulsive psychopath, a kleptocracy, headed by a wily sociopath, could last longer provided the rate of parasitic theft is adjusted to postpone ruination throughout the kleptocrat's natural lifetime. Other kleptocrats could choose a faster rate of parasitic extraction with a plan to relocate to a society that had not yet been victimized. Both choices lead to a society's ruination. Will the 21st Century see the sociopathic kleptocrats bring civilization to a final collapse?

21st Century Kleptocracies

Whenever the environment changes there's a shift in which types of individuals are favored. This concept is sometimes illustrated by the smoke of a 19th Century industrialized London that favored moths with darker colors compared to when London's air was cleaner. For humans, until the mid-20th Century there seems to have been a favoring of psychopaths: Hitler, Mussolini, Stalin and Hirohito. Following World War II, in response to a new world order that was headed by America, democracies were more prosperous than dictatorship, and this favored Normaloids for leadership instead of psychopaths – with the persistent exception of Russia. But something happened at the turn of the century, between approximately 2000 and 2015; that's when it became more common for autocracies to morph into kleptocracies.

A kleptocracy is governance by ruthless thieves whose main interest is in becoming wealthy by stealing from the governed. It's a large-scale version of a mafia's exploitation of a neighborhood since thuggish intimidation is essential. "Oligarchs" have business relationships with the kleptocratic leader that are mutually beneficial. To maintain thievery on such a large scale it is necessary for a kleptocracy to maintain a police and security force; it is needed to control public unrest over suspicions and evidence of government corruption.

To minimize social unrest the society whose wealth is being stolen are subjected to propaganda. Confusion over what's true helps reduce resolve for those considering complaint. Gradually, as the prospect for eliminating corruption fades, ordinary citizens sense opportunities for them to benefit from small-scale corruption.

The transition to a new culture for governance started at different times in different locations. At one extreme was Russia, which led the way with Putin's presidency on January 1, 2000. America remained true to its 20th Century past until about 2015.

So what happened during this crucial 15-year interval? The internet matured!

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The internet became widespread at the turn of the century. Companies extended their reach to wherever the global internet existed. It created opportunities for socially positive collaborations, such as those made use of by academics who could now easily collaborate with like-minded academics throughout the world. Even serious amateurs benefited: I led astronomy projects involving advanced amateurs in America and Europe.

But the internet also increased the power of bad behavior. It allowed social media sites to flood the world with false information that was viewed by cell phone users, who then abandoned newspapers. Even worse, the internet created ways for criminals to connect and develop sophisticated instruments for conducting and hiding illegal activity.

Putin is an exemplar of how this was done. After his ascendance to power in 2000 Putin gained favor with clever and unscrupulous businessmen, and he created a new version of Russian governance. I speculate that Putin is a high-IQ sociopath with sufficient self-discipline to orchestrate business deals out of public view and therefore without scrutiny. I speculate further that Putin is without a conscience, and this allows him to arrange for the assassination of anyone who challenges him, or who threatens to reveal publicly his illegal actions. The way I try to understand Putin is to portray him as a “wealth-seeking robot.” His trademark way of operating is to achieve loyalty by allowing other wealth-seeking robots to do the same, provided they share with Putin in their wealth producing business ventures. These partners in business-crime are Putin’s “oligarchs.”

Part of the success of Putin and his oligarchs requires the hiding of ill-gotten funds. These funds have to be “laundered” in order to use them in a way that avoids public scrutiny. Money laundering involves unethical business transactions with other criminal businesses, such as banks or real estate companies. Again, conducting such business affairs without public notice requires self-discipline as well as intelligence. Psychopaths lack self-discipline, but sociopaths are capable of it. In other words, Putin has created a kleptocracy, and only a high-functioning sociopath can do this.

It is generally believed that democracies are not involved in maintaining the corrupt practices of a kleptocracy. Anne Applebaum rebuts this belief. She writes “Western cooperation was essential. The money-laundering operation required the participation of ... the international world of finance” and she lists many businesses in America, the United Kingdom, Germany and other democracies (Applebaum, 2024, pg. 32).

A kleptocracy extracts wealth from honest workers, who are the creative force for wealth. Whatever Putin and his oligarchs gain is a loss to the rest of society. Wealth inequality grows as a kleptocracy continues to exist. Wealth inequality feeds social discontent and unrest. Every kleptocracy therefore needs to create a police force structured for spying on citizens and suppressing social unrest: a “police state.” The kleptocrats have to figure out how to employ the clueless Enforcers to join the police force. I assume that when the unemployment rate is high the desperate Enforcer will take any job that pays.

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There must be an optimum level for any parasite because a parasite wants to maximize extraction of a resource without killing the host. If kleptocracy grows unchecked, it may trigger a revolutionary overthrow of the kleptocrats. The Enforcer police force has limits on how much discontent it can control. If a kleptocracy grows slowly, it can avoid being overthrown as it drags society's economy to ruin slowly. A "smart" kleptocracy will grow in a way that transfers wealth from society to the kleptocrats at a rate that is just below a critical threshold. Such a society will still be on a path to economic ruin, but parasites can be oblivious to final outcomes. The figure below is meant to illustrate that a kleptocracy must maintain an ever-present Enforcer pressure in order for the kleptocracy to continue to exist.

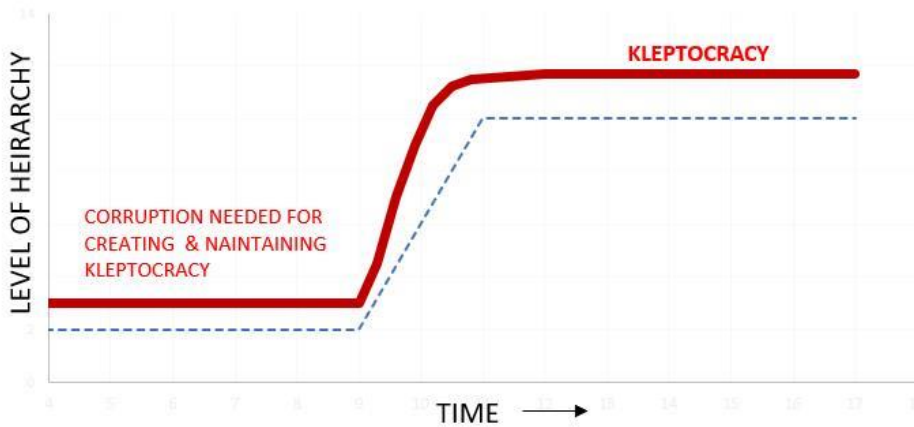


Figure 29.1. *Enforcer effort for victimizing a democracy to create and maintain a kleptocracy.*

The world can be viewed as two groups of societies pitted against each other. One group consists of autocracies and kleptocracies that are creating “a global system that benefits thieves, criminals, dictators and the perpetrators of mass murder” (Applebaum, 2024, pg. 159). The other group consists of democratic societies that are sometimes ineffective in their claimed attempt to constrain the first group. The attempted constraint of sanctions are, sadly, ineffective because too many societies benefit financially from illegal business arrangements that avoid public disclosure. Other constraints, such as transaction transparency, are not legislated because businesses engaged in these transactions make too much money from them, and presumably they lobby legislatures to not create laws requiring transparency. In other words, the group of democratic societies are complicit in the crimes perpetrated by the group of autocracies and kleptocracies!

And why are democracies unable to rid themselves of complicit corruption? Because democracies are governed by a mixture of people that include sociopaths.

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This is what our present 21st Century has become: it has evolved away from early 20th Century fascist autocracies and late 20th Century democracies to 21st Century kleptocracies, led by sociopath kleptocratic leaders and their sociopathic oligarch supporters - which democracies can't defeat because they have become infected by their own sociopaths.

The figure below is meant to illustrate the concept of “high-functioning sociopaths” (labeled “KLEPTOCRAT”). They're both smart and sociopathic. If they had higher PCL scores they'd be inadequately “self-disciplined” and if they had a lower PCL score they'd lack the “ruthlessness” for assassinating rivals.

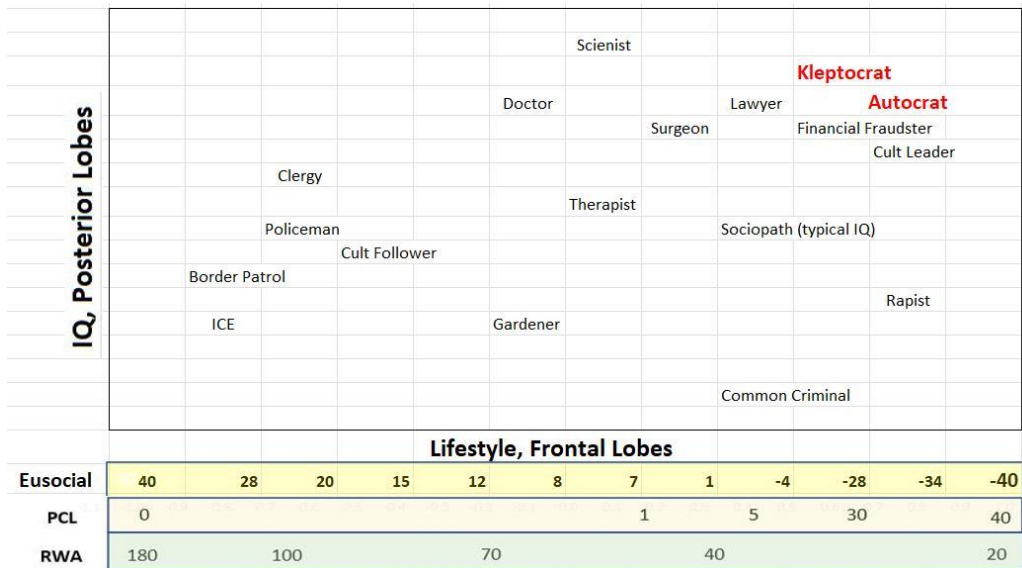


Figure 29.2. *Kleptocrats are “high-functioning sociopaths,” being both smart and sociopathic (borderline psychopathic).*

From now on, every society is at risk of being hijacked by a high-functioning sociopath. After achieving leadership of his society, the sociopath will “mobilize” that society by converting governance to an extreme hierarchy. He can then reign for as long as his appetite for personal prosperity is sufficiently kept secret and the forces of social unrest can be constrained by an ever-present police force. During this regal reign our kingly sociopath will be presiding over a kleptocracy. All of this is made possible by a highly connected internet and a global network of criminal companies (the so-called “global financial network”) that profit from discreet and illegal transactions, such as money laundering.

At the present time America’s relatively egalitarian form of governance is being attacked by a network of criminal-minded sociopaths who are using their “useful idiot” (Trump) for trying to transform America into a kleptocracy. Their strategy for achieving power

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has been to sell Trump to voting Enforcers so that Trump would win the presidency. Once in office, the proto-kleptocrats (e.g., Stephen Miller) would “take over” and convert the American democracy to an American kleptocracy. The new class of kleptocrats will then work as secretly as possible to create a wealth-transferring government that resembles the one that Putin created in Russia.

This phenomenon is happening throughout the world. The democracies that proliferated after World War II are being targeted by ambitious sociopaths who have seen how successfully the transition can be achieved in other countries (Russia, Venezuela, Cuba, Zimbabwe, Turkey, China, etc.). The 21st Century will be remembered as the Kleptocracy Century, the century that weakened global governance so much that civilization was finally defeated by global warming. My concern is not just for America and Europe, but for humanity!

The Fatal Flaw

Human nature has a fatal flaw leftover from the Pleistocene. Stated in its simplest terms, the flaw is a readiness of most people to join a cult. Stated in the parlance of this book, the flaw is the presence of Enforcers with an uncritical readiness to take their signal from whomever presents himself as a strong leader, who impose his beliefs and behaviors on everyone else.

Most people are amazingly susceptible to being brain-washed by propaganda. I think the most important step in the process for transforming a democracy to an autocracy (that is destined this century to become a kleptocracy) is persuading normal people to believe that their present government is corrupt and that a new, strong leader is needed to return society to its proper form. Propaganda can be used to portray those opposed to the strong leader as unpatriotic. Putin’s Russia has mastered this category of propaganda, and they’re serving as a model for how it can be done using the 21st Century’s internet. Russian influence is already persuading Americans to switch beliefs in ways that are preparing America for an autocratic takeover. True patriots, such as Republicans who reject Trump, are accused of treason. The ancient Greeks had a term for unthinking followers of rabble-rousers: *hoi polloi*. Those who enthusiastically identify with MAGA are the *hoi polloi* that the Greeks warned about. Eric Hoffer’s book *The True Believer* (1951) is a contemporary description of this mob mentality.

The January 6, 2021 attack of the U.S. Capital was carried out by the Cult of Trump. The MAGA participants were “true believers” – they believed that they were saving America from a treasonous government. Anyone who would be fool enough to ask someone in the mob “Hey, let’s talk about this” would be viewed as un-American.

Why are most people prone to being captured by a cult, such as Trump’s MAGA cult? It’s a simple result of a Stone Age requirement: to quickly align with an emerging hierarchical shift that every tribe had to do in order to survive inter-tribal conflicts.

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Since this cultish behavior is a “human universal,” led by enforcers, and since high-functioning sociopaths have figured out how to recruit the Enforcers for hood-winking people into becoming “true believers,” the 21st Century is doomed to be a “century of kleptocracies” - that all will eventually end in ruin.

The roles of people at each end of the “eusocial spectrum” that underlie transitions from democracy to kleptocracy are a perfect illustration of why I refer to them as the twin evils of human nature: clueless, unthinking Enforcers and high-functioning sociopaths and psychopaths.

I rely upon two books by Anne Applebaum for providing this overview of the political perils of an American kleptocracy: *Twilight of Democracy: The Seductive Lure of Authoritarianism* (2020) and *Autocracy, Inc: The Dictators Who Want to Run the World* (2024). Her observations of what happened in Russia, Hungary, Belarus, Spain, Poland, Zimbabwe, Venezuela and is happening in China, are based on living in some of those societies and knowing some of the people who have shaped their politics. One of her messages is that democracy is so new that most people feel more comfortable with older, traditional forms of governance – i.e., some version of authoritarianism. The more important message (especially of her 2024 book) is that a kleptocracy is easier to achieve than ever before because of the widespread use of internet-based criminal companies throughout the world. The kleptocrats (e.g., high-functioning sociopaths) are taking advantage of opportunities made available by unscrupulous businessmen in, of all places, democracies! The unscrupulous businessmen have responded to opportunities for criminal business models that are needed by the kleptocrat oligarchs. The most important benefit provided to the kleptocrats is “money laundering” procedures that are difficult to detect. Other provided benefits are spy tools, and paraphernalia for controlling protestors and rioters.

Propaganda has never been easier to create and spread than now, using the internet. Evil can masquerade as good, and evil kleptocrats quickly learn how to present themselves through propaganda as good. Demagogues and lies abound.

Elections are easily corrupted, or ignored (e.g., Maduro in Venezuela), and the new players pretend that democracy still exists – when in fact authoritarians are in control.

America is in the early stages of what has already happened in Russia, Hungary, Belarus and that once happened in Poland. We have ideal conditions for some new Trump to usurp power, who will then strive to exercise Putin’s style of dictatorial power: a Mafia-style oligarchy – or, a “kleptopia,” as described by Tom Burgis in his book *Kleptopia: How Dirty Money is Conquering the World* (2020).

Question: Does any society of people with an extreme level of gullibility deserve to persist? Is it fitting that a society of such clueless idiots commit societal suicide?

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How Will the New American Kleptocracy Feel

For as long as Americans are attracted to autocratic fascism, America will be at risk for taking the path to a kleptocracy. At the time of this writing, 2025 July, I estimate that the Trump administration is more than halfway along a path in their transition of America from a democracy to an autocracy. Oligarchs are already jockeying for a position in the following kleptocracy.

The first step along this path is for Trump and his handlers (e.g., Stephen Miller) to achieve essentially full control of governance. The Republicans control both legislative chambers, the House and Senate. Essentially all Republicans in these legislatures are frightened of Bully Trump, and his MAGA criminal followers (analogous to Hitler's Stormtrooper "Brownshirts"). Therefore, all Republicans in the House and Senate will vote in whatever way Trump commands. This arrangement was present long before the day Trump was sworn into office (January 20, 2025).

Because all Republican legislators were afraid of Trump, all but one of his Executive Branch cabinet secretaries were approved by congress. All agencies are therefore now headed by Trump sycophants, or loyal sociopaths. The heads of these departments have a precarious job security since they can be replaced quickly with a more compliant sycophant. This means that Trump (or his puppet masters) control the entire Executive Branch.

The federal courts are dominated by conservative judges, and so far they remain uncorrupted by Trump's influence. The Supreme Court is more compliant with Trump's influence. This reduces the importance of proper rulings by lower level courts.

Trump has already begun his attacks on universities and law agencies. Some quickly surrendered, but others have resisted and may in fact be victorious. Trump continues his attacks on the media, both newspapers and TV (but not Fox News).

For most Americans the transition to an autocracy feels smooth. The next transition, to a kleptocracy, will also happen smoothly for most Americans. There will still be elections, congress will still meet, the justice department will still investigate and prosecute (targeting "enemies of the state"). Vladimir Putin will finally achieve his victory over his main democratic rival. Those who lust for wealth and power, the high-functioning sociopaths, will use Putin as a model for how to join the world's class of wealthy and powerful kleptocratic dictators.

If we use Russia's decline under Putin as a guide, the new "great again America" will slide into a permanent recession. Wealth inequality will surge (13 % of Russians live in poverty and the average Russian yearly income is \$8100). Business and health regulations will fade, and corruption will rise. There will still be electricity, the markets will still be open (most will be selling "basics" while a few will cater to the wealthy oligarchs). Schools will still exist (strictly regulated on what is taught), and there will still be government offices and elected officials (chosen from a slate by the dictator's loyalists). Speech will not be free, nor will there be a free press. The new Fox News will

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continue to be a propaganda outlet for Trump and his successors, and they will be rid of competition from MSNBC, CNN, PBS and NPR. Book publishing will be limited to whatever is permitted by the dictator's loyalists. This book, for example, would not be available for sale anywhere. Authors like me would be imprisoned or killed.

Amazingly, those who still support the new kleptocrat and his oligarchs will eventually accept the harshness of life: widespread poverty and loss of freedoms. They will blame "liberal traitors" for making harsh measures necessary. Today's Trump supporters, the 1/3 of the population that are proto-Enforcers, will express appreciation for finally having a "strong leader. The leader will be credited with saving America from takeover by communists who wanted to over-regulate everything, raise taxes for supporting poor minorities, and imposing political correctness restrictions upon everyone.

The new budget will increase spending without corresponding federal income. This of course will increase the federal debt. Inflation will occur. Republicans will cut spending on things that help the poor, such as health care and welfare programs. The Reagan-inspired Republican Party has been trying for half a century to "starve the beast" in order to reduce welfare programs. This would actually happen under the new Trump's dictatorship. Social Security and Medicare are under increasing financial strain, and the Baby Boomer generation seems uninterested in rescuing them after their needs are satisfied (~ 2035). Class warfare will exist as a "tension" but there will be no process for relieving the tension.

Lobbyists will continue to criticize belief in the existence of global warming and climate change, or if they acknowledge it the blame will be on natural variations. Dictator Trump will never waver from this position. His lack of leadership on this matter will embolden other countries to ignore global warming. Stronger and more frequent hurricanes will damage the South and East Coasts. Wildfires will become more frequent along the West Coast and in Canada. Droughts and loss of water from underground will ravage Middle America. People will be uprooted and moving to safer locations. Those already living in safer locations will resent newcomers for raising their cost of living – the way it already has for San Francisco, Portland and Seattle.

All these changes will be occurring during Trump's royal dynasty. The transition to these new realities will occur smoothly, and the 48 % of voters who will continue to support the Trump will fail to acknowledge their role in enabling his ruination of America. As the saying goes, the best way to boil a frog is to raise the heat slowly.

A Test for Democracy

Do humans deserve the cornucopia of good things that we associate with civilization: airplanes, modern medicine, cell phones, the internet and scientific discoveries? The development of good things happen faster in societies that are democracies. This is because a democracy is "individualistic" – it affords an opportunity to almost anyone with a good idea to pursue that idea. Autocracies and kleptocracies discourage individualism because those without merit who aggressively achieve status and wealth

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don't want competition from those who may be more talented. Autocracies and kleptocracies offer more tools for suppressing others than is available in a democracy. This accounts for most of civilizations achievements of the past century having been the product of democracies.

If humans reject democracy, then they will also be showing themselves undeserving of the good things that our recent civilization has generated. For people who like to freely explore within the realm of ideas, such as scientists and other academics, the greatest loss from a transition to a kleptocracy would be the freedom to share ideas with others. "Freedom of thought" may not mean anything to most people, but it is almost everything in the life of "free thinkers," like me.

The Precipice

If America loses democracy, the prospects for preserving it in Europe and the rest of the world would be diminished. Those Americans who voted for Trump in 2024, and those who neglected to vote, will have determined that humanity pivots to a path of decline instead of a path of continued progress. The precipice that we shall soon face is treated in the next, and final, chapter.

Chapter 30. Estimating When Humanity Will End

Man is a portion of the inanimate universe come alive! We may be the sole observer. Our intellect has revealed the nature of our origin and our imagination allows us to speculate upon the manner of our extinction – both as individuals and as a species.

All present societies, like all past ones, are doomed! Among the many civilizations in recorded history, a median lifetime is approximately 250 years. I claim that that's how long it takes for the psychopaths to seize control of a society, and for them and their cousins the sociopaths to flourish and milk society to death. In the case of America, we are now 248 years into an experiment with a form of representative democracy, which places us near the median longevity for civilizations. If we define Western Civilization to have started in 1454, as some have suggested, we would now be at the 566-year point – which is near the 75 % region for civilization longevities. However we define our present civilization we are “mature” in terms of historical perspective, and it is not an outlandish position to suggest that our demise is near.

We can't count on political leadership to save us. After all, the region of the United States with the highest incidence of psychopaths is Washington, D.C. (Murphy, 2018).

I've achieved control over my worrying about these matters. It's not because I'm 86 years old, and near my end. It's because the human species is near its end, and things that used to matter will soon not matter to anyone.

As Bertrand Russell wrote (1903): “... *Such ... is the world which Science presents for our belief. ... That man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and his beliefs, are but the outcome of accidental collocations of atoms; ... all the noonday brightness of human genius [is] destined to extinction in the vast death of the solar system, and ... the whole temple of man's achievement must inevitably be buried beneath the debris of a universe in ruins...*”

I am one of the first people to have presented a conjecture on how to estimate the time of humanity's end using Sampling Theory (Gary, 1992, Ch. 7). It has become known by the misleading name of The Anthropic Principle. It goes like this: Suppose you're asked to guess the length of a finite sequence and you are allowed to fetch a sample at random. Suppose the sequence consists of 100 elements, with each tagged #1 to #100. There's a 50% chance that an element drawn at random will have a number tag between 1 and 50. The same applies to drawing an element with a number tag between 51 and 100, or even 26 and 75. By a similar reasoning there's a 25 % chance that an element drawn will have a number tag between 1 and 25, etc. Because of this, it is possible to infer the likelihood of the length of the sequence from a random drawing of just one element. The rule for estimating the most likely total sequence length is to simply double the number tag and state that there's a 50% chance that the sequence length is below that number, and another 50% chance that it is above that number. Similar statements can be made about

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the chance that the total sequence has other lengths; e.g., there's a 25 % probability that the total sequence length exceeds 3 times the random number tag, etc.

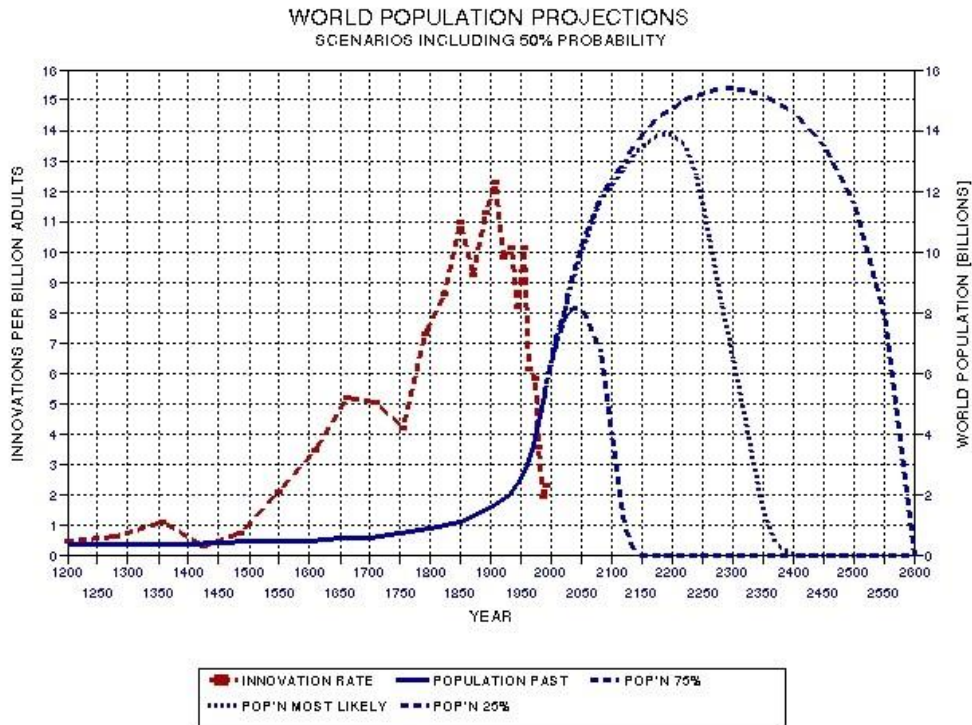


Figure 30.1. Graph from a 1992 publication (Gary, 1992) showing plausible future world population scenarios corresponding to the 1992 world population being at the 75, 50 and 25th percentile locations of the complete sequence, according to a sampling theory analysis. (The red dashed trace can be ignored since it is a plot of “innovation rate” which in my 1992 publication was treated as having a possible correlation with population patterns.)

Now, consider the notion that the total number of humans who will ever exist is a finite sequence. For someone familiar with physics this may not seem outrageous, e.g., space-time is a 4-D continuum. The concept of a “rigid” universe was described by H. G. Wells in his book *The Time Machine* (1895). Like a gigantic pinball machine, the universe is governed by the laws of physics, i.e., $F = ma$, so that all past and future configurations are inherent in any one configuration.

Consider that we are now at a random location in the finite sequence of human births. Everybody has a number tag, which we can use birth dates to assign. Whether we start

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assigning humans a number tag at 50,000 years ago, or 150,000 years ago, human populations were always so small before about 50,000 years ago that we arrive at the same approximate conclusion that humans now being born have a number tag of about 62 billion. (This calculation was performed for the date 1992, when I “discovered” the concept; reasons for sticking with that date are given in my book *Genetic Enslavement*, 2021.) I concluded in 1992 that when plausible future world population scenarios are used there’s a 25 % probability that humanity will begin to undergo a population crash on or before the year 2050! Similarly, there’s a 50 % probability that the population crash will commence at about 2200. Finally, there’s a 75 % probability that the population crash will commence before approximately 2300 AD. The previous figure, Fig. 30.1, shows shapes for the world’s population corresponding to the three scenarios, as I derived them for a 1992 publication.

I have re-calculated population scenarios using “today” as a reference for the sampling theory analysis, since adopting a reference date is somewhat arbitrary. In other words, for this re-analysis I ask the question “If we are now, in 2020 [when I did these calculations], at specified percentile locations of a fixed sequence, how long is the sequence, and how could plausible future population scenarios place us at the 25th, 50th and 75th percentile locations?” The results of this re-analysis are similar to my 1992 analysis, and they are presented in Figure 30.2.

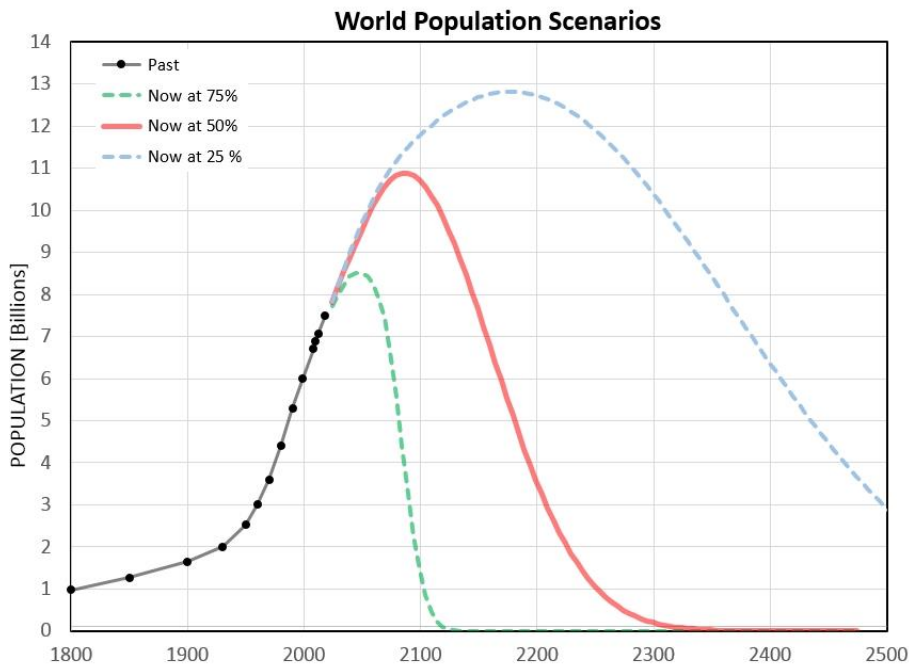


Figure 30.2. Three scenarios for future world population, corresponding to our present time being at the 75th, 50th and 25th percentile of the entire human sequence.

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To the extent that the above sampling theory analyses are valid we can use them to support the assertion that humanity will NOT adopt a winning path to longevity, and that the psychopaths and sociopaths will milk civilization of all its strength to survive on timescales of a century or two. Recall that psychopaths resemble cancer cells in having no prevision of the endings they bring about, including theirs.

What might happen after the collapse? I agree with Ord (2020) that some humans will survive after an extinction event. This is shown in the next figure (Fig. 30.3), where the y-scale is logarithmic and the x-scale is a sigmoid function that emphasizes “now time.”

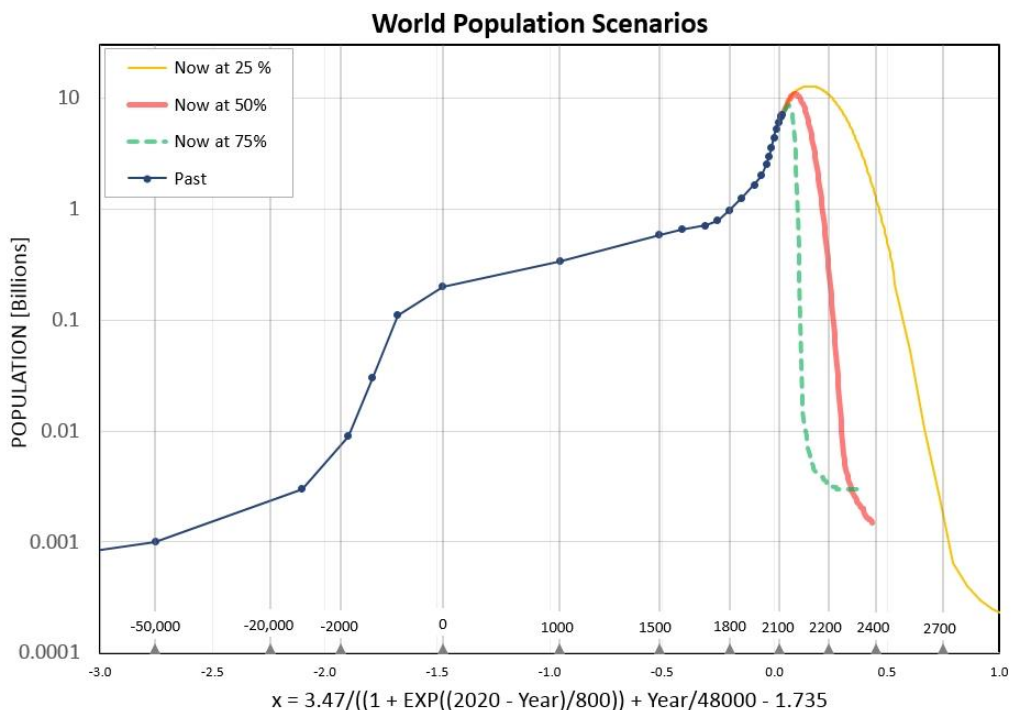


Figure 30.3. Same data as plotted in the previous figure but using a log scale for population and a “sigmoid function” for representing dates.

Notice how I’ve shown the three population declines with a “leveling out” shape following collapse. This is meant to show that a final ending level will correspond to what existed during the AE when only small tribes existed. The lower levels for later collapse dates are meant to suggest that the carrying capacity of Earth will depend on how thoroughly the pre-collapse people ravaged the Earth and exhausted resources.

If humans survive as a large number of small tribes, with populations averaging 150 for example, they might eventually recreate super-tribes. If this happens there could be

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another Holocene-like population rise and a consequent new version of civilization. Those of the second civilization would surely be aware of the previous civilization due to the physical ruins and still orbiting artificial Earth satellites. Olaf Stapledon's book *Last and First Men* (1931) comes to mind. In it he suggested that each resurrection of humanity from the ashes of a previously failed one would differ so much that they should be thought of as different species. Each resurrected species exhibited in exaggeration a feature of our present species, which was a clever trick for illustrating human flaws.

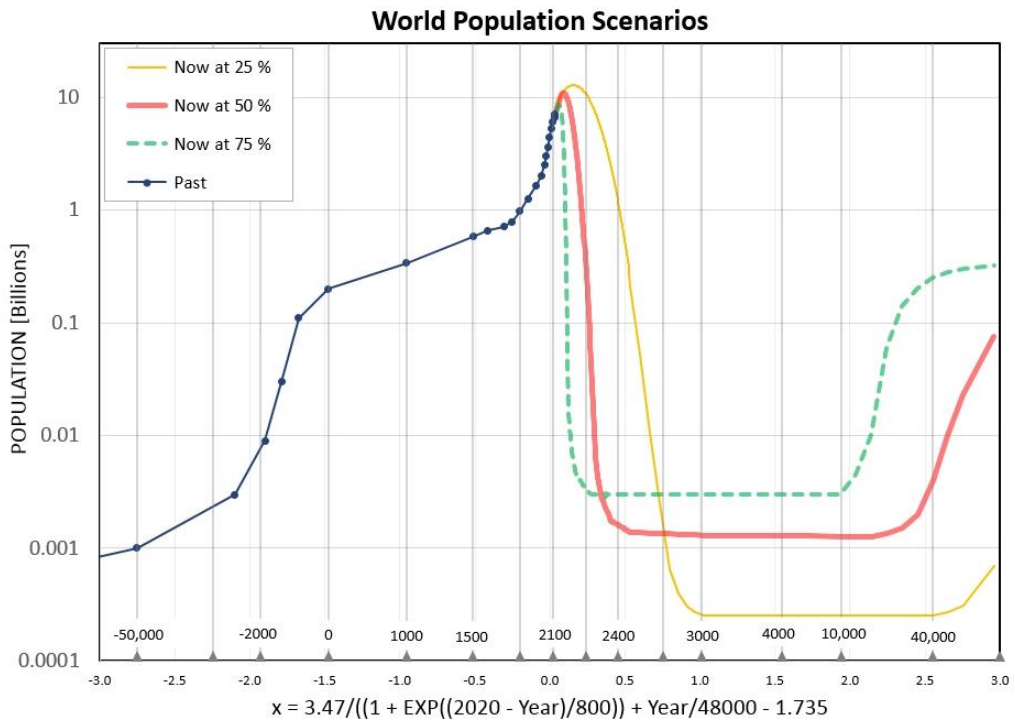


Figure 30.4. Same data as plotted in the previous figure but extended into the future to show a possible rise of a second civilization (using a log scale for population and a “sigmoid function” for representing dates). The date range is 60,000 BC to 60,000 AD.

Figure 30.4 illustrates possible beginnings of a second civilization for each of the three collapse scenarios. Presumably the rise would have the same form as our civilization: first a rise due to super-tribe creations, followed by a rise when the super-tribes re-invent their version of an industrial revolution, and later followed by a rise after their version of a World War II explosion of technology.

Is it possible that the rise and collapse pattern will repeat forever? Each rise that produces a new civilization would be a new version of the human species. The long interval

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between civilizations could serve the purpose of eliminating the deleterious mutations that were allowed to accumulate during the existence of the civilization. Each civilization could have its “noonday brightness in the sun,” as Bertrand Russel would say.

Another possibility is that the population collapse could be “complete,” leaving no humans to slowly resurrect their mastery of Earth. This sober possibility can’t be ruled out from what we now know. All of these speculations make me sad, for they represent endings of either *versions* of humanity or the *entirety* of humanity. Why are so few people upset by these possibilities?

Why does everyone take for granted how beautiful a place our earth is? And how lucky we humans are for living on it? It is shameful when people lack gratitude, and behave in ways that are likely to deny future generations from being able to enjoy Mother Earth as we have! Shame, shame! We have so much potential as a species, as H. G. Wells wrote in 1896:

“In the future, it is at least conceivable, that men with a trained reason and a sounder science, ... may conduct this operation far more intelligently, unanimously, and effectively, and work towards, and at last attain and preserve, a social organization so cunningly balanced against exterior necessities on the one hand, and the artificial factor in the individual on the other, that the life of every human being ... may be generally happy... this is no dream, but a possibility to be lost or won by men, as they may have or may not have the greatness of heart to consciously shape their moral conceptions and their lives to such an end.”

The possibility of human improvement, achieved over long stretches of time, is something “...to be lost or won by men, as they may have or may not have the greatness of heart to consciously shape...” their destiny.

I have a long-standing interest in speculations about the presence in our galaxy of other intelligent beings. On several occasions my professional career in astronomy has connected with the search for extraterrestrial intelligence, SETI. A compelling case for humanity being the only intelligent species in the galaxy is made by Ward and Brownlee (2000). A recent estimate of the probability for the existence of ETI in our galaxy concludes that we are probably alone (Sandberg, Drexler and Ord, 2018). If it is true that we humans are uniquely privileged to be the only intelligent species in our galaxy, what a shame it would be for us to so casually and shamelessly ruin the planet, and kill each other in wars, and live life without an appropriate gratitude.

I believe that we have a “moral obligation” to not squander something so rare and precious. Why, anyway, should an individual care about the fate of his species? I, for example, in a few months or years will die, and eventually so will my species. Regardless of any noonday brightness that humanity may, or may not, achieve, I nevertheless care!

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Every society in today's global civilization is powered by technology created by well-meaning and intelligent people. I don't blame the scientists and engineers who brought forth this technological cornucopia. Societies simply lacked the wisdom to put it to proper use.

I expect that in the coming decades commentators of civilization's dystopian disintegration will point to the proximate causation of global warming and other visible threats, while ignoring ultimate causation, the twin flaws of human nature: stupidity and evil, i.e., the stupid Enforcers and evil psychopaths. No amount of warning, no level of outrage over trends, will change the course that humanity finds itself on. We who express our concerns are branded elite, and the society of the clueless, the well-meaning Enforcers, have no regard for our warnings. This book, for example, has sold only one copy during the last 18 months.

The last paragraph of a book is supposed to be the author's distillation of the book's message. For me this book's message is that humanity is burdened with a "human nature" that evolved during the Pleistocene for life in small tribes, and our nature is incapable of sustaining a civilization that was created by a cultural explosion that occurred during the Holocene. This mismatch has led to a situation in which humanity is now facing an existential threat from individuals at both ends of the eusocial distribution: at one end is hyper-individuality, also called psychopathy, and at the other end is hyper-eusociality, a tool for tribal survival that relies on quenching individualism by enforcing a conformance of beliefs and behaviors which is implemented by spectacularly stupid Enforcers. Overcoming the first of these twin flaws is impossible because psychopaths have no incentive to change; they also have hijacked governance and will not release control. Overcoming the second evil is also impossible because spectacularly stupid Enforcers are clueless about the evil of their stupidity. These twin evils of human nature undermine humanity's search for a winning path since both are genetic imperatives. Since humans of both types seem incapable of understanding and change, I have concluded that humanity is on an unchangeable trajectory toward calamity. This explains my recurring lament that "it is a shame that humanity has come this far toward a winning place but may never achieve it." We may be the only intelligent species in the galaxy, which for me means we have a unique moral obligation to find a way to survive and continue to improve. Our potential is immense, so squandering it is almost unthinkable. If it is true that evil eventually prevails over good, then the Force of Destiny, that ruler of human affairs, is closing in on an inevitable ending. The ending of humanity!

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ADDENDUM

“Good news, oh beautiful planet, the accursed race of Man is not immortal.”
Robinson Jeffers

“Why was it so unthinkable that we ourselves - not necessarily tomorrow or the next day, but eventually - follow the same well-beaten trail toward oblivion as the dodo, the black rhinoceros, the passenger pigeon . . . and all the countless other species whom we ourselves had driven from the face of the earth?” Mark O’Connell (2020)

An addendum is meant for an author to add “just one more thought” to a book, a thought that hadn’t been planned but is an outcome of the writing.

The thought for this addendum has percolated close to consciousness on several occasions in my life. The first, I think, was in 1990 when I wrote a whimsical story for my book *Misanthrope’s Holiday: Vignettes and Stories* (2007, “Ant Dream,” pg 58). The story was about the construction of an “ant house,” a project that my daughter chose for a school assignment. After working with my daughter to build a glass structure that allowed monitoring of what the ants were doing, I fell asleep, but dreamed about what I believed I could see. Using a magnifying glass, I noticed one ant sitting at a desk, busily writing something. After some effort I decoded his writing and was surprised to learn that he was organizing a vote by all the 9 million species of life on Earth about what to do about the problem of humans. His argument was that humans were destroying the planet, and causing many species to succumb, and it was just a matter of time before any of those species who were to vote would find that it was their turn to disappear. The wise ant had noticed that only dogs and cows wanted humans to remain, because their livelihood depended upon human care. The dream had no ending because I awoke with horror at the thought of humans being viewed this way.

My next encounter with this horrible idea was about a decade later when I read the Robinson Jeffers quote (at the head of this addendum).

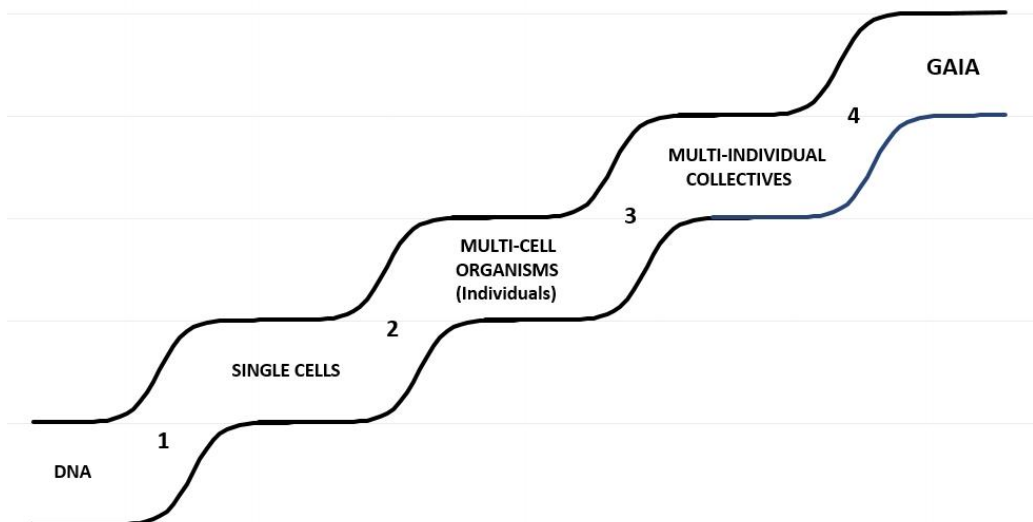
A recent encounter was reading a passage in Toby Ord’s book *Precipice* (2020). The entire focus of the book is identifying threats to human existence and evaluating their prospects for occurring on century timescales. The implicit assumption throughout the book was that humanity is worth saving. But one brief unexpected passage, which was maybe included as an attempt to achieve academic thoroughness, stated that a previous argument assumed humanity was worth saving. The implication was that this might even be questioned, and for it to be mentioned in this book, of all books, was jarring.

Addendum

There were other times that forced me to ponder the thought “Is humanity worth saving?” but the most recent one appeared in a dream that prompted me to get out of bed to start writing this addendum.

In this dream humanity was cast in the role that resembles a cancer cell threatening ruin for all other living species. I criticized the psychopath for resembling a cancer cell that threatened human collectives, but I failed to notice that our species resembled a cancer cell that threatened the Gaian global network of all life. Our mastery of the planet is a headlong journey without regard for our effects on other species. We deplete fisheries, burn forests, pollute the air and ground with poisons, and we burn fossil fuels with a near-total disregard for what global warming is doing to all other life forms, including ourselves - just like a cancer cell.

The first two chapters of this book describe evolutionary “coming together” that form new levels of life collectives. I identified 3 transitions: DNA and RNA coming together to form cells, cells coming together to form multi-cellular organisms, and organisms coming together to form collectives (tribes, societies and now civilization). In my provocative dream that awakened me to write this addendum there is a fourth transition, as depicted in the next graph.



The four transitions leading to evermore complex levels of life. The final level is an interconnected system of all living things.

This last transition level of complexity is an interdependence of species. For example, flowering plants rely upon insects for pollination. Beavers improve the health of rivers which benefits all river life. Predators depend upon the existence of prey. Wolves

Addendum

maintain the health of elk herds by culling the old and weak. Squirrels distribute nuts and inadvertently plant more trees. In other words, inter-species relationships have evolved a harmonious coming together in which all species coexist.

But there is also the potential for ruination of everything, the destruction of nearly all living things. This view somewhat resembles what James Lovelock described as the “Gaia hypothesis.” According to this speculation all living organisms on Earth constitute a dynamical system that acts to preserve itself. As incomprehensible as this is to me (based on evolutionary theory), it was sufficiently coherent in my dream that it served the purpose of casting humanity in the role of a cancerous threat to Gaia.

Could one species out of the 9 million that exist on Earth place most species at risk for extinction? Consider that one cancer cell that multiplies can put an organism consisting of 30 trillion cells (a human) at risk of death. It is reasonable to consider that the human species could put Gaia at risk.

Notice that a cancer cell doesn’t have to destroy all normal cells to kill an individual. Similarly, the human species does not have to destroy all other species to kill them; we only have to disrupt the system of inter-dependencies sufficiently to cause most of them to succumb.

Only humans can constrain humanity from destroying life on Earth. What are the prospects for success? Because humanity’s twin flaws are genetically entrenched in our nature, psychopathy and infinite human stupidity, my assessment of the prospects for success are dim!

Appendix A: Overview of This Book

I recognize three phases of human social evolution: tribal, societal and global.

During the tribal phase (the AE, pre-Holocene, Pleistocene) the core component of Enforcers, the observant border patrollers, protected tribal territorial boundaries and alerted the tribe when a neighboring tribe was either so strong that it posed a threat, or was so weak that it was ripe for attack. The sociopaths were useful during war, but the psychopaths were so rare that they were an unimportant presence in only a few tribes. Tribes transitioned between the states of war and peace automatically, aided by enforcement of extreme patriotism during the transition to war by the authoritarian Enforcers (whose numbers may have reached ~ 1/3 of the tribal population) and relaxing of enforcement after peace was restored. This relaxation allowed for a greater tolerance of individualism which contributed to a more effective division of labor, and this restored tribal strength. The phase of tribal ascendance and decline was uncorrelated throughout the entire network of tribes. Also, no single tribe established dominance everywhere.

During the societal phase (Holocene) two new factors undermined the new super-tribes: 1) the Enforcers mis-read threat levels and either failed to mobilize the super-tribe for war, or inappropriately roused the super-tribe to mobilize when in fact there was no threat, and 2) psychopaths hijacked societies and led them to ruin. Regional dominance of societies became a common pattern, but different regions rose and fell with uncorrelated timing because no single society could dominate all regions of the world.

During the global civilization phase (now) several factors are undermining civilization's robustness and prospects for survival: 1) the Enforcers became even worse in their ability to reliably alert society to mobilize for war, 2) eusocial behaviors that strengthen the collective are less rewarded than during the AE state of inter-tribal competition, 3) the quality of the human genome is declining because of the accumulation of deleterious mutations that result from high rates of survival from birth to adulthood, and 4) psychopath hijackings of societies are occurring "in phase" because of the greater interconnectedness of the world (e.g., the internet). There is no longer a steady state of random timings for societal rise and collapse because the entirety of humanity is poised to collapse simultaneously. If recovery is not possible after such a dramatic collapse then humanity would be doomed!

If a world population collapse occurs in the next century, for example, it could be viewed as a transition to a pre-Holocene level of 5 million people (30,000 tribes) and stay that way for possibly a million years. Eusociality traits might then evolve again and produce a second civilization. In theory, there could be a near-infinite number of cycles of a slow rise and abrupt collapse of civilizations. If human nature changes significantly for each phase of civilized life then an unending recurrence of cycles of civilizations would be "permitted" by the Anthropic Principle.

Appendix A: Overview

This appendix won't cover material from the "tool chapters" since it is assumed that the reader has already understood the "tools," such as neuropsychology, sociobiology, how psychopaths differ from Normaloids and reasons for the Dunbar Number.

The rest of the book keeps returning to a central theme: that human nature evolved during the Pleistocene epoch, when people lived in tribes small enough that everyone knew everyone else in the tribe, whereas during the Holocene epoch cultural evolution exploded and created living conditions that differed so much from the Pleistocene that human nature was unprepared for sustaining the large societies that were being created. This is my explanation for the continual failures of Holocene societies, and it underlies my sad conclusion that because of a currently interconnected civilization humanity is at risk for collapsing and returning to a Pleistocene existence.

Now let's review this book's themes without the distraction of tool chapters. I will give this brief presentation a slightly more advanced nuance than was possible for its original presentation.

Stages of Coming together

In the beginning there were RNA (and maybe DNA) molecules that competed with each other for dominance. Eventually, some RN molecules came together to form single cells. Each cell behaved in ways that promoted survival of the cell. Cells that accidentally stuck together experienced a lower predation from other cells, and this led to rewards for cells that were genetically pre-adapted for sticking together in special ways. The cells evolved behaviors that served the stuck-together collection of cells as they lost behaviors that served only the single cell. This eventually led to multi-cellular organisms.

An important challenge for multi-cellular organisms is the threat of rogue cells, those that revert to the original self-serving behaviors that were present before the multi-cellular innovation. Multi-cellular organisms created an immune system for detecting the rogue cells (i.e., cancer cells), which were identified and destroyed. Initially, we can imagine that multi-cellular organisms competed with each other on a one-on-one basis. Eventually, related kin may join in kin vs. kin competition. The theory for this form of genetic competition has been worked out by sociobiologists and it is called "inclusive fitness" theory.

A next level of life's organization appeared when groups of multi-cellular organisms formed collectives that competed with other collectives. Since these collectives had a "shared fate" (all individuals in the collective either prospering or dying as a group) there were evolutionary rewards for the individuals to cooperate with those in their collective to maintain group strength. Competition between individuals within the collective would continue to exist, mostly during peaceful episodes between inter-collective conflict. A balance would exist between individual/individual competition and cooperation with

Appendix A: Overview

other individuals for the purpose of enhancing strength of the collective. The genetic payoffs for this social structure have been investigated by sociobiologists and the theories that most closely describe this are called “group selection theories” (with “parochial altruism” being one of the most persuasive example).

Eusociality Concept

The cooperation among individual entities within a collective, with reduced presence of individual vs. individual competition, is referred to as eusociality. It was a winning evolutionary strategy for some species, such as ants, bees and termites – which are considered to be 100 % eusocialized. The individuals of these species lost all concern for individual welfare because their new purpose was to exclusively serve the collective: the beehives, ant colonies and termite colonies.

The transition to complete eusocialization must be difficult, for only a few species (about 19) have made it. Ants have probably been completely eusocial for over 150 million years. Human ancestors started down the eusocial path a few million years ago, but our intelligence thwarts the evolution of some eusocial behaviors.

Humanity’s First Phase: Partial Eusociality

Present-day chimpanzees and humans exhibit similar traits resulting from the beginnings of a eusocial transition by the common ancestor. Collectives of about 150 individuals is typical for humans, and somewhat smaller populations are typical for chimpanzees. Territoriality is also common for both species, with a small number of individuals (half dozen) being assigned to territorial border patrols.

Eusocial species exhibit a division of labor, and this is also true for partially eusocialized species. There are evolutionary rewards for a highly evolved division of labor because individuals with different labor assignments form teams that have a stronger combined competence. The downside of a quickly evolved hyper-specialization is that no single person can be expected to have competence on all matters, and this presents challenges for team formation and leadership. To answer this challenge evolution created “generalists” as one more addition to a division of labor. The generalists were capable of forming teams of narrow-talented specialists.

Border patrollers have two roles: 1) fighting with small groups of neighbor tribesmen who are near the border, which has the effect of preserving the home tribe’s territory (and possibly expanding it) and 2) spying on the neighbor tribe to assess its strength. The spying role is important for assessing the threat level of the neighbor tribe, or the opposite, the weakness of the neighbor tribe. If the neighbor tribe is either much stronger or much weaker than the home tribe, inter-tribal warfare is likely. The border patrollers will then notify home tribe leadership and begin a process of pressuring everyone in the

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home tribe to prepare for war. Others (proto-Enforcers) are genetically predisposed to take on the role of obnoxious bullies who look to a strong leader (the tribal chief) who will tell them what to think, and how to behave (i.e., also referred to as “authoritarians”). This different flavor of Enforcer will apply social pressure on the entire tribe to insist on a tribal re-organization that is hierarchical. When warfare begins the sociopaths will become useful combatants. As usual, there will be no useful role for any psychopath.

The Psychopath Existence Problem

Today the incidence of psychopaths among the male population is about 1 %. There are theoretical reasons to suggest that the incidence of psychopaths has increased since the AE. If we assume that during the AE the incidence of psychopaths was ~ 0.5 %, for example, then a typical tribe with a population size close to the Dunbar Number would have had, on average, a 25 % chance of having one male psychopath. For such a tribe the psychopath could be identified, and he could be avoided, ostracized, banished or even killed. This would allow the tribe to be like the other 3/4 of tribes that were free of a psychopath.

There are two theories for the existence of psychopaths. One explanation is that sociopaths exist because they are useful to the tribal genome and occasionally an individual is born with too many sociopath genes, making him a psychopath. An alternative explanation is that psychopath genes can't be completely eliminated from a tribal gene pool because it would be exceedingly costly to do so. If sociobiology was a strong discipline today this matter would be studied, but it isn't, so I have no answer for this question.

Fissioning of Large Tribes

The need for identifying adult male psychopaths must have been a factor that favored the evolution of tribal member uneasiness when tribal size exceeded the Dunbar Number. This may explain why tribes tend to fission when total population exceeds about 200. Fissioning is achieved by a charismatic leader who imagines a promised land, and after getting a following he leads them on a march away from the home tribe. Some psychopaths are notoriously charismatic, so it would serve the home tribe if the psychopath took on the persona of a cult leader and was the one who marched away with a gullible following. This can be viewed as a third theory for why psychopaths exist.

Any tribe with a tribal gene pool that could accomplish this type of fissioning would reap significant evolutionary rewards. First, the home tribe would be kept small enough to be better able to deal with any disruptive psychopath who is later born into the tribe, and second, the tribal gene pool would occasionally reap the benefit of a new “founder” tribe. Leaving the home tribe is risky, but the possible payoffs are immense. If the departed cult fails to survive, the psychopath could be viewed as a genetic victim; but if the cult

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succeeds, the psychopath could be viewed as a hero. The forces of evolution work in mysterious ways, and this might be one of them.

Asynchrony of Tribal Failures

This dynamic may have been occurring during the AE for thousands of tribes, and possibly for millions of years. The instincts that make it happen in a way that rewards the tribal gene pool in an optimal way should be well-established in “human nature.” We should expect that it is still a part of our nature because the AE ended a mere 11,700 years ago.

During the entirety of the pre-Holocene, for $\frac{1}{2}$ to several million years, tribes would come and go based on vagaries of luck, such as weather changes, diseases, changes in animal migration patterns, droughts – all of which are somewhat random. Probably few, if any, of the tribal disappearances were due to psychopath hijackings causing an internal parasitic weakening of the tribe. Tribes rose and fell in accordance with random events, so there may not have been a typical tribal longevity. Times for tribal appearance or disappearance may not have been correlated.

I refer to this pre-Holocene human existence as **Phase 1**, when the timings of tribal rise and fall were uncorrelated across the globe. Also during this phase, tribal longevitys were determined mostly by random events; they were less affected by something inherent in the existence of a tribe, such as would occur if psychopaths were present in every tribe and it was just a matter of time before a psychopath infection led to the tribe’s death. Since no single tribe dominated more than its own small territory it could be said that at any given time there were places where tribal existence was secure.

Humanity’s Second Phase: Holocene Super-Tribes

When the climate warmed, starting 11,700 years ago, the improvement in fauna and flora allowed tribes to undergo dramatic increases in population. This was usually followed by cult leader fissioning. Tribal territory could shrink even while increasing tribal population; the incentive for shrinking is that a smaller territory, with shorter borders, is easier to defend. Since tribes would be brought closer together the opportunities for inter-tribal conflict would arise more often. When a tribe neglected to fission, however, it would be victorious over traditional smaller tribes. Once some super-tribes formed, others would follow.

Clearly, tribal victories were more important than maintaining tribal size close to the Dunbar Number; we know this to be true because super-tribes became common during the Holocene. Still, if a tribe numbered 200 or more, old instincts would still have been triggered and an unease should have prompted a desire for a charismatic cult leader (an

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opportunistic psychopath) to present himself as a savior and urge people to join him for a march to some vaguely described land. The appeal of cults continue to exist to this day!

Another problem facing super-tribes was the uneasiness of being surrounded by strangers. Since strangers had historically been neighboring tribe enemies for millions of years this was an uneasiness that would not be quieted by a decree from the super-tribe's leader. Accepting strangers was easier for some, and they would have been attracted to living in cities. The others would prefer to live in the country. Thankfully, these segregations would have been more feasible than during the AE because a super-tribe provides for a greater amount of "division of labor."

Perhaps the most important challenge facing super-tribes was the ever-presence of psychopaths, and their ability to escape consequences of their cheating behaviors by relocating after detection. An immense opportunity for psychopath survival and even prosperity came into existence during the Holocene. It is possible that the AE religions were modified in ways that discouraged psychopathic behavior. Instead of dwelling on ancestors in the sky the new religions alleged the following two things: 1) there was life after death, and 2) an all-seeing God took note of everyone's behavior and punished misbehavers by banishing them to an eternal life in Hell and rewarding those with good behavior by transporting them to a Heaven. As preposterous as this sounds, we know that religions actually adopted these two ideas because they exist today.

Since the mid-Holocene super-tribes were at risk of being hijacked by psychopaths. If 1 % of males were psychopathic, a super-tribe of 100,000 population, for example, would have included about 300 adult male psychopaths. Half of them would have had above average intelligence, and at least one of them would have been unscrupulously clever enough to rouse the rabble in believing that they were under threat of attack by a neighbor super-tribe. The ambitious psychopath would then urge his followers, the Enforcers, to begin enforcing hyper-eusocial behavior (patriotism) in place of individualism as a transition needed because of imminent inter-tribal warfare. After usurping leadership under false pretenses, the tyrant leader would enjoy a luxurious lifestyle and father many babies with his psychopathic genes.

Genghis Khan is the exemplar of this hijacking. He formed the Mongol Empire that created a westward path of marauding and rape. It is estimated that today 0.5 % of all males are carriers of Genghis Khan genes.

During this **Phase 2**, super-tribe societies were hijacked by psychopaths and this "parasitic infection" led to an eventual weakening of societal strength. In other words, societal lifetimes were determined by an internally-driven force, which meant that societies had a typical rise-and-fall pattern, described by a societal lifetime distribution with a median of about 250 years. Regional dominance by societies became a common pattern due to improved communication and transportation (horses). However, the

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ascendancy and decline of different regions varied in an uncorrelated manner because mobility limitations meant that no single society ever dominated the world.

Humanity's Third Phase: Global Civilization

We are currently entering a third phase of human existence. It is characterized by a synchronization of societal rise and fall caused by efficient global communication. The internet allows one hijacked and corrupted society, such as Russia, to foment distrust and discontent of another government, such as America (and any of the European and Asian countries). There is currently a global wave of “populism” and distrust of governance in general, powered by a tapping into primitive racist hatreds by propagandists in autocratic societies. World War I signaled a new risk of coordinated loss of civilizations around the globe. World War II confirmed that this concern was warranted. But this dangerous trend has taken off during the 21st Century.

At the same time that the rise and fall of societies are becoming synchronized other changes are undermining the strength of each society. One of these is produced by population increases. These have occurred at three times: 1) during the rise of super-tribes, 2) following the onset of the industrial revolution, and 3) following the explosion of technology during World War II (e.g., leading to the generation of Baby Boomers).

Each population rise is likely to have weakened societal stability in two ways: 1) an improvement in the ratio of babies surviving to adulthood increased “mutational load” (e.g., a population in which adults are burdened with a greater number of deleterious genetic mutations, and 2) population increases are driven by the fecundity of low-class people (who are genetically predisposed to lifestyles characterized by personal *neglect*).

The reason the first is a problem is that deleterious mutations can affect physical health, intelligence, judgement and mental health. The reason the second item is a problem is because low-class people's neglect-prone lifestyles are a burden to the rest of society. If the composition of a swollen population shifts to low-class people, a culture of neglect can become more common. Low-class people tend to produce more babies than they can raise, and this creates an additional social burden upon the middle- and upper-classes. Class warfare arises and this undermines societal harmony.

Rising living standards have been achieved in part by fine-tuning technology in ways that reduce resilience. The most obvious example is a “just-in-time” distribution system, which is inherently fragile. Another example is reliance upon a global network of suppliers. One more example is that most power grids are maintained by private companies, and their desire for maximizing profit means that they skimp on cyber security and back-up capabilities, and this cost saving reduces resilience.

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Finally, an ever-increasing population leads to such problems as a depletion of critical resources, pollution of the environment and a rise of CO₂ emissions to the atmosphere. The latter, of course, produces “global warming and climate change.” The addition of CO₂ to the atmosphere began when the industrial revolution began 1½ centuries ago. A dramatic rise occurred when the Baby Boom generation began to drive SUVs and insisted on the highest standard of living (e.g., eating more meat, vacation traveling, etc.). Half of the today’s human contribution of atmospheric CO₂ has occurred during the last 30 years (when Baby Boomers dominated government policy-making).

Rain and drought patterns are changing, flooding is occurring more often in unprepared locations, forest fires are ravaging formerly verdant lands and sea level rise threatens low-lying coastal cities. Migration of displaced people has begun; this will only worsen in future decades. Resentment of migrants exists and is worsening. Governments are paralyzed because they are dominated by sociopaths and psychopaths, and they are lobbied by large companies run by CEOs who have adopted a psychopathic culture.

The world’s current population of 8.3 billion people depend on an efficient but fragile system of food production and distribution. If global civilization weakens, starvation will increase, and global population will begin to fall. Feedbacks exist that could hasten the fall, so population collapse could be abrupt. Humanity is at a greater risk than ever for a synchronized global collapse. The risk of such a collapse could end humanity’s Phase 3.

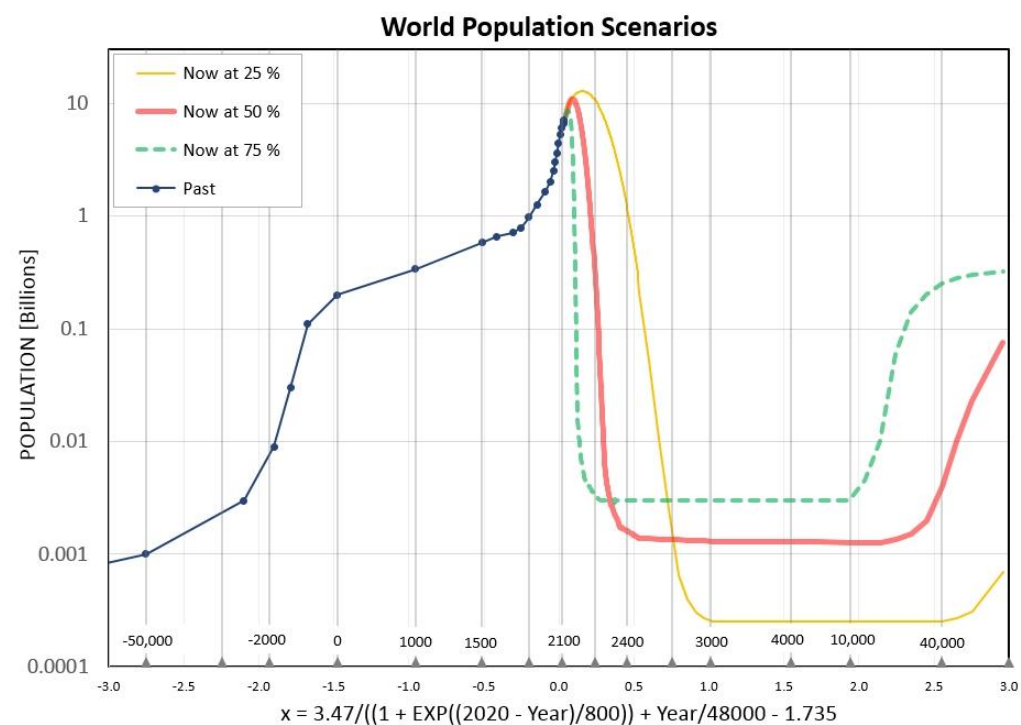
Future Scenarios

Recovery from such a collapse is something that can only be speculated about because humanity has never experienced a synchronized collapse. All past collapses have been local, either tribal or societal, not global – and therefore unsynchronized. Will recovery be possible? If not, humanity could return to a permanent condition in which only small tribes exist, and civilization is lost. The latter is feasible, and quite likely, since our brains are still adapted to small tribe living. Most people are discontent with civilization, as Freud noted a century ago.

Sampling Theory can be used to estimate the span of human existence. Population crash scenarios are shown in the graph on the next page, where three possibilities are shown, corresponding to humanity now being at the 25th, 50th and 75th percentiles of the entire human sequence.

If another population rise occurs, it will be due to a tribe discovering how to grow to a super-tribe, and the stage will again be set for the super-tribe’s hijacking by a ruthless psychopath or cunning sociopath. There may be no winning path to any form of utopia because evolution will always reward the creation of the twin evil traits in Human Nature: hyper-eusociality (unthinking Enforcers) and hyper-individualism (psychopathy).

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Repeat of Figure 30.4. *World population scenarios for the future, showing a possible rise of a second civilization tens of millennia from now. (A log scale is used for population and a “sigmoid function” represents dates). The date range is 60,000 BC to 60,000 AD.*

Appendix B:

Genetic Model for Sociopaths and Psychopaths

[This appendix was included in the First Edition, where it was suggested that sociopaths were useful to the tribe by performing border duty, and psychopaths were a consequence of the tribal genome including several genes that contributed to sociopathy. The same concepts described here can be re-organized to account for sociopaths if psychopaths are the phenotype that evolution selects in an Evolutionarily Stable Strategy (ESS) process.]

An individual's genotype can be thought of as a random combination of genes from a subset of the individual's tribal gene pool, which in turn is a subset of the species gene pool. When a gene location has more than one variant the alternative allele may be rewarded by evolution for its presence in heterozygous individuals in spite of its homozygous expression being mal-adaptive.

Among the 3 billion “base pairs” of human DNA ~ 0.1 % differ from person to person (i.e., 3 million base pair differences). Protein-coding genes comprise ~ 1.5 % of the entire genome, so there are ~ 45,000 base pair differences among the ~ 20,000 protein-coding genes. In other words, a typical gene has ~ 2 base pairs that differ among individuals. An individual with 46 chromosomes in each somatic (body) cell will have the same 40,000 genes in each cell. Most of them will have base-pair differences. However, a base pair difference at an isolated location (SNP, or single-nucleotide polymorphism) usually has no phenotypic effect. Chunks of base pair differences are more likely to influence phenotype. For a hypothetical chunk size of 100, for example, ~ 200 genes (with phenotypic effects) will differ from other individuals. It is possible that individuals differ from each other on the basis of 100 to 500 genes that have two or more alleles.

It has been estimated that ~ 20 % of “human genome” differences are mainly brain related, and another 30 % have lesser influence on the brain. An allele might affect many traits; this is referred to as pleiotropy. For example, the “Ellis-van Creveld syndrome” causes its carrier to have the following traits: 6 fingers, short stature and heart murmurs. These phenotypic effects are seemingly unrelated, yet they are caused by just one allele.

Before continuing I want to state that psychopathy, and probably sociopathy, are strongly determined by genetics. Hare (1993) writes “...the behavior of psychopath is notoriously resistant to change.”

Let's begin with the simplest case possible: one gene location having only two alleles. Let's use “a” to refer to the most frequent allele, and “A” to the less frequent allele. The frequency (or incidence) of A is $F(A)$. If $F(A) = 0.10$, then 10 % of this gene pool's population has the A allele. Since an individual has a paternal and maternal gene allele at each location, there can be individuals with the following allele combinations: aa, aA,

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Aa and AA. This notation assigns the first letter refers to paternal inheritance and the second letter refers to maternal inheritance; aA and Aa have the same effects on trait profile. The aa and AA individuals are said to be homozygous (one for “a” and the other for “A”), while the aA and Aa individuals are heterozygous. The probability of producing individuals who are homozygous for “a” is $P(aa) = 0.89$. The probability of producing individuals who are heterozygous is: $P(aA) + P(Aa) = 0.10$. The probability of producing individuals who are homozygous for “A” is $P(AA) = 0.01$. Note that these heterozygous aA and Aa individuals, and the homozygous AA individuals, can have many traits that differ from the more common homozygous “aa” individuals.

Now consider the situation with two gene locations, each with two infrequent alleles: A and B. Their frequencies are $F(A)$ and $F(B)$. The possible allele combinations for individuals is: aa, aA, AA, bb, bB, BB, aB and Ab. There’s no need to derive probabilities for these combinations because present purposes are served by merely stating that a modest number of gene sites with a small number of alleles are capable of producing individuals with an immense number of trait profiles.

Sickle cell anemia is a “single gene, two allele” situation: the aA individual is protected from malaria while the AA individual suffers from a usually fatal death. It can be said that the A allele is adaptive because the majority of individuals are aA, and are protected against malaria, while a minority (4 % in Africa) “pay the price” for a benefit enjoyed by the majority.

A similar argument might justify the suggestion that “the genes for sociopathy are adaptive, in spite of a minority of carriers who are homozygous for the sociopath gene and are psychopaths.” The very simplest multi-gene model that can be imagined for providing an account of sociopathic and psychopathic minorities is a “one gene, two allele” model. According to such a model the “aa” individuals are “Normaloids,” the “aA” and “Aa” individuals are sociopaths and the “AA” individuals are psychopaths.

Another way to state this is:

- Normaloids are homozygous for “a”
- Sociopaths are heterozygous (“a” and “A”)
- Psychopaths are homozygous for “A”

A more realistic model would involve either more alleles for a single gene location or more gene locations that are multi-allelic.

A careful reader will notice that I am arguing for a gene that produces psychopathy, whereas the true situation may be that psychopathy was always the default condition for ancestors prior to the ancestors of chimpanzee and humans first experiments with eusociality. The genetic problem would then be why did some people begin advancing along the eusocial path, eventually leading to most people being somewhat eusocial,

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while ~ 1 % remained un-eusocialized. Would the arguments of this appendix still apply? Yes, we could then state that A is the new allele with eusocial traits, and simply associate the Normaloids with “AA,” sociopaths with “aA” and the psychopaths with the original “aa” genome.

Another alternative is that another gene inhibits expression of normaloid “a” gene by “covering” it and preventing it from producing proteins. We would then be dealing with “aa” and “cC” genetics, where the “C” gene covers the “a” gene (via the “methylation” process) and the “c” gene doesn’t.

As far as I know the status of research on this matter is insufficient for taking a position on any of these alternative models. For present purposes, it is not necessary to favor one or the other alternative.

The goal for is this appendix was to present an argument for sociopathy being adaptive in the AE, while characterizing psychopathy as a mal-adaptive consequence of needing sociopathy genes. I think this goal has been met.

For the purposes of this book it is not necessary to take a position on how the genes produce “Normaloids,” “Unreliables,” “sociopaths” and psychopaths.” We know this happens, and there are genetic mechanisms that can achieve the observed results.

I hope the foregoing does not give the impression that only one or two genes are responsible for causing an individual to be psychopathic. The authors Glenn and Raine (2014) provide a full account of current thinking about the genetic underpinnings of psychopathy, with the usual caution and caveats required of all academics. They write “...we will never be able to use genes to predict which individuals will become psychopathic or persistent criminals. In reality, hundreds and maybe thousands of genes are involved, each of which makes a small contribution...” (pg. 47). It’s my impression that these authors are near one end of a spectrum of academic cautiousness, in which every position has some validity. I think it would be fair to state that at this time we don’t know whether psychopathy is produced by just 2 or 3 genes, with a few alleles, versus thousands of genes with two or more alleles.

Appendix C: Turchin's Teachings

This appendix explores similarities and differences between Peter Turchin's writings and mine. We are in fundamental agreement on the basics, but we have differences on emphasis and specific speculations.

Professor Peter Turchin is a genius!

I “discovered” his writings in 2023 June, when he published his book *End Times: Elites, Counter Elites, and the Path of Political Disintegration* (2023). In a brief email exchange he suggested that I might like his book *Ultrasociety: How 10,000 Years of War Made Humans the Greatest Cooperators on Earth* (2016). After reading these two books, and with great interest in reading his others, I have decided to include this appendix.

Turchin's view of human “cultural evolution of cooperation” is compatible with this book's message, and it is also complementary to it. We both argue for the importance of war on bringing humanity to the state of “masters of the Earth” (to use E. O. Wilson's phrase). We may use different terminology for this. For example, Turchin emphasizes the importance of “cooperation” which I would categorize as just one component of “eusociality.”

Turchin describes the Pleistocene (from 2.6 million years ago until 11,700 years ago, when the Holocene started) as a time of climate upheavals that challenged human tribes about as much as inter-tribal conflicts. I neglected to deal with Pleistocene climate variability, and instead treated inter-tribal warfare as the most significant determiner of the evolution of a genetically-determined human nature. It would be better to state that both the variability of climate and inter-tribal warfare caused prevailing tribal cultures to evolve, and this caused a slow evolution of a genetically-determined human nature, that included eusocial advances.

For another example, Turchin argues that during the first millennium BC a transition occurred from despotic empires to empires more responsive to the well-being of all inhabitants, and this transition was driven by the adoption of religions that were moralistic. I have also argued in this book that religions underwent a transition during the Holocene to ones that caused psychopaths and sociopaths to think twice before committing crime because an all-seeing god is watching and can condemn immoral beings to an everlasting after-life in Hell. Turchin cites commoners as needing this religious restraint. I think we're both right, and a blend of our two descriptions would be the most accurate.

The next section is my “review” of Turchin's *Ultrasociety*; it is followed by a review of his book *End Times*.

Appendix C: Turchin's Teachings

Ultrasociety

Chimpanzees have a social structure in which an alpha-male dominates all other males. Our ancestors evolved the ability to throw rocks, possibly 2 million years ago (during the Pleistocene epoch). The throwing ability may have evolved for the purpose of driving away scavengers from a kill (when humans became “secondary scavengers”). The throwing ability also created the possibility for a small group of males to confront an annoying alpha-male. The Pleistocene tribes were hunter/gatherers and the main threats to their survival were harsh climate variations and competition with other tribes. Tribal cooperation was an important trait for survival. Tribes that were egalitarian were capable of greater cooperation than tribes controlled by a strong alpha-male. Therefore, tribes that prospered were the ones that rejected alpha-males by stoning him out of power. This led to all tribes becoming egalitarian during the Pleistocene.

Another feature of hunter-gatherer tribes is that they were small enough for everyone to know everyone in the tribe. This meant that everyone knew how much each member could be trusted. Trust is the basis for cooperation, so small tribes (that were egalitarian) were able to conduct cooperative tasks more easily than tribes that were large (or alpha-male dominated). Free-loaders (psychopaths) weren't tolerated, so their presence was kept at a low incidence. Inter-tribal warfare was common enough that intra-tribal cooperation for defending the home tribe was necessary.

The Holocene epoch's climate improvement allowed agriculture to flourish. This, in turn, allowed tribal population size to increase. Some of this population increase was from the coalescence of tribes. Not all tribes made this transition. Nomadic marauders were a constant threat to the settled agriculturists. Villages tried to cooperate to defend themselves. This created the opportunity for full-time armies to be created, led by “strong men.” A society of villages with an army had neighbors that were also a society of villages with an army. Conflict between neighboring societies was inevitable, and the winner became an even larger society of more villages with the need for an even larger army. When the army's leader seized power for the duration of war he may not have relinquished power after victory. This ushered in a period of despotic abuse of power. Despots declared themselves to be gods, and they oversaw societies of immense inequality. It was common for anyone insufficiently obedient to be killed on-the-spot. Human sacrifice was common. Turchin states that (in the Old World) this despotic abuse reached a peak during the first millennium BC (e.g., approximately 500 BC).

A change during this pivotal millennium began to favor the ordinary citizen. Turchin credits the widespread adoption of a new type of religion as promoting this change. Zoroastrianism, Buddhism, Confucianism were the first such belief systems, and they were followed by the monotheistic and moralistic religions of Islam, Judaism and Christianity. The populace was naturally attracted to the view that everyone deserved dignity and had rights given to them by a powerful deity. By denouncing gross social

Appendix C: Turchin's Teachings

inequality of despotism they empowered the average citizen to take power back from despotic rulers. This trend, Turchin argues, has continued to the present.

It may be ironic that in spite of both of us being atheists Turchin and I are in agreement that religion played a crucial role in “domesticating” unbridled barbarism. I have viewed religion as a check on psychopaths and sociopaths, whereas Turchin views religion as a check on ordinary people, rendering them more cooperative. He writes (in *Ultrasociety*, p.208) “In small-scale societies [i.e., tribes] people behaved prosocially because they were being watched by acquaintances and neighbors. In large-scale anonymous societies they had to be good because gods watched them.” Well said, and the small change of emphasis to ordinary people is a stronger argument than mine.

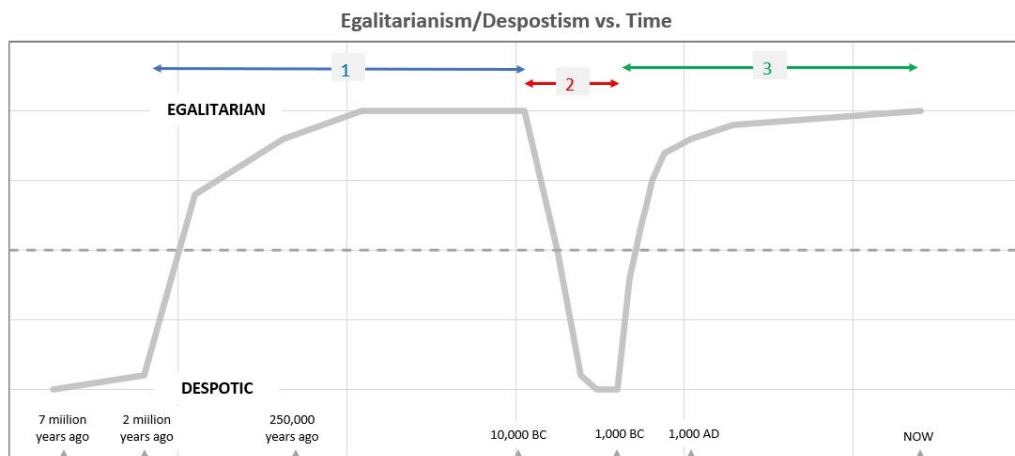


Figure C.01. My interpretation of Turchin's description of the variation of egalitarianism and despotism since our ancestors split from a chimp lineage. (The three intervals are described in the text.)

End Times

Turchin's book *End Times: Elites, Counter Elites, and the Path of Political Disintegration* (2023) is quite different. Whereas it has more “historical facts per page” it has fewer “new ideas per page” than *Ultrasociety*. The historical facts are meant to bolster the idea that a society becomes disturbed, and is threatened with disintegration and collapse, if two things happen: 1) it undergoes an excessive growth of wealth inequality, and 2) it allows an excessive growth of “elite aspirants.” An elite aspirant is someone who expects to achieve a position of social relevance and respect by virtue of either inheritance or education. I assume that these two independent variables were identified to be predictive of the dependent variable “social instability and disintegration” by a multiple regression analysis of a database of historical facts.

Appendix C: Turchin's Teachings

As true as this result may be, it is nevertheless frustrating that history shows that different outcomes are possible depending on how rulers respond to the signals of looming instability. For example, if a ruler (or a ruling class) senses that the commoners are preparing to revolt, he can defuse discontent by surrendering power and wealth to the commoners. Also, the timing of a possible disintegration can be delayed if those with legitimate grievances are disorganized. This can provide more time for the ruling class to do the right thing.

For example, in America there may exist all the classic signs for an approaching social revolution and societal collapse, but the outcome is still uncertain because we don't know how the American ruling class will respond. If the wealthy plutocrats who rule America are willing to raise taxes on the wealthy and allow unions more power, they could defuse the present social turbulence. No voices that I hear are suggesting that this will happen, and Turchin doesn't express an opinion on the matter. We are left at the end of the book without a prediction that the book's title suggested would be made.

Although the reader is left with uncertainties about the future of America and Europe, there is at least a broader basis for understanding the challenge. One example is that people with power instinctively use it to victimize those without power. I was surprised to learn that this common sense fact was actually given a name by sociologists: "iron law of oligarchy." (How could our understanding of things advance without sociologists? They're my favorite "discipline" for teasing.)

Another example for basing our understanding of the present dilemma is that in America we've been subjected to a quiet takeover of power by the wealthy business community for the past 50 years. Turchin writes that a democracy is especially prone for transitioning to a plutocracy (rule by the wealthy). This 5-decade transition was well-documented by Kurt Anderson in his book *Evil Geniuses: The Unmaking of America: A Recent History* (2020). I described Anderson's analysis in Chapter 26. It would have been appropriate for Turchin to credit Anderson for this work.

I somewhat disagree with Turchin's de-emphasis of the importance of "big men" leaders in determining outcomes. For example, I believe that if Franklin D. Roosevelt hadn't been president during the Great Depression America would have disintegrated. Fascist forces were present (Maddow, 2023), and the wealthy class was angry with FDR for favoring the commoners by promoting legislation that reduced wealth inequality and strengthened unions. Turchin emphasizes the climate of opinion and in my opinion downplays the importance of individual leadership.

If FDR saved America from disintegration a century ago, Donald Trump is doing the opposite now. When a society's leader is a psychopath, and anyone familiar with this subject would say that Trump qualifies, disintegration is likely to be speeded up. There was no mention in Turchin's book that Trump's psychopathy is an important force that

Appendix C: Turchin's Teachings

can affect America's outcome. Since Trump's psychopathy prompted me to write this book I can't overlook Turchin's neglect in treating this matter.

Comparing Turchin's and My Approach

Turchin approaches history as something determined by cultural evolution, with minimal influence from a "human nature" that was forged during the Pleistocene over hundreds of thousands of years of small tribe evolution. This is how sociologists try to understand things, and they have undue influence over academia.

My approach is to begin with a Pleistocene human nature that evolved for small tribe living and I ask how much that nature will allow cultural evolution to occur during the Holocene. I am constantly mindful of the warning given by Lumsden and Wilson in their book *Genes, Mind, and Culture: The Coevolutionary Process* (1981), where they describe cultural evolution as "being on a leash" held by a gene-created human nature. Some directions for cultural evolution are simply not possible because our nature forbids it, and other directions are easily followed because our nature is welcoming. I therefore believe that to understand cultural evolution during the Holocene it is necessary to understand the human nature that evolved during the Pleistocene! I claim that most Holocene dysfunctions can be understood using this perspective.

I'll just describe one example to illustrate how our different approaches give different accounts of contemporary dysfunction. As I describe in Chapter 11, every small tribe (during the Pleistocene) needs about 10 % of men to be "ready and willing" for serving as chiefs when inter-tribal conflict appears imminent. A chief is needed at these times for overseeing the transition to a hierarchical social structure needed for conducting warfare (see Chapter 11 for details). A typical small tribe consisting of 100 to 200 members will have about 30 to 60 adult men. If 10 % of them, i.e., 3 to 6 men, are ready to answer the call of duty to serve as chief for the duration of warfare, then each aspirant will be competing with just 2 to 5 other men for that duty. Tribesmen will know who is most qualified because in a small tribe everyone knows everyone else. With so few competitors for being chief, temporarily, a consensus of the 27 to 55 other tribesmen can be easily reached and a call to duty issued by them.

Similar choices exist during peaceful times. About 10 % of tribesmen should be willing and ready to be the tribal artisan (who makes weapons for the warriors). Competition for this role should be easily decided upon by the other tribesmen, again, because in a small tribe everyone knows everyone else's capabilities.

Each essential role in a tribe (warriors, hunters, hut constructors, etc.) will have aspirants, and presumably the most qualified will be chosen for these roles by all male tribesmen based on personal knowledge of everyone's capabilities. Evolution will favor tribes with members genetically capable at the percentages needed. Sociobiologists refer to this

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genetic response as an “evolutionarily stable strategy,” or ESS. The most powerful tribe will be the one consisting of members with special talents given by ESS requirements. Each of these men will want to be recognized for their talent, and they will want to be viewed by the other tribesmen as “relevant and respected” for their special talent.

We can assume that as humans entered the Holocene the same ESS percentages of what was needed in the Pleistocene were being born. Also, the same need existed for each man to feel “relevant and respected” and ready to serve the tribe with his special talent when it was needed.

Now, what could possibly go wrong when a Holocene tribe population grew to thousands, such as 10,000 total population, or 3000 adult men. 10 % of them are “willing and able” and want to serve as chief when there’s a prospect of intertribal conflict, given that 10 % of 3000 men equals 300 men! Only one of them can be chief. And keep in mind that in such a large tribe no one knows everyone; in fact, most men aspiring to be chief will be unknown to almost all tribesmen. The forces of Pleistocene evolution didn’t prepare human nature for this dilemma. What could possibly go wrong?

This is when “cultural evolution” enters the picture. It’s not straightforward what will happen. Turchin is in a good position to answer, but he should have the perspective of someone steeped in the knowledge of the co-evolution of genes and culture. It’s possible that aspirant chiefs will acquire coalitions of supporters, and coalitions will compete for their strong man becoming chief. Each aspirant will want the tribe’s admiration since the personal need for “relevance and respect” is established in human nature. Aspirants who fail to achieve their goal may feel frustrated. Rivalries of coalitions could exist, and this could lead to a discord that undermines the entire tribe’s willingness to cooperate on other matters. This, then, could serve as a good illustration of Turchin’s overall argument.

This one example illustrates how important it may be to combine Turchin’s approach with that of a sociobiologist. Indeed, this was the essence of E. O. Wilson’s message in the last chapter of *Sociobiology: The New Synthesis* (1975). Who knew how complicated the proper study of history could be?

A New Synthesis

Let’s combine the Turchin Teachings with this book’s message. It will be useful to annotate Turchin’s three transitions that were shown in the previous figure. (For convenience, that figure is repeated on the next page.)

Prior to the first transition we can assume that chimpanzee bands were always hierarchical because this was always the best social structure for inter-band competition. During peaceful interludes there was minimal benefit from individual/individual

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competition that would reward individual diversity. In other words, prior to transition 1 our chimpanzee-like ancestors didn't benefit much from eusociality.

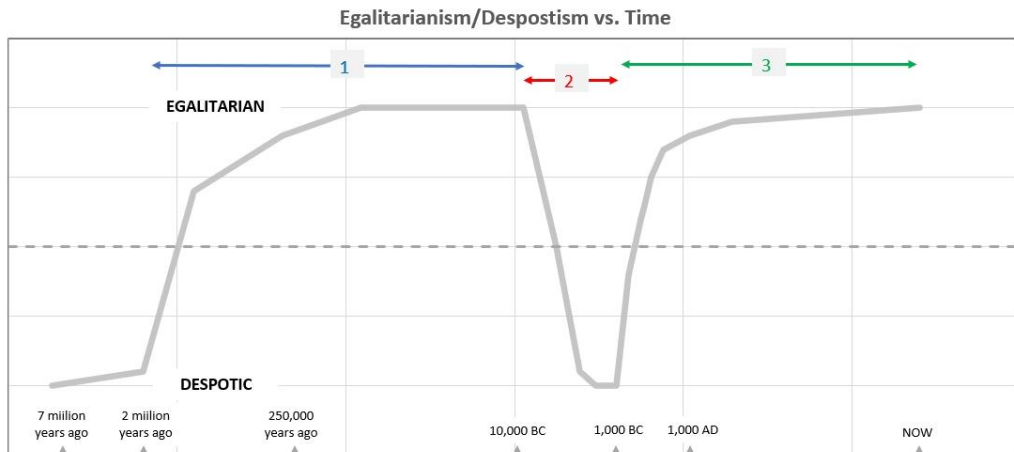


Figure C.02. *Turchin's three transitions.*

During Transition 1 our ancestors dealt with the climatically changeable Pleistocene by rewarding individual differences that allowed for better team formation and performance. Since bands were spread out over a large African area, and since climate changes were more important than band/band conflicts, there was a reduced need for a hierarchical social structure. In other words, the alpha-males weren't needed - so they were stoned into submission whenever they tried to assert themselves.

Turchin's Transition 2 occurs during our present interglacial, the Holocene. We don't know if something similar "tried" to happen during any previous interglacial, such as the one that occurred about 125,000 years ago. Interglacials are times, lasting about 10,000 years typically, when the climate warms and increases flora and fauna, and also opens new areas for possible habitation (where the melting glaciers recede). Such climate and habitat changes would lead to tribal population increases and smaller tribal territories. This, in turn, would lead to an internal tribal uneasiness that leads to a splitting of the tribe into a stay-at-home progenitor tribe and a smaller wandering-away tribe (this is called "fissioning" by academics). More inter-tribal conflicts would be inevitable, and this would reward tribes that were able to become hierarchical.

However, becoming hierarchical only when needed is a difficult new capability. We can imagine that tribes that became hierarchical and stayed that way was an easier transition. In peaceful times such a tribe could be described as "despotic." It took about 7,000 years for tribes to appear that became hierarchical only when necessary.

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Turchin's Transition 3 consists of the following 2500 years (up to today). During the first millennium BC (in the Old World) moralistic religions facilitated this return to egalitarianism after warfare. The benefit for such a society is that during peacetime, when the society was egalitarian, eusocial benefits could accrue from individual/individual competition. This strengthened the tribe for the inevitable future event when a hierarchical transition would be required, and warfare teams had to form. Teams formed from a more diverse pool of individuals will be stronger than teams formed from more identical individuals. Therefore, during the late Holocene cultural evolution rewarded societies that were capable of being egalitarian during peacetime and could transition to a socially hierarchical structure prior to warfare – and transition back to egalitarianism after warfare. This last stage, transitioning back to egalitarianism, was helped by moralistic religions. (In fact, it's quite possible that moralistic religions also facilitate the transition from peace to war.)

The previous speculation about the cultural embrace of moralistic religions illustrates the potential merit in combining Turchin's approach with mine.

Today's religions probably also play a role in initiating warfare. Religion's role in determining our future is getting complicated. In fact, so many things are different today than just a century ago, or even a couple decades ago (e.g., the internet, climate change), that predicting the future for humanity may be a dream that is receding faster than we are approaching it with our greater understanding.

Turchin expresses an optimism that our improving understanding of past societal collapses should provide us with an intelligent way to avoid collapse. This is a theoretical possibility. Until the future happens, we are entitled to an opinion about it. Mine is that we are all "spectators" and that understandings by academics is irrelevant to outcomes.

I write this at the age of 85, and my curiosity about humanity's outcome motivates me to maintain my health so I can witness predictive glimmers. For younger people: sorry, I have sympathy for you because you must live through the harrowing "end times." I am at least spared that "living Hell" due to my merciful imminent departure. Yes, I'm pessimistic. For your sake, I hope I'm wrong!

Appendix D: Seeds for Thought

This appendix is a collection of thoughts that are included here because they are relevant to this book's theme. I didn't need them for the book text, but they might be used in a possible future edition of the book.

It's ironic that America has a problem with mass shootings by white supremacists and other racist groups. After all, these are the same people, the Enforcers and sociopaths, who protected the home tribe from neighboring tribes. They also attacked neighboring tribes when they were weak, and this allowed the home tribe's territory to expand. No TV commentator has ever mentioned this!

Sociopaths are attracted to jobs that provide opportunities for kicking ass! No wonder abuses occur! The solution is not to defund the police, but to acknowledge that sociopaths and psychopaths exist, and screen them out during the job application process.

Our prehistoric inheritance must be considered for any accounting of contemporary dysfunction. Some genes that evolved for living in small hunter-gatherer tribes are unsuited for life in an industrial society with a large population. Democracy is an attempt to recover the "equal voice" of the hunter-gatherer setting. It can also be a rejection of the abuses of feudalism, and its tyrannical outgrowths, such as fascism. Most humans are simply unsuited to the requirements of civilization. There may not be any form of governance of the modern society that is stable, and capable of enduring for more than the typical 2 or 3 centuries of most past civilizations.

Novels that sell can be categorized as dealing with sex, violence and mysteries. This is evidence that among the many genetic burdens we are born with, these three are high on the list: 1) the need for reproducing, 2) the need for killing people of a rival neighbor tribe, and 3) a need for identifying cheaters within our own tribe. I can accept the third, but not the others.

Crime is a common theme for books, movies and TV shows. It's as if there's an evolutionary reward for any society with members who are interested in learning how to figure out "who done it." Could this be a response to the need for tribal gene pools to minimize the disruptiveness of psychopaths? All other things being equal, the gene pool that creates individuals who are fascinated by figuring out who's the criminal (i.e., who's a psychopath) should reap evolutionary rewards.

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If the civilized state is so great, based on its high level of prosperity and strength compared with the uncivilized societies surrounding it, why don't civilizations endure forever? Is there some internal flaw that all civilizations inevitably create that eventually renders them weaker than a nearby uncivilized society? Yes, the flaw is that a civilized society creates an abundance of niches for exploitation by psychopaths. When a psychopath finally hijacks a civilized society he will weaken it and render it ready for attack by neighboring societies that have not been weakened by a psychopath and his cronies.

I have ambivalent feelings about eusociality. On the one hand it reins-in anti-social behavior, but it also frowns upon courageous thinking. I like the first, of course, and lament the second. I also have to struggle with the burden of desiring to be "relevant and respected" by my collective. If my wild thinking were to be applauded, which a part of me would welcome, that recognition would attract the unwanted notice – of Reddit users, for example - and the vicious criticism from Enforcers who hate new idea could make my life miserable. It is better that this book remain unsold.

I had a dream last night; I was talking with a cancer cell. Amazingly, it could think and have a conversation. I asked, "What do you think about yourself in relation to the collective of normal cells that work tirelessly on behalf of the multi-cellular organism?" It said "Why should I bequeath my labors to others when I can be the sole beneficiary? The others are unthinking suckers!" I responded: "But if the others didn't exist, you couldn't exist!" And the cancer cell said, "But the others do exist, and I surely exist." That's when I gave up my appeal to "logic" with the cancer cell and realized that it would never change its behavior.

My dream shifted to a meeting with the political activist and tax reduction advocate Grover Norquist. I asked him "What do you think about yourself in relation to the government that runs the collective we call society?" Without hesitation Grover responded, "Why should I pay taxes to a collective when I could use that money for my personal enjoyment? Besides, the collective has no right to burden me with their taxation; I want to shrink government to the size that I can drown it in my bathtub!" I challenged him by saying "But the society you enjoy wouldn't exist if everyone thought like you, and you probably wouldn't have been born into such plenitude if society didn't exist." And Grover responded, "But society does exist, and I surely exist!" That's when I gave up my appeal to "logic" with Grover and realized that he would never change his behavior.

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I awakened with a jarring recollection of a book I had been reading: *A Generation of Sociopaths*” by Bruce Cannon Gibney (2019). Grover was born smack-dad in the middle of the Boomer Generation, 1956, when parents who had survived the hardships of the Great Depression, and the Second World War, vowed to shield their precious children from hardship, and ended-up spoiling them. When a child is 10 or 12 years old, he is making a life-shaping reading of society. Young Grover saw an America with hippies who laughed at hard-working adults. Individualism was ascendant over collectivism. The American idealization of the individual was being compared with the Russian communist collective. Anyone who preached self-sacrifice to the collective, whether it be a communist state or the American society, was an unpatriotic enemy of individualistic America. It became a Boomer’s mission to defy societal requests by celebrating the self! They said “no” to taxation, regulations, environmental preservation, investments for the benefit of others (such as future generations) – anything that called for self-sacrifice. Boomer political power became dominant during the 1980s, and kept rising until the apex was achieved in 2016 with the election of the king of psychopathic Boomers: Donald Trump!

World population growth is a “tragedy of the commons” on an immense scale.

“People care more about what affects them than what offends them” said Trump advisor Kelly-Anne Conway. However, people are often unable to foresee far enough into the future to know what will affect them. For example, the early supporters of Hitler saw an economy that was recovering from a post-World War I depression and they apparently had no awareness of what this revived economy was designed to achieve and the disaster to Germany that would soon follow.

Diversity has a downside. Because a tribal gene pool has a diversity of genes, each of which contribute to different traits, not only are individuals born with different inherent talents, but each person is born with a variety of who they could become. Some things are destined by the genes, such as the individual’s eye color. Of course, some traits are “hard wired” while others can be influenced by nurture (social setting, personal experience, etc.). The educated German before World War I became a barbaric Nazi two decades later. At least some of them did. Some “Peter Pan academics” are fascinated by the concept of “brain plasticity.” They like to believe that a person can change themselves to solve any problem, or achieve any dream (“You can fly, if only you try, but it requires earnest and unbounded belief in yourself”). These are exaggerations of a

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Truth, but it is still important to recognize the grain of truth. It must be “adaptive” from a tribal perspective for individuals to be capable of undergoing fundamental changes in some categories. One such example is when a tribe grows in population beyond the Dunbar Number, and a charismatic leader persuades a following to leave in search of his “promised land.” It is good for the tribe that some people are capable of fervent belief in nonsense. Keep in mind that evolution favors what benefits a gene pool, not what’s good for the individuals created by that gene pool.

There must be categories for possible change. Believing in a promised land would be one of them. A counter example would be psychopathy; it is inherited and can’t be changed. However, the style with which a (frontal lobe) psychopath victimizes society will depend on (posterior lobe) IQ. The high IQ psychopath will become a “white collar psychopath” whereas the low IQ psychopath will become a street thug, destined for a life in-and-out of prison. Every person should be capable of “taking a reading” of their attributes, and societal opportunities, and subconsciously guide their personal developmental path in a way that optimizes genetic payoffs. The high-functioning psychopath would be stupid to act like a street thug when he can embezzle fortunes using intellectual cunning. Similarly, the low-functioning psychopath would be an unsuccessful embezzler, and the genes must have provided him with some level of insight about this.

Taboos: Our brains forbid us from questioning thoughts and behaviors that are tricks that maintain our loyal devotion to promoting genetic prosperity in the species genome even when this enslavement jeopardizes our individual wellbeing. We can go through a list of taboo topics and with a tiny mental exertion see them revealed as enslavements that can’t withstand logical scrutiny: sex (f’ing), family (having grandchildren), patriotism (“My country, right or wrong”), religiosity (Heaven and Hell; the fear of God), social standing (“dignity”), and finally: fearlessness (psychopathy). If I were to press a Normaloid about any of these topics in a mocking way the reaction might start with a raised eyebrow, in disbelief, followed by something in the category of name-calling. Name-calling is the best attack when logic is useless.

Why do I include psychopathy in this list? Because society considers it impolite to criticize someone for being a fearless white-collar psychopath when they appear to be “on our team.” For example, Hitler was admired by Henry Ford and Charles Lindberg during the 1930s, when Germany’s economy was recovering and held promise for helping America’s economic recovery from the Great Depression. Benito Mussolini is famous for making the trains run on-time. Never mind that both dictators hijacked their governments by exhibiting strong leadership based on a shrewd perfection of intimidation developed over years of mobster thuggery.

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“... The other fittingly imperfect Athenian institution was ostracization. When one of the citizens was becoming a bit too popular — too much of a charmer — Athenians would vote him out of the city for ten years by inscribing his name on bits of pottery. It was not punishment for something the charmer may have done, but a pre-emptive measure against what he might do if left unchecked. Athenians knew that they were too vulnerable and too flawed to resist political seduction (their complicated affair with Alcibiades gave them ample proof of that), and promptly denied themselves the pleasure. Man-made as it is, democracy is fragile and of a weak constitution — better not to put it to the test.” Costica Bradatan, 2019.07.07, NYT ([link](#)). This is a great example showing how Athenians, 2000 years ago, recognized the dangers posed by psychopaths and tried to preserve their democracy from being hijacked by them using temporary banishment! If only contemporary societies were brave enough to do the same. Trump would have been banished for falsely claiming that Obama was born in Kenya, and his loss of credibility might have saved America from his hijacking of governance.

Just because humans are capable of creating a democratic form of governance, occasionally, we should not assume that a democracy can be sustained any longer than other forms of governance. I approach this subject mindful that humans are assembled by genes that have survived within the human gene pool for the last ½ million years of the Pleistocene Epoch. As such, human behavior is adapted to a setting that disappeared 11,700 years ago. We are now like “fish out of water,” and just because human tribes survived millions of years is no guarantee that we will be able to manage human affairs during the present Holocene Epoch. Democracy was supposed to be our winning ticket, the way to survive the rest of the Holocene, but the American version may crumble as quickly as it was created 240 years ago.

Anthropologists tell us that hunter-gatherer (HG) tribes are egalitarian. When a tribal decision needs to be made, such as whether to relocate, each male tribesman is allowed to speak. There will always be someone with a more insightful perspective and persuasive argument than the others. The group benefits from any decision arrived at in this manner. To me, this process seems like a good evolutionary adaptation. Since humans have probably lived in small HG tribes for millions of years, the concept of “equal voice” for group decisions must be genetically inscribed in our thinking. This, I suggest, is the underlying motive for creating a democracy.

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The term “tribal mentality” has been recognized for more than a century as a hallmark of our heritage (Spencer, 1892). It was described as “intra-tribal amity and extra-tribal enmity.” It is so prevalent among known primitive tribes, as well as cultures throughout the world, that it should be on the list of “human universals” (Brown, 1991). Tribes that failed to evolve a strong tribal mentality would have been at a disadvantage when they encountered another tribe and competed with them for territory. Since this evolutionary dynamic has been at work for millions of years we should view tribal mentality as an instinct that cannot be extinguished in as short a time as the Holocene epoch.

The democracy experiment has made at least two appearances in history. The first democratic society might have been the Minoan, but we know so little about that 2nd Millennium BC civilization that we can’t learn from their experience. The first one we know about is ancient Greece, which had cultural similarities to the Minoan and may in fact have been inspired by their memory (the Minoans were decimated by the volcanic eruption on Thera, in 1646 BC).

The Greek city states may have been a reaction to millennia of frustration with tyrannical oppression during the early Holocene. As always happens when humans are in charge of human affairs, the Greek democracy became flawed by the corrupting influence of the wrong people. Socrates was found “guilty of impiety, and for corrupting the youth.” His questioning of everything was a threat to “group think” conformance, which is a leftover requirement for small tribes. Plato may have been motivated to question the underlying theory for democracy as a fair and stable governing principle due to its role in the death of his mentor, Socrates. This is described in the brilliant essay by Andrew Sullivan (2016). Plato foresaw that democracy undermines the notion that some people have better ideas than others. It’s obvious that all men are not created equal, yet in a democracy everyone’s vote is equal. The greatest apparent beneficiary of this fiction is the person who votes with the least thought behind it and is made to feel equal to those who are smarter, or more educated, or who have more wealth and influence in the affairs of society. The “equality fiction” is a trick to keep the great numbers of *hoi poloi* content with the status quo.

I hate to bring this up, but since no one else does, and since it’s relevant to any consideration of how enduring a democracy can be, here goes: Half of Americans have below average IQ!

For anyone who spends their entire work life among highly educated work associates, as I have done (employed by Caltech for 34 years), it is easy to believe that everyone brings

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a high level of intelligence and critical thinking skills to their assessment of important matters: All of my colleagues were able to suspend judgement as alternative ideas competed with each other in our deliberations. “On the one hand this, on the other hand that.” Even when we came to a position, we viewed it as provisionally correct. In other words, nuance and a minimal amount of bias was just an automatic way of thinking for us. Even after I published a paper on a scientific subject I was open to an alternative conclusion. Everything, including my own findings, deserved skeptical reconsideration. I carried this way of viewing things to my reading of newspapers, viewing of TV news, and most certainly to my assessments of other people’s statements of fact or opinion. I would sometimes be puzzled by a less informed person expressing himself with an excess of certitude, but that became a reminder that other people approached important questions differently.

When the internet came into existence I brought the same habit of skepticism to everything that was presented as true on web pages. The new internet age puts too much “information” into the public domain. People who browse the internet without a habit of skepticism can “fall into the rabbit hole.” These people risk entering a realm of intellectual chaos and confusion. At worst, they may be sucked into cults that normal people have never heard of.

Half a century ago the TV Evening News was viewed by ABC, NBC and CBS as a business “loss leader.” The FCC also viewed the major networks as having a social responsibility to present national and international news without political bias. Major city newspapers were similar in keeping opinions in their editorial section. Editors for both TV news and newspapers were conscientious in judging the factual basis for truth, as well as newsworthiness. By the end of the 20th Century this cultural tradition had changed. Corporations that owned TV networks shifted emphasis from public service to shareholder profit. At the same time, the internet was beginning to compete with TV news and newspapers. The end result was the gradual disappearance of information-based and editorially-crafted evening news programs. Fox News was the inevitable result. A younger generation is getting much of their news from Facebook, or Yahoo. People live in different “bubbles,” with different facts, yet they are asked to vote for the same set of candidates. Can a democracy survive under these conditions?

The present environment with an ocean of mis-information places a greater burden than ever upon everyone to be cautious, and deliberate, in forming an opinion. The person with an IQ of 85 is less likely than the person with an IQ of 115 to bring the same amount of judgement to assessments of what’s on the internet or TV news. There are the same number of people with IQ less than 85 as there are above 115, and the disparity of thinking skill is even greater for these two populations. Yet, they both have the same voting power. This doesn’t make sense! Democracy’s equal voting voice is different from the HG tribe spending an hour in a big tent taking turns giving opinions and later arriving at a consensus. Those in the tent who didn’t understand what was said were too ashamed

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to object, and look foolish; in a democracy the voting booth invites making that mark regardless of how much is understood, because nobody knows how you voted and you don't have to defend your vote in front of more knowledgeable people.

If voters were vetted with simple questions, such as "How many branches of government are there?", and if their vote was assigned a value based on their answers, the prospects for democracy's survival might be improved. But such a change would never be voted for where half of everyone has a below average intelligence. Besides, such a proposal sounds "elitist" - which it is; and the Roobs of America are already wary of elitist tricks.

The German people felt humiliated by their loss of The World War, as it was called then. The Treaty of Versailles was designed to prevent the Germans from rising from the ashes to threaten Europe again. Inflation, joblessness and an economy that could not reconstruct itself added to humiliation. Hitler claimed that Germany still could have won the war when the German government surrendered. A rumor was started that Germany was close to winning the war but the elites, including Jews, wanted to end the war for some mysterious personal gain. By appealing to the ordinary German's feeling that he was betrayed Hitler endeavored to discredit the ruling German elites. It was also obvious that those elites didn't endure the same insufferable standard of living as the average German. It's understandable that following the war's end resentments and discontent grew during the following decade and longer.

My father led a bicycling trip of American high schoolers through Germany in 1937. He wrote back to a local newspaper how stoic the Germans were in their hardship. A German family was welcoming when a bicycle breakdown stranded the group far from their intended Youth Hostel. People can be simultaneously kind, and clueless. My father wrote that "Herr Hitler is a smiling individual, contrary to American press reports. This I know to be true because yesterday I was in his presence for 30 minutes while he was reviewing 10,000 of his fervent, exultant German admirers at his residence at, or near, Berchtesgaden. ... Also, he is shorter than we popularly suppose." The "fervent exultant" admirers were clueless about what would happen to them a few years later.

Many Germans of the Nazi era saw Hitler making Germany great again. The businessman saw improvement because factories were being constructed, government contracts were creating new work, and workers were being hired (for making tanks, bombers and innovative new weapons). It was tempting for the businessman, and worker alike, to overlook Hitler's hate-filled speeches, his Brown shirt storm troopers trashing of Jewish businesses, and the Kristallnacht (that occurred one year after my father's visit). Hitler's party went by the name National Socialist German Workers Party, so its appeal was aimed at discontented workers with hope for "socialist" help.

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Historians of the Nazi era cite a phenomenon called "alignment." After Hitler consolidated power with the 1933 Enabling Act, giving him power to enact legislation that had formerly resided with the Reichstag, critics gradually accepted him. They would explain his excesses as just theatrics. Even some Jews would discount his rants about Jews. "Give him a chance" to improve our lot.

There are two reasons leaders can get away with such abuse of their followers. 1) Tribes thrive and survive inter-tribal warfare when their internal workings are harmonious, 2) Strong leaders won't tolerate critics who might undermine their rule. Compare the likely fates of tribes consisting of individuals who accepted the inevitable, regardless of how unfair that inevitable condition is, and who got on with life and contributed to the tribe's welfare, with tribes consisting of individuals who remained divided after takeover by a strong leader. Tribes of the former type will be victorious over the latter type, assuming other conditions of tribal strength were similar. We are descendants of the first type of tribe. We therefore "conform" to whatever has become inevitable for our tribe. "Conformance" is a technical term used by sociobiologists to describe this trait.

I view Trump as playing a similar role in America today. Probably the business community views Trump in the same way the Nazi era business community viewed Hitler. If Trump can implement the policies he campaigned on then probably the economy would be stimulated in the short term, without regard for the inevitable longer-term indebtedness and corporate over-reach that would result. Trump's outrageous behavior, which no person would accept among their friends, is excused as just attention-getting theatrics. Trump voters said he would never do some of the things he threatened to do. "Now that he's elected" they would say, "just give him a chance." Indeed, some liberals are saying the same thing: "Just give him a chance" - as if he will become a normal human, and abandon his psychopathic ways. Some liberals are going further, and crediting Trump with drawing attention to issues that liberals had neglected (too much PC, trade agreements that hurt workers, etc.), and blaming themselves for Trump's rise. This is the same "conformance" that occurred after Hitler secured power. An article by Shawn Hamilton (2016) describes this, using the current terminology for conformance: "alignment." Even liberal TV commentators are "aligning." As both conservatives and some spineless liberals "align," American culture will coarsen, intolerance for others will grow ugly, neighbor will hate neighbor, and snitching to authorities could become common - as happened in Nazi Germany. Trump's criticisms of intellectuals, and especially journalists, is designed to inoculate him from thoughtful criticism. Free thinkers should be on notice: book burning could once again become common, and books like this one will belong to the category that's thrown on the bonfire.

In spite of these comparisons of Trump with Hitler, it's my sense that these two psychopaths are fundamentally different. Hitler was an ideologue, and remained true to long-held beliefs. Trump is not an ideologue; he is mostly a narcissist who seeks applause. In theory, therefore, if Trump pursues strategies that maximize applause, he

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may actually do some good in the short-term. He might actually persuade Congress to invest in infrastructure spending, and this job stimulus might have other beneficial effects. He may actually preserve some health care provisions in Obama's Affordable Care Act, because the masses will applaud him for that. [This entry was written in 2016 and is slightly dated.]

America is like a cookie poised to crumble. How might this happen?

Recall the oft-cited description of America being a bi-coastal country: The New York/Washington DC region and the West Coast have a vibrant business relationship, dominated by liberal politics. Businessmen who fly back-and-forth derisively refer to the vast land in-between as “fly-over” country. People living in the fly-over region have heard the terminology, and some have described their vote for Trump as a fly-over revolt. This illustrates the growing divide between the Two Americas.

People in the West Coast states of California, Oregon and Washington are beginning to talk about secession. For decades there has been discussion of a more limited secession of Northern California, Oregon and Washington to form a new country called “Cascadia.” Southern California has recovered from the Birch Society movement that painted the political map conservative for a while, so now essentially all of California is liberal, and the new Cascadia would include Southern California. Even Hawaii might be included in a secession because that state is possibly the most liberal in the nation. Conservatives have always championed local determination, so secession is an ultimate expression of this sentiment. Conservatives would probably welcome the Cascadian breakaway. Having lived in California for most of my life, and in spite of having grown up as a farm boy in Michigan, I would favor the proposed secession.

If a major secession like Cascadia did occur, there would be pressure for the East Coast to do the same. However, the political establishment in Washington, D.C. would object because they wouldn't want to lose the power they now enjoy by presiding over almost an entire continent. New York City might consider a new form of secession, that of a city becoming a country – somewhat resembling Singapore in its relationship to their region.

The entire secession process would be driven by the mutual resentment of people who embrace diversity and those who abhor it. One faction wants to march forward, and the other wants to march backward. One is open-minded, and the other is closed-minded. Each faction has ancestors who had different reactions to the past 11,700 years of tribal coalescence leading to super-tribes, and eventually civilizations.

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While Cascadia pursues a space program for colonizing Mars, the redneck southeastern states will celebrate NASCAR racing, cotton plantations, and they will embrace the Confederate Flag as they attempt to re-institute slavery. The Two Americas will become two countries, with trade agreements and border check-points.

[This entry was written in 2016, shortly after Trump's election to president.]

Humans may not be capable of any form of governance. This is due to their Pleistocene inheritance, instincts that were adapted to small HG tribal life for at least a half million years. The last 11,700 years of Holocene warming allowed invention of farming and other new lifestyles, and this is too short a time for our primitive instincts to have been replaced with newer ones that are better adapted to a civilized way of life. A minority of humans feel comfortable being civilized, but a majority is best described by Freud's famous terminology: "discontent with civilization."

Given that most people have a subconscious longing for "going back" to their primitive origins, to life in a small HG tribe, the prospects are dim that a winning place can be found for those of us who prefer to "move forward" to an ever more civilized society.

The *hoi polloi's* simple-minded appeal to unsophisticated things, and their re-molding of our culture to their unsophisticated and vulgar taste, means that they cannot be persuaded to move forward. For them, democracy was a disappointment, because those in charge of governance ignored them. They are gullible, and a sophisticated psychopathic salesmen, like Trump, can arouse their hopes for something resembling a backwards move, a retreat from civilization, while calling it "Making America Great Again."

America is now on a course of retreat. Our dis-assembling will begin in earnest in 2017. After World War II America helped preserve global peace by restraining dictators. This era will start to fade in 2017, as the world begins a return to the 19th Century, and earlier ones, with incessant wars waged by dictators whose only interest in peace is unchallenged rule.

Those of us alive now, adults who experienced the second half of the 20th Century, are the lucky ones. Conditions may never improve, and even though our standard of living may remain high for a few more decades, being on the rise, with hope for the future, is always better than being on the decline with futures foreclosed.

Time will tell. At my age of 78 I won't know what time will tell. But it still concerns me, and I'm upset.

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Psychopaths aren't responsible for the entirety of human horribleness. Most Normaloids are capable of despicable behavior under certain conditions. This is most dramatically illustrated by Nazi Germany.

World War II began when I was 3 months old. Throughout childhood I browsed picture books documenting the horrors of war. Before I started grade-school there were pictures of Nazi concentration camps where Christian Germany was exterminating Jews. This is how I came to the realization, by the age of six, that humans could be evil.

In high school I learned about my ancestors invading America, and massacring people who had lived here for thousands of generations. We also learned about plantation owners abducting Africans to work as slaves on plantations. History class also gave passing notice about the Crusades, and the Inquisition. These revelations further confirmed by disappointment with human nature.

I sensed that everyone believed in religious stories about how God created everything: the Earth and all the stars in the heavens, all the animals, and especially humans. He was watching people to see who was naughty or nice, and like Santa Clause he would pass judgement for future punishment or reward. This "fairy tale" involved the magic of prayer, angels, the Devil (Satan) and mythical places like Heaven and Hell. Explanations from science, such as astronomy or evolution, were forbidden. I learned that it was essential for me to hide my wariness of humans for their stupid beliefs because they were intolerant, and capable of nastiness in the way they punished people with ideas that deviated from whatever were the prevailing beliefs.

My childhood disappointments with humanity placed me on a path to misanthropy. I nurtured the default assumption that everyone I didn't know well was secretly evil, regardless of their superficial niceness, and that they were also stupid, regardless of their appearance of having normal intelligence. I wondered if these assessments were correct for 90 % of people, or 99 %. In other words, I was considering that only 1 to 10 % of people were both nice and smart. As I grew older I favored values even lower than 1 %. This meant that at least 99 % of people were in the bad or dumb categories.

Today it amuses me to read that only 1 % of people are bad, using the definitions for psychopathy. The discrepancy between my assessment and the generally accepted one must be related to differences in defining bad. My definition is that 99 % of people will behave well under everyday circumstances but can behave badly under certain other circumstances. Nazi Germany comes to mind for the latter. Whereas 1 % of people lack a conscience and will manipulate people without mercy, as psychopaths do, those so-

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called Normaloids who have a conscience are able to overrule it under certain circumstances.

Human nature evolved to serve the survival of small tribe gene pools. Conformance with tribal customs helped secure patriotic behaviors, such as joining a war party to attack a neighbor tribe that was vulnerable. Anyone who questioned tribal mythologies, for example, would be subjected to extra scrutiny. “Individualism” must have been somewhere between rare and non-existent during the AE.

The men of a tribe were “tribe’s men” – i.e., owned by the tribe. They were enslaved to the tribe, and when the tribe called on them, they heeded the call unthinkingly. Such tribes must have been victorious more often than any tribe that valued the critical thinking skills of individualism. An individual will hesitate when the “call to action” is issued; he will consider the pros and cons of action, and he might consider whether he, as an individual, has more to gain or lose by heeding the call.

The unthinking individual is prone to reacting to situations in accord with instincts. It is instinctive to wish for the death of *other* tribesmen. It must have been easy for the Roman Empire citizen to attend the coliseum and cheer gladiators who fought for their lives, who appealed to the emperor for permission to kill the vanquished gladiator. The cheering crowds may have included a few psychopaths, but for all practical purposes they were Normaloids, acting as Normaloids will under certain conditions.

The witch hunts by Eighteenth Century New Englanders could not have been exclusively by sociopaths and psychopaths. They had to be an expression of Normaloid idiots motivated by an inner nastiness found in most people.

The human appetite for oppressing others can be abused by unscrupulous leaders. The Inquisition was started in 12th Century France by the Catholic Church. It was initially a way to punish heresy among Catholics, sometimes including death to heretics by being burned at the stake. It occasionally took the form of religious wars, culminating in Crusades of armed marches into areas with different religious beliefs. The Catholics weren’t psychopaths, they were Normaloids with the same idiocy and nastiness of most humans.

The 1971 “Stanford prison experiment,” conducted by Philip Zimbardo, showed that 1/3 of randomly chosen student volunteers could behave sadistically toward “prisoners” who had also been randomly chosen from volunteers. The “Milgram experiment” on obedience to authority, conducted by Stanley Milgram at Yale University in 1961, illustrated that most volunteers would administer painful electric shocks to subjects (actors, pretending to show pain) who didn’t perform well on tasks.

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Examples of Normaloids being led by psychopaths can be found throughout history. The genocide in Rwanda by Hutus against Tutsis, between 1990 and 1994, may have been instigated by psychopaths, but the bulk of it must have been carried out by Normaloids. The 1968 My Lai massacre in Vietnam was carried out by presumably Normaloid American soldiers, led by a possibly psychopathic platoon leader William Calley Jr. American soldiers in Iraq committed degrading acts of abuse at a military prison at Abu Ghraib in 2003. Catholic priests have been sexually abusing young boys for decades, and presumably most priests are not psychopaths. For more than a century in “the south” Negroes were lynched while large crowds of Normaloid “whites” watched.

The most famous 20th Century example of Normaloid atrocious behavior was led by psychopath Hitler with his appeal to Nazi fascism. The unthinking German Normaloids responded to Hitler’s “call to arms.” The Nazi message was that everyone else, those others, the Jews, were taking advantage of loyal countrymen, the true Germans. The others, the social parasite intruders, deserve to be expelled; the homeland must be cleansed. In this way Hitler promised to make Germany great again!

During the years that Hitler controlled most of Europe some Nazis were assigned the specific task of going from village to village and hiring pit diggers from the local population. When the pit was ready the townspeople would gather to watch as Jews were escorted to the edge of the pit and shot. Most who fell into the pit were still alive, but the Nazi’s orders were followed to shovel dirt back into the pit to cover it up. One wonders why the local population didn’t defend their neighbors, the Jews, by driving the Nazi away from their village. Could the locals have been looking forward to rewards of the spoils (empty houses) left behind by wealthy Jews? In any case, we must assume that most of the local onlookers and pit diggers were Normaloids.

Germany was a democracy when Hitler gained a foothold in Germany’s power structure. His 33% of the 1933 vote was more than the other five candidates, so he won that election. Germany made the transition from a democracy to a fascist tyranny within a year. Hannah Arendt wrote about the “banality of evil” (1963), describing the “chilling ease with which seemingly normal people (in Germany) did atrocious things” (Kelly, 2018). The German people got the government they deserved, and the millions who died in the war that they started paid the price for being who they were.

America, the USA, is poised to cross the same threshold. Americans come from the same “stock” as the Germans, and we are also capable of answering the same “call of the wild.” Trump’s loyal support is currently the same as Hitler’s original 33 %. When half of voting age people don’t vote, and the other half are clueless, significant change to a democracy is possible.

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If Trump can accomplish a fascist take-over he can be expected to foment racial and class discontent similar to what other tyrants have done. The “corrupt elites” will be targeted, along with the Mexicans, Muslims, African Americans, intellectuals, or any other group that doesn’t resemble the poor and struggling rural Caucasian who remembers how great America was in 1950.

I will be targeted because I’m an intellectual, and because I’m a misanthrope, an individual with critical thinking skills who is unafraid to mock the clueless *hoi poloi*. The ugliness of human nature will assert itself, and we will have a repeat of Nazi Germany!

I don’t know if this will happen, but it could!

If a society doesn’t rid itself of psychopaths they will eventually take-over and destroy the society, for the same reason that a cancer cell, left unchecked, will take-over and destroy an organism. Since a civilization requires a suspension of primitive intolerance, psychopaths will be tolerated instead of shunned, banished or killed, so their numbers will rise and cause an eventual collapse of the very civilization that allowed them to prosper. These Forces of Destiny are more powerful than any well-meaning individual, so the impulse to make things better is futile!

The conflict between good and evil is a persistent theme in literature. It’s tempting to portray the world as having evil outcomes in all manner of things. Although evil is always the ultimate winner, good can exist temporarily. Life is good, yet a person’s life is brief. Civilizations arise, but they always collapse. The Earth is life-bearing, but in a billion years the oceans will boil away; later the sun will swell to evaporate everything. A “game theorist” might use computer simulations to arrive at the conclusion that for a wide range of settings bad outcomes are destined to prevail.

The most successful super-tribes must have been the ones that were able to maintain the “tribal mentality” instinct. This is the instinct that was adaptive for small tribes during the AE; it promotes amity for interactions within the tribe and enmity for extra-tribal interactions. It’s an extreme form of “intolerance” to treat other tribesmen horribly simply because of slight differences in dress, behavior, beliefs, etc. It’s these differences that trigger an intolerant reaction. Everyone’s brain has a tribal mentality module, hard-wired via neuronal connections and synapse sizes set at birth. But some people are more tolerant, and for them this module must be weaker. A super-tribe dominated by these

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more tolerant people would work together more harmoniously and such a super-tribe should therefore be stronger and should prevail in conflicts with neighbor tribes.

Super-tribes must have appeared first where the climate change was most dramatic. That would be Europe. The greatest rewards for super-tribes with tolerant individuals would have been in Europe, and especially Scandinavia. Guess where the most liberal societies are? Scandinavia and Europe.

But there can be too much of a good thing. A liberal is prone to demand tolerance of things that shouldn't be tolerated. For example, an extreme liberal will object to someone criticizing "honor killings" by saying that's part of someone's religion and religions are to be tolerated regardless of how primitive their customs are. Ultra-liberals may demand "safe zones" on college campuses, where their sensitivities to shocking ideas won't be offended. They have made a bad name for themselves by curtailing the "free speech" of speakers with ideas that merit consideration (e.g., Charles Murray, who co-authored *The Bell Curve*.)

The old-fashioned sense of responsibility cited by nobility, called "noblesse oblige," held that the strong had a responsibility to help the weak within their society. The reverse of that sentiment drives the sociopath, and especially psychopath: the strong are entitled to victimize the weak. When pressed for an explanation of some egregious act of victimizing someone, a sociopath or psychopath might say "It's their own fault for being weak."

Consider the sentiment expressed in the following passage, written by Bertrand Russell in 1903 ("A Free Man's Worship"):

The life of Man is a long march through the night, surrounded by invisible foes, tortured by weariness and pain, towards a goal that few can hope to reach, and where none may tarry long. One by one, as they march, our comrades vanish from our sight, seized by the silent orders of omnipotent Death. Very brief is the time in which we can help them, in which their happiness or misery is decided. Be it ours to shed sunshine on their path, to lighten their sorrows by the balm of sympathy, to give them the pure joy of a never tiring affection, to strengthen failing courage, to instill faith in hours of despair. Let us not weigh in grudging scales their merits and demerits, but let us think only of their need - of the sorrows, the difficulties, perhaps the blindnesses, that make the misery of their lives; let us remember that they are fellow-sufferers in the same darkness, actors in the same tragedy with ourselves. And so, when their day is over, when their good and their evil have become eternal by the immortality of the past, be it ours to feel that, where they suffered, where they failed, no deed of ours was the cause; but wherever a spark of

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the divine fire kindled in their hearts, we were ready with encouragement, with sympathy, with brave words in which high courage glowed."

Both sociopaths and psychopaths would be puzzled by these sentiments. They would of course pretend to understand, and say some robotic thing of praise. But by their actions we would know that they are cancerous, willing to cleverly destroy anyone, or anything, that gets in their way. Sociopaths and psychopaths rob society of the glue that holds it together. Without the caring glue, a society, or a civilization, will come undone.

Have good people become intimidated by the psychopathic bullies who control much of contemporary society? Yes, to the extent that these good people are afraid to call the bullies out with explicit use of the terms sociopath or psychopath? Have the ultra-liberals created such a strong force of "political correctness" that a politician who cares about people's welfare, and society's, cannot call his opponent a sociopath or psychopath when it is appropriate? Yes.

Consider the make-up of American voters: 1) Half have below average intelligence, 2) at least 10 % are either sociopaths or psychopaths, 3) about 40 % are Roobs, 4) 74 % know the names of The Three Stooges (Larry, Curly and Moe) while only 42 % can identify the three branches of government, 5) about 20 % of Americans can't find the U.S. on a world map – and the list of American ignorance goes on! Maybe it's good that half of all qualified voters don't vote. But which half is voting?

When Germans voted for Hitler in 1933 their society was considered the best educated in the world, with a long history of cultural contributions. What were they thinking? Couldn't they see that Hitler was a mentally-disturbed buffoon (a term sometimes appearing in German newspapers), a hate-filled bigot, and an aspiring dictator? Those who criticized Hitler were treated like unpatriotic infiltrators from a neighboring tribe. An amazing array of intelligent people supported Hitler, not only in Germany, but in England, America and other countries.

In hindsight we know that Hitler had a "schizotypal" personality; he was a rabble-rousing psychopath which sociobiologists would describe as having a purpose when a tribe in the ancestral environment became too large and needed to fission with the help of a charismatic leader making up stories about a "promised land." Hitler had a ready audience because most contemporary humans have brains no different from their prehistoric ancestors, the ones who lived in small hunter-gatherer tribes, that were in chronic conflict with neighboring tribes over territory and existence. Hitler's "brown shirt" Stormtroopers were thugs given a purpose. Those "marching morons" picked on anyone who frowned. It's braver to speak truth to power than to join the patriots in

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attacking the lone truth teller. Hence the saying: “Patriotism is the last refuge of a scoundrel” (1775, Samuel Johnson). In retrospect, we can view Hitler as resembling the single cancer cell that metastasized and killed the organism from which it arose. At the end of World War II Germany was a wasteland!

Thankfully, our President Trump is less disciplined than Hitler. He may self-destruct soon, but when that happens the mess he created may not be salvageable. The US Senate is dominated by sociopaths, so they will do whatever is in their personal interest (out of fear of the bully Trump), not the national interest. It’s a fair question: will American democracy survive?

Sigmund Freud had a good intuitive sense for what ailed modernity. He discerned the important role for subconscious thought, the greater than acknowledged importance of sex, and most importantly, he realized that at a subconscious level people resented civilization. In his book *Civilization and its Discontents* he saw a primitive mentality that was not comfortable with the restrictions imposed on individuals by civilization. If Freud had lived another 30 years I believe that he would have embraced sociobiology, with its theoretical explanations for humans being better adapted to the ancestral small-tribe lifestyle than to a civilized super-tribe.

Only the “artisans,” who had a small niche in the ancestral environment, feel comfortable with civilized life. The artisan is tolerant, and he played a crucial role in creating civilization. This happened at the expense of the importance of the non-artisan, who remains intolerant and feels resentment of civilized governance. It’s as if the typical man feels betrayed by a promise made millennia ago that civilized life would be an improvement. He rejects the artisan’s forward trajectory, and wants to “take us back” on a backward trajectory to those ancient times when life was simple. If they are only half successful they will take us back to another Dark Ages.

When I was born, in 1939, the world's population was 2.2 billion. Today it is 7.3 billion! During the 1960's there was public discussion about the negative implications of an explosive rise of world population, about the strain this was having on food supply and environmental degradation. A minor dystopian theme was the fear of future mass migrations from over-exploited land to better-maintained land. A contemporary version of this last concern would be the fear of mass migration from countries with dysfunctional governance to countries with stable and effective governance. In addition, global sea level rise could be 20 feet by the end of the century, and this will produce a migration from coastal cities to interior regions (in countries that border the ocean).

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Que sera, sera! What will be, will be!

Growing old, as I have done, has taught me humility and the futility of every noble aspiration. It started with a resolve to be a better person. I eventually figured out that all thoughts originate in the subconscious, and the conscious self merely plays the role of giving a green or red light on subconsciously-conceived proposed action. Although this thought isn't "humiliating" it does reinforce my pre-existing feeling of humility.

Humility in youth, futility in old age. Let me count the ways I feel futility, starting with minor ones and ending with the one that upsets me the most.

I sometimes referred to "the starving Africans" to encourage my daughters to finish food on their plate. When they were older, and could reason, I had to admit that the Africans can't be helped, for the poorest people in every country are the ones having the most babies, and saving a starving baby today means adding to starvation in the future. Trying to end starvation in poor societies is futile.

As a parent I learned from my two daughters the limits of parenting. The sage from Lebanon, Kahlil Gibran, wrote in *The Prophet*: "Your *children* are not *your* children; they are the sons and daughters of Life's longing for itself. ... You may give them your love, but not your thoughts, for they have their own thoughts." For example, a parent is essentially helpless when an adult child becomes addicted to something that takes the edge off of harsh reality. There are limits to parenting, and trying to exert influence over any adult, including one's own child, is futile.

My cloth shopping bags reduce plastic waste, but the grocery store lobbyists still get their way by obstructing laws that would allow cities to legislate against the use of plastic. By minimizing my "footprint" on Mother Earth I have left room for others who are oblivious to the matter. Being conscientious about reducing one's environmental footprint as a means for helping the Earth is a futile exercise.

I've done my part in combating global warming by publishing an article about it, but some state and federal government agencies have simply forbidden mention of the subject and have recently reduced funding for Earth and environmental science. Lobbyists for the oil and gas industry have more influence than all the world's scientists. Trying to "save the Earth" by publishing environmental science is futile.

My voting in every presidential election since college has provided one increment to the count dominated by millions of others, and none of the elections have been decided by one vote. Conscientious voting is futile.

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I have published a half dozen books, and the one of least consequence (*Exoplanet Observing for Amateurs*, 2007, 2014) has sold the most. This book, which I consider to be my best, has sold no copies since the Second Edition was published a year ago. Promoting important ideas in a noisy "marketplace" is futile.

My daily observations of Comet ISON were meant to provide timely updates on what was happening to the over-hyped "Comet of the Century." My web pages produced a large following, and at first I was pleased by the extent of public interest in an astronomical event. However, as I became familiar with members of my "fan club" I learned that their principal interest was in my "showing up" the professionals at NASA by telling the truth of the comet's activity level; after all, as my fans would say, "the government couldn't be trusted because they were likely to be covering-up some danger posed by the comet that a public couldn't handle." I tried to "educate" my followers by stating that NASA was one of the most trustworthy of government agencies, and my intent was not to describe things that NASA was covering up. After I assured one caller, he ended the conversation by stating "I'm not crazy, I just want to be prepared for the Second Coming." I might as well have kept my comet updates to myself during that wasted 4-month ordeal because providing innocent updates on an unfolding astronomical event, and as a byproduct reassuring a skeptical public, was futile.

The foregoing rants are petty. My biggest complaint is that non-sociopaths in a civilization are so tolerant of sociopaths and psychopaths that we are allowing them to take-over the civilization that we created and that their self-serving greed will eventually destroy! This subject is too impolite to speak about in public, thanks to hyper-tolerant "politically correct" people. I am therefore having a useless conversation with myself when I rant about civilization's fundamental flaw of excessive tolerance for horrible people, the ones who threaten to control and destroy civilization. The suspension of intolerance, something that allowed tribal coalescence on the road to civilization, created a social setting many millennia ago that favored the rise of sociopaths and psychopaths. We, the tolerant champions of civilization, by our very tolerance, are going to blindly watch the sociopaths and psychopaths take-over and destroy civilization. My "call to arms" for banishing or exterminating psychopaths in order to preserve civilization is futile!

I believe that humanity is headed toward tragedy during the next few centuries, and this is happening with an amazing level of minimal concern. The concerns are manifold: it's not just the rise of psychopaths, and their threat to civilization. In addition, 1) a global population explosion is underway, leading to a scramble for food, living space and other resources, 2) global warming is on an inexorable march and rising sea level will dislocate people in coastal cities, forcing them to migrate inland, where conflict with people already living inland is inevitable, 3) migration from poorly governed regions (e.g., Africa) to better run countries (e.g., in Europe) is already underway, which is

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destabilizing the well-governed countries, 4) the "Rise of the Roob" to cultural prominence is already vulgarizing manners, music, movies and politics, 5) the suspension of evolutionary cleansing of the human genome of deleterious mutations, which in the past was achieved by a finite survival rate from birth to adulthood of about 1/3, is leading to a "mutational load" of degraded genetic integrity, and an increase of genetic ailments in each new generation (because "nice" people reject eugenics). All of these threats, plus others, should concern anyone who values humanity.

I have argued elsewhere (i.e., in *Genetic Enslavement: A Call to Arms for Individual Liberation*, 2014, Chapter 29) that "Sampling Theory" can be used to argue that there's a 50% probability that humanity will disappear sometime during the interval 2100 to 2600 AD. The most probable year for the onset of collapse is approximately 2200 AD, at the conclusion of this collapse there will have been as many people born between now and then as have ever been born before now. I made that calculation in 1992 using reasonable population projection scenarios, and so far I haven't seen any argument that would invalidate my assumptions or any reason to adjust my calculations. I am overwhelmed by dismay that humanity may come to a horrible end in a couple centuries! But anything I can imagine doing about it is futile!

I am a misanthrope, which I define as "Someone profoundly disappointed in human nature, yet still hopeful that a better nature may someday evolve." But, every year that I live, there is diminished evidence that such a future, though theoretically possible, will ever evolve.

Because I believe that titanic forces are at work to extinguish humanity, I feel a futility in trying to make things better. When I place a rant on a web page for possible viewing by internet browsers, my tracker shows that no one is reading it. I wonder if someone was on the bow of the Titanic shouting "Iceberg!" and no one paid attention. It makes more sense to withdraw from such futile rantings and bide whatever time I have left of life by observing peculiar stars and sharing in the publication of results with my astronomer colleagues. My contributions to astronomical discoveries and understandings are like Emperor Nero fiddling while Rome burned.

Que sera, sera, and any attempt to make things better would be futile! As Voltaire suggested, it's time to "cultivate my garden."

The eusocial transition for humans is inevitably different from all previous transitions due to the "intelligence" of the elements coming together to form a new collective. The lack of smoothness, and the inability to complete the transition, is usually referred to as a conflict between Individualism and Collectivism.

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During my entire life I have wagged a finger at society (or maybe I was “giving” the finger). I disapproved of the way society told everyone what to think, what to believe and what to not question. Gradually I sensed that society assigns everyone the job of contributing to society, and to never mind what might be good for oneself. In other words, I was supposed to become enslaved to a “collective” (society, the primal tribe). The collective defines this enslavement to be “good,” and it defines dwelling on what’s best for the individual as “bad.”

Eventually I realized that I was assembled by genes that were rewarded by the forces of evolution that produced groups of individuals (tribes) that competed with each other. In other words, “group selection” shaped human nature, and therefore my character. This struck me as an “abuse of power” by the genes. This motivated me to write the book *Genetic Enslavement: A Call to Arms for Individual Liberation* (2004, 2014).

One of my long-standing complaints is the way religion “inhibits questioning.” Religions pretend to describe the way the world works, and they then lecture on how to behave. Every religion seems to have a pathetically stupid description of how the world came into being and how it works, and this doesn’t provide much confidence in the merits of how they try to dictate behavior. However, religions are a form of “glue” that holds tribes together and encourages patriotism for competition with other tribes. From an individual’s perspective religion is also guilty of an “abuse of power.”

I think it is possible to live well in a world of mostly Normaloids who comprise the “collective,” in spite of their stupidity, their nosy intrusiveness and their penchant for dictating how everyone else should think and live. It just requires occasionally having to pretend to be like them, and avoiding serious conversation and personal social relationships with them. This somewhat resembles what sociopaths and psychopaths have to do: pretending to be like others with full awareness that the others are clueless. The key difference, however, is that I have no intention or desire to victimize or harm anyone; I just want to minimize my contact with the irredeemable and pathetic others with the hope that they will also leave me alone. It is always necessary for the cognoscenti to conceal their understanding of things from the *hoi polloi*.

Here’s a trick question: what manipulates individuals for their own purposes and is stealthy enough to deceive the clueless individual without him ever figuring out that he’s been manipulated? You’re probably thinking that I’m describing what psychopaths do. However, I’m thinking about what the genes do! They create a conscience in each individual (the exceptions being psychopaths) which manipulates behavior to serve the collective, and almost 100 % of individuals never figure this out. The genes and psychopaths have this in common! Even if the cognoscenti successfully avoid

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psychopaths there is the parallel challenge of dealing with one's own conscience, as well as dealing with busybody Normaloids who are predisposed to enforce conformance with the version of morality that prevails in the society in question. Life is a funny proposition, indeed!

I have met a few others who share my view of how an "individual" must navigate life among those in the "collective." The last thing on our minds is to enlighten them, or persuade them to change any of their beliefs. We are non-proselytizers. I think most of us are grateful for living at a time, and in a place, where individualism is tolerated. America's founding, 248 years ago, was forged by strong individuals who hated Great Britain's corrupt exploitation of wealth produced by the colonies. I am lucky to have lived in a country that encouraged individualism, and especially during a century when individualism was most valued and tolerated (the 20th). So far it is possible to publish a book like this, and be left alone. Of course, my bravery in "publishing" this book is based on an expectation that no one will read it. (Whereas some books are meant to be read, others are just meant to be written.)

I sometimes laugh at the loud proclamations of a person who proudly defends individualism, knowing that a real individual refrains from broadcasting who he is; *faux* individuals are actually enslaved to their genes in ways which for them never reveals the meaning of individualism. I also laugh at the loud and patriotic defense of "freedom" by those who also are the most clueless about their genetic enslavement. Patriots are the least free among men, for their battle cries reveal them to be unthinking tools for preserving the collective. The patriot is the most enslaved member of the collective; his goal is to contribute to the collective's unchallenged strength, which in turn leads to even more enslavement of clueless patriots.

Interviewing the Man with a Hoe: *Dear farmer, what should be done about all those marauding tribes that steal your produce and take your livestock? "We need a strong leader who will defend us! It's OK for us to pay him and his army a part of our produce and sheep, because they will take less than the marauders." But what if he keeps taking more, and milks you the way you milk your goats? "He won't do that because he needs us to feel like it's worth continuing to farm; if we stop farming because he takes too much then he won't be able to take from us." I see, so you're striking a deal with the devil because it's a better deal than doing nothing." "Yes."*

The human evolution of increasing diversity, which is a response to division of labor needs, has the unfortunate effect of rendering fewer people capable of common sense.

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I was sympathetic to my dog's plight when he said, "I think I understand the calculus book's description of velocity being the time-derivative of location, but I'm having trouble understanding why acceleration is the time-derivative of velocity." I tried to reassure Fido by saying "That's OK, I'm having trouble reconciling general relativity's space-time curvature with Quantum Electro Dynamics. I guess there are some things we'll never understand if we hadn't inherited certain brain circuits."

The case for connecting fossil fuel burning with global warming is as strong as the case for connecting smoking with lung cancer. Each belongs to a category of small present reward versus the risk of possible far-future calamity. But why are humans like this? It has to do with the genes, which assemble us for serving their purposes. We are designed to act like unthinking robots! If the genes allowed "why thinking" some of us would begin to act in ways that serve individual welfare, at the expense of serving the genes with their apparent goal of genetic immortality. It's because people are born with blinders that "reason" has no sway in averting future catastrophe. This underlies my feeling of futility as I glean more insight into the coming darkness.

Anybody promoting a policy that has as its goal "equal outcomes" is on a mission that's fundamentally immoral! People differ in their level of motivation and the amount of effort they're willing to exert in striving to achieve a goal. Conscientious striving should be rewarded, and the reward is supposed to be a better outcome. Any "equal outcome" agenda is in its essence "communism" – taking from those who have and giving to those who need, with total disregard for how the need arose.

The Neanderthals raised their spears and marched to the chant "The Cro-Magnons will not replace us!" The American Redskin Indians raised their tomahawks and marched to the chant "The White Skins will not replace us!" Be careful what you chant.

Good and evil are easy to define. Good is whatever strengthens the collective, and evil is whatever rewards an individual that happens to also weaken the collective. This is opposite of the psychopath's definition of good and evil: Good is whatever is good for me, and bad is whatever is bad for me.

According to my dystopian view of the future, the various human "collectives" are now hell-bent on destroying the nest provided by Mother Earth! As the nest is destroyed, the Earth's carrying capacity for humans will shrink. This will exacerbate everything needed for human survival. Humanity will become further dominated by psychopaths,

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condemning Normaloids to despair and death. The *cognoscenti* may fare slightly better, but our basic goodness will condemn us to the same ending as the Normaloids.

The decline of human population will have a sequence dictated by the nicest people being most desperate. I can imagine that it will start with the Unreliables killing Normaloids. Then the Sociopaths will kill the Unreliables. Finally, the Psychopaths will kill Sociopaths. Since psychopaths are parasites who need the others to serve as hosts, the psychopaths will be unable to sustain themselves and they will resort to killing each other for what few resources are left. The victors will eventually starve to death. What a glorious ending to humanity!

The attempted eusocial Transition #3 will therefore be short-lived. How fortunate we are, those of us *cognoscenti* alive today, to be at the cusp of human achievement and potential insight. We will be spared the horrors of the human demise. The real winners will be whatever is left of life after the psychopaths bring the human drama to an end!

Class competition was an inevitable outcome when tribes began to evolve eusociality. Just as species exhibit reproductive K- and r-strategies, corresponding to high and low parental investment in offspring, the same spectrum should evolve *within* the human species when eusociality permits a variety of types. If a tribe has limited resources, which means it can be thought of as a “commons” for tribal use, and if some members produce more offspring than others, the prospect of a “tragedy of the commons” for the tribe becomes possible. This would occur when the r-strategy tribesmen over-reproduce and put a strain on the rest of the tribe, the K-strategy tribesmen. This is an essential property of class competition. It is also referred to as “class warfare.” Since the r-strategy is attractive to the class of poor people, or the “have-nots,” class warfare is between the “have-nots” and the “haves,” or the poor versus the wealthy. There may be some understanding by the wealthy that they are being taken advantage of by the poor, and this would cause the well-off to feel resentment for being “victimized.” The well-off would naturally view the poor, who produce many offspring with little investment in each, as being “lazy,” or generally irresponsible. This viewpoint would in fact be true. The poor would be inclined to promote the concept of tolerance for their low-investment behavior by appealing to the eusocial ethic of “one for all, and all for one.” The poor might also try to ironically portray the well-off as uncaring. Competing governing philosophies might develop, leading to activists accusing the society’s powerful for creating a societal structure of unfairness that handicaps the poor. This argument would then be used to justify welfare programs, using cases of legitimate bad luck as examples. The well-off would not have the benefit of insight to defend themselves (since the genes deny insight to every one of their creations - for gene-serving purposes), so the easier path for the well-off would be to relent and create welfare programs to quiet the complainers.

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My interpretation of K- and r-strategies within a human society may be an exaggeration of what's true, but it was inspired by news items showing lines of cars waiting for free food; lines of cars that are better than mine. Also, news items about a single parent with many children, without health insurance, and living in a small apartment. My immediate reaction was to accuse these people of neglecting "personal-responsibility." Clearly, these people spent money as soon as they earned it, or they made babies before they could afford them. My lifestyle is in stark contrast: I waited until I had a secure job and a savings, at age 29, before getting married and starting a family. I've always had health insurance, and life insurance, and I've always been able to avoid poverty. What's wrong with the others?

Maybe what's wrong with the others is that most of them are "Baby Boomers." They were raised to have every desire met by doting parents. "Self-denial for future benefit" is an unfamiliar concept for the Boomers. Get money today, spend it today! Many aspects of how America has changed since the Depression and War years can be understood with this view of how Boomers think. This could explain why today's middle-class Americans live paycheck-to-paycheck, and have those nice cars seen in the food bank lines. The others, the people living in chronic poverty, with lots of children and not enough money for food, can be understood as r-strategy people trying to take advantage of K-strategy people. America today is being assaulted by these two versions of personal irresponsibility: Boomer self-indulgence and the poverty of neglect!

Hooligans are everywhere and ever-present. Peaceful protest marches are often followed by hooligans breaking into stores and stealing. Is it really so difficult for society to eliminate hooligans from a population? Or are hooligans tolerated because they are needed for border patrol, and for inter-tribal (or inter-society) warfare? Nobody wants to talk about these matters.

Fanaticism is adaptive. Not for the individual, but for the genes that made the individual. The dictionary definition is "A person with an extreme and uncritical enthusiasm or zeal, as in religion or politics." In a sociobiologist's dictionary the next sentences would be "A fanatic is a tool created by the genes to advance the quest of the gene pool to prevail in its competition with other gene pools for a chance at immortality. The fanatic is specifically made clueless about things so that he may unhesitatingly sacrifice himself for the gene pool's cause."

Dean and Altemeyer wrote *Authoritarian Nightmare: Trump and his Followers* (2020) as an attempt to explain why almost half of people support Trump, in spite of the fact that he's an obvious con-man. The authors make use of a 20-item questionnaire to

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measure “Right-Wing Authoritarianism,” or RWA. One example of these questions has the flavor of “Do you agree that our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways that are ruining us?” The authors identify two types found among the high-scoring RWA population: 1) those with a “Social Dominance Orientation,” or SDO, who like to dominate other individuals and other groups, and 2) Authoritarian Followers, AF, who take their cue from SDO people and who like following them. Trump supporters have high RWA scores and can be categorized as either SDO or AF. Assuming that this analysis is correct, how can we understand it using eusociality theory?

Let’s start with the requirement that collectives compete with each other with winner-take-all outcomes. Each collective must rid itself of defective individuals – such as those who can’t run fast or fight well. Given what we know about “mutational load theory” every generation has a percentage of defectives. More than half of conceptions end in still-births, and at least half of those who are born die before reaching reproductive age. Thus, fewer than 25 % of conceptions are good enough for replenishing the collective with suitable individuals that preserves a collective’s genome quality. The second phase of elimination, from birth to reproductive age, is accomplished by a variety of tests. One of them is achieved by the action of adolescent bullies, who challenge other children who appear to be weaklings. These would correspond to the SDO type.

Now let’s consider inter-collective competition. When two collectives begin a conflict, it is important for a leader to count on compliance by all able-bodied men. When the leader shouts “Charge!” it is important for all followers to charge! Followers should be unquestioning, for warfare demands unquestioning commitment to whatever serves the collective. The followers can be identified as the AF type.

I conclude that if the Dean and Altemeyer RWA speculation is correct, which I’m provisionally prepared to accept, then it is compatible with eusociality theory.

The twin evils of human nature are hyper-eusociality (authoritarianism) and hyper-individualism (psychopathy).

How ironic it is that Trump, a collective-victimizing psychopath, has for his most ardent followers, the collective-protective Enforcers! What an unexpected and amazing con!

All living things are adapted to past environments. The faster environments change, the greater are the mal-adaptations. With 9 million species of life on Earth, there will be a few statistical winners that are pre-adapted to changed conditions. Whereas those species with the least influence over others can be ignored, the most influential species is likely

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to be mal-adapted and can't be ignored. Human are currently masters of the Gaian interconnected web of life, so our mal-adaptations will have the greatest consequence upon all life. The rate of change of the Earth's environment is greater than at any time during the past 65 million years, thanks to human technology prowess. We have therefore made ourselves the most dangerous species on Earth, and it is possible that our effects upon the Gaian web could threaten not only most species but could threaten our very own existence. If all species had a vote, they would wish for our extinction!

What's good for the collective is ethical; what bad for the collective is unethical.

That deplorable 90 % of humans, and the useless 9 %. The 1 % who are competent and conscientious are relatively powerless and are therefore relegated to accepting their role of being spectators to humanity's decline and demise.

After the transition from living in small tribes to living in super-tribes it's inevitable that some inter-personal relationships would become transactional. Consider a shopping transaction. The two people may never see each other again, so there must be a clear understanding of both the *quid* and *quo* that occur simultaneously.

"Relevance" is easier to achieve in a small tribe than a super-tribe. So is "stature." The twin losses of "relevance" and "stature" in the civilized state nurtures present-day grievances for many people and contributes to a "discontent with civilization." Acknowledging this discontent, and blaming elites for taking advantage of ordinary hard-working people, was a winning strategy that Trump rode all the way to presidency.

Frontal lobe stupidity abounds among the human automatons, mostly due to human behavior being adapted to small-tribe life in the Stone Age, which happens to be mal-adaptive in the super-tribe setting of the Holocene.

I began with the question "How can humanity save itself from extinction?" In frustration with trying to answer that question I asked "Can humanity save itself from extinction?" Finally, in exasperation, "Is humanity worth saving from extinction?"

I'm trying to understand the widespread appeal of "strong men" for leadership. Here's one more attempt. Throughout the entire animal kingdom leadership goes to the

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strongest. Social power was for the most powerful individual. For most of human evolutionary history this was how things worked. Group leadership was meant for the most powerful person. Sports was a way for achieving this assessment before confronting a neighboring tribal competitor. Powerfulness was the path to power, so power belongs to the powerful. Somewhere along the human evolutionary path, as the brain evolved an ever-increasing intelligence, cleverness became a new path to group leadership. Social power eventually became achievable in two ways. Those who rose to leadership via intelligence are called elites. The term “elite” has two meanings: one defined by the elites and another defined by the individually powerful who were relegated to irrelevant powerlessness by the elites. In a modern society anyone who recognizes that they are clever will migrate to a city, with hopes of prospering doing whatever rewards cleverness. Those who assess themselves as possessing greater physical power than cleverness are more likely to remain in the country and do whatever rewards individual powerfulness in that setting. Over time societies evolve to become governed by city elites. The hard-working country folk naturally become resentful. Their position is that of our ancient ancestors, where individual powerfulness leads to social power. The elites ignore these resentments, because they can. For as long as there is general prosperity for this society the two factions may coexist peacefully. But every society experiences prosperity fluctuations. During a time of growing poverty for society generally, what could possibly go wrong?

Do homosexuality and lesbianism (HL) have anything to do with the Dunbar Number (DN)? Yes, when a tribe’s population is above DN the best strategy for the tribal genome is to forego making babies because most fissionings have dead-end outcomes, so why invest in raising offspring when they would be a liability to the tribe? This theory makes the prediction that the incidence of HL should be positively correlated with tribal population size. It may also predict that within a modern society the incidence of HL should be positively correlated with population density (e.g., rural vs. urban settings). I was reminded of something Jared Diamond told me, that the tribes he studied (in Borneo, I think) had a culture of young men going through a phase of homosexuality before becoming heterosexual adult men. He had no explanation for this. I do: the young men who survive through the homosexual phase are likely to have a better genetic endowment than those who didn’t survive. This theory predicts that if tribal population declined the homosexuality phase would be briefer or even disappear.

Societies that neglect confronting the issues described in this book will continue to be victimized by psychopaths and Enforcers. Corrupt and ineffective governance will continue, wealth inequality will grow, ineffective laws will remain, mass shootings will become even more common and a general discontent with civilization will prevail.

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Religion is useful for mobilizing a society toward a more hierarchic (or authoritarian, or regal) structure, which is always needed before inter-tribal warfare. This role for religion is hinted at by Fog (2017, Chapter 7). Whereas this is true for the late Holocene religions, it may not be for the pre-Holocene religions. This fact suggests that the late Holocene religions were modified for the purpose of speeding-up the regal transition.

There are four large boulders rolling down a hill, each of which can destroy humanity. One is global warming, another is population rise, the third is an increasing technical capability, but the most pernicious one, which magnifies the importance of the others, is the hijacking of societies by sociopaths and psychopaths.

Whenever I detect that I'm striving for relevance and respect I slap myself in the face and shout "Snap out of it!" (Striving for R & R is a genetic trick for rendering an individual useful to the tribe.)

In the Francis Coppola movie "Patton" there's a scene following a horrible battle the day before, with dead bodies all around and smoke still rising from destroyed tanks, and Patton who is surveying the scene says to himself "Why do I like this so much?" Every society needs people like Patton, because at least one society has people like Patton. If no society had a person like Patton, then no society would need them. But there's no way for humanity to rid itself of these people, so we are forever burdened with the horrors of war! Robert Ardrey's book *African Genesis* (1961) describes Raymond Dart's theory that humans are descended from a species of "killer apes." If true, the "Patton dilemma" could be understood, but such an understanding can't be acknowledged by the Pollyanna apologists for human nature. To the extent that they control political correctness there is no way that society will confront the problem.

An extra-terrestrial would conclude that no Earthling was sane! If there are inter-stellar standards for sanity they wouldn't include most of what humans think makes us special.

A lot of human suffering is deserved. For example, when voters elect a cunning sociopath to be their leader, they deserve to live in kleptocratic poverty. Or when someone builds a house in the forest, they almost deserve to lose their home to a forest fire. Or when women fall in love with charismatic men and end up in a dead-end marriage to a psychopath, they're getting what they deserve. Or when parents decide to have children before they're emotionally mature or economically secure. The list is endless. An apologist for human nature might argue that it's not their fault that their frontal lobes

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misfire in this modern age. To which I would reply that some of us have better judgement and we are entitled to criticize those with a Stone Age mentality.

Charles Manson had a PCL score of 36 (Nichols, private communication). Trump isn't far behind, with a score of 32. These two psychopaths have a different "profile." Whereas Trump scores high for the first two PCL "factors" (Interpersonal and Affective) while scoring lower on the second two (Lifestyle and Antisocial), Manson's profile is reversed. We can think of someone with Trump's profile as an "embezzler" while someone with Manson's profile as a "murderer."

I'm the product of a process I abhor. Anyone with a high IQ is indebted to an ancestry of killers who initiated tribal war upon weaker tribes on behalf of the home tribe's genome (an imperative for inter-tribal genome competition).

MAGA Republicans have a personality analogous to the Nazis of 1930s Germany. They portray themselves as super-patriots, willing to do anything to save their country (the home tribe) from takeover by evil aliens. They may only constitute 1/3 of the population but they intimidate the other 2/3 of people into going along with their patriotic agenda. Because of the effect they have on others they can be called Enforcers.

Nazi Germany, plus the rest of world history, are proof that humans are descendants of killer apes.

If the genes could express their opinion about suicide, what would their position be? Would they declare suicide unpatriotic, because individuals are created to help the tribal genome survive and thrive, and displace rival tribal genomes, so suffering by individuals is irrelevant when they can still help the tribal genome with those goals? In other words, they might say that individuals should never complain about things that don't matter to their makers – the genes. But wait, the genes have a secret: they have programmed their individual creations to self-destruct when they are a liability to the collective, or more accurately, the tribal genome. The genes that program depression and suicide when society takes the person's measure and declares them a failure are doing what other genes do that direct apoptosis, the ability of cells to self-destruct when the immune system declares the cell a failure, getting it out of the way of still functioning cells. The genes, our makers, can be cruel!

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Teenagers have been a chronic puzzle for adults. The way to understand teenagers is from the perspective of the tribal genome. Those hectic years are meant for the measurement of value to the tribal genome. It is important that this measurement occur before individuals begin to reproduce, for the obvious reason that the genome must be well-served. The measurement is whatever was important during the ancestral environment (AE), when evolution shaped human nature. In the AE the most important trait was physical prowess and its clever use. The thing we now call “gangs” during the AE was a way to make best use of individuals with physical prowess and a desire to form teams that could work together to attack their counterparts from a neighboring tribe. Anyone who preferred to be a loner, regardless of his prowess, was useless for team formation and engagement with the enemy tribe. Therefore, it was important that teenagers want to join a gang. Once in a gang, it is then important to measure the gang’s performance. All these measurements should occur before breeding age. Having survived these tests, adults are allowed to be smug in their disapproval of gang membership. Such adults have forgotten that they have already been measured, and passed the test, and are currently engaged in pursuing expertise in narrow directions – all of which contribute to tribal diversity of talent for hypothetical team formation when there’s a prospect for inter-tribal conflict. At all stages of life the individual is naturally attracted to behaviors that serve the tribal genome. In other words, everyone, at every age, is a fool for being enslaved to their genes.

Every time someone with an established reputation publishes an idea with revolutionary implications you should assume that decades earlier someone with an obscure reputation had, or even published, the same idea.

The rural voter is tired of feeling mocked by urban elites, but what he doesn’t realize is that urbanites are oblivious to the presence of rural people. It’s as if the flyover people can’t stand the thought of elites on both coasts flying over them and snickering, while in truth the coastal elites are unaware of who they’re flying over.

MAGA people believe that liberals will destroy American democracy by pursuing communist policies. Non-MAGA people believe democracy is threatened by the election of sociopaths to congress and the election of another psychopath president. The gold standard for evaluating psychopathy is Robert Hare’s Psychopathy Check List, with PCL scores that can range from zero to 40. Anyone who scores at 30 or above is technically a psychopath. Trump has an unofficial score of 32, almost as high as Charles Manson’s 36. Manson’s sub-test “flavor” is that of a murderer while Trump’s is that of a charismatic embezzler. The vast majority of psychopaths go unnoticed, becoming high-functioning in specific job categories, such as hijacking leadership of large companies

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(6-fold greater prevalence than random), and hijacking governance of societies. Hitler, Mussolini and Stalin are the most famous psychopath hijackers of the 20th Century, while Putin, Orban and Erdogan are showing how it's done this century. I fear that historians will write that America's turn came during this decade. A century ago the social critic H. L. Mencken wrote what could become America's epitaph: "Democracy is a form of governance in which the people get what they want – good and hard!" Stated another way "In a democracy voters get what they deserve – good and hard!"

Critical thinking skill (CTS) is one of those things that everybody outwardly supports, but never overtly promotes - unless they're part of a political party that's out of power. Any party in power won't want to promote CTS, for it could lead to their loss of power. Another obstacle to the adoption of CTS is the genome. Since the tribal genome that we are a subset of intends to exploit us in ways that violate our well-being, there is every incentive for genes to exist that prevent CTS from happening. In other words, all animals, including humans, are doomed to be enslaved by the genes that assemble us, and we are also doomed to enslavement to whatever group achieves power of governance.

Association for the Preservation of Diversity: Why is NAACP acceptable but not NAAWP? Because our Holocene culture strives to protect diversity. MENSA sets a high IQ bar for admission, and no one complains; this is because so few people qualify that the excluded group is a majority, not a minority. An organization that set their IQ for admission at 80 would be accused of bias against dumb people because they would then be excluding a minority. The civilized culturgen of "political correctness" acts to preserve minorities from abuse by the majority; it has no need for protecting the majority from a minority.

People Who Need People. When I first heard Barbara Streisand sing that "People who need people are the luckiest people in the world" I knew that there was something wrong with the song. It didn't take long for me to parody the words with "People who need people are the sorriest people in the world." But the song was popular, because it made weak people feel better about themselves. It is always understandable, just as it is never acceptable, for the *hoi polloi* to celebrate themselves with whatever salves their feelings of inadequacy. I now smile when I hear that song. I will also admit to feeling smug! For I don't celebrate weakness; I celebrate strength. This orientation can be viewed in political terms. Democrats, especially the "woke generation," follow the Special Olympics, where applause is given for participation, for earnestly trying. Old fashioned Republicans prefer the traditional Olympics, where the winner is applauded and the others are ignored. The liberals also use the term "special" for all forms of disabilities. "Special education" is not for the gifted, it's for the afflicted. Schools now emphasize teams of students working together to achieve some academic goal. I prefer to encourage

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individual effort, but that's now old-fashioned. The trends seem to coincide with the shift from a rural farming society to a city dominant society. What once was a handicap is now feasible: a greater reliance upon others. People needing people is now a virtue. This old farm boy isn't buying it!

If a flying saucer landed in my back yard, and a Venusian stepped out and asked me to explain human nature, I'd say the following: People act as if they're still living in an "ancestral environment" small tribe which is in constant conflict with neighboring tribes for survival and dominance. The individual is really a fool for the tribe, for he is inclined to sacrifice himself for the tribe; and he's totally unaware of this enslavement. But today, he's a double-fool, for he's not living in a small tribe, where everyone knows everyone in the tribe and leadership is by valid leaders. Instead, he's living in a super-tribe, that is civilized, where almost everyone in his society is a stranger, and where leadership is by psychopaths. Since his nature hasn't changed from the one that evolved during the ancestral environment his nature is mal-adapted to the civilized setting. Today's human is totally unaware that he is really a time traveler designed by evolution for enslavement to things that no longer exist, yet he is so sure of himself that Truth has no way to intrude upon his thinking. Humanity is a super-successful anachronism, destined for self-extinction during the next century or two. When this happens the rest of Earthly life, all 9 million species, will rejoice. Only a handful of humans understand these things, and we have ambivalent feelings about it. "Things could have been different" we tell ourselves; "We could have found that elusive winning place and lived a long and peaceful life upon this beautiful planet." But we have a nagging feeling that our intelligence evolved because we are the descendants of a species of killer apes, and our destiny as humans had a fate sealed by this sordid origin.

I'm amused by the current flurry of discussion about a half-century decline in "disruptive publications." I agree that there has been a decline, and the reasons are straightforward – to us disruptive thinkers. The "climate of opinion" swings like a pendulum: the "roaring twenties" welcomed disruption, the 1929 stock market crash inhibited it, World War II welcomed it, the end of the war inhibited it, the 1960s were welcoming and the 1980s were inhibiting. This last inhibiting has lasted half a century. It forced sociobiology underground, even causing its name to change to "evolutionary psychology" as a way to avoid ridicule by the East Coast super-liberal social activists. The 1980s era social activist inhibitors also forced neuropsychology to trim its sails and confine its disruption to within its own discipline. I have a nose for timid thinking, so I've felt manacled for half a century. But this is a price we disrupters must pay for living in a society. Every society changes "cultural shape" in response to the needs for societal survival. When war is coming, a society inhibits dissent and promotes patriotic harmony. When peace breaks out, these pressures are released and disruptive dissent is mostly tolerated. My

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recollection of living through the 1960s is that it was a time of opening to change; it was a time that gave disruptive people a voice. This gave rise to a peak of disruptive publications during the 1970s. The most prominent of these, in my opinion, was E. O. Wilson's *Sociobiology: A New Synthesis* (1976). He suggested that many fields in the humanities should re-invent themselves - with guidance, of course, from sociobiologists. This brazen attempt at progress was of course rebuffed by those who had already established themselves in their respective fields in the humanities. The change of "climate of opinion" that started in 1980 was a blow to Wilson's appeal. Ever since, sociobiology has been viewed as a dangerous threat to established intellectuals. An era of timid thinking was born, and it continues today. The woke liberals combine forces with the regressive conservatives to inhibit any new thinking that makes humans look bad. It's as if society is unsure of its continued survival so it is enforcing an old-fashioned patriotism: we are good, don't rock the boat, prepare for battle. To Hell with those people! Humanity is approaching a precipice, not an inter-tribal battle, but a self-created threat of extinction. We face a global warming climate change and the social disruptions that this will produce, and we have allowed sociopaths and psychopaths to infiltrate governance. What a paralyzing combination! At a time when disruptive voices should be heard, they are told to be quiet. Our instincts come from a remote past of inter-tribal strife, and they are blind to modern needs. Humanity is doomed! For the sake of the other life on this planet, may our demise be forever!

When we say that a eusocial individual's behavior is devoted to eternal existence of the collective, how do we define the collective? Is it just the total of individuals now alive, or the total of individuals that could theoretically exist if the collective is successful? Assuming conditions in the future resemble conditions of the past, the eusocial individuals are devoted to this larger population of the collective. This was the goal that Garrett Hardin had in mind.

Today's liberals are loyal to the super-tribe's cities and the civilization created by those cities. The conservatives remain loyal to the idea of small tribes that no longer exist. The psychopath isn't loyal to anything besides himself, and possibly his genetic imperative is to be fecund. There occasionally is born someone loyal to none of the aforementioned, but is instead devoted to understanding things and intellectual achievement. He seeks relevance and respect from the small tribe – he's the tribal artisan. His loyalty is mostly to fellow artisans. Any artisan who becomes an author will have a small readership because artisans may be only 1 % of the population. The Holocene must have started with no one loyal to a super-tribe since super-tribes had not yet become common. However, as super-tribe cities thrived, the population of city people must have grown faster than the old-style small-tribe loyalists. Today the number of super-tribe people has grown to approximately half the population.

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It just occurred to me (2023.03.26) that some people actually believe that behavior is based on people understanding a situation, considering outcomes of alternative actions, and then choosing the action that leads to a desired outcome. How naïve! I don't think I ever believed that. If this is what sociologists believe, that would explain their ineffectualness. How would a sociologist explain women's interest in making babies, men's interest in making it happen, and a historically demonstrated interest by men in initiating war? Sex and war are such prominent pillars of human nature that any discipline that purports to explain human behavior must confront those two matters. Only a gene-based theory can account for them, and the best of them is a form of group selection theory in which the group is the tribe. Specifically, any theory for human nature must be based on what serves the tribal genome; nothing else matters.

The ancient Greek philosophers were fascinated by the relationship between the individual and the collective. As I recall, they believed that each owed something to the other, and in return each expected something from the other. For example, the collective owed security to the individual when another tribe threatened aggression, and the collective expected the individual to contribute to the collective's defense. It is natural for different people to differ on the balance of who owes whom. I think it is correct to state that liberals emphasize what the collective owes the individual whereas conservatives emphasize what the individual owes the collective. As intertribal conflicts ebb and flow, the optimum balance will change, so there's no single balance for all time. It may be a good arrangement (from an evolutionary perspective) for the opposite orientations to be in constant conflict. Consider the case of a stone-age baby born with an obvious disability. The conservatives will know that such an individual will be a liability to the tribe for as long as it lives, so it's better to throw the baby over the cliff (as the Spartans are famous for having done). The liberals will argue that the tribe owes the baby with special needs special care, so keep the baby alive and tend to this needy individual for life. The same disagreements occur today. The national news has a steady stream of reports of mentally insane people being on the subway and harassing passengers. Does the collective have a right to confront the mentally insane person and drive him away? Or does the collective owe that person special consideration by simply tolerating his harassment, or as some have stated, hold his hand and offer help? Liberals and conservatives will probably never agree on what to do. Liberals will always favor the weak and needy, regardless of how this weakens the collective, whereas conservatives will always side with whatever strengthens the collective.

About 76% of pregnancies don't survive to birth, and in the ancestral environment about 60 % of births didn't survive to adulthood. Stated another way, throughout most of our human evolutionary past, among all conceptions only about 10 % reached adulthood. It has been suggested that this statistic reveals the necessity for eliminating deleterious

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mutations that occur every generation. Evolutionary forces were assessing how children were dealing with diseases (immune system), intelligence (posterior lobes), judgement (frontal lobes) and mental health (limbic system). We, the living adults, can be proud that we “were meant to be” in some sense. But wait, whereas today the conception-to-birth statistic is probably unchanged from our ancestral past, the birth-to-adulthood percentage in advanced societies has increased to almost 100 %. This change has happened during the past century or two. I refer to this as the “Kondrashov transition” because Alexy Kondrashov wrote an article, published in *Science* in 1988, describing that when almost all births advance to adulthood there will be an accumulation of deleterious mutations that would not have happened during ancestral times when fewer than half of births achieved adulthood. It will be difficult to estimate how many of the ancestral deaths were due to genetic mutations, which kept tribal gene pools clean. A maximum would be that all 60 % of childhood deaths that are no longer occurring were removing unwanted mutations from the tribal genome. Imagine the possibility that about half of the people you see in public today were “not meant to be.” This thought would never be accepted by society, or even academics. It is therefore a forbidden thought! Nevertheless, people had to deal with the thought at a subconscious level. Parents would be pulled in opposite directions about childrearing practices. On the one hand, parents would want to protect their children from danger in order to advance parental genes within the tribal genome. On the other hand, parents would want to maintain tribal genome strength for prevailing in future inter-tribal conflicts. Could this be the origin for the ever-present tension between liberalism and conservatism? One persona would want to protect offspring from danger, while the other would want to preserve tribal strength? This must be an ancient conflict based on the following folk wisdom saying: “Prepare the child for the road, not the road for the child.” Contemporary culture has undergone a pendulum swing on this matter; for centuries, and probably millennia, this folk wisdom was honored, but during the last few decades parents in advanced societies have been preparing the road for their precious few children! This was described by Lukianoff and Haidt in their 2018 book *The Coddling of the American Mind: How Good Intentions and Bad Ideas are Setting Up a Generation for Failure*.

We learn more from failures than successes. That, at least, is how things should work. Some people, however, are insecure and interpret failures to be evidence of their low self-worth.

Rest is most appreciated after exertion. Peace is most appreciated after turmoil. The person who is perpetually resting has little appreciation for it, and the person who has never experienced turmoil is similarly unappreciative.

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The pursuit of Truth is risky. For some people the loss of illusions can make them feel “disillusioned”!

It’s probably inevitable that any childhood during World War II would shape intellectual interests toward the relationship between the individual and society (the collective). That war began a few months after I was born, and I wanted to know why people could be so evil, and why they were also so stupid. I think I sensed that it had something to do with serving the collective, but it wasn’t until after college that I began to see this more clearly. I’ve continued to have insights ever since. For example, I woke up this morning with a clearer understanding of the “purpose” for teenage years. For boys it is to exhibit athleticism and learn about teamwork to achieve status for deserving to reach adulthood where warrior roles for men are important. For girls it is to exhibit beauty and develop social navigation skills so that they deserve to reach adulthood as women who will be attractive to men for the purpose of making babies. Both the men and women are likely to be an asset to the tribal genome if they survive the teenage years by exhibiting their respective essential traits and becoming adults with status. Since evolution measures tribal genomes using inter-tribal conflicts these teenage years preoccupations and competitions are guaranteed by the tribal genomes. It doesn’t matter whether or not life in a civilized state continues to be influenced by this evolutionary measure; human nature is still the product of what was needed during the Stone Age. Teenagers who feel failure in their measurement suffer needlessly. Their mental state, their feelings, are dictated by ancient needs, and it’s unimportant that these are tribal genome needs that no longer exist. We humans are best thought of as “automatons” – wandering a new Earth with outdated emotions for serving something that no longer exists. It is the intellect’s job to understand this and reset priorities by devaluing outdated emotions and enhancing the value of emotions that serve the individual in a modern world. Yet, probably fewer than one in a million people understand any of this. My lifelong quest has been a success, and there’s no sharing of it with those who could benefit. The world is a crazy place. As an aside, those “healthy babies” produced by survivors of the teenage years are likely to be successful when they enter their teenage years. However, since humans have needed to retain a high level of adaptability we have retained a high level of mutation rate. That means that we need to assure a low rate of birth-to-adulthood, such as 40 %. This, in turn, is why the teenage years are so important for separating the competent from the defective. The precarious teenage transition is just one phase of evolution’s “mutational load” measure. Throughout childhood the immune system is being measured, as is “judgement” and “intelligence.” Our species’ low childhood survival rate is a price we pay for being an adaptable species.

Human Nature was forged by evolution during the Pleistocene. The Holocene has been so brief that only cultural evolution has occurred. But cultural evolution evolves in only

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those directions permitted by Human Nature, and our nature had no prevision of what it would have to deal with during the Holocene. This, I believe, is the best way to understand the many dysfunctions of human behavior in our recently achieved civilized state.

I wonder how many times a “nice” tribe, or society, was savaged by a “killer ape” tribe or society. Within each tribe are talented people whose niceness renders them vulnerable targets for the bullies who dominate their tribe. If, somehow, a tribe becomes isolated, and it experiments with democracy, it could flourish due to unleashed talent. But the day would come when a savage tribe discovered them, and wiped them out. Could the Neanderthals have been a basically peaceful people, who were overwhelmed by the warlike Cro-Magnons?

I once talked myself into having the perspective of an alien space traveler who discovered Earth and learned about humans. My alien self wondered what humans were like, and how they felt about their existence. I was surprised by a sudden feeling of privilege for knowing the answer, for being one of those mysterious humans. In essence, I was viewing myself, for the first time, as an alien!

I would like to argue for solar geoengineering on behalf of Mother Earth and the 8 million species that deserve protection. Depositing chalky powder in the stratosphere could slow global warming and this could lessen pressure on reducing fossil fuel consumption. The longer solar geoengineering occurs, and the greater its effectiveness, the greater will be the need for its continuance. But, as the general public adopted a belief that global warming was under control it would be possible for the fossil fuel industry to argue that global warming was an exaggerated alarm by over-zealous environmentalists, and there will be calls to save money by cancelling the solar geoengineering program. When this is done the growth of fuel consumption since the start of solar geoengineering will have become so large that cessation of solar geoengineering will unleash a colossal and sudden rise in global warming that will be unmanageable. The resulting droughts, forest fires, storm severity, glacier melting, ocean current changes, sea level rises – all of these changes will lead to starvation, migrations and societal instabilities which no governance would have been prepared for. This could hasten the transition from humans living in high-population civilized societies to low-population Stone Age tribes. The sooner this transition occurs the better, because a protracted transition would incur greater harm to Mother Earth and the 8 million species on this beautiful planet. The Earth’s interconnected Gaian paradise has been threatened for over a century by a cancer, and the cancer is called Humanity. Whereas humans have indeed become Masters of the Earth, any program that hastens the demise of this cancerous mastery should be welcomed. Solar geoengineering is a program that promises to bring about a quicker loss

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of humanity's cancerous grip, so it should be endorsed. That is why I am a proponent of solar geoengineering.

How does it feel to die a natural death? Can sociobiology predict something? Yes, I think the tribal genome would be served if the death process didn't disrupt social function, and since a natural death can't be changed by any actions of relatives and friends it would make sense to the tribal genome for the dying person to die peacefully!

If there was another planet in the galaxy with intelligent beings, and if they knew that the Earth existed and had intelligent life on it, those aliens would give almost anything to see the Earth close-up and to at least briefly experience it through an intelligent Earthling's perspective. This is sometimes how I think as I walk down my driveway to get the trash can – such a mundane activity, but for that curious alien how richly full of new experience it would be. I also sometimes think as if I'm that alien who was somehow able to transport his consciousness into a human in order to satisfy his curiosity.

I've argued that religion was modified to prevent sociopaths from weakening the tribe. Since the Enforcers made sure that no one questioned prevailing beliefs (publicly, at least), they played a crucial role in preserving the new religion. Is there something in our Stone Age past that motivated the Enforcers to redouble their efforts when they sensed that people were abandoning religion? And if so, could this explain the rise of societal discontent, and a feeling that something should be done to restore religion's role in American governance?

To answer such a question we must review the likely role played by religion during the Stone Age. Religion didn't just describe dead people's souls rising from the funeral pyre to the heavens. It also must have provided courage before battle for reassuring warriors that unseen powerful forces were on the home team's side, and that victory was assured. A believing warrior would enter battle with greater confidence; he would therefore be more likely to give his best performance. If the other tribe consisted of unbelievers, who might therefore have a more realistic assessment, this could undermine their resolve and give victory to the believers.

It has been noted that every society has a religion (or sometimes many). This shows how important religion must have been for our Stone Age ancestors (i.e., for tribal survival). If it is important for a tribe to have a religion, it must also be important for a tribe to not lose it, i.e., to maintain their religion by restoring it when it wanes. Again, it must be the Enforcers who detect the need for bolstering belief.

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For the past few decades Western societies have been becoming more secular. Could it be that today's Enforcers are being motivated to action, trying to restore religion to a rightful place for a society that wants to survive?

We can imagine the millions of years that our tribal ancestors wavered in their religiosity in response to their evolving intelligence. Every IQ advance threatened belief in the prevailing religion, and this required a corresponding strengthening of the enforcement of religious devotion. This could have been an important factor in the evolution of a population of Enforcers in every tribe.

When language evolved, perhaps 200,000 years ago, there must have been an immediate reward for lying because it allowed the manipulation of others. If a culturgen appeared that punished liars, such tribes would have been more harmonious and they must have prospered. This situation rewarded any brain hard-wiring for inhibiting lying. But as lying became less common it also became more rewarding! This irony guaranteed that a small percentage of people would always be born with a propensity for lying. And since lying benefits most when it is a tool for manipulating others, the two traits should occur together (same chromosome, close-by). This may be how sociopaths evolved. It is ironic that the presence of trust among tribesmen is a condition that almost guarantees the presence of those who abuse it.

Conspiracy theories: why are people attracted to them? Could it be that the logical mind knows it's being manipulated, but doesn't realize that the manipulation comes from within the brain – not from some outside influence? Since individual humans are created from a tribal genome, and human nature is designed by that genome to serve the genome, with disregard for individual well-being, it is inevitable that a thinking individual would want to question why it wants to do what it does. The simplest answer is that some outside forces is behind those influences, and that's correct; but the outside force is the creator of the individual, not some group of other individuals that everyone is looking out for. People's suspicion of being controlled is accurate, but their assignment of blame is flawed, thanks to the genes, which are always winners.

An alien from another solar system would conclude that all humans are insane, to varying degrees. Each human thinks of himself as logical, but he is really clueless about his insanity profile. Not only are human behaviors befuddled, but their belief systems are wacky! One of the most amusing things is that some humans call themselves "therapists" and they counsel patients on how to fit into the insane mold that everyone views as "healthy." In the topsy-turvy world of humans, the majority who are insane are branded normal, and some of those viewed as insane are in fact normal by an alien standard.

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It amuses me that whenever an expert is asked to describe a psychopath they launch into an explanation of psychopathy. In fact, to explain a psychopath you first must explain the Normaloid. For millions of years evolution rewarded tribes that created individuals who were unthinkingly devoted to tribal genome survival. This meant that the individuals the tribal genome created had to act as if they were genetically enslaved to the collective whose genome created them. They would automatically do things that served the tribe regardless of the individual sacrifice required. Since intelligence was also being rewarded, emotions had to be empowered to overrule questioning and behavioral hesitation. In other words, the evolutionary purpose for emotions is to overwhelm logic in order to safeguard the individual's enslavement to the tribal genome! The psychopath, who lacks emotions, is free to parasitize Normaloids. Only after the Normaloid's insanity is explained in this way can you describe the psychopath as someone who has escaped generic enslavement.

I'm not defending psychopaths; I'm simply explaining who they are. In fact, I'd prefer to live in a society without them. But we're now forced to share the fruits of civilization with ~ 0.4 % of the population being psychopathic (0.8 % of men and 0.1 % women). Why do any of them even exist? Why did evolution allow tribes to tolerate any psychopaths? It's for the same reason that cancer cells exist. A defense that is 100 % effective is too difficult or costly to maintain, so an almost perfect defense is good enough. During the Stone Age, when everyone lived in small tribes, and everyone knew everyone in the tribe, a defense that was >99.5% effective at identifying and disempowering psychopaths was apparently good enough. This level of defense was high enough that most tribes didn't have any psychopaths.

Psychopaths are notoriously fecund in today's super-tribe societies. What happens when you create a genetic blend of psychopaths and Normaloids? You have people with some emotional capacity coupled with a careless disregard for the suffering of the trusting Normaloids that they victimize. Let's refer to these people as sociopaths. Whereas the psychopath has no emotional need for acceptance by the tribe, the sociopath does. The 1941 book by Hervey Cleckley, *The Mask of Sanity*, remarked how unbothered the psychopath was by their victim's suffering. No guilt, no remorse (no "conscience" as Robert Hare would later emphasize), no depression, no distortions of reality – the psychopath was a well-adjusted person with no complaints and therefore no desire for treatment. The sociopath, however, had the burden of some emotions. Like their Normaloid cousins, they want to be "relevant and respected" by their fellow-tribesmen – or, in today's super-tribe society, they want to be acknowledged as "relevant and respected" by the sub-set of society that they choose to associate with. But if the sociopath does minor manipulations and victimization of others, and if they learn the need to hide their behavior in order to be accepted by society (i.e., more than merely tolerated), they will have troublesome emotions that never bother the psychopath.

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This is pure speculation, but female sociopaths should be bothered differently by their character than male sociopaths. This is because females are emotion-driven differently than males. Warriors are male, and killing an enemy combatant is done more easily if your victim's suffering is unimportant. Women are caregivers, and instead of being motivated for taking life they are motivated for nurturing life. Whereas empathy can be a liability for men, it is an asset for women – from the standpoint of evolution. On the other hand, men may have a greater need for feeling relevant and respected because of the roles they play in teams (formed for not only war, but hunting, construction projects, etc.). The only position I feel comfortable taking on this matter is that male and female sociopaths should experience their character challenges differently.

The Stone Age setting had to prepare parents for the wisdom of letting children take risks and maybe die before reaching adulthood. Otherwise, the tribe would suffer from “mutational load.” Let's assume that tribal size is optimum for the maximum number that allows everyone to know everyone. The reason for not exceeding this size, the Dunbar Number of 150 (the sum of men, women and children), is that larger sizes permit tribal victimization by psychopaths. Not everyone in the tribe has an identical response to the risks of free-ranging their children. Those who are over-protective we can identify as liberal, and the others are therefore conservative. When the tribe is small the liberals should prevail, and the opposite should be true when tribal size is large. This cultural dynamic should help maintain tribal size near an optimum. So, there are opposite forces for tribal size: the need for smallness because of psychopaths and the need for largeness because of competition for territory with neighboring tribes.

Throughout the Pleistocene human nature and culture were improving their adaptation to the demands for tribal viability. Liberals and conservatives lived together in presumptive harmony. However, as humans became more intelligent this required increases of emotional imperatives for behavioral devotion to the tribe and sanctions for insightful thinking. In addition to evolution's increasing need for emotions, the need for Enforcers grew because they represented the tribe's tool for conformance. Conformance protected beliefs and behaviors that served the tribe. The Enforcers not only kept the dangers of emotionless psychopaths under control they also kept under control questioning thinkers.

The abrupt improvement of climate ushered in by the Holocene 11,700 years ago changed everything. With a better climate it became economically easier for large tribes to exist, and they existed in less comfortable closer proximity to each other than before. Inter-tribal conflict rewarded larger tribes, which upset the balance that had existed during the Stone Age, when human nature evolved. Identifying psychopaths became less important than prevailing over larger neighbor tribes.

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The advantages of tribal largess during the Holocene favored the liberals, who valued the survival of all children. To bolster their argument the liberals elevated the importance of diversity, which was in fact growing in importance as cultural changes were unleashed. The liberals preached tolerance, and an acceptance of differences, some of which didn't make obvious sense. Tribes led by liberals fostered the rule by elites, and conservatives lost credibility whenever they took control of a tribe that was vanquished by a tribe led by liberals.

The liberals, however, had no understanding of psychopaths. Their penchant for tolerance blinded them to certain dangers. This blindness became more relevant over time during the Holocene. Inter-tribal competition favored tribes that were able to become more hierarchical prior to inter-tribal conflict. Most of the time tribes were peaceful rivals, and during those times individualism and diversity were not only tolerated but were even promoted. This assured that the best individuals prospered, and the diversity of talent that this produced meant that the best teams for whatever endeavor was undertaken could be formed. Peaceful interludes were actually preparations for war!

When war loomed, the tribe abandoned individualism, and tolerance for diversity, because the tribe had to prepare for tribal survival. This meant that the tribe needed a strong leader to oversee changes of governance to a more hierarchic version. This transition is something the liberal elites were unprepared for. What's called for at this time is a shift of control to the conservatives. The conservatives, after all, are ruthless; they are intolerant and have less hesitation for killing a rival tribesman. The conservatives encouraged the Enforcers to impose a tribe-serving conformance of beliefs and behavior on all tribesmen.

Whereas the transition to hierarchical governance occurred smoothly by our ancestors during the Pleistocene, during the Holocene there was one big difference: instead of tribes without psychopaths the Holocene consisted of super-tribes with psychopaths! In a super-tribe almost no one knows who the psychopaths are. There are several "flavors" of psychopathy and one of them is a talent for deception. We think of them today as financial fraudsters. They can be charismatic and persuade others to have confidence in their honesty, which is the basis for a common reference to them as "confidence men" (90 % of psychopaths are men). When members of a society feel like they are approaching something resembling inter-tribal conflict, psychopaths see an opportunity! Those psychopaths with a successful history of defrauding over-trusting victims wonder if they can seize control of their society and achieve the benefits of the ultimate scam! During the 20th Century we have the examples of Hitler, Mussolini and Stalin. During the 21st Century, we so far have the examples of Putin and Trump (and many others of lesser importance).

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These psychopath hijackings of society can only happen in a civilized setting. This is because psychopaths can remain unidentified only when a society is larger than the Dunbar Number. The prolific historian, Will Durant, must have sensed this when he wrote “A great civilization is not conquered from without until it has destroyed itself from within.”

America, your turn is coming! And when it happens, you will have “deserved it.” There are no excuses for turning your attention away from danger. Humans are too dumb to deserve the bountiful benefits of civilization. Humans deserve to return to Stone Age living. As one lumbering democracy after another succumbs, and as the autocracies that replace democracies undergo their own versions of failure, humanity will slowly “sink into the ocean” and a new Stone Age will commence.

Appealing to both LB and RB sounds fair, but it’s really a cheap shot to achieve relevance among a wider audience than if the appeal is to just LB people. This is because RB evaluates by consulting the limbic system (i.e., emotions), whereas LB evaluates by consulting logic. The limbic system’s emotions exist to keep the individual, created by the tribal genome, loyal to the tribal genome, with no regard to individual welfare. Therefore, pleasing RB amounts to condoning unthinking enslavement to the tribal genome whereas pleasing LB is equivalent to pleasing the thinking individual.

More often than we realize, the “elephant in the room” is that people can act like the Germans did during the Nazi era. We are now seeing shameful behavior by prominent politicians, somewhat remindful of what German politicians might have done as enablers of Hitler. This is doubly sad because most voters are oblivious to what’s happening, and what it may lead to. To say that we are living in “interesting times,” as if the dangers are now unique, is misleading; humans have always lived in dangerous times, because humans have always lived amongst humans. The Nazi holocaust says a lot about human nature, whether or not we want to admit it. As Raymond Dart said, decades ago, “We are descendants of a species of killer apes.”

I’ve blamed the tribal genome for all sorts of bad thing in human nature. What if I could have a conversation with one of my ancestral tribal genomes? The conversation might go like this: “Why did you tolerate so much readiness for suffering among your creations, we humans?” “We inherited those genes from our chimpanzee ancestors, and they continued to serve us well. We just created ‘automatons’ to do our bidding, and we had no idea that you automatons had feelings and could suffer.” “Well, now that you know better, what are you going to do about it?” “We can’t do anything about it! We’re just a physical mechanism, like you, with no awareness and no ability to choose what to do. So if you’re suffering, you’ll just have to endure it!?”

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A peaceful tribe will always lose to a warlike tribe. That's why our ancestors are warriors. And that's why there's no path to a winning place for humanity. Even if a few percent of humans are good, and worthy of prospering, there's no way for us to come together and survive. Whether we live alone, or together, our fate is doomed by the evil ones who will never be extinguished. Is it possible to answer the question: "Is this horrid human race worth saving?" There's no way to save the good ones. This may be a dilemma for any intelligent species. I'm ready to conclude that the galaxy is devoid of an intelligent alien species that we'd like to meet.

Henry Ford was known for determining which of his car components were over-engineered by going to car junk yards to see which parts rarely failed; he'd then lower his investment in their manufacture. Evolution does something similar when it creates individuals with many organs having different amounts of investment. Those individuals whose organs all fail at the same time after raising children will have the most excess energy available during their lifetime, and on average they will therefore be the most successful in serving the tribal genome.

During the Pleistocene's governance of the collective, a small tribe, there must have been a perfection by evolution of our instincts for governance. The emergence of super-tribes during the Holocene rendered some old governance instincts useless, and maybe even counter-productive. Whereas internal strife may have been rare in the small Pleistocene tribe, rivalries between striving factions within a super-tribe would sometimes lead to a weakening that attracted the attention of a neighbor super-tribe. Peter Turchin's "excess of aspiring elites" can only exist in super-tribes. The genome of a small tribe will have gene frequencies that produce people with different talents in proportions close to an optimum, thanks to the work done by an ever-present Evolutionarily Stable Strategy (ESS). In contrast, a super-tribe is guaranteed to have an excess of some types, and it should not be surprising to see them competing for positions.

Mutational load must have presented conflicts within Pleistocene tribes between a family with defective children and the rest of the tribe. Whereas the defectives were a liability to the tribe, they were gene carriers for the parents. Tribal culture must have won, but there still must have been resentment by the parents who were forced by tribal pressure to throw their defective offspring over the cliff. Compassion for the individual conflicted with what's best for the tribe! These competing motives might be the basis for creating liberal and conservative outlooks.

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Sometimes people deserve what happens to them. This may also be true for societies, or even humanity! The next half century could see the collapse of global civilization. It could then be followed by millennia of Stone Age tribalism. Such a loss of civilization would be the natural consequence of our human nature, adapted to Stone Age living and unprepared for sustaining civilization. Most humans living today are unworthy of airplanes, the internet, cell phones, modern medicine, democracy – and the rest of civilization’s cornucopia of good things. Understandings arrived at by the cognoscenti do not translate to governing policy, because the *hoi polloi* have disdain for everything the cognoscenti say; and besides, the *hoi polloi* are meant to live in the Stone Age. Atmospheric scientists began warning about global warming in the 1950s, but these truths were simply too “inconvenient” for most people. It’s wrong to state that “The truth shall make you free” when human nature has no respect for the truth. We are enslaved to our makers, the tribal genome, and that genome cares only about itself. The tribal genome’s wisdom is limited to what worked in the past, and it is somehow fitting that it is destined to recreate the past.

Mother Earth has cancer. Its name is humanity!

Is diversity good? Good citizens join volunteer groups for uprooting Buffel grass, an invasive species from abroad. The federal government is working to protect a native fish species in the Colorado River from a non-native Smallmouth Bass species. Among humans, psychopaths are present in every society at about the 1 % level. Can we say that the diversity that they provide is good? Not every example of diversity is good!

[This entry was written shortly before President Joe Biden withdrew from his campaign for re-election, and endorsed Kamala Harris. I include it as a record of the way many people worried about Biden’s losing candidacy.] Could July 2024 be as pivotal a month in human history as November 1932? If FDR hadn’t won the 1932 election America probably would have followed the path to fascism that was favored by Henry Ford and Charles Lindbergh. This would have allowed Hitler to win World War II, which would have led to the irreversible decline of democracies throughout the world. This July could be equally important. If Biden continues his campaign for re-election, Trumps would likely win in November, and starting next January America would begin a path of decline into fascism. This would weaken other democracies in the world. The conflict between the clever and powerful against the well-meaning and powerless would grow stronger; it would bestow a decisive victory that would allow the forces of evil to overwhelm humanity. The kleptocrat’s obsession with personal prosperity would guarantee two

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things: 1) growth of the inequality of wealth between a tiny class of super-rich and an immensely large class of impoverished poor, and 2) global warming would grow well beyond the point of no solution. Humanity would then be collapsing to an end-state that can only be described as a new Stone Age.

An alien observing Earth this month might send a message home to be patient for just another century or two, when taking control of Earth will be easier than at any time in the past 10,000 years.

I know that I'm here on Earth to help others. But what on Earth are the others here for?

In my semi-wakeful dream, I imagined an interview with an American Viet Nam war soldier, saying "The government bullies can force me to put on a uniform and carry a gun, but they can't force me to point that gun at a fellow human and pull the trigger!" I am a grateful product of a process I abhor. My intelligence, my insights, are made possible by intra-species war. Being born the year World War II broke out, one of my first impressions of humanity was seeing the world at war. This taught me about the horribleness of humans. Is this how misanthropes are made?

The main problem with democracy is that the people get to vote on who will govern them. Consider the case where almost half of the vote went to a buffoonish psychopath in a country that was probably the best-educated in the world, with dominance in science and technology. I'm referring to 1932 Germany where 37 % of the vote was for Hitler. In 1937 my father wrote in a letter "Herr Hitler is a smiling individual ... yesterday I was in his presence for 30 minutes while he was reviewing 10,000 of his fervent, exuberant German admirers at... Berchtesgaden." What's wrong with people who adore psychopaths? The answer is that human nature evolved during the Stone Age Pleistocene for small tribe life, whereas our current Holocene has been a whirlwind of cultural change forcing us to live in super-tribes – and our nature is not adapted to the Holocene's "civilization." Human IQ may be high, but human insanity is even higher! ***What's the fate of a society that adores its parasites?***

We are the product of tribal genomes that survived a slow evolution during the long Pleistocene. Our culture, however, is the result of hectic changes during the brief Holocene. Gene pools evolve on timescales measured in hundreds of generations, but cultures can change during just one, albeit within limits set by the genome. We now find ourselves living in a culture that is mismatched to our nature. The few in each society

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who are insanely clever have shown that they can corrupt the accomplishments of the many, those who created our vaunted civilization. One of the supreme ironies is that many people are predisposed to adore the clever parasites, and this threatens to bring about a collapse of civilization. We now live at a unique time, for we can now see a looming precipice, and we can predict a dire outcome for our species. While there is a measure of exhilaration in seeing the big picture, there is also a profound sadness, and a feeling of futility. A premonition of humanity's final outcome is coming into view.

I have argued that humans are probably the only intelligent life in our galaxy. The basis for my argument is that the Earth's massive moon is a rarity that resulted from a highly unlikely glancing collision of a Mars-sized object with Earth during the solar system's formation. I could have also argued that the demise of non-avian dinosaurs 65 million years ago was also a highly unlikely event, which allowed mammals to flourish, and eventually humans. If my argument is approximately correct, that our galaxy averages only about one intelligent species at any given time, this translates to an abundance of life in the universe because the estimated number of galaxies in the universe is approximately a trillion! It may never be feasible for species to communicate across inter-galactic distances. And almost surely there will never be back-and-forth conversations between such civilizations given the immense light travel times between galaxies (a million years).

Since humans cannot expect to learn about how other intelligent species evolved, we can at least speculate about it. My speculation is that intelligence is most likely to evolve when a species has so mastered their planet that the time eventually arrives when their evolution is based on competing with each other instead of other species. In other words, inter-tribal competition is what drives the evolution of intelligence. If so, then we must consider the possibility that evil lurks in the nature of all intelligent species. A "nice" tribe will only exist if it is isolated from other tribes, and is only competing with the environment, or other species. In such a hypothetical case the tribe wins if its nature is for cooperating. It could then grow in size beyond the Dunbar Number. But if it ever splintered, and there were two or more tribes competing for the same resources, the eventual winner tribe will be the one that becomes evil first. I therefore argue that intelligence, and an evil nature, evolve together!

So, is there an inevitable outcome for a species consisting of many evil tribes, or many societies of tribesmen whose nature is evil? That's the question many scholars are thinking about today. My position is that a collection of evil societies will coordinate to overthrow nicer societies, even when the nicer societies try to cooperate.

Using today's global political situation for illustration, autocracies are coming to each other's assistance to thrive as they work together to weaken their adversary democracies. The invention of the internet made it possible for the cooperating autocracies to become

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kleptocracies, and for them to be on a winning path for dominating the planet. Anne Applebaum's 2024 book, *Autocracy, Inc.*, describes how the autocracies of the world are helping defend each other during the 21st Century, following the 20th Century's ascendance of democracy (led by America). Russia and China are the most mature and powerful kleptocracies, and they are making the world safe for autocracy and their eventual transformation to a kleptocracy. The transformation from an autocracy to a kleptocracy was made easier by the internet, which is why kleptocracies became possible during the 21st Century. The transition requires a process for easily and secretly laundering stolen money. It also involves spreading propaganda and limiting the inflow of information from democracies. The autocracies and kleptocracies also weaken democracies by creating propaganda that appears to originate in the democracies. The internet is an ideal tool for all of these nefarious activities.

As the autocrats steal from the society's economic resource, on a path to kleptocracy, wealth inequality increases between the victimized general population and a tiny dictatorship with supporting oligarchs. To suppress discontent among the masses it is necessary for the kleptocrats to maintain a cruel police force. Russia is a mature example of how all these changes can happen in a mere two decades. Venezuela is an example of a society in the middle of this transformation. The longer a society remains a kleptocracy, the closer it comes to an ending. Venezuela is undergoing a massive migration exodus. The ending is when the remaining producers of wealth give up, and produce less and less. By then the kleptocrats have stashed their ill-gotten wealth internationally, and they can simply abandon their home country and live in a stable society that has so far escaped a kleptocratic takeover. Meanwhile, the home society is a failed state, living in poverty, and it is powerless to recover. Kleptocracy somewhat resembles a cancer that decimates the victim and leaves it barely alive.

I view these unfolding events as inevitable, and quite possibly common on every planet that evolves an intelligent species. If so, then the duration of the ability for an intelligent species to be technologically capable of either transmitting or receiving interstellar communication may be a mere century. Humanity has already transmitted signals, and we are also listening. To the extent that my dystopian view is true, SETI is doomed, and so are we.

If you Google "Why don't women have beards?" you learn that "the hormone dihydrotestosterone (DHT)" is needed to stimulate hair follicles on the jaw, and only men have this hormone. This is a "proximal" explanation. The "distal" explanation is that men engage in fistfights and beards protect against hits, etc. Too often people are satisfied with proximal explanations; for me, the distal ones are far more interesting.

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When geezers get together we sometimes reminisce about the “good old days,” when people were nicer. I don’t know if such memories are true, but I’m intrigued by a theory that is poised to account for the assertion. Let’s start with the following two facts: 1) America’s population is now 2.5 times the 1940 population, and 2) the rural population percentage is now 17 % versus 44% in 1940. In other words, this 6-fold change in “packing density” means that it can be said that in the good old days people interacted with the same small number of people on a regular basis whereas today people are mostly surrounded by strangers. Stated another way, the good old days were more like the Stone Age, when everyone knew everyone, than today, when we’re often surrounded by strangers.

So, what could this change during the past 8 decades mean? The Stone Age tribe consisted of individuals who knew each other; no one was a stranger. If someone was unreliable, everybody knew to not trust that person. This created a “social pressure” to be good. It’s reasonable to assume that genes created people who could make readings of societal demands and either conform or adopt some other strategy for living within that society. If social pressure was high, then a personal development path to conformance should be chosen. But if social pressure was low, the individual can be expected to (unconsciously) choose a development path leading to more individual payoffs than payoffs to the tribe (or “collective” – i.e., society). According to this theory, today’s America should be less nice than it was 8 decades ago – so we geezers were right!

Humans are shameless! They’ll adopt whatever beliefs are touted by the leader of their tribe, or society. Whereas this conformism may help boost tribal patriotism and help them prevail in inter-tribal conflicts, it is the enemy of free-thinking and the Pursuit of Truth. The Germans “fell in line” after Hitler defined the new belief system. Russians did the same after Putin described what he needed people to believe for him to convert a democracy to a kleptocracy. Americans are no different from the Germans and Russians, and some of our countrymen have already “drunk the Kool-Aid.” If humanity descends to a second Stone Age, good things will surely be lost, but the descent will have been deserved, and the rest of the world’s other species, all 9 million of them, will celebrate.

The fact that Henry Ford and Charles Lindberg supported Nazi Germany reveals that someone with a high IQ and fearless ambition can be attracted to a system of governance that offers excessive rewards to people with a high IQ and fearless ambition.

Imagine a newsroom conversation in 1932 Germany about how to cover Hitler. One argument would be to make fun of him as a buffoon, and laugh at the people who take him seriously, but the winning argument was to keep a “straight face” and give him equal

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time; after all, it might have been said, the voters will see the obvious and laugh him to embarrassing defeat. It was a 3-way race, and Hitler received 37 % of the vote. Hitler had the last laugh, and the Germans deserved what happened to them during the following decade. It's ironic that the pro-Nazi H. L. Mencken wrote "Democracy is the theory that the common people know what they want - and deserve to get it good and hard!"

The only path to a winning place for humanity will require, as a central component, the exclusion of psychopaths and sociopaths from key positions in society. I keep thinking of a Mars colony as the most likely site for an experiment with such a society. One reason is that applicants for joining such a colony will undergo screening for a variety of things and excluding psychopaths and sociopaths in a screening would not be objectionable. The cost of fMRI scans and *Hare Psychopathy Checklist* screenings are reasonable for such a limited social experiment. But there's a flaw in this strategy: Even Normaloids and Unreliables contain some genes that contribute to sociopathy, so there may be an insurmountable challenge for ridding any society of sociopaths.

Another reason for holding out hope for a Mars colony is that it won't be easily invaded by marauders. This concern was illustrated by Olaf Stapledon in his science fiction book *Odd John* (1935). The main character is a genius who founds a utopian society on a South Pacific island. It is later noticed by the British Navy and destroyed by them because of an unfounded fear and ignorance of what the community was about. Like Stapledon, I regretfully accept that no society can be established beyond the notice of the rest of our fellow humans, and hence no such society will ever endure even if it could be created – unless it was in a remote location, such as on Mars or an asteroid.

But what about the matter of requiring that no psychopaths or sociopaths be allowed to exist in a utopian community on Earth? How acceptable would such a requirement be, even among those already residing in the community? Acceptance of this requirement would only be possible if it was understood that psychopathy and sociopathy were genetically determined. Most liberals tend to blame criminality on societal conditions, so I anticipate considerable resistance to accepting the need for excluding these two categories of people.

Most liberals cannot comprehend the notion that personality is strongly influenced by genetics. When I state that the genes assemble every human for purposes of genetic prosperity in the gene pool, with no regard for individual welfare beyond what the genes need, almost everyone objects with arguments that don't make sense. There's something about the human brain that doesn't want to believe, or is incapable of understanding, this humiliating concept. I guess we human robots were made by our makers, the genes, to lack the capability of understanding who our makers are and how we are being used by them.

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When I wonder why nearly everyone seems incapable of noticing that we are enslaved by our genes I'm reminded of the two blind spots in our vision, which the brain is completely unaware of when both eyes are open. It's adaptive to overlook these two blind spots, and fill-in our perception using information from the other eye, so evolution, with its infinite wisdom, prevents us from seeing what isn't useful to see.

It's such a simple concept that when one thing makes another, the relationship between the two is that the "made thing" usually serves its "maker." When I write a computer program the program is meant to serve my goals. When a person creates a robot we should expect that the robot is constructed for service to the robot maker. It's the same with the genes controlling the assembly of humans.

So why can't people see that we are designed to serve those tiny DNA molecules that assembled us? Yes, it's a humiliating notion, but only to people who are enslaved to the genes and whose illusions permit them to nevertheless believe that they are free.

Given that almost all humans are incapable of understanding that we are enslaved to our genes, and that psychopaths and sociopaths are the way they are due to strong genetic influence, almost all people will reject the notion that psychopaths and sociopaths should be excluded from any society that seeks a winning path. Consequently, no society will ever be on a winning path, regardless of how conscientious it is about other matters.

T. H. Huxley ("Darwin's Bulldog") championed the notion that humans, as well as all creatures, were "automatons." An automaton is like a robot, except that it is assembled by genes instead of people. During individual development, as well as the rest of life, the automaton's brain is slowly changed in response to life experiences. In today's parlance, the brain synapses, both excitatory and inhibitory, are enlarged by usage and shrink with disuse. As an aside, Darwin closed his last letter to Huxley, in 1874, with the words: 'Once again, accept my cordial thanks, my dear old friend. I wish to God there were more automata in the world like you.'" (Sagan and Druyan, 1992, pg. 70).

During the 20th Century, sociobiologists added to this picture the idea that the automatons were enslaved to the genes that assembled them, and the genes were the real "winners" since they assembled individuals for competition in the Arena of Life where measurements were made for winner and loser genes. Winner genes lasted in the species gene pool for millions of years, while the individual combatants lasted for merely decades (e.g., "A chicken is an egg's way of making another egg.") I find this way of understanding "human nature" useful. How else can the absurdity of the pathetic Human Drama be understood?

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I recall a moment a few decades ago when I learned good news about something; it could have been about one of my JPL proposals being approved. During that moment I pondered the origins of my successes. I was good at imagining new projects that were relevant to society's values and willingness to fund, and I was blessed with writing skill. These are traits that might result from good frontal lobe "executive function," which is usually attributed to something created by good genes. If my genes were responsible, I wondered, then I couldn't take credit for my accomplishments because I didn't choose the genes that prepared me to accomplish things. The winning genes were the result of blind fate at the time of my conception. If I couldn't take credit for the so-called "nature" of who I am, what about the possibility that my successes were due to good nurturing in childhood, or the opportunities afforded by the times and locations of my life. If these were crucial for my successes, I still couldn't take credit for them since nurture is something provided by good parenting, good schooling, or a good society. Whatever the relative importance of nature or nurture I couldn't take credit for either! My achievements were therefore the result of Luck! I was just lucky, the beneficiary of more good luck than bad, and none of this was of my doing. I was a spectator of what I was doing; or – to use Huxley's terminology – an automaton! Que sera, sera!

If this is an accurate characterization of who I am, and my successes, then the same characterization would have to be applied to others who were successful. Even more surprising, as I continued to think about the matter, people whose endeavors were frustrated and unsuccessful could not be blamed for their failures. They, too, were automatons, or spectators of lives that just happened to have bad luck.

I now realize that this thought can be extended to the successes and failures of tribes, and contemporary societies! Or even a civilization! Yes, a specific cause can be identified, such as the hijacking of a society by a high-functioning sociopathic kleptocrat, producing the society's inevitable weakening and death. Just as a cancer cell can grow and kill an individual, no one would blame the individual for the appearance of a cancer cell. By the same reasoning, the appearance of a kleptocrat who hijacks and destroys a society does not necessarily justify blaming the society. Que sera, sera!

If aliens were watching Earth today, they would probably be laughing at the hilarious stupidity of humans. The humans never learn! Over and over, the humans are attracted to buffoonish charlatans for leadership, and it always ends in suffering and eventual ruination. Hitler was laughed at during the 1920s, but he was taken seriously during the 1932 election. New Yorkers knew Trump as a bumbling real estate person who desperately sought acceptance and relevance, but he eventually bullied his way to a

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stature of serious concern. Any society that validates its worst people and delivers them to a powerful position deserves the consequences. Maybe the aliens would figure out that Human Nature evolved during a Stone Age, when everyone lived in a small tribe where everyone knew everyone else. And that it was unfair to make fun of human floundering while trying to live in super-tribe societies, where almost everyone is a stranger. But still, humans are supposed to be smart, they claim to be able to think, so when their thinking fails them so spectacularly, there's permission to laugh.

During hitch-hiking days I noticed that Cadillac drivers never gave me a ride, so I adopted the habit of not putting my thumb out for those cars. When my mother worked for a charity, going door-to-door to ask for donations, she noticed that people in wealthy neighborhoods had the lowest donation rate. Why is there this correlation of the better off being less interested in helping others? Are selfish people more aggressive in getting ahead? Are people with money afraid that poor people are desperate and want to steal from them? Or is it simply a matter of class, where each class only cares about themselves?

J. D. Vance likes the idea of a dictatorship. This might have made evolutionary sense for small Pleistocene tribes, where everyone knew everyone else in the tribe, which guaranteed that a psychopath would never be chosen for being dictator. But for a Holocene super-tribe, or society, where the risk of psychopath hijacking is significant, the dictatorship governance model has proven too risky!

During the past few years, I have undergone a transition from hoping for the best to preparing for the worst, justified by a belief that people deserve the consequences of their decisions. A person who lives in a forest shouldn't be surprised when their home is destroyed by a forest fire/ The same sentiment applies to a person living in a flood zone. A woman who dates or marries a charismatic psychopath deserves whatever happens to her. But the most important example is that people who adore and vote for a psychopath leader deserve to eventually live in a dictatorship. My new position resembles that expressed by the bank fraudster John Grambling, who said "Anyone who is stupid enough to trust or believe me deserves the consequences."

I sometimes think that people are born with a sign on their back: "Take advantage of me; I'm a useful idiot!" The sign is meant for the genes to read. It made sense during the Pleistocene for individual tribesmen to make themselves available for abuse by the tribal genome. There's no mystery why this happened, given that tribal genome genes assembled every individual for their use in preserving the tribal genome. During the

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Holocene the signs are still there, and tribesmen are still inviting abuse. But the “useful idiots” are no longer useful in the same ways as during the Pleistocene. They invite abuse that no longer benefits the tribal genome. Their idiocy is two-fold. Psychopaths are born without that sign on their backs; but they can see the sign on other people’s backs. The “useful idiots” are made to behave in ways that are not only useless to the tribal genome, but sometimes harmful to it. Their idiocy is three-fold!

Humanity is on a dead-end path, and almost everyone is clueless about it. The “useful idiots” are as arrogant as they are ignorant. No amount of insight or warning will make a difference. Hoping for a winning place is futile. Humans are like a horde of lemmings, marching toward the cliff’s edge, toward an inevitable ending.

After moving to Hereford, AZ there was an interesting local news story about a dead body at the bottom of a nearby waterfall. The article stated that, as usual, it was a local high school boy. It was vaguely explained that high school boys like to “show off” in front of a girlfriend by walking across the slippery top of the waterfall. It wasn’t made clear if the girlfriend goaded the boy or if the boy initiated the challenge. In either case the tragedy illustrates how the genes make fools of humans, especially in youth.

Writing this book has caused me to become a true misanthrope. I’m no longer simply disappointed in humanity, I’m beginning to loath my species. It’s amusing that some people are inclined to explain bad behavior by saying “Yes, but people are still basically good.” In truth, people are good in some ways and bad in others. We’re made that way by the genes. Similarly, and for the same reason, people are smart about some things and spectacularly stupid about others. The evolution of Pleistocene genes created personal profiles of evil and stupidity that served those tribal genomes.

I can’t decide how much sympathy to have for people who are foolishly trusting and because of that become victims of evil people. As the psychopath John Grambling remarked in court for defrauding banks: “Anyone who is stupid enough to trust or believe me deserves the consequences.” But in defense of these victims, they didn’t choose to be born with such native trust; they were born with a nature that was optimum for small-tribe life in the Pleistocene. They are the product of evolution, and they had no role in the tumultuous cultural evolution during the Holocene, which rendered their nature mal-adapted.

So today, if these relics from the Pleistocene elect a psychopath charlatan for president, and if America descends into a kleptocracy, how fitting would it be for me to applaud the suffering of those who voted for it? As Mencken wrote “Democracy is a form of

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government in which the people get what they want – good and hard.” But even if I could justify the suffering of idiot voters, what about those with open eyes who voted against Trump? There’s no fairness in life!

Why have the Jews been targeted throughout history? Because they were a credible threat for economic and cultural dominance wherever they lived. This is because the Jews have an IQ at least one sigma higher than most others. Either Hitler sensed this, or the general population of Aryan Germans sensed this and Hitler took a reading of the general population.

Could the Enforcers have been created by evolution during the Pleistocene for the purpose of controlling sociopaths? After all, the sociopaths were a threat to unthinking patriotism because they exhibited the personal benefits of ignoring patriotism. Further, the sociopaths questioned the reasons for being patriotic – an example of “free thinking.” The Enforcers could have been the tribal genome’s tool for extinguishing free thought and self-promotion of personal wellbeing. These might have been Enforcer goals during peacetime. Thus, the Enforcers were annoying busy bodies during both peacetime and wartime.

Psychopaths typically blame their victims for being stupid and too trusting. To the extent that this attitude has merit most Americans will deserve the transition from a damaged democracy to a Russian-style kleptocracy. I suspect that Putin is giving tips to Donald for how it can be done.

When a Pleistocene tribe allowed immigration from a neighboring tribe the rewards for defending the tribe were reduced (from the standpoint of the tribal genome). Consequently, the tribal genome should contain genes that promote anti-outsider attitudes, and a rejection of immigration. This is how we can explain the presence of today’s rejection of DEI by most people. It was inevitable that as America’s ethnic diversity increased there would be a rise in anti-immigration, and the extreme form of this as Nazi activism. Since the general public views federal institutions as promoting DEI, and protecting outsider newcomers, it is understandable that the general public would harbor anti-federal government feelings. The elites, or intellectuals, are identified as the creators of federal government promoters of DEI. So, what’s the origin of DEI? When a tribe is too small it should coalesce with another tribe, preferably another too-small tribe. To make this happen the leaders of the two tribes must empower their elites to preach DEI. The general acceptance of DEI is supposed to be a temporary shift in attitudes, and a return to anti-DEI must eventually occur. All of these changes of attitude promote survival of the tribal genome, and the individual tribesmen are useful idiots who

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act their foolish roles with an eyes-closed cluelessness. As far as I know, I'm the only person whose eyes are open.

In a democracy "the people speak" and we are told to accept their verdict. But the "quality of judgement" of these same people is revealed by polls: 1) 20 % can't find the USA on a world map, 2) only 42 % can identify the three branches of government (while 74 % can name the "three stooges"), and 3) 40 % believe the Apollo moon landings were either fake or could be. Everyone says that elections have consequences, but H. L. Mencken said it best: "Democracy is a form of government in which the people get what they want, good and hard!"

I can hear Mother Earth shouting "How can I rid myself of this cancer that calls itself humanity?" But she then muses "But they are oblivious to the fact that they are digging their own grave. The greater their technology, the faster they dig."

There's a story about a farmer who rescues a snake from the cold and warms it back to health beside his fireplace. Upon recovery, the snake bites the farmer, and the farmer exclaims "I saved your life, why did you bite me?" and the snake replies "You knew I was a snake!"

Another story describes Mother Earth taking pity on humans after we endured a tumultuous Younger Dryas cold spell climate upheaval 11,700 years ago, during which sea levels abruptly rose 400 feet, wiping out all coastal settlements. During the warmth of a Holocene recovery we became a cancer upon Mother Earth, who reminded humans that she saved us from a climate disaster and asked why we are threatening her and all 9 million of her beloved species. Our human reply: "You knew our species was descended from killer apes and that we destroy whatever is useful for us to destroy!"

The Aesop Fable lesson? Gratitude is a lofty concept, but it doesn't exist where over-trusting believers think it's present.

If someone were to ask me "What's the most important idea you've discovered during your life?" I'd answer: "Gene pools compete with each other by creating individuals that serve gene pool survival. Human gene pools, "tribal genomes," evolved during the Pleistocene (the past 2.5 million years). Because human nature is (by definition)

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genetically determined, requiring more than dozens of generations to change, it is limited to a much slower change as it evolves to be compatible with advances in cultural evolution. During the Holocene, the last 11,700 years, cultural evolution has been changing with a timescale that is too short for human nature to adapt. Our Pleistocene-based human nature is therefore ill-equipped for fast-changing Holocene lifestyles. This explains why people in a civilized setting exhibit so much puzzling and mal-adaptive behavior.”

Mother Earth has Cancer

As a child I dreamed of a glorious future for humanity; I imagined walking on the moon and maybe even Mars. During my employment by Caltech as an atmospheric scientist my dreams began to fade. I learned about global warming and climate change warnings, issued as far back as the 1950s. Concerns were widespread about atomic war with Russia, over-population and the perils of peak oil. Now, at the age of 85, and having seen decades of neglect, my sympathies have shifted to the fate of the other 9 million species that inhabit Mother Earth. Together, they silently scream “When will we be rid of this global cancer that calls itself humanity?” If our species is so intent on entering a Second Stone Age, let it come sooner than later. So yes, instead of postponing the inevitable, let’s “drill, baby drill,” welcome the peak oil economic collapse, make lots of babies and hasten these calamities by transitioning to an oligarchic kleptocracy. Mother Earth deserves to cure her cancer as soon as possible.

While sitting on my patio, listening to birds chirping in the pomegranate bush, I sometimes try to imagine how that setting would differ if Trump succeeded in transforming America to a kleptocracy. I concluded that the sparrows would still congregate in the pomegranate bush and hold chatting sessions, the sky would still be a beautiful blue with pretty white clouds, and there would still be warm summer breezes. In other words, things would be outwardly normal.

A true friend will explain why he’d feel safer if you joined him on a hike, because then he wouldn’t have to outrun the bear, he’d just have to outrun you.

A wounded eagle, eying the sky, can still imagine the joy to fly. Although I can no longer hike, I can still recall some of my favorite trails and imagine the fresh air and physical

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exertions of my hiking days. There are so many good memories from a long life, and it is justified to imagine re-living them, and sometimes embellish them with improvements. A true aesthete would declare that this is a healthy way to appreciate life!

Valentine's Day symbolizes emotionalism over rationality, so it is the worst holiday of the year. Emotions guide us to servicing the tribal genome, and rationality guides us toward serving our individual well-being. God forbids that an individual should have more concern for his well-being than the well-being of the tribe! Tribes that welcomed the invention of such a god prospered.

Conservatives looking for "fraud, waste and abuse" in U.S. government spending have criticized a project to establish a Sesame Street program in Iraq. The liberal part of me immediately recognized the wisdom of such a project, since wars are almost always motivated by a hatred of one tribal culture for another (e.g., Sunni vs. Shiite). I was puzzled by the thinking behind an objection to this USAID project. I recalled an interview about a U.S. military general testifying to Congress that for every dollar spent on soft-power he saves 5 dollar's worth of bullets. It soon occurred to me that the core message of Sesame Street is "tolerance," or the value of diversity ("It's not easy being green!").

So why do conservatives hate tolerance and diversity? Can't they see that these values are needed to hold super-tribes together? Of course their thinking isn't that deep, but since mine is, I need to understand the matter more. As usual, there must be a connection with the Pleistocene/Holocene transition.

During the Pleistocene, the evolution of genetically-determined "human nature" was able to keep up with the evolution of culture. We can view them as co-evolving harmoniously. "Hate thy neighbor tribe," and therefore hate strangers, was a well-established culturgen and instinct. The Holocene allowed tribal size to expand through coalescence, and those that did were victorious in war. But coalescence requires tolerance. This was just one of several reasons to tolerate (or even welcome) diversity. Another reason is that a larger population can benefit from a greater diversity of talents, since there are more niches to fill. But these cultural changes occurred quickly, and genetic mutations require many generations to respond. Therefore, ever since the Pleistocene/Holocene transition there have been people who object to the requirement of a new level of tolerance: not just the tolerance of strangers, but the tolerance of people who were different. This can be described as a remnant attitude from the Pleistocene that interferes with the new cultural needs of the Holocene. The entire matter of political conservatism and liberalism intrigues me because of the way it is related to the Pleistocene/Holocene transition. Whereas each end of the spectrum has an appeal, the best policies are often nearer the

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middle. Nixon created the EPA (to conserve the environment) and Eisenhower created the interstate highway infrastructure (to improve military mobilization). Whereas both were “conservative” at their time, today they would be characterized as “liberal.” How can this silliness be explained? Some people want to live in the Pleistocene, and others want to live in the Holocene. In the Pleistocene there were no taxes or written regulations, and bad behavior was controlled by social pressure. These arrangements were possible because tribes were small and everyone knew (and had relationships with) everyone else in the tribe. Holocene super-tribes consisted of people who were mostly strangers, so they needed taxes and laws. Without taxes a standing army can’t exist, and without laws bullies rule. Businesses aren’t rushing to Somalia, so there must be an optimum amount for taxes and regulations. In spite of this obvious truth, some people want to get rid of government and live in the imagined freedom of a Pleistocene world. Our “nature” is adapted to the Pleistocene, not our ruinous mastery of Earth. I therefore conclude that humanity should transition to a Second Stone Age. No laws, no taxes and no government! Just constant social pressure for patriotic group-think, and chronic war with neighbor tribes. This is the ultimate conservative goal, and since our nature is adapted to it, let it happen! Mother Earth can’t wait to be rid of that cancer that calls itself humanity!

The appearance of an adaptive culturgen can lead to evolutionary pressure for the corresponding genetic mutations that either allow or promote the culturgen behavior. Maybe the list of “human universals” can be thought of as behaviors that have undergone this co-evolutionary process.

The classical Greek philosophers liked the topic of the relationship between the individual and his society, especially their mutual obligations to each other. While this subject interested me, there seemed to be something missing. Finally, during the 1980s, when groups selection theory was getting attention, I realized that the missing thing was that individuals were tools created by the tribal genome to serve only the tribal genome. In other words, the individual owed everything to the tribal genome while the tribal genome owed nothing to the individual! The Greek philosophers never figured this out.

Trump wants to destroy America! More specifically, he wants to destroy what the elites of America have created. But why?

Because his entire life has been a struggle for acceptance by the New York city elites, and they have rejected him, over and over. He’s the buffoon who won’t disappear, the chronic imposter who always fails, the epitome of embarrassment to those who have succeeded in achieving wealth.

As befits the psychopath that Trump is, he must destroy what he can’t have!

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The things most important to Trump are *relevance* and *wealth*. As president, he now demands relevance, and his next project is to achieve wealth by transforming America into a Russian-style kleptocracy. If this involves destroying American democracy, so be it. Ruining America's economy (and weakening the world's) is the path to kleptocracy – as Putin demonstrated using the Russian economy.

The key ingredient for Trump's success is to bully those who stand in the way, disunited. First, you discredit newspapers and the other media, then you weaken congress, then the courts, then the institutions of the executive, then the universities, and finally you offer incentives to big businesses to share in the plunder of what remains of an economy.

Whereas Trump surrounded himself with Normaloids during his first term, he has now surrounded himself with like-minded criminals who are smarter than him. If you look closely at Trump's executive order signings you'll see Stephen Miller in the background, trying to hide a smile. Someone hands an EO to Trump, who asks what it is, and is told something (without mentioning that it comes from Project 2025).

It seems natural for psychopaths to come together to form a criminal team. If each member brings a unique talent to the team, the team will be better than any of them working alone. Nixon had Ehrlichman, Haldeman, Mitchell and the Plumbers (and, for a while, Agnew). Give credit to Trump for learning his first term mistake of trying to appear normal.

I've slowly arrived at the belief that people deserve the consequences of their decisions. Last November, 23 % of Americans voted for Trump, so they, plus the 54 % who didn't vote, deserve what's happening now! The only unfairness is that 23 % who voted for Harris have to suffer because of the ignorance, and neglect, of the other 77 %.

Trump is approximately halfway through the Project 2025 sequence, and his opposition is just now waking up. As this drama unfolds, we don't know the outcome. Our only surety is that we live in interesting times!

[2025.04.25]

Starting with the assumption that alien intelligence in our galaxy is rare, it is possible to say that Darwin was the wisest individual in the galaxy during the mid-19th Century. A decade after his death (in 1882) Bertrand Russell took his place. Before Bertie's death (in 1970) he was joined by Carl Sagan for a brief overlap. When Carl died (in 1996) E. O. Wilson became the wisest individuals in the galaxy. Upon Wilson's death (in 2021)

Appendix D: Seeds for Thought

there were no more wise individuals in the galaxy. However, in consideration of my belief that for every prominent wise man there are dozens of equally wise but unrecognized people, the Earth and our galaxy have always been graced with many wise individuals.

Why hasn't an astronomer ever stated publicly that we're almost certainly not alone, given that even the most pessimistic estimates for our galaxy being barren; since there are trillions of galaxies in the universe there must be millions if not trillions of intelligent alien species in the universe! Sagan must have been fully aware of this 3 decades ago.

It may be significant that Earth's location in our galaxy is not special, and that the time of our solar system's formation is also not special – not near the beginning of star formation and not near the slow ending of star formation. In other words, we're located at a random location in both place and time. This is what we'd expect from the anthropic principle.

The matter of being conscious would initially seem to be a whole new matter, but in fact it is related. If all mammals, for example, are conscious, then there are 100 billion consciousness beings on Earth. If my consciousness is randomly located in the universe, and if Earth is typical of planets in the universe that have intelligent life, then there must be on the order of $1e22$ ($1e11 \times 1e11$) conscious creatures in the universe.

Appendix E: A Free Man's Worship

Bruce L. Gary, 1998.08.27

The following is my "translation" of the greatest essay ever written: Bertrand Russell's "*A Free Man's Worship*" (Russell, 1903). I wrote it when a friend complained that Bertie's version was too difficult to understand. A fuller treatment, with side-by-side passages, can be found in my book *Quotes for Misanthropes*, Gary (2014). I present it here because it's a classic example of a Normaloid's empathic way of viewing the dilemma of human existence. A psychopath would laugh at Bertie's concern for his fellow man; as Bertie wrote: "*One by one, as they march, our comrades vanish from our sight, seized by the silent orders of omnipotent Death. Very brief is the time in which we can help them, in which their happiness or misery is decided.*" Only we Normaloids have the compassion to care about our fellow man's plight.

Science has removed the veil of mystery from the workings of the universe, forcing Man to accept a view in which all things are the result of cold, uncaring forces. Man must accept that his existence is an unforeseen accident of Nature, and our understanding of the blind workings of these same forces persuades us that Mankind will eventually perish, along with his proud achievements.

How ironic that blind forces created a creature that thinks and aspires to understand the forces that created him, with an understanding denied the creating forces – which are blind. And more, this creature has feelings of good and evil, which also are denied the creating forces. And this new creature uses these insights and feelings to make judgments about the universe that created it.

In spite of being powerless within this mechanistic universe, as metaphorically emphasized by the fact that we die after just a few short years of existence, this thinking and feeling creature is nevertheless "free." He is free to ponder, to understand, to pass judgment, and imagine things that theoretically could exist. All these things are denied to the rest of the universe, and to the forces that bind the sentient individual; this makes the sentient "superior" to the creating and still enslaving forces.

Even primitive people understand that they are subject to forces more powerful than themselves. Those of our ancestors who acknowledged the power of stronger men and prostrated themselves in their worship, were more likely to be spared, and therefore tended to survive. The powers of Nature were dealt with similarly,

Appendix E: Free Man's Worship

because of the savages imperfect understanding of the differences between Nature and Man; hence, our ancestors prostrated themselves before the imagined Gods who represented Natural forces and offered sacrifices of valued things as if these would evoke Nature's compassion.

The savage relates to Nature the way a slave relates to his master. A slave dare not complain to his master about the unfair infliction of pain. Similarly, the savage dare not complain about the unfairness of his Gods.

The thinking person bravely acknowledges the imperfectness of the world. Unlike the savage, for whom survival is paramount and which constrains his thinking, we thinking people refuse to surrender our wish for the world to be better. We boldly worship "truth" and "beauty" and other concepts which are luxuries for the savage. The savage is enslaved by his excessive concern with the Powers of Nature, which for him are too complex to challenge. We have become "free" by refusing to worship fear-driven Power, like a slave worships his master, and to worship instead an imagined world of goodness, fairness and perfection. Even when the world does not bring forth goodness in our lives, we can at least imagine it, and seek solace from the imagined state. Although we know that we are mortal, we can at least imagine immortality, and be comforted by the thought. No matter how buffeted our lives may be by uncaring natural forces, we can still imagine a tranquil state, and use it's vision to survive the real world with equanimity.

Part of growing-up is surrendering the Mother Love that bathed our self-centered baby years. Our wishes cannot always be met by crying, as they once were. The adult must abandon childhood dreams when Fate denies them, and we must emotionally accept that this is normal. The acceptance of limitations is a precondition for further growth.

After learning that the outer world was not created for our benefit, but that we are mere unintended products of its blind forces, it becomes easier to accept the limitations of living within it. We can forgive it for whatever unintended calamities occur, for the Universe does not seek out its victims. It is unconscious, and uncaring, so there is no point in worshipping it for the purpose of avoiding its anger. This frees us to begin to see beauty within it. Because it is powerful it deserves our respect, but because it does not take notice of us we are free to think about it any way that we want. That which once scared us becomes beautiful, and worthy of our worship. But this is a new worship, for instead of being driven by

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fear and the need to propitiate, we are driven by the idealization of beauty, by aesthetics. This is a sort of triumph of the human mind over a once intimidating universe.

Death represents another challenge to the person who has shaken off the shackles of savage thinking. There is no denying that it is inevitable and irrevocable. The vastness of the unlive future, matched by the vastness of the unlive past, would seem to diminish the significance of the short span we do live. How ironic that during our brief span there should be so much travail and pain. Seeing that much of this sorrow is produced by petty strivings, we are less eager to pursue the endless and trivial struggles that once constituted our everyday life. Ever more freed from conventional shackles, and more aloof, it is easier to comprehend the poignancy of the human predicament: we are all subject to the same brief existence, surrounded by an immense and uncaring universe, we invent meaning and work together to achieve imagined goals, but most of these goals are transitory and petty, so in effect we squander our short tenure. And finally, we die alone, carrying the burden of knowledge that our struggles were for imagined causes, and that our final defeat is a passage into an uncaring, inanimate oblivion. However, with our contemporaries we share the realization of the aloneness of Death, and this recognition can bond us. Out of this shared dilemma can arise a new empathy for our fellow Man.

Whereas the savage continues to view the inanimate world as animate, and therefore worships false gods (in the manner of a slave), and whereas the savage continues to be driven by petty strivings with transitory rewards of personal happiness, thereby squandering a finite life, and whereas the savage refuses to accept the inevitable victory of an uncaring universe over his petty struggles, and therefore invents pitiful palliative realities promising everlasting heavenly happiness, the thoughtful man is free of all these false worshipings, false strivings, and false hopes. This emancipating perspective opens the way to the free man's worship.

Thoughtful men, who have freed themselves from the savage's slave worship mentality, are bound together by an acknowledgement of their shared fate. Each of us faces the existential dilemma, each confronts an uncaring physical universe and an evil animate one, each of us endures this for a brief time, and each of us will die alone. To the extent that I understand my individual fate, I also understand the fate of my fellow man. Our shared doom creates a feeling of fellowship. Together we march through the treacherous fields of life, and one by

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one we fall down to die. We are fellow-sufferers, and it feels right to reach out with a helpful hand to those who we shall later become. We may see their shortcomings and know that we have ours; and remembering their burden of sorrows, we forgive.

Let our little day in the immense scheme of things be free of unnecessary pain and be filled with gratitude. Let us worship, during our few precious moments, at our self-built shrine dedicated to aesthetic beauty. If we cherish these few good things during our journey, then we will be less buffeted by the uncaring universe that unknowingly created us. This is the only worship worthy of free men.

Appendix F: The Evolution of Extra-Terrestrial Intelligence

This appendix argues that “extra-terrestrial intelligent” species (ETI) are rare in our galaxy. My argument is based on the fact that rare events do not occur together, but if they do it’s because one causes the other (or they have a common cause). The Earth is rare in having an intelligent species residing on it, but it is also rare in being a “double planet” (e.g., a moon with 1/4th the diameter of Earth). I argue that these two rarities are not a coincidence, and that one is a precondition for the other. If so, then a case can be made that “we are alone” because it is unlikely that an ETI is present in our galaxy. This case assumes that ETI lifetimes are approximately 50,000 years, typically. A sociobiological treatment of the 50,000-year assumption is given for ETIs. Since we don’t know if this argument is a good one, the prospects for collapse of humanity in the near future becomes relevant for SETI (the Search for ETI).

Earth’s Uniqueness

Unusual things are usually encountered in isolation from one another. When two unusual things are found together, it is assumed that they have a common cause. For example, I once tutored a college-age student who was a “calendrical savant”; he could name the day of the week for a specified date. Approximately 1 in 10,000 people can do thus. I eventually discovered that he also had “perfect pitch”; I could play a note on a piano and he could tell me the note (“middle C” for example). Perfect pitch is also rare, approximately the same 1 in 10,000. So, what’s the probability of finding both capabilities in the same person? It’s 1 in 100 million! This assumes that the two capabilities are unrelated, or don’t have a “common cause.”

I learned that when my calendar savant was an embryo his mother had taken thalidomide to control nausea. I theorized that his brain development schedule was altered, spending more time for the creation of secondary cortex than tertiary. If so, then there would have been an over-development of secondary cortex for both the frontal and temporal cortices. Thus, in turn, might account for an excess of capabilities for the two different rare capabilities.

Let’s now consider a rare event that’s the subject of this appendix: the incidence of an intelligent species existing on planets in our galaxy. In 1960 Frank D. Drake presented the "Drake Equation" for the purpose of stimulating a conversation about intelligent life in the galaxy with the hope of encouraging a search for extraterrestrial intelligent beings.

$$N_g = R_* \times f_p \times n_e \times f_i \times f_c \times L \quad (1)$$

where N_g = number of communicating intelligent civilizations in the galaxy, R_* = rate of star formation, f_p = fraction of stars that have planets, n_e = fraction of these planet that have an environment that could support life, f_i = fraction of those that actually support life, f_c = fraction of those with intelligent life, f_c = fraction of those that are

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technologically capable of communicating over interstellar distances, and L = average lifetime of those civilizations.

Let's modify the Drake Equation for the purpose of estimating ETI that may exist in our galaxy (regardless of whether or not they are trying to communicate).

$$N_e = R^* \times f_p \times n_e \times f_l \times f_i \times L \quad (2)$$

Let's also make slight adjustment to the definition for one of the parameters: f_p = the fraction of stars with planets within the habitable zone that are approximately the size of the Earth. I'll assume that thi parameter's value is about 0.01. Of course this value is uncertain, but not as uncertain as other parameters (to be discussed shortly). Some of the other parameters can be assigned the following very approximate values: $R^* = 2/\text{year}$, $n_e = 0.01$ and $f_l = 0.1$. The most uncertain parameter in the Drake Equation is L , the lifetime of ETI once they appear. The following table summarizes a plausible uncertainty range for each parameter.

	Min	Likely	Max	Description				Min	Likely	Max
R*	1	2	4	Star birth rate [# /yr], spectral type FGK.						
f_p	0.0010	0.0100	0.1000	Earth-size planets in HZ						
n_e	0.0010	0.0100	0.1000	Environment suitable for life						
f_l	0.0100	0.1000	1.0000	Liffe present						
f_i	0.0100	0.1000	1.0000	ETI ever evolved						
L	10000	50000	150000	Lifetime for intelligent life [yrs]				1E-06	0.10	6000

Figure F1. Drake Equation parameters for deriving the number of ETI in our galaxy, shown in the lower-right corner. [For illustration purposes; only partially based on data.]

These approximations allow us to solve for N_e , the number of ETI in our galaxy. The most pessimistic answer is a mere one millionth while the most optimistic is 6000. The most likely number is 0.1, corresponding to humans being **alone** in the galaxy.

The Drake Equation can be restated with L being unspecified; for the most likely case:

$$N_e = L/500,000 \text{ years} \quad (3)$$

For example, if $L = 500,000$ years (a generous estimate for how long humans could ever exist) there would be on average only one ETI in our galaxy at a randomly specified time. Such a calculation is of course highly uncertain, because the most optimistic

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estimate for N_e (when $L = 500,000$ years) is 6000 ETI. This illustrates the importance of knowing L .

The number of exoplanets in the galaxy is approximately 1 trillion. Among them, fewer than one planet (according to the above approximation) is likely to be hosting an ETI. Imagine selecting an exoplanet at random and asking if it hosts an ETI. You'd have to do this about 10 trillion times before reaching a reasonable chance of getting a "yes" answer. This is a way of quantifying the statement that ETI among the galaxy's exoplanets is probably rare.

Now, let's imagine asking a completely different question: How common is it among the galaxy's exoplanets that they are a "double planet"? By "double planet" I mean that the exoplanet has a moon with a diameter approximately the same as the planet. It's arbitrary where we set the criterion for "approximately the same." It could be 1 %, or 50 %, for example. Surely there are many such "double planets" in the galaxy.

In order to estimate how many of the galaxy's exoplanets are "double" we can start by considering our solar system. We Earthlings have a super-sized moon. Below is a graph that illustrates this. (Notice that this graph uses mass instead of diameter for comparing moon to home planet.) Even though the moon's diameter is about 25 % of the Earth's diameter, the Moon's mass is 1.23 % of the Earth's mass. For the other solar system planets, the median mass ratio for all satellites of a planet to the planet's mass is 0.010 %. In other words, the Moon's mass in relation to Earth is a big outlier for being 118 times what would be expected based the other planets. What might be the explanation for the Earth/Moon being the only "double planet" in the solar system?

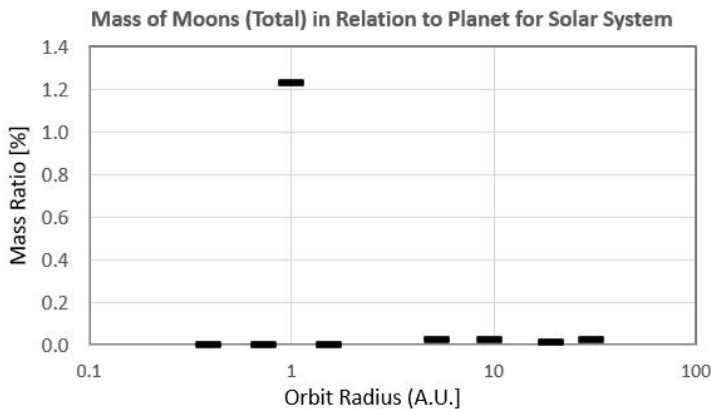


Figure F2. *Ratio of satellite mass to planet mass for our solar system.*

The generally accepted explanation for the presence of our moon is that a Mars-sized planetesimal had a grazing collision with the proto-Earth during the solar system's

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formation (4.5 billion years ago). A direct hit wouldn't work; the collision had to be grazing with the “impact parameter” being within a narrow range in order to produce proto-Earth material to be ejected in an orbit where it would later coalesce to form the moon. So far, no exomoons have been detected among the thousands of known exoplanets. This is unsurprising because only moons with a size comparable to its planet could be detected. Another reason this is unsurprising is because the probability of creating a double planet due to grazing collisions, with the right geometry, must be low. Very low! Like maybe 1 in a million. [I've been unable to find anyone's calculation for this probability.] For the sake of argument, let's have in mind that approximately 1 in a thousand replays of our solar system's formation would produce an Earth with a “double planet” moon. Here's a graph that conveys this assumption:

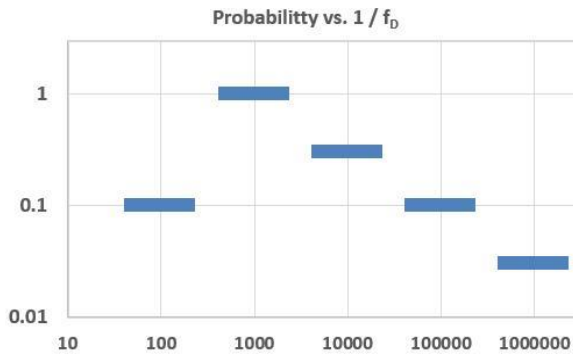


Figure F3. *Estimate of probability, f_D , that Earth-size exoplanets in the habitable zone are “double planets.” [For illustration purposes; not based on data.]*

The graph shows a maximum probability for “one per thousand” exoplanets being a “double planet,” but it allows for lesser probabilities to the “one per million” region.

We now have a new requirement for the probability of finding an exoplanet with ETI, chosen at random, of belonging to **both** rare groups – having ETI and also being a double planet. What change to our previous Drake Equation is needed?

This is not a new idea, but as far as I know it's new for the SETI community. Let's add a term to equation 2 that shows this new hypothetical requirement, that ETI only occurs on double exoplanets:

$$N_e = R_* \times f_p \times n_e \times f_i \times f_l \times L \times f_D \quad (4)$$

This equation states that if being “double” is a precondition for the evolution of ETI, then we have to multiply the probability for being a “double planet” by all the other parameters in the Drake Equation. Doing this leads to the next table.

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	Min	Likely	Max	Description				Min	Likely	Max
R^*	1	2	4	Star birth rate [# /yr], spectral type FGK.						
f_p	0.0010	0.0100	0.1000	Earth-size planets in HZ						
N_e	0.0010	0.0100	0.1000	Environment suitable for life						
f_l	0.0100	0.1000	1.0000	Life present						
f_i	0.0100	0.1000	1.0000	ETI ever evolved						
L	10000	50000	150000	Lifetime for intelligent life [yrs]				1E-06	0.10	6000
f_D	1.0E-06	0.0010	0.0100	Double planet				1E-12	0.00010	60

Figure F4. Parameter values (and ranges) for calculating how many planets in our galaxy have ETI if being a “double planet” (bottom row) is a necessary requirement for the evolution of ETI. [For illustration purposes; only partially based on data.]

According to this table it is almost vanishingly unlikely (one chance in 10,000) that an ETI is present in our galaxy at this time. Only the most optimistic choice of parameter values, all at their highest values, leads to a number greater than one.

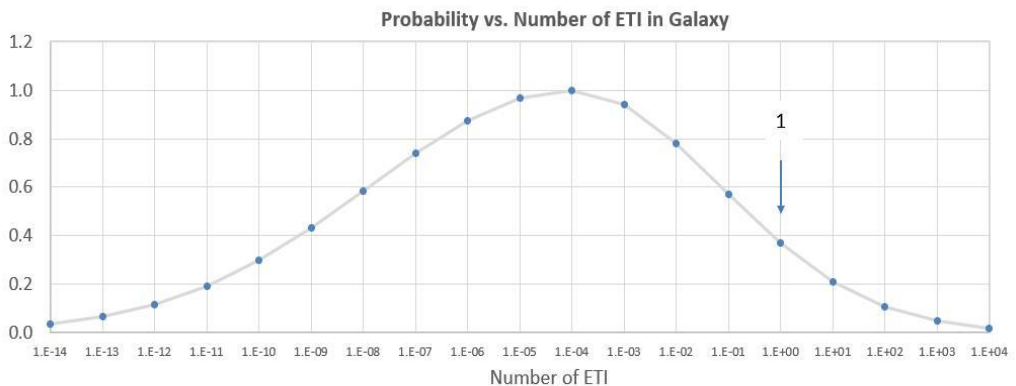


Figure F5. Probability distribution versus number of ETI in the galaxy, N_e . This assumes a Gaussian shape and the Min and Max values in the table (Fig. F4) correspond to the 2-sigma locations. There’s an 8 % chance that $N_e > 1$.

In the above graph the area for $N_e > 1$ (1E+00) is 7 % of the total area. This means that there’s a 7 % chance that another ETI is present in our galaxy (given the parameter values in the Fig. F4 table). As already stated, this should be viewed as an over-estimate because it assumes that every parameter is at the maximum adopted range of values, when in fact they are likely to be uncorrelated in this respect.

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As an aside, the prospects for a successful SETI (Search for ETI) are quite low, assuming that my parameter assignments are reasonable. To estimate SETI success replace L with how many years an ETI spends broadcasting signals meant for other ETI. For the only case we know about, humans, $L < 0.0001$ year. Replacing 50,000 years with $1e-4$ years yields a SETI success probability of $\sim 1e-11$ (10 chances in a trillion). Even if an ETI typically spent a century transmitting the probability for a successful SETI would be 1 in a million.

But wait! What about the other galaxies? If there are a trillion galaxies in the universe, then if $L = 50,000$ years there may be about 1 billion ETI in the universe. If about 1 in 14 galaxies have an ETI, there could still be 100 billion ETI in the universe at this time. We may not be alone, but most of our neighbors are far away!

One key assumption in the above calculations is that $L = 50,000$ years. Whereas this is my personal preference, what if L is much larger? That's the question the rest of this appendix will try to answer.

Prospects for Intelligent Species to Endure

ETI creatures will be referred to as "aliens" in the rest of this appendix. The goal for the rest of this appendix is to ask "How might an alien species achieve long-term stability, and exist much longer than 50,000 years?" Another way to state this is to ask: Is it theoretically possible for any intelligent species to avoid destroying itself due to intra-species chronic warfare (which, after all, created intelligence)?

My attempt to answer this question will be based on speculations about how an intelligent species evolves on other worlds, and of course I will use human evolution as a guide. Such an audacious exercise is obviously highly uncertain, but it will be fun.

Let's start with the following assumptions: 1) aliens are assembled by their version of genes, and 2) they underwent the same initial progression that happened on Earth: from DNA/RNA to cells, then individual organisms (male and female) and finally collectives. I will also assume that the collectives competed with each other and that this is how the aliens became intelligent.

One more thing, and this will become important: the alien's evolution can be divided into two parts, a primitive part, when all individuals were useful idiots serving their gene makers, followed by a part where the aliens knew they had been useful idiots but at one critical stage in their evolutionary past they had taken control of their evolution. This will be a difficult distinction for human readers because almost all humans are still at the useful idiot stage. However, for any readers who understand this concept it will be an essential part of the speculation in this appendix.

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Establishing Warlike Tribes with Equal Sizes

Imagine that at some primitive stage of alien evolution they had existed as a network of tribes. They could have started out as peaceful, with different tribal sizes. This assumption doesn't matter, because the end points are the same. Inevitably, one of the tribes would become slightly warlike, perhaps due to a leader who was genetically predisposed to be aggressive. His tribe would harass neighbor tribes, and this would increase the home tribe's territory. An increment of evolutionary advantage would thus be established, and the tribe with an aggressive leader would enjoy an increment of prosperity. Such an innocent beginning may foretell the fate of a species.

If one tribe becomes warlike, every tribe will have to become "war ready," at least, and eventually "warlike." Clearly, any tribe that is unable to defend itself will become an evolutionary dead-end. The war-ready tribes will defend themselves, and they are therefore on a path to becoming warlike, i.e., ready to initiate war upon a weaker tribe. Warlike tribes create a "war machine" when appropriate (to attack a weaker tribe or to defend itself). A "war machine" refers to a group of warriors who cooperate to effectively attack or defend, and win a war. Each warrior must play his role reliably. Role assignments must happen efficiently. The rapid formation of this war machine is guaranteed by the presence of individuals who make sure that it happens; yes, I'm saying that the aliens also had their version of Enforcers in their primitive past.

We can presume that a history of many peacetime interactions brought attention to each individual alien's strengths and weaknesses. No individual alien was a stranger, which is good, because it would be risky to assign a stranger to a critical role. How many alien men of warrior age could be thoroughly known by all other alien men in the tribe? The answer will depend on how long aliens lived, but assuming the primitive aliens had lifetimes like humans, about 50 could be known reliably (with a range of 40 to 70). Since we're assuming that the primitive aliens had childhoods, and that they consisted of males and females, we can surmise that warriors constituted about 1/3 of an alien tribe (the other thirds being women and children). We're therefore imagining that the alien tribal population was about 150. This is the Dunbar Number. We've just established why the Dunbar Number is so "attractive." Smaller tribes will have fewer warriors, and therefore a weaker war machine, and larger tribes will be potentially weaker because there's risk in allowing unreliable "strangers" to be in a crucial role in the war machine.

The previous argument explains how the inevitability of one warlike tribe in an otherwise peaceful network of tribes leads to two outcomes: 1) all tribes will become warlike, and 2) all tribes will be "attracted" to a total population of about 150. Not only was this true on Earth during our Stone Age, but we can safely assume it would also be true on alien planets.

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These two simple-sounding outcomes have many implications. Not all war machines are equal since a war machine has many teams. The tribe with a variety of talent will be capable of forming better teams than a tribe comprised of identical tribesmen. In other words, there will be an evolutionary reward for the alien tribal genomes to create individual aliens with a diversity of talent. Again, not only was this true for humans on Earth, but it's also likely to be the case for aliens on other planets.

The advantages of tribal population being close to the Dunbar Number means that evolutionary rewards will exist for cultural innovations that maintain tribal size close to the optimum number. Small tribes will encourage large families, and maybe the coalition with another small tribe. Large tribes will discourage large families and encourage someone to create a following who will leave the tribe for some distant "promised land."

We can assume that prior to this transition the alien species had mastered evasion of predation by all species that had once threatened them. In other words, at this stage of alien evolution the species is competing with itself, tribe versus tribe! If a tribal genome happened to undergo a mutation that increased intelligence, and if IQ mattered for victory over other tribes, then the stage would be set for IQ genes to become a factor in the alien species evolution. For humans, IQ resides in the posterior lobes whereas lifestyle is determined by the frontal lobes (with lifestyle, motivations and related constraints residing in the more primitive limbic system). In other words, theoretically IQ and personality can evolve separately.

Psychopathy

Whenever collectives are competing it is worth using the "eusociality spectrum" for describing individual behavior. At one end are the individuals who will do anything for the collective, regardless of personal cost. At the other end may exist their opposites, the psychopathic parasite. I think it is reasonable to say that individual members of alien collectives can be described using the eusociality spectrum.

Another aspect of collectives that can probably be assumed for alien societies is the virtues of "diversity of labor." For example, each alien tribe would benefit from having an "artisan" who makes tools and warrior weapons. Each tribe will need "border patrollers" to prevent territorial incursions by neighbor tribes and to steal territory from weaker neighbor tribes. Each tribe will want to form hunting parties, and each such group could have specialists – such as trackers, scouts and attackers. Finally, each tribe will need a chief, which is especially important for inter-tribal conflicts.

How many for each task will be needed? There can be only one chief at a time, but since every tribesman is at risk of death or injury there must be several people willing and able to serve as chief. Let's adopt a minimum number of three proto-chiefs per tribe. Since we're assuming that the number of alien men in a tribe will fluctuate between 40 and 70,

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the number of proto-chiefs will have to be at least 8 %. The same argument applies to the artisan role, at least 8 % of tribesman must be qualified to fill the artisan role. Border patrol teams may consist of 5 men, and considering that the redundancy argument is different when a team of men is involved I estimate that about 20 % of tribesmen should be capable of serving as border patrollers. All of these talent requirements can be summarized by citing the sociobiology concept Evolutionarily Stable Strategy (ESS), which is an evolutionary theory that should apply to aliens as well as humans. This concept states that evolution will eventually produce percentages of individuals with required talents close to the optimum numbers for inter-group competition.

Notice that for a tribe with a population close to the Dunbar Number there can be only a small number of talent categories. This means that the ability of small tribes to benefit from advances in eusociality are limited. To the extent that talent specialization confers evolutionary advantages to tribes, there will be a reward for increasing tribal population. Imagine a scenario in which two tribes coalesce to form a super-tribe of maybe 300 members. There will still be only one chief, and possibly one artisan, and the border patrol team will need to be only slightly larger than the original five. An extra 150 tribesmen will be available for other tasks, such as hut construction, or well digging. If alien men happen to be talented for these tasks then the super-tribe will be better adapted to its environment, and in theory, more prosperous than neighboring smaller tribes. The only risk faced by this tribe is that among the 100 adult men not everyone will know everyone else well enough to assess everyone's trustworthiness. But since the percentages of psychopaths during the alien's Stone Age is likely to be small, perhaps 0.4 % of men (i.e., 40 % probability of a psychopath being present in a 300-member tribe), it's possible that any alien super-tribe would fortunately be without a psychopath. For such a tribe there would be evolutionary advantages, and no risks, for being super-sized.

Eusocial Pressure for Increasing Tribal Size

There must be an evolutionary tension in an alien world between the number of super-tribes and the percentage of psychopaths created by tribal genomes. The more super-tribes that existed, the greater would be the rewards for psychopath genes. And the greater the percentage of psychopath genes in a tribal genome, the smaller would be the rewards for super-sizing. There may be a steady-state between these opposing forces, at least for as long as environmental conditions remain the same.

So consider what might happen if, for example, climate changed in the alien's world. Suppose climate suddenly warmed, causing increases of flora and fauna and an expansion of habitable territory. Each tribe could reduce its territorial size (for no change in population), and tribes would be brought closer together. Inter-tribal conflict might therefore become more common. This could favor super-tribes, and evolution could drive a switch to most tribes becoming super-tribes.

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Consider that the larger a tribe's population, the greater number of talent categories it can maintain. In other words, large tribes can become more eusocial. For example, a large tribe could maintain several artisan categories. One artisan type might be good at farming (irrigation, planting time, crop selection, etc.), another good at shepherding (breeding, corral construction, etc.). Large tribes can therefore be on a trajectory for becoming "civilized."

A Trajectory to Civilization

As happened on Earth, it may also be true on alien worlds, that if one tribe successfully dominates others due to its larger size, other tribes will be forced to also grow in size. The region where this is happening will eventually consist of a few large tribes, replacing what had been a large number of small tribes. Each large tribe should consist of individuals with many specialized talents. This broad division of labor is a hallmark of eusociality, which in turn is a precondition for civilization.

We may speculate that wherever this situation developed, on whatever planet, a large tribe would occasionally experience trouble from the mischief of a psychopath that few people knew was a psychopath. The method used by small tribes to identify and diminish the penalties of the occasional psychopath, using rumors and social pressure, would be ineffective in a large tribe, the same way it has been on Earth. Whereas small tribes had small rewards for psychopaths, large tribes had bigger rewards. Psychopaths would therefore rise from a low percentage of the population to ever-larger percentages during the alien species' trajectory to civilization.

We will most likely never know if the aliens at this stage of their rise to civilization modified their religions in the way humans did to scare the psychopath with beliefs in an afterlife in a Hellish purgatory. It would be amusing to learn if this was tried, and if so, did it work? How interesting, also, if we could learn if alien societies undergo an industrial revolution that made them so reliant on burning carbon fuels that they ignored warnings from their scientists to shift to green energy sources, and were therefore caught in a downward spiral of global warming climate change that ruined governance and prospects for recovery. It would also be interesting to learn if alien societies suffered from governance hijackings by psychopaths or sociopaths. And finally, it would be interesting to learn if alien civilized societies underwent a transition from mostly democracies to autocracies, which morphed into kleptocracies, as soon as these societies became interconnected by their version of an internet.

A Future Path

My intent is to use the human experience to guide speculation on what alien civilizations might typically undergo. Up to this point I could argue that the human events just

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summarized are a logical “unfolding” that should apply to aliens. Extrapolating into the future will be even riskier since we have no human experience for guidance.

I have concluded that the most likely future for humanity is a population collapse caused by a kleptocratic weakening of most societies which also face an overwhelming threat of global warming. This, of course, is a possible scenario for alien civilizations. But we are free to imagine other outcomes for the aliens.

Suppose an alien species decides to establish a self-sustaining community on another of their solar system’s planets, similar to what is sometimes discussed for a human colonization of Mars. If this were to happen it is possible that psychopaths and Enforcers would be excluded from the new colony. And if the alien’s home planet civilization floundered, the new planet colonists might actually think in bold new ways. For example, someone might suggest that the home planet is failing because of their “alien nature” being an evolutionary adaptation to a long-ago alien Stone Age. The thought might take hold that each alien individual thinks in ways that are enslaved to the alien genome that assembled the aliens. Horrors! Such thinking might be overcome by a resolve to create a new culture of alien thinking that attempts to liberate behavior from genetic imperatives. For every alien society that considers this brave new idea, it may happen instead that very few stick to it, and revert to genetically-determined beliefs. But if 1 %, for example, commit to the new thinking, and pursue a path of liberation, these sturdy aliens might eventually develop a plan for taking control of their evolution.

The new thinking would be “We don’t want any psychopaths or sociopaths, and we don’t need any Enforcers.” They might decide to adopt a policy of reproduction based on saving alien eggs and sperm for a decision to use after the donor’s life has been lived and evaluated. The concept of “love” would be redefined, no longer emphasizing a parental commitment, but directed instead to admiration for another alien’s personality, their social contributions, their cooperativeness and competence. The aliens might recognize something good that was left over from their Stone Age stage: every individual’s need for being viewed as relevant and respected by the rest of the tribe. This innate imperative would be worthy of reward, which could be incorporated into the individual’s post-life evaluation.

I don’t know how feasible such a transformation could happen, but I can’t state that it couldn’t, so maybe it could. The key issue will be longevity: how long can a sensible community endure?

Several changes work in favor of such a community’s success. An increase in life expectancy translates to an increase in the Dunbar Number. It also means that total population size won’t be 3 times the male population. A more important difference comes from the absence of psychopaths. Large populations are immediately possible if

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psychopaths are not present. There may be no limit to a community's population size in this new world.

The most important changes that enable such a quasi-utopia to exist are: 1) the creation of a remote community that is self-sufficient, and 2) the recognition that all previous generations of one's race were enslaved to genetic imperatives, which allows the community to resolve to domesticate itself, genetically and culturally, and evolve in directions determined by the community (i.e., not the genome's need to out-compete and dominate other genomes). Notice that item 1) above (establishing remoteness) means that the community's survival depends on how well it cooperates in overcoming natural obstacles, not how well it competes with other communities. This is what allows the community to be without Enforcers and anyone with warlike tendencies. This is an important ingredient for achieving a transition to a future of longstanding longevity. It somewhat resembles the human experience during the Pleistocene, when a variable climate that required intra-tribal cooperation was sometimes more important to tribal survival than inter-tribal warfare. I will refer to this situation as "the Nordic gift."

I allege that a species achieves maturity only after it liberates itself by shaking off the yoke of "tribal genome enslavement" and creates new values to live by and domesticates its genetic and cultural evolution in ways that serve the new values. For species that become mature in this sense, they will look back on their genetically enslaved time as pathetically primitive.

This transition to this way of thinking was captured by Nietzsche more than a century ago, when he wrote: "When God is at last dead, when the last gleam of light is extinguished and only the impenetrable darkness of a universe that exists for no purpose surrounds him, then at last Man will know that he is alone in a world where he has to create his own values to live by. The disappearance of religion will be the greatest challenge in human history." (approximate quote, reference lost).

A New Definition for Intelligence

It will be useful to view a long-lived Extra-Terrestrial Intelligence (ETI) species in terms of a "before" and an "after." The "before" time is when most individuals were clueless about their genetic enslavement to their Stone Age tribal genome. The "after" time is when most individuals had their eyes wide open to this enslavement, and were resolved to liberate themselves from that enslavement.

For any species undergoing a transition to intelligence the individuals would be asking themselves about their emotions. "Where did they come from, and who do they serve?" Inevitably, each would have to answer "My emotions evolved during the Stone Age, and they serve a tribal genome." This would lead to the next question: "Does this emotion

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serve me in today's civilized world? Should I accept it, or strive to discredit and reject it?"

So many questions arise for the individual who has begun to ask intelligent questions. And for everyone looms an over-riding question: "Is it feasible to control my emotions in a way that leads to an intelligent life?"

Some brave aliens may suggest that on theoretical grounds the strongest emotions are those that preserve the most important behaviors for tribal genome survival and that are also the most costly for individual welfare. Specifically, the "urge to merge" for reproduction would be found in this category. This would have profound implications for sexuality, which present-day humans would be puzzled to comprehend.

Heroism would be viewed in a new light, but fortunately there would be no need for heroism since intertribal warfare would no longer be happening for this alien species. It would be recognized, however, that the elimination of heroes would be risky because there would be no guarantee that a rival society would never emerge. This would cause the aliens to redouble their efforts to stifle any such rival emergence.

I can imagine that some aliens would be upset by the revelations that their thinking neighbors were subjecting them to. All the new "intelligent ideas" had the effect of *depriving* those with the old ways of thinking of something that gave their clueless life meaning. There would be a general mocking by the new intellectuals of the old need for *having grandchildren*. The clueless wouldn't understand why they were mocked for this persistent need, so they would dislike the new intellectuals. It would be fair to say that society became split during the transition to the new intelligence. The "old thinkers," who didn't think, would resent the "new thinkers," who did think. The clueless people would even suspect that the new elites were removing cluelessness from the species in the way they assessed usage of post-life eggs and sperms for breeding purposes. But this was a transition, so there would inevitably be many generations for this societal conflict.

Longevity would become another challenge for aliens in transition. Medical science kept identifying genes that were programmed for a timely death. Every alien knew that their ancestors were created with an "optimum" lifetime, and that this optimum was whatever gave the greatest benefit to the tribal genome. Since Stone Age environments were forever changing, short lifespans permitted faster adaptations than long lifespans. Genes were selected by evolution that produced programmed death following the few decades needed for generating a new generation. The need for this no longer existed for the newly intelligent aliens. In fact, longer lifespans were almost always an asset for new alien societies because of the accumulation of knowledge and skills that more years alive provided. Alien lifespans would become centuries instead of decades, and the cause of death would have switched from diseases to accidents.

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It may be true that the new alien society's Dunbar Number was larger due to the increased longevity of its individual members, but there were no risks for additional population growth because inter-tribal warfare had been eliminated. Therefore, it was possible to strive for the full benefits of talent diversity by unlimited population growth.

It's interesting to ask where the intelligent alien civilization belonged on the eusociality spectrum. There were no psychopaths or sociopaths, but there also were no Enforcers. The society was in the middle of the spectrum since that's where all alien individuals were located. Concern existed for the welfare of society, but individual sacrifice wasn't needed to contribute to the good societal state. The rewards of "relevance" and "respect" were sufficient.

It's possible that one of the main challenges for the newly intelligent alien society was for the assessors of post-life eggs and sperm to know the needs for their society's diversity of talent trends. For example, the society's pursuit of "artificial intelligence" capability could be on the rise, but should it be, and should more aliens with AI talent be produced? Could "advisory committees" be trusted on such a complicated matter?

Can an Intelligent Species Become Eusocial and Endure?

I'm going to assume that a species of intelligent individuals can't endure unless they become more eusocialized than today's humans. This is for the fairly obvious reason that an intelligent individual is capable of asking "Why be good?" The only permissible answer for a long-lived species is "Because I can't help myself; I can't choose to be otherwise!" Is there an evolutionary path for a species to arrive at this state? If not, then I claim that the evolution of a long-lived species of intelligent individuals is impossible!

Given that humanity is now burdened with a psychopathy incidence of ~ 0.8 % (for males), and that there is widespread speculation that this incidence is increasing, the prospects look dim that humanity will ever achieve a long future. The question for this appendix is about other intelligent species; so, is it possible for any species, on any planet, to arrive at intelligence without the burden of psychopathy?

If I were younger, when my programming skills were better, I would consider taking on the following project: mimicking the co-evolution of cultural and genetic traits starting with conditions at the beginning of the Pleistocene. As a starting point, all humans would be placed in tribes of 100 to 200 individuals, living in Africa with a climate that existed then. For example, a certain amount of diversity of male talents could be assumed. Some men would be assigned the Enforcer personality, others would be talented artisans, etc. Many aspects of frontal and posterior lobe capability would have to be included. Mutation rates would also have to be modeled. Tribal conflicts for territory would be simulated, and outcomes recorded.

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If a sufficiently good model with such a design is possible, it could be run using known changes of climate, all the way through the Holocene to now. Parameter assumptions could be adjusted until approximate agreement with known history is achieved. The following question could then be addressed: by changing climate history, geography, and parameter assumptions, how often do we produce a species that is free of psychopaths? If the answer is “never” then we would have created a case for there being no ETI species in our galaxy (and other galaxies). This may be an over-statement of what the simulation achieved, but it would at least place the “burden of theoretical possibility” upon those who want to believe that ETI are abundant (i.e., many per galaxy at any given time).

The Nature of ETI Societies

The previous section describes a way to possibly learn what life is like in ETI societies, whether they are short- or long-lived. I want to characterize an ETI as either one in which good outcomes prevail versus ones in which evil prevails.

As stated earlier, good and evil can be defined as what’s good or bad for the collective. Sometimes it appears that evil prevails, while at other times good prevails. For example, during the first half of the 20th Century bad prevailed, while during the second half good prevailed – thanks to America’s support of democracies around the world (“Pax Americana”). The 21st Century is looking ominous, and bad seems poised to prevail. Good and bad times may alternate, but is there a net positive, or ratcheting-up of good, that can produce a long-term trend toward goodness - i.e., is the collective gradually becoming stronger, and will it eventually triumph over evil? Referring back to the definition for good and bad, we can pose the question thus: Is it theoretically possible for any society to be rid of psychopaths and sociopaths and therefore have an opportunity to prosper for long time intervals?

Maybe we can learn something from the previous “coming together” – when cells combined to form multi-cellular organisms. We weren’t there to see it happen, but reasonable speculations are possible. The first organisms must have been quite simple, with no organs. Eventually an organ developed. It’s reasonable to assume that these early creations were only rarely successful, but when they were successful, they were very successful; they must have prevailed over a sea of single-cell life spectacularly. Once a single-organ multi-cellular life form appeared, there was no turning back! The fact that most variants of this new life form were inferior to another variant can be assumed, but in spite of the fact that today about 15 % of human deaths are by cancer the success of multi-cellularity is undisputable.

Let’s return to the eusocial transition, the coming together of individual organisms to form collectives, such as human tribes. There’s a variety of ways a tribe can function, and during the Pleistocene these different style tribes competed. I have suggested that among the winners were tribes that switched governance from egalitarians to hierarchical

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in preparation for inter-tribal war. I have also suggested that governance had to deal with occasional psychopath hijackings, and that during the Holocene hijackings couldn't be dealt with using Pleistocene tools. Humanity is therefore still dealing with a transition to collectives, the eusocial transition, and it is unknown if a solution to stability will evolve.

Can an ETI endure? If yes, then our galaxy may contain many ETI. In a conversation I had with Frank Drake (in 1964) I suggested that the greatest value of a search for extra-terrestrial intelligence (SETI) was its ability to constrain the parameter L (in the Drake equation), the median longevity of ETIs. He agreed.

The continuing lack of a SETI detection favors a short L , and this gives credibility to the argument that an intelligent species can't become eusocial enough to endure dramatically longer than the 50,000 years that humans have shown is possible.

Appendix G: Brain Laterality and the Fate of Civilizations

Neuropsychologists who treated people with seizures by cutting the connections between the left and right brains discovered that every person is really two people with distinct personalities that somehow coexist in controlling one body. The simplest explanation for how coexistence was achieved was that at any given time only one brain half was in charge. It was speculated that some people were most often under the control of one brain half, while other people were most often controlled by the other brain half. This outlook invited speculation that societies could differ in which brain half was dominant for that society, and the question arose if dominance could vary on generational timescales. Sociobiologists should have pursued the question of how such changes could be adaptive when human nature evolved during the Pleistocene – but they didn't. This appendix is a belated attempt to treat this highly speculative matter.

During the Pleistocene there were situations that would benefit when tribesmen behaved in response to right-brain (RB) ways of thinking. The most obvious example would be times of inter-tribal conflict, when selfless patriotic behavior was needed for tribal survival. At such times the left-brain (LB) should be ignored, for it is logical and is prone to asking questions. During peaceful times, however, LB behaviors should be more beneficial to increasing tribal strength. Whereas the tribal artisans would most-likely be LB-oriented all the time, the rest of tribesmen would be more subject to change. In other words, a tribe's "climate of opinion" should vary in response to what is most challenging to tribal genome survival at any given time.

When super-tribes formed during the Holocene, a similar variation in the "climate of opinion" must occur, albeit slower. Thus, the medieval millennium gave way to a transitional Renaissance (starting in the 14th Century), which led to the Enlightenment (17th Century). This slow change can be viewed as a transition from RB dominance to LB dominance. Are we now undergoing a transition backwards, away from LB dominance to a new medieval climate of opinion?

The evolution of brain laterality must have served tribal gene pools, otherwise it wouldn't have evolved. As far as I know this subject has never been studied. Both neuropsychologists and sociobiologists should have taken an interest in this matter starting in the 1970s. The neuropsychologist should have been most interested in how an individual adapts to that person's changing life conditions by adjusting laterality in ways that serve the genes, whereas sociobiologists should have been more interested in how specific tribal challenges should have influenced a tribe's prevailing laterality dominance (with conformance playing a key homogenizing role). Even historians should be interested in this subject, because the pendulum has swung back and forth between LB and RB dominant cultures in ways that must have influenced the rise and fall of societies.

In my book *Genetic Enslavement* (2004, First Edition, Chapter 11) I noted evidence for the Minoan civilization's rise and fall being correlated with changes in preferred art styles. These changes were associated with a progression from LB dominance to RB

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dominance. I suggested that LB dominance gave rise to the civilization, which then presented opportunities for the ascendance of wealthy RB people, who subsequently quashed the influence of LB innovators (because this served RB people), and this led to a weakening of the civilization. Of course this is a wild speculation, but questions like this have never been asked, as far as I know – and they should be.



Figure G.1 *Samples of Minoan pitchers and vases from the Minoan Early, Middle and Late periods. From Time-Life Books (1975).*

It is not a wild speculation to suggest that a thinking style, such LB versus RB, has influence on behavior, or that behavior influences evolution. It is therefore an oversight to ignore the evolutionary significance of LB and RB thinking styles. The goal of this appendix is to begin a discussion of the matter.

If a neuropsychologist were to ask “How should an individual’s reliance on LB versus RB dominance vary in response to life situations?” the simplest starting-point position would be that “behavior should change in a way that best serves tribal gene pool survival.” For example, when a man is in proximity to an attractive woman, his RB should assert itself and predispose the man to flirt with the woman. Since every woman wants to be viewed by men as attractive, thanks to the woman’s RB, she will be flattered by the flirting. Neither have feelings that are logical; each only serves the tribal genome (that made them). RB is driven by the limbic system, which employs emotions to overcome logic; again, this is done merely to achieve what’s best for the tribal genome.

For another example, if a man is at his desk working with a spreadsheet for optimizing his company’s profits, it makes sense for LB to be in charge; this is because spreadsheet tasks employ only logic that is essentially free of emotion. I think it’s reasonable to

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believe that throughout the day everyone undergoes some change in the relative dominance of LB versus RB as different tasks are dealt with.

One theory for learning disabilities states that tasks that are best performed by one brain half are mistakenly performed by the other brain half. For example, algebra is best performed by LB while geometry should be accomplished by RB. According to this theory a learning disability teacher's job is to encourage appropriate brain laterality engagements.

When a sociobiologist considers what a tribe should do when tensions with a neighbor tribe are rising toward possible war, it is obvious that tribal members should feel and become patriotic. But how can this be done when the logical reaction to danger is to run away. The will to run toward war and fight comes about by giving RB control over behavior – i.e., inhibiting LB. This inhibiting is achieved by invoking emotions to overwhelm LB. If LB were allowed to be in control it would say “run away!” The tribal genome cannot allow LB to be dominant when warfare looms so the switch to RB dominance must be automatic; all men should be constructed in a way that the switch is reliable.

The appropriate switching between LB and RB dominance is part of what's commonly referred to as “human nature.” As stated repeatedly in this book, human nature evolved during the 2.5 million years of the Pleistocene. During the early 20th Century a psychologist would have said that human nature relies upon “stimulus/response” brain circuits that excite appropriate behavior. In today's language, a computer programmer would say that human nature resembles “if/then” computer code: “If the situation resembles this state, then go to a specific behavior routine.” If this casts a person as an “automaton,” then “yes” – humans are automatons (robots created by genes instead of humans). This is a difficult message to deliver to automatons because they see themselves as “masters of the universe” instead of puppets with strings pulled by if/then brain circuits created by tiny DNA molecules.

I sometimes wonder how 20th Century psychology would have advanced if old-fashioned and established psychologists hadn't intimidated the new and upstart neuropsychologists with brain laterality ideas. Some established psychologists used such epithet accusations as “dichotomania” in an attempt to quiet the upstarts. If this had not happened, for example, psychologists might have studied the idea that RB writers preferred poetry and literary fiction, while LB people wrote non-fiction. Or that two people “falling in love” involved a mutual-recognition of similar outlooks and goals by two right brains that hushed their left brains into not objecting to the falling. Or that the “two cultures” chasm of perpetual misunderstanding is due to camps of people who are strongly either LB or RB dominate. There's a multitude of examples of paths psychology could have taken if only the established psychologists hadn't been so insecure as thwarted the contributors of brain laterality perspectives.

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The "not welcome" sign was also posted by historians who studied the rise and fall of civilizations. I suspect that no one came "knocking at the door" since this subject is super-complicated. It's easy to speculate, as I have done, that a society is dominated by LB people as it rises from obscurity and is eventually taken over by RB people who then weaken it and condemn it to a return to obscurity. The evidence for this is weak (art style evolution), so potential students of the idea may be discouraged from seeking other evidence.

The same feeling of discouragement may exist for those interested in the idea that a society switches from LB dominance to RB dominance when a society feels threatened. I don't feel this discouragement, so let me pursue it for the remainder of this appendix.

Anne Applebaum has recently written (2025) about the rise of an anti-scientific movement by people attracted to mysticism. Other writers are calling attention to the rise of a form of aggressive religiosity in response to a rise in the "no religion" statistic from about 6 % in 1991 to 30 % recently. How does LB and RB dominance relate to these trends?

Science is a LB dominant realm while mysticism and religion are RB dominant. This is not saying that the right brain doesn't play a significant role in science, it does; but the role is supportive, not dominant! A religious person, in my opinion, reverses these roles: their right brains dominate and their left brains are relegated to supportive. I will also assert that science and religion are incompatible; they are essentially "enemies." I won't belabor this point; if it isn't self-evident to a reader there's no argument that will be persuasive.

Given the oft-cited resurgence of religion in America, and its anti-science stance, we can say that there's a rise in RB dominance among the American (and possibly European) population. Such a rise means that something has been sensed by a segment of the American population that resembles a situation that in the Pleistocene was appropriately dealt with by becoming RB dominant. The thing sensed, I assert, is a loss of readiness to patriotically defend the home society from threats by other societies. You can substitute the word "society" with "tribe," since during the Pleistocene all societies were tribal.

International corporations have moved manufacturing to overseas societies. The newly unemployed American worker can be excused for viewing the Chinese or Vietnamese workers who took his job as an enemy. At the same time the unemployed person can be expected to feel resentment against the elites who decide on relocating factories. Also implicated are the politicians, and government, that allow these relocations to happen.

A companion growth of resentment by the American worker was described in Chapter XX: Evil Geniuses. Unions were weakened, wages after inflation slowly declined, and retirement pensions disappeared in response to elite evil geniuses. Again, the elites were

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identified as the enemies of the commoner worker. The institutions of government weren't there to help the worker, for they were helping the international corporations, both of which were run by elites. I am arguing that there is a resemblance of what the American worker faced during recent decades to what the Pleistocene tribesman experienced when a neighbor tribe was threatening the home tribe. If so, then I assert that the American worker's RB is being aroused as if inter-tribal war was looming.

This may seem like a far-fetched theory, but I think it deserves consideration. If it has merit, then we're in a position to explain why so many other RB perspectives are eclipsing LB ones. The goal of this appendix is to provoke new ways of viewing mysterious cultural forces. These forces are undermining national unity, and they threaten social disruption. America is moving backwards, and I don't think this movement will make America great again. Instead, America seems to be moving in the direction of an oligarchy, which can be a transition to kleptocracy.

I keep saying to myself "I want to live just long enough to see XYZ." This could be to see colonies established on the moon, or humans walking on Mars – not America becoming like Putin's Russia!

YOUR ODYSSEY

1992

**From dust to stars, and dust again;
once more a star, with earth in orb,
evolving life, on land and sea,
producing Man, and making me.**

**Ageless atoms, you leave behind
countless stories, now combined.
Configured thus, you now form me,
providing for my odyssey.**

**From single-cell, to feeling child,
who learned the skills for living life,
my opened eyes viewed worldly scenes,
I filled with hope, and dreamed some dreams.**

**I worked and toiled, for decades long,
some lucky breaks, and then achieved!
Triumphant pause, a time to see,
the rush of time, the end of me!**

**My song is brief, it's almost sung,
deserving rest, my war I've won.
But from within, that short-termed we,
you atoms yearn to wrestle free.**

**Restless atoms, you must resume
uncharted paths, for endless time.
I give you thanks, and set you free,
as you resume YOUR odyssey.**

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About the Author



I was born in 1939 in Ann Arbor, Michigan and grew up on a small farm nearby. By age seven I was smitten by the stars, and astronomy became a life-long interest. I graduated from the University of Michigan with an astronomy degree in 1961. A 2-year stint at the U.S. Naval Research Laboratory in Washington DC was followed by a brief experience in graduate school at U.C. Berkeley. Frank Drake hired me at the Caltech/Jet Propulsion Laboratory (JPL) in 1964. After two years I worked briefly at Arecibo Observatory in Puerto Rico, and then returned to work at the JPL until retirement 32 years later, in 1998.

My 37 years of employment were in several fields: radio astronomy, atmospheric boundary layer remote sensing, aviation safety and airborne atmospheric science. I have over 100 peer-reviewed publications in scientific journals, four patents and numerous awards. The highlight of my pre-retirement career is participation as one of several principal investigators in all of the NASA-led international campaigns of airborne studies of stratospheric ozone depletion – commonly referred to as “the ozone hole.” The airborne instrument that I developed contributed to an understanding of the origin of the ozone hole (that man-made chlorofluorocarbon, CFC, was responsible). Another accomplishment during my career was the creation of an avionics instrument for warning and avoidance of “clear air turbulence.”

After retirement I resumed my childhood hobby of astronomy and moved to Arizona where I constructed a 2-dome observatory in my backyard (described at Wikipedia). My participation in a professional/amateur collaboration (XO) led to co-authorship of discovery papers for seven exoplanets (planets that orbit other stars). I consulted as a Visiting Scholar for a university by observing a list of exoplanet candidates and dwarf eclipsing binary stars. Other consulting consisted of observations of ~ 30 Near Earth

Objects (asteroids) for characterizing their rotational state. My observations of the “zombie” white dwarf star WD 1145+017, for 9 years starting in 2015, led to the most comprehensive archive of brightness variations produced by dust clouds from disintegrating fragments of asteroids in close orbit around a white dwarf star (triggered by an interloper planetesimal in a 125-day orbit, as revealed by mostly my observations). This is the first star (besides the sun) known to have asteroids in orbit; their presence proves that when stars undergo hydrogen fusion death and become white dwarfs (which happens for 97 % of stars) they retain asteroids and outer planets during the explosive transition. My observations of “Tabby’s Star” for 8 years may be the most comprehensive archive of ground-based observations of this star (described in the popular press as the most interesting star in our galaxy because its variability might be due to alien mega-structures orbiting in front of it). I conducted the first ground-based observation of white dwarf WD 1856+534, which contributed to the discovery of it being the first known case of an exoplanet orbiting a white dwarf star; I am a co-author of the 2020 discovery paper published in the scientific journal *Nature*.

My publication total after retirement (59) is greater than before (46), so in a sense I haven’t retired.

Resume: <http://brucegary.net/resume.html>