I think therefore
I am . . . I think

Do your really think so?

I mean, it could be that we are just like other living things and seek only food shelter and pleasure

Why are we here?
The Reality of Real Life Is Rather Unreal At Times

REALITY IS MERELY AN ILLUSION, ALBEIT A VERY PERSISTENT ONE.

ALBERT EINSTEIN

FACE TO FACE

We can ignore reality, but we cannot ignore the consequences of ignoring reality.
Real Objective

• I am not teaching you anything
• We are going to be looking at this as a group
• This is not a psychology course
• My aim is to stimulate your thoughts so that we can reach an understanding amongst ourselves
• I hope to suggest that it is worth examining our assumptions and considering other explanations
• And, perhaps, the most important thing to keep in mind is that we are living in the only nation on this earth that is seriously engaged in effectuating multicultural social equality
  – It’s a hard slog
Is Our Reality Unreal Or What?

• I don’t know about the rest of you, but I often experience a sense of “this can’t be true” while reading or watching news and documentaries
  – Events make it seem as if all I have learned is the Walt Disney version of life; not unlike the Disney story of Johnny Appleseed, only the protagonist is a Clermont Hayseed

• This course focuses upon the life we live
  – Can we puzzle things out by reasoning from information we can reliably trust?
  – Or should we trust that what we hope will happen . . . will happen if we’re good
How Do We Know What We Think We Know?

• Do we know if there is a difference between what is real to us as opposed to reality?
  – We all understand what causation is
    But do we understand what it is not?
  – Causation vs. coincidence is tricky
    – *Post hoc propter hoc* is even trickier

• We need to connect dots to make sense of information and draw sound conclusions
  – Folks often embrace non-facts and substitute feeling for empirical observation
    This makes folks feel secure in their judgments
    It also makes their actions very dodgy
Remember

I’m only responsible for what I say.
Not for what you understand.
So Many Topics
We’ll Get to As Many As We Can

• Will Artificial Intelligence Make All of Us Redundant (A Recurrent Theme – we will touch on this several times); Unintended Consequences vs. Cynical Indifference; Are We Alone?
• Religion: What does it do? Who Gets Saved & Who Doesn’t?
• Capitalism: Getting & Spending We Lay Waste Our Lives; (some just waste their lives)
• The Constitution: Freedom or Dead Hand of the Past?
• Midden Earth: Up To Our Necks in the Detritus of Our Dreams (Dream Village becomes Detritusville)
• The American Dream: What is it and who gets to live it? (Should we pay taxes on it?)
• Politics: One Man, One Vote (more or less)
• Energy: Green Dreams vs. the Koch Brothers (not really them alone, but they serve well as a meme)
• Crime, Punishment and Me Too (Truth, Justice or the American Way)
An Exercise in Reality-Checking

• For the women in this class:
  – Have you ever been slighted, cheated or denied workplace benefits because you are a woman?
  – Have you ever been touched inappropriately in the workplace or in public?

• For the men:
  – Have you ever observed a female co-worker subjected to discrimination?
  – Have you ever engaged in discriminatory behavior toward female co-workers?
Thought Experiment For Today

“What the [expletive] is that thing?!”
Are We Alone?

• TV and the internet insist that we are now and have been visited by alien beings
• Putting aside the problem of physics and other such reality checks, what is the probability that we are being observed?
  – Are aliens lurking in the dark areas of the solar system, spying on us
  – Are aliens grabbing the occasional human to probe its hiney and see what makes us tick?
Are We Alone?

• For sure, if they get to us before we get to them, they are better at science
  – Maybe aliens have already determined they can live with our bacteria and viruses?
• But maybe there are sciency limits to weaponry – energy has its limits
  – What if light-speed propulsion does not yield super weaponry?
  – What if guns and bombs are really the best weapons in the universe?
What If

• There are aliens, and they have already come by to check us out
  – Many of us think that in the late 40s and early 50s there were hundreds of alien encounters throughout America

• Today there is a lot less interest regarding active alien activity here on earth; even yeti and sasquatch stories have abated
  – Or maybe life on earth is so strange now that we really can’t focus on extra-terrestrial aliens
What If

• They got here during the last century and saw
  – WWI slaughter & Armenian genocide
  – WWII and the Holocaust
  – Atomic warfare
  – Fearsome violence in the service of our gods
  – That while we know how to combat disease, we really don’t all bother to follow up on the efforts
  – That we breed like fruit flies and have little self control
  – That we destroy things without thought

• They figured out that for all the goodwill we express about meeting aliens, we shoot first and perform autopsies later
What If

• They stuck around long enough to see we’re starting to successfully colonize space and realized
  – We are a dangerous species to be around
• They decided to abandon plans to colonize earth and get away before we spotted them
• They may not have any interest in having us find them
Are We Alone?

• Maybe not, but we would make trashy neighbors and would definitely be the “bad part of town”
  – We could very well be the “redlined” portion of the Milky Way
  – Occupying earth could represent “throwing good money after bad” to superior beings

• On the other hand, earth really is the beneficiary of a plethora of remarkable circumstances
  – Goldilocks zone
  – A moon that holds our spin steady at a beneficial tilt
  – Just the right amount of star stuff
And Yet Another Reality Check

The Rest of The World Thinks We’re Unreal

Really
Jarts Resembled A Roman Weapon
Safety First: Jarts

• Not quite so safe, but popular
  – Over a period of eight years, lawn darts had sent 6,100 people to the emergency room
  – 81% of those cases involved children 15 or younger, and half of those were 10 or younger
  – Most injuries were to the head, face, eyes or ears, and many led to permanent injury or disability

• David Snow got Congress to ban them in 1989 or so after his daughter was killed by one
Flavored E Cigarettes
Safety First

• The best information suggests that a recent spate of deaths from a vaping-related lung disease — six at last report — had little or nothing to do with legal e-cigarettes

• These deaths, and more than 300 confirmed cases of lung disorders in dozens of states, seem to be linked to illegal cartridges, mostly using marijuana derivatives that had been emulsified with vitamin E acetate, according to Food and Drug Administration investigators
  – No one knows the exact cause, but sickness and death of kids always garner attention
Safety First: Children & Guns

Of all children aged 0 to 14 killed by guns in developed countries...

87% are US children

SOURCE: The Journal of TRAUMA Injury, Infection, and Critical Care
Safety & Guns: Got to Avoid the Slippery Slope

Any Questions?
THE FUTURE
What is Possible
What is Probable

• We are living in a transitional era
  – The age of massive epidemics is coming to a close
  – We are challenging death as never before
    Will we defeat death - nope
    We have not even extended life beyond its norms
    We have only made it possible to live longer
  – Artificial intelligence is part of our existence now
    How is that going to work out?
Decline of the Epidemic

• Black Death (1330s) ¼ of the population of Eurasia died
• European disease took out roughly 90% of the population of the Americas
• The Spanish Flu (1918) ca. 100 million people world-wide
• Swine & Bird flu, AIDS, SARs and Ebola have all been stopped short of pandemic status
• There may be a monster epidemic coming, but so far humans have shown the ability to prevent a pandemic
The Real Danger To Life

• In earlier agricultural societies human violence caused about 15% of all deaths
• During the 20th Century, ca. 5%
• So far in this century ca. 1%
• 2012 ca. 56 million people died globally
  – 620,000 died due to human violence
  – 800,000 suicide
  – 1.5 died of diabetes
• Sugar is now more dangerous than gunpowder
But Possible is not Probable

- My dad used to say: Millions of things are possible; far fewer are probable
History of Futures Past

• Were you able to ask a 16\textsuperscript{th} Century peasant, or a 9\textsuperscript{th} Century one for that matter, what their concept of heaven on earth would be
  – It would resemble modern America
  – Especially the profane aspects of it
  – If you study fairy tales, for instance, you cannot help but notice how immediate and small the wishes tend to be; not unlike winning a motorboat behind curtain #2

• The peasants’ future materialized; but it is now the present

• What is the new future?
History of Futures Past

• The flywheel of the past informs the present in most instances, so we can look at what we know to reach a “probability” assessment of what we think will happen in the future

• Given that we are working from a collective past that we all view differently, and that this past has formed our outlook, we need to be careful
History of Futures Past

• We have a different future in mind; longer life, less sickness, more physical comfort and pleasure, much more pleasure
  – We worship pleasure (advertising is drenched in nothing but gratification)
  – Our future also involves having someone else do the scut work

• But is the future we have in mind possible
  – What, in fact, is the real future going to be for us?
e.g.: Boomer Befuddlement

• We are already trapped in a conundrum of our own making
  – We like pleasure, and technology has come through; we demand instant gratification
  – Our demand for pleasure ASAP has led to
    Delivery to the door by underpaid young people
    Smartphones with driving directions built in
    Cars that distract while claiming to be safe
    Better mattresses
    Drugs to banish pain
    Guilt-free consumption
    Token actions that are passed off as sacrifice
Life Has Changed

• How many more years can we add to life, and who gets to enjoy this longer life?

• How will the economy function if people live longer and retirement is postponed?
  – Is UBI feasible, and if so, what DO we do about our borders?

• How will robots, algorithms and technology in general affect humans?
  – If it replaces the workforce; where will the workers go; who will feed them?
  – The history of other outmoded creatures does not bode well for us
    we discard everything we don’t need sooner or later
  – What if our AI replacements do the same thing?
Pesky Environmental Issues

• Despite all the talk of pollution, global warming and climate change, most countries have yet to make any serious economic or political sacrifices to improve the situation.

• Whenever the issue arises to choose between economic growth and ecological stability, politicians, CEOs and voters almost always prefer growth.

• Catastrophe awaits
  – Is it still possible to arrest change?

![Diagram of Climate Change and its Effects](image)
The Life and Bizarre Death of Thomas Midgley Jr. (1889-1944)

Living Embodiment of Creative Destruction & Paragon of Unintended Consequences
The First Recipient of A Posthumous Darwin Award

• In 1940, at the age of 51, Midgley contracted poliomyelitis, which left him severely disabled
• He disliked the indignity of being helped in and out of his bed
  – So he devised an elaborate system of ropes and pulleys to lift himself out of bed
• In 1944, he got entangled in his device and died of strangulation
  – *Sic Transit Gloria Mundi*
And Zenith of Environmental Bête Noirs

• He may be responsible for more damage to humans second only to the mosquito
  – Mosquitoes are a possible topic (starting with *Rats Lice and History* by Hans Zinsser, 1935; to *The Mosquito* by Timothy Winegard, 2019)
  – Any takers??

• His most deadly inventions:
  – Antiknock gasoline additive (tetraethyl lead)
  – CFCs to improve refrigeration

• His inventions contributed to the poisoning of three generations of children and contributed greatly to the increase in skin cancer
  – His “inventions” are now banned worldwide
The Saga of Tom Midgley

• Was not a chemist but showed a knack for Edison-like problem-solving
  – Systematic examination of an issue
  – Trying anything that came to mind until he found a solution . . . Not unlike Thomas Edison

• In 1910s and 1920s worked on the problem of engine knocking which made cars inefficient and balky
  – At Delco he and his boss (Charles Kettering) determined that fuel was the problem, not engine design
  – Search for an additive to reduce the uneven fuel burn rate
  – Their hunch focused on the color red, for no discernable reason
The Saga of Tom Midgley

• Had no oil-soluble red dye, but realized that iodine was both reddish and easily dissolved in petroleum
  – Added iodine to the fuel and
  – IT WORKED!!

• Iodine was expensive to produce thus not a mass-product candidate

• Tried thousands of other red chemicals and stumbled upon tetra-ethyl lead (red in color)

• It worked, and was patentable
  – The product had to be patentable to ensure Delco (GM) would make money
The Saga of Tom Midgley

• Lead was a known killer – some have even posited that Rome declined because Romans use lead cups and plates
  – Ironically, ethanol had been tried and worked well, but it was common, easily manufactured and not subject to patent protection

• Public health officials all over the nation and world were alarmed and warned against tetra-ethyl lead as an additive
The Saga of Tom Midgley

• It went on sale in 1923 over the protest of the US Public Health Service
  – A leading toxicologist wrote in 1924 “the development of lead poisoning will come on so insidiously that leaded gasoline will be in nearly universal use . . . before the public and the government awaken to the situation”
• Midgley figured Ethyl would cost $.03/gallon and that GM could figure on 20% of the gasoline market
  – Within 10 years Ethyl had 80% of an expanding market
The Saga of Tom Midgley

• There were warning signs
  – Midgley had to take a month off to recover from working with the lead additive
  – Some workers at the factory that produced lead-ethyl died and 35 workers went insane, as in Mad Hatter crazy:
    • “the patient becomes violently maniacal, shouting, leaping from the bed, smashing furniture and acting as if in delirium tremens”

• Sale of Ethyl was suspended, and the U.S. Surgeon General set up a committee to determine the safety of the plant
The Saga of Tom Midgley

• Midgley and GM made lemonade out of lemons
  – They focused on the manufacture of Ethyl and promised to make the process safer
  – GM promised to make the workplace safe and protect employees from lead
  – Declared Ethyl “safe” and garnered the support of a grateful public

• No one mentioned a word about the prolonged persistence of lead in the air
The Saga of Tom Midgley

• Lead ethyl additive was saved by
  – A desire to have powerful cars
  – Aggressive advertising
  – Woefully inadequate science
  – Wrong questions, inapplicable answers

• The rest of the world accepted the U.S.’ OK

• It’s estimated that in the US alone millions of children had toxic levels of lead in their blood between 1920 and 1970
  – Lead damages the neurological development of children causing an IQ drop as well as other intellectual disabilities in exposed populations
The Saga of Tom Midgley

• Midgley went on to improve air conditioning in 1928

• He developed CFCs which
  – Were much safer than the flammable and explosive chemicals used at the time
  – CFCs improved A/C efficiency dramatically
  – CFCs were thought to be harmless and were also used for aerosol propellants

• In the 1970s the hole in the Ozone layer was discovered and addressed
The Saga of Tom Midgley

• Interestingly Thomas Midgley is pivotal in the development of modern America
  – Powerful and smooth-running cars with air conditioning
  – Movie theaters with A/C and plots involving car chases
  – Lead remediation industry
  – A dim awareness of unintended consequences
  – An understanding of the complexities of cause and effect versus *post hoc ergo propter hoc*; a confusion with which we still struggle
The Real Reality?
Knowledge vs Reality

• Do we know if there is a difference between what is real to us and our reality?
  – Do we believe that we know?
  – Do we know that we believe?
  – Can we recognize the clues and connect the dots?
  – For example: most folks cannot pick out Sagittarius from Scorpio

• As above, we don’t always “connect the dots” when we observe things
Connecting Dots

• The Greeks looked at the sky and managed to “see” various shapes: forming a theory of the zodiac
  – It helps knowing the stars
  – Some need more help than others

Facing south around 6:30 p.m. local time in late November
Connecting the Dots

• There are plenty of folks who will tell us what the connected dots are supposed to show us

• However, not everyone sees the same thing

The Data

EVOLUTION

How Scientists See It

EVOLUTION

How Creationists See It

GOOD/DO IT
Some Draw Very Different Conclusions

Connecting the Dots

"So what if they're kids, Bert? If God didn't want them to die tonight, he wouldn't have put them in front of you with that bat in your hand."
When The Data Didn’t Help Much

• In the 70s and 80s violence was rampant
• Theories about our culture of violence led to harsh laws that really got away from us
  – Three strikes & inordinately harsh laws
  – Mandatory sentencing guidelines
  – Trying minors as adults
  – Expanded prison system; privatized to save money (which itself is now problematic)
When Data Didn’t Help Much

• Sociologists and politicians had theories
  – All of whom proposed solutions for something they didn’t understand

• Crime rates fell – and have remained lower, and the cognoscenti congratulated themselves

• NB: Violence did not go away, it just lessened
  – Now that mass shootings have taken over the headlines we’re back in hysteria mode
When Data Didn’t Help Much

• But soon enough big data poked its nose into the fray

• In 2004, Steven Levitt (of Freakonomics fame) concluded that the legalization of abortion was responsible for as much as half of the crime decline
  – The drop in unwanted children led to better parenting and fewer delinquent young men
  – Talk about the excrement hitting the rotary air circulation device!!
A Pause For Cogitation

• Circle back to Thomas Midgley
• Where does his contribution fit?
  – Rudy Giuliani’s Broken Windows doctrine
  – Harsh criminal punishments
  – Freakonomics authors theory that abortion took the unwanted out of society by aborting them
  – Thomas Midgley’s poisoning of an entire generation of minority children; especially given the extreme violence lead causes
Knowledge vs Reality

• Immigration is real
  – We can know a lot about immigrants and how they affect our lives

• But the data is mostly ignored when we discuss the politics of immigration
  – The knowledge of how immigration makes things work in this economy shows it is good for us
  – The political reality of immigrant communities amongst us is quite different
Solutions?

• Congress is sitting this one out
• The political damage is “real”
• How do we match jobs with US’ citizens desire not to engage in some jobs
  – ICE raids don’t focus on welfare offices, but low wage factories
• When ideology and reality collide, it’s a crapshoot
  – Do we really welcome immigrants who differ from us?
  – Are we indifferent to property values because we are good Christians?
AGEING GRACEFULLY IS AN ART

just one drink
AGEING DISGRACEFULLY IS A COMPLETE BLAST.

I DID NOT TRIP.
THE FLOOR LOOKED SAD,
SO I THOUGHT IT NEEDED A HUG!