A Chance to Yell at the Corn

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Terms

- meaning noun what is meant by a word, text, concept, or action. The meaning is a definition when applied to words or text, but for concepts and/or actions meaning becomes less a description and more a matter of indirect intention, something closer to the adjective form of it.
 - adjective intended to communicate something that is not directly expressed. Meaningful. A meaning action or concept is one whose meaning is implied.
- facticity Can refer to the quality of state of being a fact, or to the state of being in a particular state of affairs which one has no control over, otherwise it means a fact that is not changeable or is assumed true without further evaluation.
- temporality of or related to time. Held within time. Not eternal.
- disclosure revelation, exposure. That which is disclosed is ontologically dependent on the thing that discloses it.
- mood An affective state, less specific than an emotion, but more definitive the overall state than a more temporary emotion. I can laugh while in a bad mood, in fact that can be a certain kind of laughter.
- emotion A temporary mental state brought on by neurophysiological changes.
- senolytics Pharmacological approach to clearing senescent cells that have forgotten apoptosis.

 Senescent cells leak senescence-associated secretory phenotype (SASP) which quickly spreads senescence to nearby healthy cells. Senolytics help clear the body of SASPs before they can spread their condition. Senolytics are especially important for rapidly replaced cells like skin.
- senomorphics Pharmacological approach to triggering repair and maintenance functionality within an aging cell turning back the clock. These methods include methylation repair of the epigenome, telomeric repair, mitochondrial and lysosomal waste removal and associated DNA repair. Senomorphics are especially important for long lived cells that are not easily replaced like neurons.
- grain I will use the word grain throughout in one of any of the following ways:
 - 1. seed of cereal grasses and some other plants
 - 2. small hard particle or crystal
 - 3. a minute portion or particle

4. a basic or characteristic quality

It is interesting to note that it can also be used as a verb, and is used to describe many other things important to the history and use of the word. (the grain of a rock, the grain of a photograph, the grain of a hide, a grain of truth, lying goes against my grain, teaching against the grain, etc.)

corn - food grain

maize - a kind of New World grain

- fulfillment realization of one's desires and capacity. I focus on a generalization of two chemically defined forms of fulfillment to suggest that these pathways help define the axes of the target of virtue with self defining plasticity either towards or away from the self dependent on which is driving the sensation of fulfillment.
- serotonergic fulfillment related to serotonin channels/networks, which generally have ego diluting effects.
- dopaminergic fulfillment related to dopamine channels/networks, which generally have egocentric effects.
- nucleic acid biopolymer essential for life, composed of nucleotide monomers. These monomers are each composed of a 5-carbon sugar, a nitrogenous base(nucleobase), and a phosphate group. The four nucleobases found in DNA(deoxyribonucleic acid) are cytosine, guanine, thymine, and adenine, (CGTA) the letters of the Living Word.

hyperbolic curve - has an upper bound - an asymptote

- power-law curve has no upper bound, but increases at an exponentially slower rate over time. In evolutionary terms this rate is maintained by ever rarer jumps in capacity. The unbounded future of this trajectory is unprecedented.
- longevity escape velocity The point where further advancement in longevity treatments outpace the ever slowed approach of natural death through means granted by those very developments over the course of the extension.

Characters

- Ivan Ilyich The main character in Tolstoy's *The Death of Ivan Ilyich*.
- Death As a character from Kierkegaard's At a Graveside including the ever evolving anthropomorphized modern image
- Ceres God of Grains
- Consus Son of Ceres, the grain itself
- Chrissypus 'the laughing philosopher' who died laughing after witnessing a donkey sneaking figs. He said, "fetch this donkey some wine so that he might wash down these figs." then died laughing at his own joke.
- donkey Chrissypus' demise.
- squirrel tree shrew. The anecdotal use of squirrels throughout this thesis is an example
 narrative that lacks beginning, middle, or end; a proof that these story phases are not
 needed. The idea is that if squirrel = tree shrew, human = grain shrew. Alternate title
 idea: The Dependent Ontologies of Squirrels and Men.

Introduction

At the ideal age of 42, a search for the meaning of life seems appropriate enough, everyone needs a hitchhiker's guide (Adams, 1979) to existence. I guess that's what this is, and if so it's likely only meant for myself, as I find the notion of its use as a guide for anyone else a terror. I hope to conclude as I begin that the meaning of life is a discourse that utilizes an abstract concept of a scene, a story, that is primordial to the purposeful disclosure of any communication. Mostly, I'm really only arguing with myself. It might get messy, every bodily fluid became somehow part of the tale, so like in Adams' novel, bringing a towel is not a bad idea.

The expression of story is the ritual cause of language, but that ritual predates words as such. A sensation of story is core to our being before any description comes forth. Not a story as in a narrative story, not something that needs to be explained with words, but the idea of entities (characters) interacting within a scene. Story meanings are built upon interacting desires each with varied centrality. I hope to reveal a framework of two unique reward pathways which each create an axis of populated wants and oughts that distribute between their excess and deficit, resulting in a handed fall in either direction from the balanced target of virtue. This framework gives us our will in how it shapes our self identity.

It is rewarding to find significance. There are many patterns to find in the world, patterns that help create this significance (significance is only another pattern). Science offers patterned repetitive (un)certainties, nature offers patterns of beauty and horror, art mimics them, society offers patterned safety, the clock manages it. I fumble through the library to find a few patterns

of my own, while watching those of the natural world seem farther and farther away. I find a few interesting ones here and there, I'll mention them, but find only one system of patterns able to communicate anything about meaning. The sense I make after my multidisciplinary search is that the silence of oblivion can meaningfully be overcome only by the system of patterns found in music because it is the art of time itself, of which we are bound agents, the math of sound, of vibration, syncing sine waves, oscillating circular time(lines), the creation of a vibrational now emerging from the last chorded phrase, we too become this ever sought patterned bodiless temporal agency as we create and consume it in the preciousness of fleeting mortality. I realize in exploring these ideas an attempt to discover most simply that the precious absurdity of temporality is best wasted in the connected disclosure of its spending. Salvador Dali's is known to have said, "I don't do drugs, I am the drug" (Andújar, 2003, p. 245), a popular phrase in biochemistry courses, likely misrepresented as a highlight that we are made of drugs while Dali likely meant something much more egotistical. To extend on the phrase for my own purpose... I am not driven towards these rewards by doing them but by being them. Reward pathways, oughts, and music later, for now there's a story.

Falling From Trees

Because they are common, and their behavior is somewhat universally experienced, I find squirrels good anecdotal characters. I do not attempt to empirically study the squirrel, I use him only to show he is not that different from me. A squirrel falls from a tree, righting itself, and lands safely with an understanding of the scene around it. The squirrel does not engage some playthrough of a previous rumination of what might happen while falling, but mentally

recreates the world around it which allows for compensation of relative motion and distance in real time. Slow motion video reveals a squirrel surprised by a trap door instantly contours its body and brings its face to its feet so as to get direct line of sight of the ground. Former NASA engineer Mark Rober highlights this behavior in several of his popular videos on YouTube and NASA designs landers with the same principle; camera towards the feet. It is imperative to understand the scene - most importantly, where is the ground? If understood by practice or rumination so be it, but squirrels likely figure most of this out on the spot. Do they wake suddenly while dreaming of this scenario? Regardless of the amount of prior consideration or memory, the act of falling is conceived as a scene of the environment with little traces of memory elements scrambling for order in an ever changing stream of active senses. Environmental memory for a falling squirrel must resemble something like when one tries to sit in a chair that's no longer where you thought it was; it's jarring and clumsy to find errors in perceptions of the scene. I'm sure the squirrel's branches are similarly familiar unless altered since the last experience, or if it loses track of where itself is in the scene, which will only happen if that instinctual refacing towards the ground fails for some reason. Tracking oneself in the scene while falling becomes an urgent errand, acceleration in earth's gravity is 9.8 m/s/s, a reality that would have my clumsy body smashing through branches hoping not to impale myself as a grunt and gasp, clinging towards any notion of a grounded scene. Squirrels fall with a bit more grace, existing still with that treebound instinct, I've seen humans that can do it too -I'm amazed at the squirrel-like skill displayed at skateparks. In our mind, there is a scene with characters, objects, and activities all moving along like that experienced in the scene of a story, a moving painting, a 3D dream, a POV movie. The squirrel's confusion while on the ground at

approaching cars is a limit in their ability to see the story of giant moving metal things coming their way; when up in the tree they seem less confused, with a better vantage sense of this exotic environment. Fallen, we both are desperately trying to make some kind of flinching sense of a scene.

Beyond processing something acrobatic, or failing to process something otherworldly, squirrels can also anticipate danger and communicate that story to others by crying/calling out. Do they dream of the potential for danger, the location of their hidden acorns, plan revenge, ponder death in the twilight hours? The squirrel's cares and concerns, whether about acorns or something more dire, are easily understood (translated) across species: a screaming/barking squirrel means only one thing and that sound creates a contagion of alertness. Earnestness doesn't need to be earned through an understanding of temporality, it is expressed in the wilds every day, in every song, every purr, every rustling of leaves. The squirrel's earnest song must generate a different sensation than alertness for a predator, not unlike the sound of a known earworm coming on at the grocery store, "not this song again, not in the middle of my search for food." Does the hawk still hear the escaped squirrel's song hours later to its lament? Damned Taylor Swift. When the hawk finally does capture its prey, does it feast still remembering the sound of its victim's terror song in righteous fury, or are the smacking sounds of the feasting song enough? Either way these songs and sounds are the expression of earnestness.

The squirrel's expression of fear, the telling of a story, is heard by many species with varied responses – according to their own listener profile (Rogers 2022). Susan Roger's listener profile categories, and the fact that animals might have something similar, hints at the idea of a

meaning behind communication and choice(see Beyond Description). One likes the music they enjoy without much choice in it, they don't choose to like what they like. "In a word: man does at all times only what he wills, and yet he does this necessarily. But this is due to the fact that he already is what he wills" (Schopenhauer, 1960 p.98). But some songs are pop hits and are cherished regardless of species. Lingis's pet skunk purrs like a kitten, and all are warmed by the understood ecstatic disclosure of absolute contentment; it's a love song. (Lingus, 2000)

Being-with-others, each of us needs a way to translate our story. But meanings are derived a priori to the description of things. Meanings are stories of balance between characters, meaning-with-others. It was balance with others that was central to meaning a priori anything else. All emotions are an understanding of relative meaning between categorized elements within the environment, which over time develop into a generalized mood. The meanings come from the scene, a moving scene, from a story, one where meaning is derived from a sense of homeostasis between the categorized elements. The squirrel sees the hawk and discloses: the predator comes for me, my offspring, my treasures; the taker is here, bringer of pain and death, an exchange that can only be seen as dangerously unequitable. I make a stretch that it is a matter of balance. 'Dangerously unequitable' is perhaps too much a euphemism.

'Holy Shit!' is perhaps a more appropriate idiom of two extremes that reference awe and disgust. Because awe is wrapped up in the sense of self, any presence that can challenge the boundary of self creates that awe. The sight of the Grand Canyon conjures a sense of smallness. A crack in the sidewalk is the same grand canyon to something smaller, the awe is relative to what one's self Is. Because the source of awe is always grander than the self, awe

always includes an element of fear, which is similar to the fear in disgust, the second part of 'holy shit!' Disgust is processed like awe's fear with responses of fight, flight, or freeze - poop on the sidewalk is to be avoided (flight), a poopy diaper is a fight about oughts, and there is a moment of pause when one realizes they've stepped in filth or gotten it on their fingers. 'Holy shit!' events form deeper memories because of the enhanced emotion relative to baseline, and that formation is directly proportional to its impression upon the experiencer. "Every thinker who has tried to go back from the concept of the phases of his own experience to the time of history and geological time knows how the mental force to forge consistent concepts is weak without the force of this awe" (Lingis, 1998, p. 122). Relativity creates the awe and communication is an attempt to translate or describe the relational meanings between the categorical elements defined through that relation. All proclamation relates to relations which relate to the category of self, where all disclosure is an act of defining the self - disclosure in every scream, every whisper, every silence, every song, every posture, every poise, every regard and disregard.

The definition of a word is called its meaning, but the need to have a representation at all is the meaning behind the definition. If there wasn't something 'important' about the thing we would not bother to define it. I give to what I think a thing is a definition, but how or why a thing concerns me is the meaning behind any element in a story/scene. What a thing is relative to one's self is the meaning behind the definition of that thing. I only have definitions to things which have meanings, else I am oblivious... to things that are without some meaning unto me. Everything known is always held within a category with relational meanings. Definitions I memorize and then don't use, or build upon with other related understandings, lose their

relevance over time, their meaning, and so I forget them. This categorized interpretation of meanings occurs without effort a priori, and communication in any form is a translation of those categorical meanings. Any imperative is derived from the relative meanings between story/scene elements or categories, each with a weight relative to the self. The prior, formal, primal, a priori, whatever-interpretation is the source of meaning, which creates a directionality within a matrix of story elements - we find in others our own ability to find meaning at all. This meaning found outside ourselves is the source of any hope for transcendence which is bound to the others through a priori meanings generated by the stories of independent witnesses and their shared disclosure of such. We are all but fallen witnesses telling a story.

Meaning of COVID-19

Quarantine offers a unique opportunity for rumination. Like many during the COVID pandemic, I found myself questioning whether my current life direction was what I wanted. This seemingly universal experience resulted in what has been coined, "the great resignation." These questions of want lead to questions about who does the wanting. The pressing presence of death and lack of physical freedom, coupled with reduced interactive meaningfulness, forced a challenge to the boundaries of the self. If Piaget (1952) saw our experience with COVID, he might say that this new awareness challenged previous self-boundaries, requiring accommodation always more difficult than mere informational assimilation. If a hypothetical disease becomes a headline in some faraway place we might painlessly assimilate, and likely soon forget, their tragedy apart from our own - subjectively unimportant. One can only bear witness so many painful events at a time, the mind is limited in its range of focus, and we are

left to choose what to make important/present and what to disregard. The mind disregards much more information than it focuses on at any one time, thank goodness. I've forgotten more than I know now, and disregarded even more while gaining what little is still currently held.

What I can mentally hold at any given moment is always far less than what is present to switch to, either from the environment or my memory. In global events such as pandemic, informational balancing mechanisms can become overloaded, everyone's attention is limited in scope, which results in a need to increase the potential to disregard.

A generalized increase in disregard is likely the result of any prolonged need to do so. Trauma fresh then is a wound, and when chronic, creates the hardened callousness of disregard. Research might indicate that disregard is the core to narcissistic behavior rather than a lack of empathy. (Cascio, 2015) The brain may actually feel the pain of others (social pain and/or mindreading), but has mastered the capacity to disregard and redirect that emotional information. In the disregard one is left with the chemical sensation about that which is disregarded - the upsetting scene still happened, one still feels it, the story still spoke its meaning, but then a redirect. Narcissism is a skill in reasoned disregard which redirects the emotional response onto the disregarded. The emotion, that unit of mood, that is disregarded still happens and fills the body with that chemical sensation. That emotion is caused by meanings between characters in the scene. The followup dizzying explanation always directs the emotion at that whose meaning is being disregarded. Narcissism might be better understood not as a lack of empathy, but a redirection of a response to an a priori meaning known to be known to the characters within each's subjective situation. It is not a lack of human empathy that infuriates Nietzsche; rather, the cruelty of disregard coupled with a dizzying followup

projection onto a victim of that disregard as the source of the emotion of the experience.

Nietzche sees the covert narcissist when he describes the resentment of the priesthood.

Beauvoir sees the overt form in her serious and adventurous men. Find a support forum on narcissistic abuse, it's a land of less eloquent Nietzches trying to explain the madness of their experience, and among them are many themselves what they are there to complain about. But this classification of NPD (Narcissistic Personality Disorder) from the DSM isn't a distinct group of individuals. Egos are all narcissistic, it is a scale, a range, not an on/off, we all have/are the Daemon, and are 'blessed' with varied quality of sight. The narcissistic tendency to disregard is universally experienced during pandemic. While witnessing this generalized disregard, we ourselves disregard ever still, and invisible enemies act on the mind to cause a dynamically desperate search for meaning - a, "what is this all for?" and I was not alone.

Meaning of Death (Over the Rainbow)

"All go to the same place; all come from dust, and to dust all return. Who knows if the human spirit rises upward and if the spirit of the animal goes down into the earth?" Qoheleth

Death is a meaningful event! It should not be explained away in a fanciful story, it is not to be ignored, it should be felt, it should hurt. Those brave stoic faces - call it returned, call it whatever, this category of interest should arouse, and bind the interested in a subjective collectivity. The idea of an afterlife potentially devalues the relative meanings that without it form such smaller categories held within such pathetic finality, so that pathetic becomes all the realities of the world. Such conceptualization might hurt less, but that is precisely the problem -

opium is to be avoided for just the same, the addictive dulling, always made worse if/when chronically abused.

Whatever my disappointment about a lack of solidarity or capacity for empathy, I find hope in our response to COVID. Humanity's capacity to respond to a biological threat on a global scale has not been realized like this before. Certainly, plague is no new thing, but our capacity to understand what is happening and respond so quickly is very new, and it is not the only place where this understanding is manifest. Recent advances in medicine have accomplished miracles (Kirkland, 2020). This trajectory of additive discovery ignites my imagination. As the pressures of death anxiety during isolation pressed my own ego, I began to fear I might miss a potential transitive moment in history. Despite the shortcomings, look at how well we are doing this time around! What capacity might we unlock next? This curiosity got me digging and led me to the field of senotherapy, and my ego finds a tangible transcendence that is more than fancy. What if senescence, like a pandemic, could be treatable, if only basic instructions are followed? Doesn't every generation look back to see the obvious shortsightedness of understanding in the now outdated theories of those previous. We improve, that's what the memory of writing offers. It is a trajectory, like the transition being made by the quagga, but instead of strange stripes we are weirdly fleshy yet still hairy creatures obviously in the middle of a progression towards something else. The quagga's stripes are a defense from biting flies, and the something else we are headed toward, if a Superman, is similarly in need of defense from the same, "biting flies of the marketplace" lest the creators be but consumed by those thousand envious bites - Thus spake Jeffathustra. The capacity of our response is profound, while its commercialization seems redundantly tiresome.

I began investigating, as the capacity is more intriguing than the news of it, these trends in medical development, and I found we are well on our way to an idea seemingly 'Over the Rainbow.' Is Abre DeGray's longevity escape velocity a potential reality further down this trajectory of discovery - And if so, to what end? My knowledge that death is the natural course of life is of little consequence to me while I carry the notion that senescence itself might be curable by natural means. When one knows for certain that death is inevitable, they become somewhat relieved of its burden. Indeed, we are prone to applying this relief as we apply death with relative ease to everyone else, but when applied in earnest to ourselves we tremble. As we get older and that horizon comes closer, we hope terror fades to a more mature acceptance, dignity rather than despair (Erikson, 1989). For me, as I stare into the abyss I yield to my lack of choice, if only to release the anxiety, but I long for more, nevertheless. The idea that I might have a choice in finding an escape from senescent death is not liberating, however. Instead, I find this notion constantly buzzing in my ear. Every second I waste not solving this problem is one that brings me closer to the grave. Months and years go by and one after the other of grandparents and aging uncles and friends are lost; some not that aged. What use is there pondering the meaning of things with such new potentially powerful tools at hand? How many more are lost before we start trying in earnest? But I find some peace in my own obvious hubris. Firstly, if there is a solution to senescence, I am not likely the primary or a required participant in its discovery (Maslow, 1970). Second, even if this solution is to be found, to what end? Even the stars will one day see their end, and we are to survive even those? (Our sun is currently 4.5 billion years old and will begin to die in approximately 5 billion years at which time it will swell into a red giant, potentially large enough to engulf the earth. It lacks the mass to nova and so

will collapse into a white dwarf. We have until this swelling at maximum to become solely extraterrestrial, or move the earth. Theoretically white dwarfs eventually [quadrillion years] run out of energy which will cool and form into a solid crystalline form, however this takes longer than this universe has thus far existed, so none have yet formed to prove this will happen. In such a state the matter would need to be harvested and converted to energy to stay warm, but that matter will be limited and so even the vultures of Ra would have a limited future.) As I hypothesize aspects of that distant future, I realize this solution is not immortality. David Sinclair calls the inherent potential quasi-immortality. Life more abundantly is admirably pursued, but an end, however imagined, is inevitable. And so, eternity, like the gods, remains just out of reach.

Death gives us our end. If given, is it a gift? This boundary in time challenges the integrity of self in a way that requires a restructured form of coping. Senescence is likely treatable, but ultimately death is unavoidable. I find myself in a perspective where all that is left is to make the most of what remains because we were terminal from the start. Lifestyle then becomes a matter of now, which remains true regardless of the number of days one might hope to still receive. There are habits of daily living that have shown to increase healthspan and longevity (Baltes, 1993), but the pending idea of death creates a natural need for transcendence, a way to otherwise define the self as it transitions to non-existence, a way to deal with the pain of it. Death as a point on the timeline was once a certainty that is now challenged by our evolving lens and hammer; we have no precedent for what is to come.

Currently death finds itself under the microscope and may prove a treatable biological foe. Life extension is already but another facet of the capacity of human beings, one whose limit is still

unknown, but the impossibility of infinity makes all such pursuit but a stalling, realized only as a desperate earnestness. It is death that creates preciousness, and whenever dulled by whatever chemical, whatever reasoning, a potential blindness to that very preciousness.

Meat Wagon

I worked through undergraduate school as an EMT (emergency medical technician), and because it paid more, I worked in non-emergency transport. I was not trying to be a hero, unlike many who do this motivated seemingly by adrenaline. I assumed being nice to sick people was heroic enough. The capacity for this compassion is limited however, I was too angry and tired to be considered any kind of hero by the end. I was studying biology so a medical job on M/W/F and classes T/TH seemed a reasonable course towards an exit. Emergencies happen, but mostly the work is 12 straight hours of "meat wagon taxi." I worked for two different companies, the last on an advanced life support truck. To require an ambulance for transport certain criteria must be met, otherwise the lower tiered, "wheelchair van" is acceptable. Advanced life support, the next tier up from a basic ambulance, is necessary for ventilator care and other more difficult transports. As I reflect, I realize I can't recall a single face of vegetative patients I've transported. There are memories of "patient friends" one makes through regular dialysis runs with the same people etc, but I can't think directly of even one of "the vegetables." hmmm. Anyway, this is a business. I met people whose specialty is quickly and skillfully harvesting corneas from corpses. You know those megaplex eye centers, there's a world behind them rarely considered - every field in every direction is wrought with companies, reps, technicians, lobbyists, etc. (see: American Association of Tissue Banks, Eye Bank Association of America, Transplant Services

Center, etc. Every organ, blood, eggs and sperm, uterus rentals, the human body, every piece, is transferable - for sale. With better site into this background world, it is not uncommon for paramedics to not be organ donors in fear that if they are deemed themselves a close call the ER might just opt to take the organs. Obviously, this is not exactly how it works, but that fear is not uncommon.

The relative exhaustion among healthcare personnel creates the uncaringness described in Tolstoy's Death of Ivan Ilyich, the only difference in modern times is the increased efficiency. The capitalist machine treats death's journey like that expressed by Victor Frankl, the bodies become numbers and everything of value amounts to being sure to fill in the proper paperwork (Frankl, 2011). I got in several conflicts over reporting a patient "sitting" watching TV. Apparently, this caused payment issues, because it brought into question whether a less expensive option than the ambulance (a wheelchair van) would suffice. In a memo, that particular company asked us not to mention when a patient is not supine. I made a stink about this, because it goes against EMT textbook training, and I found it unethical. The comfort or needs of the patient were never the priority, certainly not our needs as staff, nor really logistical means. The only thing that matters is whatever condition approves the use of medical intervention, and that it be accounted for with no question of the patient's potential 'fitness' for something less costly. One's fitness is under evaluation to the last moments of life - after serving as a career being of utility one becomes valued only as a qualification of their unfitness. In the end, does my opinion matter? Get the bill paid and move on, at least that's the attitude expected, and the one experienced in modern healthcare. Where money, law, and life meet is a dark corner of society, and mostly quite removed from our everyday experience. We all just wait for our own moment to become useless, an "unfit for work," whose only value lies in the margin available providing services to keep us alive. If I am making a complaint, I don't have a solution other than stressing the need for an unpleasant conversation about life values that affect "lesser" people every day. Louis Pojman worries hospitals will become living mausoleums for the comatose which isn't too far from realized except mausoleums usually hold a kind of reverence; one of silence. Modern hospitals feel much more like megastores, while standing in the hallway and hearing the many beeps, it's the same sound at Walmart - beeping transactions, echoing through the massive expanse - the sound of money – that of our values. I did not enjoy my time as an EMT and was glad to move on to work with plants instead. Plants don't suffer like humans so are infinitely easier to work with, and much more is allowed in regards to manipulating their physiology and genetics.

After a few years of EMT work I was done with the medical field. I had earned 96 credit hours, mostly debt free, paid in cash, which I transferred to Texas A&M to finish studies in genetics and agriculture with the aspiration to better feed the world through plant science. In my study I learned we produce enough food to feed everyone... and then don't. I began to fear feeding the world was less about better plants and more about better values. During the worst years of the potato famine in Ireland exports increased, the middle class desperate for economic resources sold what resources Ireland had left to earn margin to survive themselves. This tradeoff worked for city merchants, while the least of Ireland starved in rural places away from urban centers; wasted meat. Systems based on margin only work on a foundation of excess and exploitation. When scarcity challenges our economic systems, humans are most frighteningly capable of faulting the "losers" to maintain a sense of personal merit. That merit is

a merit of words, one of egocentrism, one of taking one's due. Work is valuable, but how often is margin anything but theft? Theft that seems acceptable when there is excess but turns quite evil in the face of vulnerability, scarcity, and death. The criminality of this margin is measured in meat; when the price is up everything's fine, but if/when the price falls, the ruthless.com men of margin rely on it - taking from every meal, every sickness, every death, every exchange. I learned from the meat wagon, then the grain wagon, an important lesson about value. I see so many benefits to trade: that johnny can make a buck mowing the neighbors' lawn, that grandpa can realize some extra value from his now antique collections, but standing in the cornfield, cathartic tasks in sweltering heat, removed and so somehow above the bustling glitter, how does one conclude anything but that the grain makes the meat so the meat will make more grain, and in the middle is this thing called 'commerce?'

Tower of Silence (Black Bird)

Some cultures believe that corpses contaminate the soil, so they do not bury their dead. This belief leads sometimes to a process called excarnation - exposure of human corpses to the elements for decomposition. This is also known as a sky burial. In most cases carrion birds are responsible for most of the "work." The Tibetan word for this practice, *bya gtor*, translates to "bird-scattered." In the high mountain regions in Asia where timber is scarce for burning and the ground is too hard for proper digging, this method is most practical. The Zoroastrians practice this ritual in a dakhma or tower of silence. In a dakhma, slabs of stone are arranged for the removal of the flesh and then the bones, once cleaned by vultures, are pushed to a center well for further exposure to the elements and decomposition, assisted with lye and other caustics. In

Kierkegaard's *At a Graveside*, Death is silence. Silence is an established ritual in Zoroastrian religion. Vultures themselves lack a syrinx (vocal chords) so can only make grunts and hisses. They are a bird built for silence, their song is the sound of feasting upon dead flesh - 5.1 surround sound, the smell of carcass, buzzing flies in high fidelity 3D theater silence. In modern times many of these cultures have been forced to change practices due to urbanization or decimation of bird populations. Greater than ninety percent of the vulture population in India has disappeared due to a pesticide broadly used there on cattle. Other birds participate in excarnation but are not effective like vultures. The Parsi in India have tried various alternatives such as cremation or using solar concentrators to compensate for the lost vultures; without them it's an increasingly hard practice to maintain. Susan Rogers and Daniel Levitin suggest record pulls as a kind of disclosure. With that spirit in mind I have put a theme song of sorts to the idea of *bya gtor* in the Beatles' song Blackbird. Although McCartney claims an alternative meaning behind the song, I find the lyrical imagery conveniently appropriate for this practice, especially given when and where the song was written in Rishikesh, India.

Blackbird singing in the dead of night.

Take these broken wings and learn to fly.

All your life. You were only waiting

for this moment to arrive.

Blackbird fly... Into the cold of the dark black night.

Blackbird singing in the dead of night.

Take these sunken eyes and learn to see.

All your life. Your were only waiting

For this moment to be free.

Blackbird fly.. Into the cold of the dark black night.

(Lennon, McCartney, 1968)



Poop Wars

Access to nitrogen is the highest limiting factor for plant-life next to water. The plant absorbs nitrogen from the soil that it uses to construct proteins which cannot be built without it. The energy that is harvested during photosynthesis is stored in carbon chains - the carbon absorbed from the atmosphere. We eat to gain access to those carbon chains and the nitrogen contained in proteins. The food chain has many routes, but all the nitrogen and the carbon chains in the cycle are there because photosynthesizing organisms, and their symbiotes, pulled these compounds from the environment. The quest for water, light, and then nitrogen is what agriculture sets out to solve. We remove the competition (weeds) for light and then manage the supply of nitrogen and water. Ancient delta river systems that flooded yearly replenished agricultural nitrogen naturally, but most of these rivers are controlled in modern times. Any

system of agriculture capable of any longevity must solve the nitrogen supply, ancient and modern, even if only accidentally.

The ancient speculations on how to maintain soil fertility are mixed in superstition and sometimes humorous correlations. Columella (Roman 1st century) writes, "...the dung of pigeons is the best of these [dungs], because it has the most heat and causes the ground to ferment... The farmer should make a dung-hill... They state that if an oak stake is driven into the middle of it no serpent will breed there." He preferred specific bird dung, followed by humans, followed by various other livestock; horse was the worst apparently. (Leigh, 2004) The ancients progressed with various understanding about soil fertility. Fluxes in environmental conditions test these various assumptions about best practices. What we are left with at the advent of writing is a hodgepodge of magic and science. That the poop has value seems to have been understood globally because some of the earliest writing, in the form of agricultural instructions, are but a detail about the the management of this famine reducing prized agent. I wonder how they might judge our practice of pooping into freshwater to make it simply go away; no worries ancients we'll just make some more, let me finish the story.

For most of human history agricultural nitrogen is supplied naturally through any combination of annual flooding, by organic wastes, mined nitre, and/or feces. The new world held many treasures for colonial expansion, but potentially the most valuable were the guano shelves along the coast, in many cases hundreds of feet high. Humanity reached a collective one billion people through the exploit of this bird guano. Devastating conflict, slave labor, and political upheaval have decimated the regions containing this high value prize. Several Latin

American countries' borders are the result of disputes over these deposits (see War of the Pacific). There are current governments defined by made up boundaries motivated by where the bird poop was. The losers in those border disputes were left in poverty. No poop, no power, no money; poverty. Slaves with high disease resistance were most prized for this work, so one can imagine the various methods of finding this out, and or sourcing such. These chapters of history aren't very popular. The conflicts over poop aren't very romantic. What a disappointing pirate raid to find that the only value on board was feces; starring Johnny Depp. Reaching the industrial era, much of the New World guano shelves had been exploited, and navies became more important for controlling what was left. In the early twentieth century, it was assumed that the Germans would not be able to maintain agricultural or manufacturing (the other thing requiring nitrogen, especially explosives) capacity because of their relatively weak navy – they couldn't get to what was left of the bird poop.

Nitrogen is abundant, representing 78% of the atmosphere, but in the form needed for plants and/or explosives, it's hard to break that triple bond of atmospheric dinitrogen. However, the Haber-Bosch process was discovered in the early 1900s by German researchers (see name of process). This discovery happens right about when we pass one billion humans on earth, and it is the Nobel prize winning discovery that now supports nearly half the global population.

Haber also invented mustard gas, and could be considered the father of chemical warfare, a development he pursued with zeal on the notion it could end warfare altogether and that death is death. With this discovery Germany could make its own nitrogen. It is the transformative capability of the Haber-Bosch process that is responsible for the capacity of both World Wars, and many of the technological horrors utilized during that time were developed by Haber

personally. The subsequent growth of humanity to its current eight billion people today is supported largely by Haber's discovery. It is an energy intensive process requiring high heat and pressure which are provided mostly via oil. We have only had this technology for roughly a century. Arguments have been made that we now grow our food on oil, a technicality relevant to humanity's story/scene, a truth of scale where the delight of those most vested should frighten the rest of us. (Schnitkey, 2022). We now stress the aquifer systems that utilize this high nitrogen growth, and the California River no longer reaches the ocean. If the fertilizers are overused, runoff results in eutrophication of nearby waterways. Not everything about this solution is perfect, but we would be starving as a global population at the current scale without it. We have created a clever solution to nitrogen, which creates a new asymptote of growth limited only by water. (see No Asymptote) Free market systems can prove successful when nature's own facticity still has much to offer, but when she falls short... Limitations of nitrogen (feces) and oil (corpses) pale in comparison to limitations of freshwater. Civilizations disappear when they run out of water for even the shortest time. We can manufacture the nitrogen we need now (manufactured poop), but we need a treatment for salt and waste water in the coming decades if we wish to continue growing past the next asymptotic limit(see No Asymptote, see Water 4.0).

From Meaning of Death to Meaning of Life

At some point in the journey of these discoveries, I concluded that the easiest answer, other than forty-two, was that the meaning of life might be learning the meaning of life and that the purpose was to apply the will based on the learning of that meaning. Although this duality

of meaning and purpose is certainly not new, I find many writers use the words interchangeably, deferring to the rhythm of their pronunciation rather than a specificity in their definition. As I explore other perspectives on this notion, my own view of meaning seems to center around purpose. In other words, I derive meaning from a notion of purposeful living. But there are other metrics with which to measure meaning, leaving my own measures through purpose culturally adopted, mere perspective, and certainly not universal. Unto what purpose should one derive their meaning?

Seligman's (2004) PERMA model (positive emotions, engagement, relationships, meaning, accomplishment) includes meaning while outlining the various categories and subcategories that define happiness, or life satisfaction, as understood by current psychological study. Various elements within the model are culturally and/or environmentally centered. Some of these ideas are extensions to logotherapy, which puts meaning at the core of the pursuit of happiness. Existential therapy? Only if/when death becomes a close reality, a game played by philosophers for some time now. Whether directly searching for meaning or happiness or satisfaction, these metrics are arrived at through the individual as they are situated to that which is around them. Because we are thrown into our realities, meaning is derived from the meaning of other things and beings. So regardless how one might merit their existence, as happiness or purpose or satisfaction, life's meaning is maintained by a scaffolding of other meanings and perspectives.

There may not be a meaning to/of life in a universal sense. No description can provide a concise meaning of a thing, only a perspective. Understanding comes through discourse, words

but descriptions, so that the discourse is itself the source of meaning. In this way, participation in the conversation is the primary source of meaning, because without it there is not one.

Participation in that conversation of meaning requires only presence, but is not limited only to being present. There is still a question about how one will disclose themself in this present condition, a disclosure of the meaning of a subjective presence, deathbound earnestness. Death is a meaningful part of life, but life has meaning beyond it; if death is silence, life must be the opposite.

In or Of Meaning

"Meaningless! Meaningless!' says the Teacher. 'Utterly meaningless! Everything is meaningless.'" (Ecclesiastes 1:2)

It is clearer to search for the meaning "in" life because a search for "of" suggests a universal meaning that is difficult because meaning requires a description that is always an internal perspective rather than some external absolute. An understanding of life itself requires the perspective of either all things or something outside of all things. In mathematics this idea is called set theory: the mathematical art of categorization. So that meaning can/should be derived from elements within life, without attempting to suggest that those understandings are absolute. When Qoheleth writes, "everything is meaningless" he is far from contradicting because 'everything' considered this way has nothing to compare itself to. When considering all things without reference, meaning is lost. One cannot find the meaning of everything because the relationship left is that between everything and nothing; so that one is the opposite of the other and little else. Meaning comes from the relationship between things contained within

everything. So, the meaning of life is nothing, because when taken in its absolute form, nothing is all that is left to describe it. The meaning with(in) life however might be seen as the relationship between things as they compare to any/all other things, a definition that requires perspective. As such each perspective is but a source of expanded understanding, which translates to expanded consciousness. This expansion of consciousness is perhaps the greatest source of well-being. We can find well-being through a dialog that promotes an awareness of perspectives outside our own. We will likely not find the meaning of, but may if we are lucky, find meaning within life through such dialog.

This dialog is different from dialectic arguments. This dialog does not impose some central truth that can be found, but instead suggests a need for curiosity about the perspective of others without the judgements of right and wrong. An attitude of "interesting" is all that is required, in kindness, a series of Socratic questioning, that kind posture of ignorance, showing only the skill of inquiry, while revealing little any true depth of knowledge, not as deception, it is not a set up, but as an earnest quest into how someone might make the conclusions they do, even if/when disagreed with. So, my views on meaning are ideas that I share not to convince but to further the dialog as to my position today. Considering the bell curve distribution of populations, I allow myself the freedom to be ignorant and forgive myself knowing probability suggests that relative to the others I likely am (see populations). I offer that same freedom and forgiveness to others knowing they too are likely wrong, and I must forgive them for it. I would expand my consciousness by only hearing another point of view. I need not be angered by a lack of solidarity, for even obvious foolhardiness is helpful as it reveals the ease with which one misses their own ignorance. Only when a threshold of action in said wrongness is crossed,

should argument be prudent, and even then, always armed with self righteousness, one's resentful repose is most capable of evil ends. Perhaps, a curiosity about how such a grievous error could occur is more prudent. Argument is the posture of combat, while dialog is the posture of communion. This collaborative transcendence through testimonial means, this kind of sharing, leads me to conclude that the meaning within life is disclosure, while the meaning of life is the disclosure it creates.

Beyond Description

Tools in hand become part of the body schema, hence their seeming invisibility in skillful use - when fully engaged, the piano and I become one thing. Whether by Piaget, or Kant, or others, the idea of schema often hints towards the same thing. I reference it as an idea of the self, but that may be only one more category. Schema, however used, is a categorical framework that helps identify self boundaries - it is a matrix of meaning. When we are infants the first tool in hand are the breasts manipulated by the lips and tongue. We get some practice in the womb, but the lips and tongue are our first hands, as it were. We forget that this skill is developed in the same way one learns to use a hammer or play the piano. At first it is hard, but quickly becomes thoughtless as the muscle memory matures. Past infancy the use of lips became a flow behavior that we only notice if/when we bite them or make a dribbling error.

We learn mouth based doing prior to hand or feet based doing. With my mouth I participated in my first doing, and then learned to express gratitude with the very "hand" of whose use I was mastering. The first words are built subordinate to another thinking – one that reflects about the scene and its story. Understanding and meaning existed with contemplation

of a story of satiation before any description came forth. The infant cries out for nourishment and upon fulfillment changes its tone, all of which is a working of the oral hammer. But the sounds and understanding, even if only as a sensation, come before we learn their (the sounds') definition and must have similarly found meaning before we had words for doing this new kind of symbolic thinking. The thinking came before the sharing of sound. The thought of a result, an echo of an idea, cause and effect, all but a story unfolding to some witness that yet has no words. That witness is placed in a mood that the story reflects, and words come next as an interpreter.

The emotional interpretation of a meaning is the source of it, while the explanation becomes a mood, a re-interpretation or translation of that original response through repetition. Which is most prone to error? Which comes first – is that a priori? Perhaps more importantly, if one truly comes first, does that make it the most important? If I have made an a priori error, can my explanation fix the mistake or is the explanation always a multiplier upon the first wrong? My mood is Doubt.

Manipulations of the lips and tongue become skills that need little concentration, the first example in our existence (more primordial) than readiness-to-hand — as motions of the mouth become skills for manipulating equipment (nipples) they also become the primordial place to store language concepts. The primordial state of being is readiness-to-mouth rather than readiness-to-hand. A mastering of readiness-to-mouth leads to readiness-to-word which comes next as a new way of thinking built upon the muscle memory of the previous function – furrows formed in the practice of translating meanings. There is thinking prior to this symbolism of words however in the way of a story/scene. Like watching a play in another language, all the

context clues create an interpretation prior to words that try to explain or describe it. There is also often more information in how a thing is said than from what is specifically spoken. Discovering cause and effect does not require words or language. Watching the social structure unfold does not require language. Heidegger's appreciation for poetry reveals an understanding of the limited nature of words' description of meaning as definition alone, yet he tries with them nevertheless. His art of choice seems itself constructed of words, where meanings are always hidden in the story/scene behind the words themselves. Imagery coupled with the flows and rhythm of poetry carry the meaning beyond the definition of the words themselves. The message carried as a parable, an image, or story of the meaning, communicates more than the words acting as literal understanding. That language, or primordial way of thinking, is that which happens before words can be attributed to our understanding and is developed along with our first skill - sucking. This emotional understanding becomes our mood, which starts with simple needs, but continues into our less necessary desires. As Orr coined, and Borlaug re-emphasised during their Nobel speeches, "Peace cannot be built on empty stomachs," but empty stomachs are not all that is necessary for war. War is an applied lack of fulfillment, where hunger certainly applies, but there are plenty more forms of unfulfillment. War is made by the generalized mood of injustice, which is built on the same thing as hunger - desire from a lack within someone's story. Eye for an eye justice is a want to see another suffer as one has suffered themself. To know the suffering of hunger, of want, will lead to either a wish for equanimity, or a call for eradication all together, either way the want is for a balancing of the story scene. One kind of desire for justice will indeed lead to war, while the other hopes to prevent it. In war it is obvious which justice is the better, so how does this apply to debts, to labor, to getting one's due, in

punishment and/or reward? Equanimity in pain is fair only for sadomasochists. This Republic, and its justice, creates an economic condition which is but a hierarchy of humans in an awkward orgy that is difficult not to see as hypocritical and obnoxious. All this clamoring about values that don't serve the valuer leave me brow raised and smirking, and I think to myself - the Mona Lisa's sardonic grin is quite similar to Schopenhauer's.

Chrysippus died from this smirking humor, his joke is the expression of witness to the irony of a story, but it is more than mere irony, that is his true killer. The story of Chrisippus's death holds meaning, but the perfect expression of those meanings disclosed by the donkey transforms the smirk into transcendence - the humor that wells up while empathetically experiencing a scene of an authentic scoundrel in pure unbiased glee. Chrisippus hears the story with the donkey's lips key to help drive translation. Donkey lips move like fingers. Our nerve mirroring drives us to copy what we see; like seeing a yawn causing an empathetic response. Overexpression of joyous consumption on the part of the donkey leads Chrysippus to a primordial ecstasy. The socio-economic irony of a donkey eating figs that man had to work so hard for is funny, but not to the point of killing a man; no, the smacking donkey's lips are key. Watching and hearing the donkey's lips eating figs causes one to mimic, and this stretching of the lips speaks to the deepest part of us where language started in the first place. It's why public breastfeeding is so taboo; lest we find ourselves all walking around mirroring what we've just seen, similarly locked in an ancient memory, only to wake upon being noticed (note: mention of the taboo is not an objection to its practice). Like Lingus's pet skunk, "...our whole body becomes a nonfunctional mass where her [the skunk's] contentment rumbling through it is undifferentiated from its pulsating sensuality." (Lingis, 2000, pp. 31-32) YouTube is rife with

examples of donkey/lama/monkey lips. Gibbons sing the same unique song with their mate daily - much of the uniqueness is visibly made through rounding the lips around the sound as if nursing it. The squirrel discloses its opinions openly whether you appreciate or dislike its song. The donkey's joy while eating figs becomes our own through a wordless expression of it, it is disclosed to us in earnest. Domestic animals getting away with something adds an extra zeal to their ambition and thus enjoyment, it is true fulfillment, overriding all the expected arbitrary restrictions of society. From the mouth of utter subjugation, poetry improvised upon the donkey's smacking lips, yes he told a dad joke, but he died watching that donkey eat those figs - the sticky smacking testimony spoke perfect fulfilled ecstasy, and in empathic delight, ended the life of Chrysippus - that any of us be so fortunate. DONKEY LIPS (watch the lips, but don't die!)

This interaction with the world via lips is our first source of story, and we understand it without language at all, although quickly the sounds of nurture become embedded in thought, and we forget that our lips hold words only to hold ideas and the skill we gain through a lifetime of using them slowly quiets the voice behind the story. When we try to view the story of our Being from the outside it speaks to the inner a priori voice-of-story to make the judgment. This wordless voice ready-to-mouth casts the judgements of morality and value without words. The sensation of doing wrong is felt through categorical meanings built by the story of it. We are not given these meanings from words engraved on tablets, or words at all, but through the eye that sees a playing out of varied equalities among a story's scene. When facing death anxiety, one can find earnestness, or authenticity through evaluation of the story from the vantage point of outside. Contrarily, in everydayness the view and scope of the story in whole is lost, but the everyday story is a story just the same. To take a step back is wise, but leads one to question

their everydayness, which seems somehow blind to the meaning behind itself. Feelings of emptiness hint at an awareness within oneself that doesn't "speak" but feels through the story. In this way the contextual story-of-the-world is the interpretation made prior to language. It is my story in the world, but reflection reveals where the world of words deceives and steals away the time, most precious, in everydayness. Our story, if it represents only one more avatar in a system of arbitrary rules, if this becomes a mere occupational description, it will look quite ridiculous to our a priori understanding of the scene we witness because there is nothing unique to make Ivan Ilyich any different from any other judge—being's story. There is no way to transcend as but some mere description; meaning requires more.

Ineffable Voice of the Writers

Writers often refer to some kind of ineffable voice. Kierkegaard came to an understanding of intense goal orientation based on realities within his own story. He hopes to bring that state of earnestness to the minds of those around him, but they are not built like him. He is excited by existence itself, while finding everyone else in a kind of trance. The same trance Ivan Ilyich noticed in himself and his peers. The use of the story of existential crisis is the same whether by Kierkegaard, Tolstoy, Heidegger, Nietszche, the authors of Gilgamesh, anywhere death's mirror is helpful for the story told.

The theme - a writer, one whose skill is in words, whose swing of the hammer is in little changes in the shape of the mouth that make sounds which are realized in the symbols of letters. Each of these writers are confused by some, 'ineffable' sensation that judges without words. The judgment is not blind, like lady justice's, rather this judgment knows every detail,

including the character's prejudices, and all with the nearest clarity as it is the a priori self-understanding – a self which thinks without words.

Descartes is the I Am thinking, and if his thinking is from a Daemon he finds himself there confirmed by the hypothetical story/scene containing himself and said trickster. Can Descartes come to his conclusion without reasoned words? What inhibits one from realizing itself as thinking of itself? In the phrase, "I think therefore I am" the "I" comes first, think second. He knows himself as a thinking I, even in the case of allegorical demon trickery. Subjectively, the requirement for sleep suggests most specifically this possible il(de)lusion. The required daily loss of active consciousness, brings heavy doubts about what consciousness even is. How many eternities pass between each awakening? I can only ask others, who are likely themselves Daemonized. But each of us can see the anthropomorphized trickster who alludes to character "I" being tricked, all in the context of a scene built by thought experiment. Regardless of reality there is an "I" experiencing a character, and then one rambles on to describe the meaning within this realization already conceived in the scene/story brought forth. To realize oneself as the Daemon, as the narcissist coming to grasp their own self trickery, once realized - that every conclusion is but a nursing of the ego, even the gratifying notion of the ability to realize the trick; what then, more tricky words?

I'm not sure more words are what's needed here. Because words never give a good enough meaning, not like in the mental story/scene, not like in the story told at a graveside or at a funeral, or by the full force of reason upon the wholeness of the self which finds itself not ready or able to consider itself fully. A self lost in what is left of fleeting possibilities.

Nothingness is the fullest of possibility, as we age we long for it. All that is left is a story/scene and a meaning, a meaning in silence, a meaning without words, a meaning that existed a priori the existential crisis of meaning of words. The story told in the mirror of a 60-year-old man is soon shattered on the floor and the image carries more weight than the novel (Hoffmann, 1986, p. 118). I know what the broken mirror means without need to describe it – ineffable.

Kierkegaard also uses this image-story of Death, personified as a character uncaring, unshaken by stimulus, unable to be called. Death's chilling disinterest towards our own concern/care speaks to the meaning. But that meaning only needs words to describe the character. Once in mind, there lies the scene, with all its categories (enemies and alliances) A painting, poetic words, lyrical imagery, each are different mediums that create meaning in the same way, through a story/scene. The apocalyptic horseman always conjures the same notion which is exploited by every dreamer, every prophet, every artist, any expressionist hoping to touch finality. That category of any subject's meaning is already well known before the artist-writer-priest-politician-salesmen-philosopher attempts to use it, each applying a subjectively universal understanding of meanings spoken by a wordless specter - the ineffable voice.

Our mind disregards more than it can hold, drawing piecemeal conclusions from every potentially erroneous translation of the ineffable voice. Meanings are spoken from the ineffable voice only subjectively with errors relative to the directionality of the translator. Perspectives will each always have their own errors, but also in testimony illuminate errors in translation from our own directionality. An effort to transcribe the subjective translation of the ineffable

voice of the writers is the greatest quest of mankind, it is the joy of reading history, of reading at all, each perspective felt as an attempt to hear a whisper from the silent ineffable voice. Speak ye silent voice of meanings, our ears have learned to hear you, even while we drown in the furrows of familiar subjectiveness, in every new tale - the unfamiliar, the uncomfortable, that which amplifies the silent meaning of one's story.

Story Telling

There seems a division in the story telling of history. One of the oldest of this dichotomy is Socrates and Homer: one meant for more reasoned thinking and one for a more common audience. As illustrated by the great thinker of our time, "I have the best words." Less reasoned people pragmatically understand reality through the backdrop of a story rather than by words themselves. Intelligence however measured will result in a continuous variable, thus a population will have a bell shaped distribution of intelligence regardless of one's belief regarding the accuracy of testing. (see Populations) The potential inaccuracy of IQ tests is the difference in measurement to that of the actual bell shaped distribution - the actual distribution is bell shaped regardless of the test results, a reality that makes guessing about population distributions from a sample possible at all. Within these distributions, average/mean under the bell curve applies to most as one standard deviation of the mean is 68.2 percent. Most people are average, no matter the consideration - IQ, height, speed, age, whatever. Our qualities are distributed around a mean, and our associates in life act as the only sample for attempting an understanding of one's own placement. "If you think you're the smartest person in the room, find a new room." This statement was probably first made by Confusious, I'm familiar with it

from Neil Degrass Tyson using it in the Cosmos Series. Whatever the source, this statement is a matter of relative sampling within a population, which means don't be fooled by one's limited sample size of experience, there are always bigger fish, except for the one, but you can never be certain to have found that single largest one from a mere sample. The difference between one's relative opinion of one's intelligence and their actual distributional placement, is likely highest around the mean where a simple story that fulfills a desire not to be average and/or lower than, is always a preferred conclusion to draw - a disregard which takes very little effort, and feels good to do.

"I have the best words." is instantly translated to, "behold, he who has the best words."

Reasoned words do not change an average mind's scene/story or in fact speak to it at all. The placement of a character in the scene identified as, "one who has the best words" creates a dopaminergic response through projection and alignment to said scene-character. (see The Desire of Shrews) If the one claiming to have the best words is true, the average person wants to be identified as, at minimum, able to identify them. There is no evaluation of the words spoken, only the desire to participate through mere identification with one who has the power of words, sycophancy towards a position/condition rather than a particular person or their words. Pragmatism allows the middle manager king a complacency of mind that ignores his potential biases in exchange for the sensation of certainty. A certainty about one's merits, one's safety, passing the time seeking ever more, while forgetting the ultimate vulnerability. A deathbound subjectivity knows however that the only certainties are uncertainty and death, and that verbal claims are more often fancy than not. The idiom about death and taxes, includes taxes as a vulgar expectation from a state about the oughts derived from everyone's story.

Oughts are certain for beings existing because of the subjective nature of existence. Tax is a vehicle to exploit the certainty of oughts in any story/scene of existence. Subjectivity creates the ought whether aware of it or not, and the certainty of death amplifies that. When the oughts become but taxes, it is no longer subjective. Then too, if uncertainty is certain, then the certainty of death might also be considered an uncertainty. In fact death is the ultimate uncertainty when subjectively considered; it will only be certain when it is done, and then there is eternity to wait and be sure. "The certainty of death is the earnestness; its uncertainty is the instruction, the practice of earnestness. The earnest person is the one who through uncertainty is brought up to earnestness by virtue of certainty" (Kierkegaard, 2009).

Reason is less susceptible to blatant sycophantic falsehoods but is similarly susceptible to fanciful ego service, and might be less aware of the voice without words, who is the ultimate judge of meaning. This judge comes around to seek its story when society's arbitrarily created meritocracy is revealed as a thief of our time and very life. When one spends their life seeking the merits of social hierarchy they may find death's mirror an ego shattering experience.

Meaning is not based on the merits of the quality of words, but the context of said words as a story. A street rapper might disclose equally well the experience and meaning of their story as in any other form, and like in all other forms there are plenty of fakers and wannabes. Does it tell a story? Then it is disclosure, it is art, and in this way, "I have the best words," is art, a kindergarten drawing fit for the fridge, the certainty of every mother about their child's prodigy, crayons representing a story of representing. Pride and confidence are often but ignorance, and despite mommy's, there exists better art, more talented children, better storytellers, better stories at all.

As an example, "I have a dream" is a superior story to, "I have the best words," because the former attracts meaning through the subjective story/scene while the latter attracts only dopaminergic narcissistic projection. The dream is contextual; the other is comparative, one challenges formative contextuality while the other puts it on. Formative context is a definition for the definer himself, and his things, whether there is true or false necessity. Philosophers, poets, and politicians alike derive meaning not from the definition or the words themselves, but by context that is understood before the expression ever comes into play. Even the phrase, "comes into play" suggests the world is indeed a stage, a game show, and we understand our and others' part before we ever learn to explain it. The context always includes the storyteller, the artist, even if/when anonymous. It is never only about the art, it is always about the story, an environment (stage) with characters. The storyteller is the translator of the meanings no matter the medium. Philosophers attempting to reason any matter unto certainty always must do so artfully. Even math is a kind of artful expression; story telling. But the meaning math creates is a priori, not the art of it. The explanation of things are memories given while learning how to do so - the meaning was there already almost like from a dream, the very consciousness of the story.

And why are performance plays and movies one of our mediums? Plays themselves are weird. What a weird thing to do. Why do we watch shows and tell stories of gods and heroes, friends and enemies, family and strangers? Can you imagine coming across squirrels, or anything else, in the forest acting out a play?... Lewis Carrol creates magic with that exact imagery, the absurdity of such a scene - a caucus race - political animals. But isn't that what a mating dance is? When David Attenborough shows us another example of beautifully

complicated choreographed mating rituals from exotic places, the understanding of pure expression, desire, confidence, and meaning in the now is understood by all of us. I know what that bird means as it moves around and vocalizes like that. One can understand the premise of a show in another language even without subtitles, because we think in story, context explains itself, words are but disclosure of subjective details. Description is not necessary to understand context, as context comes first, and we immediately explain the understanding to ourselves with representative words. My stream of consciousness seems to flow as a narrative but what I'm always explaining to myself are details and context from a scene/story where the meanings already categorically happened.

The words of testimony are of the interpreter not the interpretation itself. The story of testimony is what speaks to us. The words we add as reason soon become thoughtless skill, but the more skilled in this regard the more distant becomes that story language that was closest to our phenomenological understanding of reality from the earliest notions of it. Ivan Ilyich is panicked because death brings his entire life into scope, and his a priori understanding is disappointed by what it sees. This internal a priori judgment day is the truest final one. Is the bringer of this judgment, this closing of a story/scene, death - is he not silent? There is a wordless voice of the soul, the holy spirit, my conscience - that consciousness that uses no words, but guides by witnessing the very story of our lives unfold and helps us along with notions of love, fairness, meaning, and purpose. It is a consciousness that is angered by injustice, grateful for reward, and inspired by kindness, but does not need a single word to create those moods. That consciousness has a scope that sees us in the third person. The third person perspective, my third eye, competes with the default mode network. In fact, my third

person perspective is the opposite of my ego, in which the default mode network is most responsible. When I can see myself outside myself, death holds less power over me. This third person is the self that Csikszentmihalyi (2002) describes as left watching during flow – it sees better the result than from inside a state of rumination about being thrown. The more centralized one's consciousness, one's scope, point of view, the more thrown becomes a being-buried in the world. While thrown we find ourselves but mumbling to understand moments of existence outside the reality that our very wholeness is only fulfilled in death. The wordless thought that makes the judgment is the source of guiding light, the only path towards any hope of originality. This originality is only in the uniqueness of the scenario with true care for its characters; otherwise, we might as well be telling the story of any-other-being unqualified to differentiate this-story from the one told by any other grave marker – unremarkable. To find one's own self unremarkable in the face of death's mirror is a crisis of meaning in the story, and it is felt as absolute despair. Conversely, it is this story telling that offers any solace of dignity at its end - why old people are so obligingly prone to do so.

Ε The formatting error to the right occurred at some point and rather than destroy it here's a story: Once upon a time Hurricane Harvey came to Houston and displaced 40,000 families. t My family was among them. Housing was hard to find in the aftermath. We found a new 3rd story apartment unit but is was outside of the kid's bus route. We were without a e vehicle for some time so I walked home after "Ubering" my son to school daily. That r journey home was a maze through flood damage that remained months after the storm. Everyone's ruined furniture ceremoniously piled in the front lawn, it made for an n apocalyptic walk of reverence. Businesses, schools, grocery stores, it was easy to tell the victims even months later because there was still that line of debris dried and cooked permanently in place, revealing the highest point of water on anything not completely t replaced. I witnessed one after the next the now toxic detritus of each families' Simpsons couch – every household has one. I have yet to replace ours finding it more dead weight У than necessary American icon. On a particularly cloudy day I was walking past the still functional high school I once attended and spoke the words, "Eternity is Now." I often walk and mumble, I'm sure it's unsettling to some. At this moment of utterance, the clouds S broke, and I stood in a perfectly round circle of light. Two layers of clouds caused the Ν effect. The higher layer was moving while the one lower down was thick and motionless. A small break hole in the lower level was revealed because of a complete break in the 0 quickly moving upper layer. The resulting light piercing through the thick lower cloud left me illuminated by a perfectly circular light beam. I stopped and looked around, no one was W witness. It stayed this way for an almost uncomfortable amount of time. Clouds moved back in suddenly from higher up and again blocked the sun like a switch. We search for signs in our demon haunted world (Sagan, 1997), but whatever the universal significance, this event is hard to forget. The clouds closed and I carried on, but hmm that was weird. Anyway, here it is again - Eternity is Now. (Now and Then)

"This moment of the now is, in our terminology, given relief by the contrast it makes with the levels upon which it is set. But the contrast is not purely formal. The present contrasts with horizons of possibility and promise it seems to lead to. I feel I am alive now, health is resurging, initiatives are again possible. The **scene** presenting itself seems to me an overture to something; it is set on certain levels which are like axes along which schemes of duration are going to be generated. And on the other side, this moment forms in relief out of the fevers and delirium of the long night, which does not extend back now in discrete moments, but extends like the level from which this moment acquires its situation and its significance." (Lingus. 1989)

Back to the Future – A Story of Directionality

Back to the nature of life extension. Back to the nature of focus. Back to the nature of consequences. Back to a beginning that leads to no end. The Anarchist's Cookbook for the Elixir of Immortality is not something you try to sell in the grocery store or on Oprah. Such an elixir creates an eternal need. Would it really be a cure, or a disease? Perhaps, I should stop and walk away. Zarathustra, Sisyphus, Troglodytes, whispering spiders' revelation: the reality is more curse than blessing. What perpetual struggle is created by such blasphemous speculation? Anything different from the struggle that's created without it? Forward with little certainty then; what can we know for sure?

Imaginary Lines (Imagine)

Of my uncertainties, lines make me question everything else. Everywhere I would think I see a line is but a horizon. Nowhere is there a line in the world. Only limits in scope result in the notion of lines. The edge of a ruler is but a mountain range if I zoom in. Crystals form with seeming edges, but I am what connects the dots between those atoms. A trajectory of light,

sound, or matter is always curved by any other presence around it - anything that might hope to witness this straight line of motion itself bends that line, and the witness through time invents the notion of a line of motion at all. The timeline? A thing of relativity, the photon arrives at its destination in an instant, where's the line of time? Time, how could we see it as any other thing than a line with beginning, middle and end? Is it really? Once humanity believed in lines, timelines, plumlines, bloodlines, it began to build up around itself little boxes of certainty. Boxes made from bricks and boards that further attempt to disclose the idea of lines. Building is gravitational perpendicular alignment, but stacking stones does not create a line. Then further out, man continues to use lines on the map that decide who gets what and who will go where, formative context. Considering these lines on the map as made up is not that hard to do, but the fact that lines don't exist at all is rarely considered. So many certainties aren't.

No Asymptote

Richard Lenski (2017) has found that in evolutionary genetics the fitness of organisms increases as a power-law with no upper bound, rather than the assumed hyperbolic way - one with an asymptote. Historically, that same assumed asymptotic limit is applied when one considers yield in agriculture or in most other fields related to growth. The assumption about maximization defined by the asymptote is why Lenski was using a hyperbolic model to begin with. The rationale is that even if we could design the corn to grow as tightly as physically possible, isn't there a ceiling, a point where no more corn could possibly fit in that space – an asymptote? Growth or fitness beyond this seems, "biophysically implausible" (Linski, 2017) and so I believed there was such a thing and that modern breeding accomplished little to increase

yield as it is already so close to the perceived limit. Agricultural genetics has a focus towards a kind of certainty related to the pressures of drought and disease resistance with ever increased attention to localized adaptability; modern plant breeding is mostly an insurance plan for industrialized farming operations. Lenski's study suggests that life may always be out to break through these supposed asymptotic limits, with or without our selective help. What is described by the asymptote must then represent facticities of the environment, not the potential of the organism's fitness. In Lenski's experiments the limits are eventually revealed to surpass the asymptotic model because of the prolonged generational scope of the project. Perhaps my, and the scientific community's, perceived limits to agricultural yield likewise are only limits in scope. I can imagine beyond these predictive limits, limited only by facticity in the capacity regarding sample size or limits in time. All predictions are but artistic representations, error calculable science fiction, until the now predicted arrives to confirm or deny this art of hypothesis. If this model is correct, on a long enough timeline the bacteria must escape the flask to transcend the biological implausibility. This means 'biologically implausible' is only equal to the time squared to get there; which creates interesting notions about plausible biology if/when given enough time.

I dream of tunnels under the fields, and/or buildings stacked upon them, that use artificial lights to increase 'yield per acre' by multiple layers of them, the asymptote left to the annals of history. These could be powered by the fusion we successfully accomplished as I write this small optimism piece. After eighty years of speculative expense and disappointment they finally showed it works. Perhaps the limit is broken by creating more workable farmland to begin with, bringing water to the desert at agricultural scale. This would not increase the

yield/acre asymptote but could increase the asymptote for total planetary yield capacity, and what better carbon store than that offered by entire biomes (the carbon-store capacity of any terrestrial ecosystem is directly proportional to the amount of freshwater available).

Extraterrestrial layering, satellite farms? Perhaps artificial replication, think Star Trek. The solution may not be foreseeable because of the power-law relation of that degree of unboundedness. My imagination seems limited to science fiction technology, again but my own bias. Lenski's bacteria may reveal that even primitive life maintains a directionality towards transcendence of all subjective facticity with relational aims on a power-law trajectory.

Transcendence of asymptotic facticity is the operation of life itself. Any pursuit remaining perceptually under the asymptote becomes one of lifestyle choice rather than a universal directionality - picking a mere occupation, something, whatever, to do before dying already. My existential opinions and desires for more may well be the drive of all living organisms - to transcend the limits of our subjective facticity. Yielding to the asymptote is thinking too small, ask the bacteria.

Populations

There is no one, but always many. "The objective of statistics is to make an inference about a population of interest based on information obtained from a sample of measurements from that population." (Ott et al. 2001) In statistics, the normal bell curve is the standard representation of a population when considering a continuous variable. Continuous variables are values whose range forms a whole interval or range – variables of indiscrete quantity and/or quality. Any distribution of a good is most well represented with a normal bell curve.

Utilitarianism, as the math of good distribution, is an attempt to arrive at an ethics that is but the math of quality among populations in general where any consideration for that population will naturally distribute with bell shaped curves. In real world applications, we rarely can observe the entire population, but through sampling can reconstruct an assumption of the shape of the bell curve for the whole population within an understood margin of error. It is because continuous variables in populations always take this shape, that prediction through sampling can be done at all. We can guess at particulars about the shape of the total because we already know what to assume.

When I reflect on this system of understanding, it occurs to me that 'one' may not exist. Everywhere I would attempt to identify one, I seem to be dealing with a sample. I stand on the beach and bring a grain of sand to my eye, unique relative to the others, but there are always others to prove that uniqueness. Perhaps the largest, 'one' counts as a one. But doesn't the largest always exist also with the smallest 'one?' Every first also has a last, even if/when they are the same thing. Is that what this life is? A singular one, first and the last? Eternity creates many problems, itself necessarily a one among an infinity.

I can observe the various scars of existence on the surface of a sand grain, each a memory of a sorted past. The grain's grain is this memory. If there was a way to capture each grain, and its respective location and scars, one could work backwards and trace the source of those histories. What rock, what mountain, did this beach used to be? But whether a grain of sand or any other material thing, there are always more of them – other rocks, other planets, other suns, other rivers, other trees, other animals, other people. Help me where is there only

one? God? The universe itself? But my limited scope isn't proof of but one god, one universe, and if the universe is anything like itself, there will be more behind that grain of sand, noticed only if I but move it from the center of my field of view. It seems the only one I experience is myself, but like every other thing, as but a sample of a population, I can clearly see other Me's all around. My scars unique to myself, a special awareness in time - my unique location and memory are that which individuate me from the others. I am a Now with a memory. Memory is required for a promise, and every Now with a memory makes promises and so becomes political. Plants and animals share a kind of memory, but contrary to Aristotle's distinction between these and rocks, individuals in a population, even sand, carry each their own scars and memories. They even make a kind of promise, I can count on them as this beach, not to be something else, to act accordingly, to be each a unique grain of sand in their proper place, a population disclosing themselves collectively; with every blink I take, I trust and then realize the promise made.

The Living Word

My living system of memory is certainly more complex than the scars on the surface of the sand grain, a development in the capacity for the memory of a thing with a power-law trajectory, and I wonder what is to come. Aristotle differentiated between these kinds of being, categorizing rocks from plants from animals from people (animal politic). I agree that the capacity of humans is built upon a memory system more complex than that of rocks, but even plants have layers of memory that elevate them into the living bartering political realm of the animals where virtues of character rather than reason hide in the shadows. "For while the

plantlike <part> shares / in reason not at all, the <part> that has appetites and in general desires shares in reason in a way, insofar as it both listens to reason and obeys it" (Aristotle 2019, 1102b30). The difference between beings that Aristotle is exploring in this section as he prepares for the discussion of virtue is the difference between the complexity of their respective memories. He is forced to categorize the virtues with those on the fringes of reason, those of character, those driven on networks of hormones, and neurotransmitters, feelings, a hierarchy of biochemistry he can only guess at, "The life next in order is some sort of life of sense perception; but this too is apparently shared with horse, ox, and every animal...is some sort of life of action...spoken of in two ways <as capacity and as activity>"(Aristotle, 1098a1-5). He notices the differences, the similarities, he builds his teleology, but we have been without the tools to see what causes these differences until modern times. He also seems bent on placing his reason, himself, his function, somehow above it all. 'Life' contains a system of memory, and Aristotle notices this without the capacity to zoom in on it, relying on the notion of, "some sort of." We can now zoom in, which brings a clarity to Aristotle's assumptions about desire and reason and how these interact with memory. The conclusion that plants are not 'thinking' but are 'more than' rocks is noticing genetics, and biochemistry, without any possible ability to see what 'it' is. That we now know that both plants and humans are built with the same functional language system is interesting, because in many ways the ancients already understood or recognized the presence of this unseen system of memory. Where they fall short is in imagining just how deep that rabbit hole goes. We are now aware that the memory system to produce proteins (nanomachines of action) are responsible for the similarities between plants and animals, as well as the difference between plants/animals and rocks. There is an

extra level of memory when considering something that is 'alive.' But there seems to be a general shortcoming of understanding, like Aristotle's, about these extra memory layers. With a limit in understanding about the activity of this living capacity, and in an attempt to transcend it with reason, Aristotle misses that the 'character' difference between cacti and lily pads is not much different than that between the characters of man, and that character is but a dependant ontology of the biochemistry of the being who wears it (see The Grain's Memory).

As humanity we can for the first time read the living word (DNA) and copy and paste its functionality (CRISPR). DNA the living word? What the hell else should it be called? Instructions unto the prophesied thousand year reign of peace and deathlessness? If there is a time and a place for all things, here and now seems an appropriate time to Start reading the Living Word. We write spectacular texts filled with story meanings, but we are created as storytellers by a text much more spectacular than our own. This knowledge changes everything. We live in interesting times indeed. Historically the phrase 'May you live in interesting times,' while at first appearing pleasant, is actually a curse. The logic behind the curse is that one should prefer to exist during uninteresting/uneventful eras, passing easily into history without much strife rather than living through the pain and struggle of something 'interesting.' But isn't 'interesting' beautiful? The current discoveries in biomedicine outweigh any power previously hoped for from political scripts found among archeological ruins, or being sure to choose the right goblet (Indiana Jones must be sure to choose wisely, pepsi or coke? Or else) The interesting nature of modern times isn't a curse because the potential is a kind of salvation from the humdrum of a desired uninteresting time of history. Without the potential to overcome death's facticity, an uninteresting time might be preferred, but with the possibilities at hand, death's presence

becomes less silent. Now we might have a chance to converse, to make a deal, a new covenant, maybe just a stall, but please any pursuit but the continued allure of the uninteresting with only an empty promise about something possibly interesting afterward as promised by some mystic ancients. No, it seems more likely that for our own sake God might want to wait until now to reveal any of the realities of the Living Word, a time when our numbers and the maturity of writing offer the strength to potentially wield these truths.

We must learn to spell if we are to read this Living Word - elementary. The nucleic acids CGTA are the 'letters' of this memory system, which each require nitrogen (see Poop Wars) for their structure. These letters construct 'Words' that are all 3 letters long which each code for an amino acid. Each amino acid has several 'spellings' so errors in copying the 'word' don't always result in a change to the coded amino acid. This exchangeable word system creates redundancy that reduces the potential negative effects of copy errors. The amino acids linked together form protein strands, which fold in unique ways to create a three dimensional functional protein. These proteins are the smallest unit of function able to manipulate molecules. Conceptually they act like 'nanobots.' In fact, proteins are the only way to build something like a 'nanobot' if 'nano' means nanometer scale molecular manipulation device – it is a world without 'lines' so there isn't anything like 'robotics' at this scale, other than proteins. Proteins are the vehicle to function that the nucleic acids (CGTA's) spell out. The nucleic acid level of memory is genetics. This is the living word at its molecular core, but there is another, more difficult to 'see' layer on top of this memory. The CGTA's are not on 'pages' but are sequentially linked in spaghetti-like strands that are unimaginably long. In fact these spaghetti strands are the largest molecules known, by a lot (The human genome contains 3 billion base pairs, Paris japonica has 149 billion, the most found in a single organism). These long strands tie themselves into countless 'knots' which then create another layer of folding - see histones. The parts of the strand that are buried in 'knots' and 'folds' are 'turned off' and those on the exposed parts of the 'knots' are expressed or 'turned on.' The amount of 'turned on/off' isn't always absolute and there is fluctuation in the effects of increased/decreased protein expression – sometimes it's more of a dimmer switch than pure on/off.

This 'tying and folding up in knots' is called the epigenome and it accounts for differentiation of cells in eukaryotes. Although this level of memory is stored at a larger scale than the strand of DNA, we can't see the folding/knotting as well as we can 'read along' the strips of nucleic acids that we amplify using PCR (polynucleotide chain reaction). We can 'see' at the genetic scale potentially better than we see at the larger protein or epigenetic scale. The epigenome is a mysterious range that although seemingly hardest to zoom in on, has dramatic effects. Even Aristotle can blindly make guesses about what is happening here. For example, the genetic code is identical in skin cells and heart cells, but the epigenomic 'knotting up' regulates the information in total, which results in the necessary cell differentiation. It is a gradual loss of this epigenetic memory that happens in aging; cells literally forget what they are as they lose track of the complicated epigenomic folding that is responsible for cell differentiation. The result of this forgetting, coupled with a similar forgetfulness in cytoplasmic repair systems, is senescence, or worse cancer. Let's skip the transport system with DNA mediated address tagging and various cytoplasmic protein regulation mechanisms for the cellular scope. Apoptosis is the cellular programmed response to any fatal loss of functional memory, so that cancer and senescence are both the consequence of functional memory loss happening in

tandem with forgetting how to die. When the cell forgets what it is and then forgets how to die and be replaced with newer cells - that is senescence. All the little blemishes and bumps on the chests and legs of older people are little zones of genetic/epigenetic memory loss.

Epigenomic information can be passed directly to offspring which adds another layer of memory apart from genetics alone. Within the cytoplasm, mitochondria maintain a portion of their own genetic memory, which is maternally inherited and does not change from generation to generation, or only rarely as single nucleotide polymorphisms (SNP's). SNP's can be used to trace maternal heritage back to a common ancestor/place. In humans the mitochondrial DNA remains relatively unchanged from the source of the 'first human female' - but also continuing down a lineage of pre pre-human female ancestors. Every mitochondria of every human is from a common ancestor, which each contain exact copies of the machinery necessary to operate a cell. We are all constructed of the same cell, different now only in mistakes that happen (SNPs) along the way that can then be tracked historically and geographically - This 'memory' is a function for all living things, so that even bacteria and less complex creatures utilize the same method of cellular expansion and replication. Bacterial 'cytoplasm' is called protoplasm which has different machinery than more complex eukaryotes, but cell division still splits the protoplasm which will continue its function and the code necessary to make more, remains relatively unchanged from the previous generation. Mitochondria is a very long lived entity, the machinery in every cell of every current Eukaryotic being is already millions of years old even at infancy. The fluctuation between breeding age and a new offspring, the refreshing of cellular memory, happens in the 'same cell.' That means it goes forward and backward utilizing the same cellular functions. When one makes a gamete they prove the existence of the capacity for anti-aging functionality already held within the cell; hermeneutics aside, the living word already 'knows' how to make a refreshed version of itself, even if at times it needs a reminder (see the immortal jellyfish *Turritopsis dohrnii*).

The Grain's Memory (Bloom)

Animals have a central nervous system which gives them yet another memory layer on top of genetic and epigenetic layers. We share with animals this kind of memory system, and add our own in the way of language, culture, tradition, and science. We don't even consider the memory system in plants as memory at all, "For while the plantlike <part> shares / in reason not at all." (Aristotle 2019, 1102b30) But reason is a different kind of memory system that fails to appreciate the depth of what a field of grain is accomplishing. The temporality of the consciousness of plants is hard to sense with a memory of reason because plants, especially annual plants, operate on a different time scale. The population of grain isn't what it seems to us at first glance - a population of individuals each like us because we are thinking individuals. Plants and animals all contain identical genetics in their cells differentiated by the epigenome. Animals experience now differently than plants, however, because we mostly rely on our central nervous system for that guidance. In nature an annual grain plant is naturally a part of a population that carries its genetic diversity in many short-lived individuals. The 'memory' of protein expression held in both the genetic and the unique epigenetic responses over time to stress act as stored memory. Annual plants use this combination of individuals and generations to accomplish a multilevel memory system. They remember more as a population over generational time than as individuals. They are a community with relational knowledge of each

other, they know the distance of neighboring plants and can identify nearby genetic relatives. Leaves track the sun daily, using the growth hormone auxin which causes cell stretching. UV light destroys the hormone. Anywhere there are darker conditions those cells stretch relative to ones in the light which causes stretching/shrinking towards the light, but this motion is too slow to be of notice, like watching grass grow. In fact growth is how they move, but in the same way the growth of neurons is how we know how to move, how to 'know' at all. Within the population is held a library with all the adaptations obtained over earthly life's history. They collectively and generationally remember how to respond to conditions that might be different from any present one. They use genetic precursors and epigenetic restructuring to engage with these memories. They only engage drought resistant genes when in drought, otherwise this response is turned off – management of the switches is a multileveled genetic and epigenetic affair. The grain remembers in mass, rather than relying on individual plants to remember on their own in the way that animals do. As humans, we aren't that different especially once specialization emerged after the invention invitation of agriculture. This kind of plant memory should not be ignored because we are barterers in the natural world interacting in a transaction between ourselves and another being with memory. One can deny them reason, but the virtues of character apply to the memory of plants, and so they interact with us politically. A natural kind of economics is happening between us and the species we depend on. And what do we barter in this transaction? We barter our time for their energy. We offer absolute care to them for the reward that evolutionarily seeking would fulfill, seeking grains. We bring this being into our den (our society) to live with us for the certainty that such management brings, we nurture it like our own, it is a marriage, a contract about how we will raise the kids - we make a promise. But the grain cannot care/love us back. Its memory is narcissistic carelessness. Feeling no pain or pleasure, it lacks the capacity for empathy at all; it has no need for disregard, having no regard in the first place. In response to the arrangement, we are driven towards our own narcissism by building hierarchies that trap humanity in a triangulation that rewards the will to power/energy/sugar. We treat each other like plants or cattle, nay we treat plants and cattle better. But it isn't 'the state' overseeing this arrangement so much as the grains manipulating our seeker reward system in a less than symbiotic way. In this relationship we are all the care, while the grain is all the reward/power. This is the source of the master slave relationship; our societal organizational thinking is but a 'pleasure of submission,' the pleasure of certainty, of excess, which is quite unknown to the memory of the grain. Even would-be leaders within these hierarchies find themselves tormented in the end, remember Ivan Illyich, having likely missed out on what it is to be human, all for the seeking service of the state the Grain.

Built upon the same living word, plants offer us a dopaminergic reward through 'easy calories.' The price we pay to them in return for these calories they remember, but not in the way we remember. Plants remember what physical conditions we prefer from them - what character. We think we select for this, but they offer that option just as readily as we exploit it. Most creatures are not easily domesticated by selective breeding alone, and the few that are offer that capacity as much as we might exploit it. We manipulate their memory for our own purpose as they manipulate ours. Plants do not know what pain is, or that we beings of pain and pleasure struggle at all. When one nation falls to another, the fields of grain become the victor's, the grain but advancing its servant force and further guaranteeing its own success - the grain doesn't care who wins. Regardless is its declaration. It doesn't 'know' there is fighting at

all. It does not care who serves what god or nation or ideology. When one empire falls to another the grain remembers only that its current physiology is successful in this environment. In exchange for forgetting dissemination, and for the strange growth habits of domestication, swollen sex organs, the environment of shrews now tends to it. No longer does it need to try and protect its children from the takers, no instead it offers them as sacrifice, this is where we learned it. The genetic change, that fattening up, is a change in memory, it is recorded, it is the contract, it is a promise. The grain too is political. Once she was Ceres, offering us her precious Consus. What does she demand in return? The modern personification of death carries Cere's scythe, and rides upon the horse of Consus. Will-to-power is a competition for the golden seat at a creature's table who is incapable of empathy. The race for this prized position is imposed upon us by the narcissistic triangulation of a creature as careless of our needs and wants as death itself. The grain's memory is lived over centuries, its modern avatar is Death, harvester of men, that emotionless specter unable to be called. Apocalyptic dreams reveal our true master through the facticity of famine, personified as the fourth horseman, final rider at the Circus Maximus. Every would-be valuable thing is instantly made meaningless if you take away that which gives value - value is the daughter of Ceres - value's mother is the Grain. We continue to receive economic valuation upon ourselves via our usefulness to the grain, while its hybridized maximization is fully realized with all the powers of the industrialized world. But the monocropping of the world's grains means they too are plump and fat, and forget famine, forget the child Limos; they, like us, forget the very uncertainty this contract, this promise, is all about.

The Desire of Shrews

As the shrew fills its cheek pouch with seeds it is rewarded with dopamine - the seeker's reward. The shrew will return with a bounty driven home for the balance of reward upon homecoming – the prodigal shrew returns – serotonin in the heartfelt warmth and sharing of the den. In a time of scarcity, the seeking drive will push a searching shrew farther from the collective to seek its reward. A dopaminergic drive of seeking increases egocentrism as a current memory of the condition of further isolation. The stress involved while seeking in scarcity, also releases the stress hormone cortisol to help with the exhaustion. Where the inverse nurturing hormone, oxytocin will increase desire towards care – the care network. Both the dopaminergic drive and the buildup of cortisol further promote egocentric networks. Serotonin and oxytocin promote less egocentric networks. Egocentrism is helpful, while pushing the capacity of searching, to not get lost. But, if the seeker is pushed too far because of hostile facticity, does the egocentrism not reach a point of no return? Will the shrew not potentially settle elsewhere rather than return with the fruits of his labor - start a new family, a Mutiny on the Bounty, a shrew revolution? Or like a pirate would our selfish shrew have a secret stash for only himself? If that course is beneficial then so be it, and when the shrew's exploits are excessive, or facticity overcomes it, these actions are selected against. Different adaptations of shrews can be seen in different environments, some more or less societal. Our pet Russian dwarf hamster, 'Hammy' is not social and prefers isolation. His nesting and storage habits are his primary nurture drive. Hammy runs about 5 miles a day, disclosed daily by his squeaking wheel during the twilight hours, I would have named him Sisyphus. Between runs he organizes his hoard with a seeming joy, unconscious the realities of his imprisonment. My favorite example of a social shrew is the

naked mole-rat, a blind Eusocial mammal which lives ten times longer than any other rodent its size. Although I would use them as a mascot for serotonergic 'togetherness' the queen role is enforced through brutal means, and to ascend that hierarchy requires matricide. Similarly, honeybee workers can all lay eggs, but the penalty for doing so is death by group execution. Even the most social animals have use for established dopaminergic reward networks as the hive or colony become its own kind of entity or being. Adaptations specific to the naked mole-rats' include an elongated hyaluronan that contributes to their very elastic skin, and also theoretically contributes to their cancer free condition. They are also able to survive in low oxygen and toxic CO2 environments. They eat underground tubers but never completely consume them, allowing the tubers to grow back, ultimately farming them from underground. Subterranean citizens of Derinkuyu might agree that on any kind of extended timeline, the future of humanity will likely require many of the survival strategies of the naked mole-rat. Though the mole-rat has gone the way of the ancient high priestess, will we too fall under her spell in such subterranean sanctity? As the early Christian gnostics began, how easy instead could we serve under female authority and power where, as Tolkein's Galadriel once said of absolute power of the ring potentially in her hands, "All shall love me and despair."

We, all us mammals, are descendants of the shrew. The degree of socialization in shrews is a balance in reward networks which help navigate the subjective history of any environment. Of course, the shrew is unable to calculate the possibility of success or failure when it ventures out. It also has no knowledge of the risks of others – fellow seekers, competing revolutionaries. It is driven by desire, and has been tested through eras of natural selection, to balance two primary reward networks, one which seeks and one which returns. The balance between

seeking and nurture is the natural system of memory for dealing with a dynamic environment. Humans can calculate risks more directly but are still stuck in a balancing act between the safe security of life in the den, and the dangerous freedom and allure of seeking. A modern human's daily concerns are less sensitive to environmental forces than that of the shrew, but as we deal with each other we are similarly balancing our desires. The balance of these desires we refer to as virtue. The shrew's balance is less reasoned but is in effect the same as that of our virtue. The reward of seeking is dopaminergic, like the effect of cocaine and opioids which directly interact with this reward system in highly addictive ways. (Tomkins 2001; Jacques 2019) This reward system is attached to the reward for sugar (calories or seeds), and as Michael Pollan stresses, is the commercial appeal to using it in most all manufactured foods. Social animals have desire towards each other because the degree of individuation vs collectivism is a memory of what handedness works best in a range of dynamic past facticity. Because survival requires a balance of these desires the shrew too is political as Aristotle, who, as many, see man as higher because of reason or virtue etc. We plan, we promise, we crave certainty, but in the end our motives in all these decisions are driven upon the reward network of shrews, of ants, of anything with a central nervous system. Plants, creatures without pain or pleasure, without a thinking organelle still have a memory system of their own that remembers how to utilize the reward systems of nerve-bearers. Plants are smarter than they appear, having little issue using us as means to their own end. There is no imperative for them, and what is meaningful for/to them is already subjectively categorized, and disclosed by their own story, one where we are the servants.

For modern man, the politics of everyday life is realized mostly through economic means. Most of the 'choice' we have in society is one communicated through the disclosure of

our consumerism. How one spends their money daily is truly more political than a vote every 2 to 4 years. Money is value, and the amount is one's to possess, seeds in the cheeks, stockpiled proof of one's own value. The possession of the value of one's value is the possession of one's self. Seeds in the cheeks become the determinate representation of value of the carrier object, a self, an ego. The dopaminergic reward given by this value upon the self is a drive that further elevates egocentric thinking over that of serotonergic thinking. As the shrew stockpiles for itself value as cash or piety or virtue or any other consideration of self-worth it grows ever more egocentric (Lou et al., 2020; Lu et al. 2012). Add a long history of brutality, and the overall bell curve of the entire population moves towards the nurture deficits of persons suffering from long term trauma. (see ACE score) The resentment of priests, of battered people, is a response to the environment, learned over eons of adaptation, that in times of stress, ego is central to survival. I point also to piety while discussing economics because, "In God We Trust," added to the money during the cold war as an anti-Russian/anti-communist sentiment, has matured into a sentiment of 'anti-other.' Monetary inequality itself is now divine right, it was once the other way around – the value of possession is itself deified. Trying always to outwit the-other, we become the nation/world of seekers without shame, addicted to the value of dopaminergic desire as if that is what is natural, what is necessary, the only way it could work. This value system hopes to keep greed in check through competition and the reciprocating reward of philanthropy, but the highest achievers in a seeker's system are driven primarily by the handedness of their reward networks. They are still descendants of a brutal past. They will not be compelled to deliver on the alternative serotonergic reward in the excess that this seeking system supplies. They will do philanthropy to be philanthropy, to see their name on the walls,

more ego serving dopamine, they have no skill using the other hand. But there isn't a dangling limb to show the masters, these would be guardians, the truth of their inability – they are always surprised at their eromenos' dissension asking, 'can't they see how important and difficult all this responsibility is, the demands and requirements of the higher order? Is it not what they wanted, what they needed, to be held this way?' But their philanthropy is a lie. If we don't confirm for them their superiority in quiet acceptance of their gracious giving, we are condemned to further oppression, we must disclose a pleased submission. Yes, philanthropy occurs, thank you Joan Krok, isn't it unlikely that Ray would have ever conjured that same desire to give it back? Giving in this way is likely only as desire towards the dopaminergic notion of one's own worthiness. For Joan perhaps it is guilt having the dearest knowledge of what kind of man it takes to create McDonalds in the first place. I'm sure every national brand has a similar seeker's history and brutality.

Happiness as a fulfillment of desire can only be 'calculated' as one of two paths of desire - seeking or nurturing. Society can be seen as an attempt to balance seeking vs nurturing: dopaminergic vs serotonergic desire. Utilitarianism forgets to consider two separate paths to desire, which grants fulfillment, which is happiness. Our story may want more than what we see in animals, but ultimately desire comes from subjective meaning in the story/scene and applies equally well for shrews or men.

Profiles

The categorization of reality is our reality. We categorize, assimilate, and then draw meanings through various associations relative to the assimilated categories. We profile people

and things. Before we are commanded any ethical imperatives in biblical texts, before the ten commandments, before the fruits of Eden, there is a mission - go forth and name all the animals. We give things names, categories, and from those come any meaning, any value, and therefore any ethics. Desire about music is similar but easier perhaps to explore than those of ethics. Susan Rogers uses profiles to better understand what music is and why we prefer some songs to others. Roger's profiling is used to better understand the categories of preference in music. Musical preference is based on desire that isn't chosen outright. Influences and exposures throughout life fortify reward networks that become these preferences over time. What one prefers in music says a lot about the person because it points out subjective aspects of their desire. What one prefers in music is driven by reward networks so that musical preference can act as a phenotypic expression of various reward pathways. Rogers outlines these pathways while defining her seven categories of listener profile: authenticity, realism, novelty, melody, lyrics, rhythm, and timbre. Both dopamine and serotonin are involved in the process, which has various self defining rewards. The disclosure of musical interest is an ego defining categorization which directly links to the idea of the self and its relation to others. Music is a natural expression of categorical meanings of both the self and others. What one likes in music potentially exposes their wants, likes, desires, and history, both culturally and inter/intrapersonally.

Rogers breaks down each category of profile in a similar way to Aristotle's Doctrine of the Mean. But one is not faulted for their view of music in the same way as they are their view of virtue. Breaking down where desire in music comes from is less ethically problematic, but ethical considerations are similar to how lyrics and melody are computed on separate networks,

where one tends to lean towards one or the other, a handedness, where a balance of lyrical and melodic processing might be seen as musically virtuous. "What the music you like says about you" is a philosophical claim that the condition of desire goes both ways. A man may listen to the music he likes, but he cannot like listening to what he doesn't, and so desire is revealed which discloses something about him - not exactly Schopenhauer, but darn close. Susan Roger's personal story is a wonderful adventure and I admire her return to education to pursue the question: what is this phenomenon of music? Rogers' degree is in psychology, but her subject matter feels quite philosophical, even with all the empirical evidence. The book she writes in the end is The Doctrine of the Mean Music with statistically significant physiological and psychological proof on how desire is revealed as parallel reward networks that typically lean towards an excess or deficit. She does more than explain music, but also explains the 'like,' and so desire. The number of processing streams that are involved in music listening reveals how our minds process desire at all. The categories that make up a person's listening profile seem each to represent sliding scales of two extremes that each represent a bell shaped distribution of listeners who lean towards one or the other with a kind of handedness, one that develops early and remains established throughout life. Because of the autonomous nature of such desire, what music a person is drawn towards, perhaps more importantly how they are drawn, reveals them, similarly to one's desire towards or away from virtuousness. "For the excellent person, insofar as he is excellent, enjoys actions in accord with virtue, and objects to actions/ caused by vice, just as the musician enjoys fine melodies and is pained by bad ones." (Aristotle, 2019, 1170a10) However categorized, the desire of these reward networks, whether about

music or virtue, really do say something about us - we are an ontologically dependent flesh worn by the biochemistry of these desires.

Ants as Homeless Slackers (Working Class Hero)

We do not exist in a vacuum and are dependent upon each other in every way. Ants live similarly, utterly dependent on the colony for survival. But what issue is there in the squashing of one single ant to the rest? For an ant, proximity to the nest is an assignment determined by age. The youngest tend to eggs and larva, while those that are older move down and out this hierarchy. Polymorphism among ants may be instrumental to role assignment, but generally, age will determine the distance of that assignment from the queen. Those on the surface are there because they are oldest, which makes them expendable, yet also the most experienced. While raising ants myself, I observe this behavior. Cells in the skin work very similarly. It is a matter of growth for them and the natural function of aging among them. Ant queens are quite long lived, some living up to 30 years! Worker ants mostly only live for a few weeks. Queens exist as the alpha cell and sluff off babies in the same way we sluff off skin cells. We cherish the newest by keeping them closest and safest and push out the older cells eventually unto death, "the knee is closer than the shin." I have described ants as using a successful utility, but that is describing function and resource efficiency, not happiness of the ants. Much of our own system of ethics, and therefore economics, stem from the idea:

"6 Go to the ant, thou sluggard; consider her ways, and be wise:

7 Which having no guide, overseer, or ruler,

- 8 Provideth her meat in the summer, and gathereth her food in the harvest.
- 9 How long wilt thou sleep, O sluggard? when wilt thou arise out of thy sleep?
- 10 Yet a little sleep, a little slumber, a little folding of the hands to sleep:
- 11 So shall thy poverty come as one that travelleth, and thy want as an armed man."

Should the oldest and wisest be eager (happy) to risk themselves for the greater good and survival of the colony? For ant systems I think so, but equating this function of ant units to humans is to misunderstand what the ant colony is. An ant without its colony will quickly die. Humans aren't much different, but we do have the capacity to go alone for a limited time. Stranded on an island, one can potentially survive, but likely most activity will go unto that end, and the smallest mistake can potentially be fatal. Ant queens also can go it alone and all do during their nuptial flights; but like us, this duration is limited, and the survival rate is abysmally low. During her nuptial flight she must find a suitable habitat, water as the highest concern, and not be eaten along the way. Without that habitat, exposure will lead to her death. The queen is an alpha cell only, needs a habitat, and will quickly need help – there are too many roles for her to fulfill alone. Once that help is in place she will transition to her true role, no longer an explorer or surveyor or caregiver, she will pass those roles to her young. Ants utilize trophallaxis, sharing a common stomach, (well each has two stomachs, one for digestion and one for storage - which they share) and so the colony itself should be considered the 'organism.' The nest is in a way the body of the colony. A non-queen ant by itself is barely to be considered a whole organism, and a queen by herself can only be considered one temporarily; if she fails to find her

body (habitat) she will not continue being an organism. What we see ants doing on the surface is not the norm of their activity, and much of their time, potentially most, is spent inside the nest in relative safety while restfully caring for (feeding/cleaning) the young. A trail of ants is more like a tentacle, and the various scent trails are memories of what's out there. In tree cutter ants they farm fungus underground feeding the fungus leaves we can see harvested on the surface. The surface activity, although more visible, is not the primary activity. To maintain a fungal culture underground in a tropical environment requires vigilant sanitation practices. The young are reserved for fungal garden maintenance because of their relative purity/cleanliness. The ants one sees outside the nest are middle aged. Older ants eventually become waste transporters, in the end being ultimately promoted to external waste piles that they rotate to speed decomposition until finally falling dead themselves, becoming the compost they die managing.

Similarly, being an individual human being is not a permanently held position. We find our niche-body in the places we 'habituate' and we are therefore not but flesh alone. We can temporarily exist without a habitat (body), but flesh and bones are quite limited, and the trials of nature are sure to limit the life of any attempting to be but a unit of their own flesh and blood. A human shouldn't be likened to a single ant, we are each more like the colony itself – perhaps not the best metaphor for kings demanding human labor as an ought, we are each of us a royal searching only for a proper place to habituate.

The body is a convenient unit boundary but is too concise. Considering a person as only this is to liken the ant queen in her solitude as the sole understanding of ants at all, which

disallows consideration towards her as obviously much more than that. There is always potential in her (the queen) to become more and serve her ultimate function. Without a body/habitat however, she loses all potential to realize what she is. What state is modern humanity in that we miss this potential, and demand the wrong energies of our citizens, as if each is but a single ant, required to earn the right to potential being itself?

I will go to great lengths to realize shelter for myself, and in such a form does man realize himself in responsibility to that den, but still dreams primordially of the freedom of seeking something/somewhere else. Modern humanity is engrossed in a hierarchy of dens, where the seeking drive and capacity is one that happens within the den itself. The ultimate den is the civilization in which each 'household' resides. The Western idea of household is, like most of our cultural ideology, a Roman one. The Roman household system was supported entirely on slavery. The nation is formed as a collective of these households, but if the work slavery once provided is removed, a new source of support is required. The road to break the habit of slavery as a means to power has been a long one and the hereditary effects of the trauma of this level of oppression are a part of human memory. Even as we part from the formal use of slavery, we have carried the posture towards one another forward into modern times. Seeking tasks meant to be external are now executed internally within the hive, the density of the population requires it. In this density, civilization itself becomes the place for seeking. Every quest one makes into the world is ultimately still happening within the den, regardless of what front door one uses to get there.

Forcing the shrew to seek within its own den results in war - John Calhoun's Utopia. This (our economic) arrangement is war by politics by economics by a valuation which is by ethics. The justification (deciding what is good vs bad) of economic inequality is war by other means. In this arrangement man becomes a value per time object at war with every other value per time object. The value has been placed on the valuer which sets the course to try and escape this fate of valuation. The middle manager kings are always looking for a way to escape the free trading of their time by seeking value-per-deal arrangements. With that escape one becomes less skillful about the task any deal making might outline, and only skillful at making the arrangement – using people. The escape, the arrangement, always requires cheating through a kind of theft. The theft is called margin, which is the goal of entrepreneurship – to present as fairness charging more while paying less for the same thing. My critique of margin is how it is used in isolated systems where new money is created, rather than the capacity of individuals to trade in goods and services for profit. Like the layered memory system of living things, the modern breadth of wealth operates in a layered hierarchy that becomes unreachable to the masses for either opportunity or rebellion. Cryptocurrency attempts to balance the creation of new money, through activity within the system itself - it tries to be self regulated. The interest rate dial for the control of new money creation is an outdated and regularly abused system that needs something more empirical as its foundation than stock price performance and gross national product - I suggest energy, which doesn't create more of itself sitting in an investment account. If everybody takes their cut of every transaction, without a standard to balance it, it seems the farmer/producer at the beginning and the working consumer at the end lose their

value. It's working well enough, I guess, in the excess, I do worry about the water, neo-malthusian remark here.

I see the crazy old woman at the corner who talks to people that aren't there as fully, 'unfit to work' and sadly but 'fairly' cast to the gutter where she will sleep in the land where desire is the only metric for new money creation. It is so obvious we can do better! I saw a queen ant on the path home in her nuptial search to find a home of her own, and thought how strange it would be to consider her a homeless slacker, just because she had yet to find her place of habituation, and seemed somewhat lost on this well manicured asphalt path that exposes her to so many dangers both natural and manmade. I couldn't commit to another formicarium so I wished her well and carried on, the same well wishing I gave the crazed woman. Are there meetings for Anonymous Slackers? "Hello, my name is Jeff Savage and I am a slacker." There, a declaration of self, I accept the negative connotations without delusion or guilt, you may consider me slacker if you will. But, perhaps there is something wrong with the consideration itself, not the state of the homeless, or the slackers, rather it is this State of the Homeless and the ever growing unmotivating slackness found there that prompts reconsideration.

Humanity's End? (Elenor Rigby)

I have a soft critique of Agar and his ideas about humanity's end, because he is not alone in his hopeless resentment towards death's mirror. (see annotated reference Agar, 2010).

Towards that of the priesthood, the most resentful of all, obliged absolutely to their cruelest disregard, requires a less soft critique. Advancement is not an end; it is a beginning, it is now.

Every person who condemns humanity to an end upon the end of their own era secretly wishes it: *pereat mundus, fiat philosophia, fiat philosophus, fiam!* Those proclaiming such an end can't see the world go on without them, they must rise above however necessary. Every age is chalked full of the apocalyptic cries of egocentric sociopaths incapable of imagining the world moving on after their own passing. Every prophetic notion about the end of humanity is brought about by the fear that it won't. This mentality is to wish for genocide. That all the naysayers be punished forever for their doubt, that we all go together, Heaven's Gate - Transcendent Mutually Assured Destruction? TMAD (see John Von Newman's - MAD).

Are we not to wish for others that which we wish for ourselves? Should we hope they die with us, is this what is meant? Or should we hope that humanity finds a way out of this death bound facticity, making those from which we emerge the martyrs rather than obliging a current generation to become such to the already deceased? Abraham's covenant is fulfilled by his own passing, but always avoiding the notion of himself as the sacrifice, he maintains a consumptive desire to the very end, the same as Ivan Illiych until that last undocumented moment - the light. What is fanatically taken from the innocents during 911 is the choice to come to knowledge. These fanatics have perhaps done unto others as they would have done to themselves, but they have not wished for the victims the same opportunity of choice they wish for themselves. A unified wish for death in glory is irrelevant, because death is inevitable anyway, which is not to belittle the life lost, but to speak directly to the fallacy of glory in fanatic suicide bombing civilian targets. What is stolen under the guise of heroic martyrdom is the opportunity of the victims, to themselves come to knowledge and choose glory. The innocent child and/or helpless deer in the brambles are always but means unto some projection - a

perception of power over death. The families and servants of the pharaoh get to join him/her in the tomb, until a new covenant, the shabti, everywhere an attempt to erase the barbarism and absurdity of our ancestors' principles of magic. Death is the covenant as has always been, and the further back one goes the more wild the correlations, the more desperate the characters. It is a sick sociopathy that would seek a fancy of power from culling of outright helplessness, but it happens everywhere. Child abusers don't become so in old age, they develop that sickness early in life when first developing their own reward networks; their desires become handed toward dopaminergic egocentrism in the forge of hostile facticity filled with covert projections. Isaac is likely not even the first, as there are always also the enablers, reframing truth as their own self-serving story, the same as now. The trapped deer is a correlation, assimilated and associated as a private disclosure of god, proof of worthiness, extravehicular story/scene expansion, the consumption of baby's blood and flesh even if only then through allegory - a consumptive transcendence through magic power.

The devil comes as an angel of light and yet no one ever questions their own. "since it is universally believed that man is merely what his consciousness knows of itself, he regards himself as harmless and so adds stupidity to iniquity. He does not deny that terrible things have happened and still go on happening, but it is always 'the others' who do them... Even if, juristically speaking, we were not accessories to the crime, we are always, thanks to our human nature, potential criminals." (Jung, 1957, pp. 107-108) (see Spirit of the Times) This pretend play of ritual from the ancient child abusing sacrifice cults that we emerge from is a memory that only promotes more abuse. These reenactments engage with the a priori voice of the story and abuse its power over desire and meaning. (see Beyond Description) They are meant to engage

with awe, only to take possession of it. This story invasion replaces the subjectivity of the victim with its own - a narcissistic projection. Everywhere grain arises so too this story/scene injection (see The Grain's Memory). There are so many Elenor Rigbys in the world that continue in these kinds of traditions with what appears as kindness and caring. Those that are seemingly most kind must fulfill desire handed towards serotonergic pathways (see The Desire of Shrews). This handedness seems easily overtaken by story injection because of a tendency away from egocentrism. Idealized transcendence might be easier for a less egocentric mind, but conversely that transcendence is also its susceptibility. These polymorphs are the enablers. Repeat attempts to free humanity from the requirement of sacrifice, each the/a final claim unto that covenant is still but an unnecessary murder, regardless the willingness of the lambs. A son's sacrifice is mythologically necessary so as to demand the same from the families of the empire; and most of the sons of ours are missing their foreskin as practice unto that sacrificial end - the willingness of parents to hand over their children, the sign of utter allegiance. What kind of memory is this? "Lick it before you stick it" is an idiom created from necessity due to the lost functionality caused by this mutilating sacrificial act, also maybe a cultural lack of foreplay, the mutilation is viewed with strange horror by most of the world. Historically, willingness towards a self-abusive ought has conjured the greatest armies - from Schopenhauer's courage, a narcissistic projection of otherwise incapable men. Killing in the name of; to cling to a name other than one's own. The Romans appropriated the customs of conquered nations for political unification. Continuing to rely on a bronze age and/or earlier idea about power gained through sacrificial means is left over Nietzschean resentment, hiding as nostalgia. Let us eat crackers and drink wine to celebrate the redeemer Serapis, or pretend to sacrifice virgins to Ah Puch till it

rains. At this point I am only slinging slop, my mind folds under the pressure of considering the global scale. It only takes the reading of a few history books to see the common error, and see how dark the power of that error can become. Correlation is not causation, but ancient errors echo absurdity into the oughts of the present. Science is indeed a kind of salvation from these barbaric correlations, but how prone we are to cling to a certainty. Science's salvation brings forth new sayers, and the certainty of self from the priesthood is then carried by the next cardinals of meritocracy. Then through the power of this science comes the economist creators who rule with oughts and rights just the same as always. Is what I say too but smearing of shit on the walls of someone else's sacred temple? (see 'insurrection' Jan 2023, see sacking of the Temple of Serapis AD 391).

The learning curve to distinguish correlation from causation has been a painful one. The dark reality only appears when it's not one's own source of light, power, and/or certainty. In fact, if I'm ever offered to pretend to eat and drink a sacrificed child again I intend to respond more appropriately than I did as a naive but eager to please child. I wonder what legal trouble I might find myself in, throwing a similar temper tantrum to Josh's over this exploitation in ritual abuse. A temper tantrum meant to challenge an undue certainty, an act that will result in righteous fury from whatever priesthood. I wonder if this writing will be presented as evidence in court, an attempt to prove premeditation. Is that why we seem to be missing the writings of Jesus, Socrates, Diogenes, etc. - culpability? The intent of most religious rituals is an attempt to triumph over death. But now we can actually understand the biological causes of senescence, and so are able to approach this problem more sophisticatedly than the solution of murdering innocents to gain some fanciful power in this life or after. Behold the next priesthood, and

down the rabbit hole goes our friend Abre DeGray. The breadth of eternity calls forth madness, science is also esoteric, these temples of research have their priesthood just the same, and with the allure of life extension, behold...

Subjectively, however, I might suggest that for a temporal agent, a sacrifice in one's own time at the masterbatory task of self improvement is what yields any potential merit. Those who do not possess such strength will rise only by buying it, and born are the modern God Kings. But God Senators will overthrow them, relatively invisible corporations already doing so. We have just begun, as we are doing it all again, but to these desperate apocalyptic cries I retort: It matters not one's path to power, just like the billions before(estimated at 117 billion, Kaneda et al, 2022), Humanity is not ending with/by/about/because of You.

The End of God?

Where would be the start of the end of god? My critique of the modern use of particular ancient ritual is not a critique of god or ritual. Belief in god seems epistemologically limited to two extremes with an agnostic center. "Do you believe in god?" I find the common question as strange as, "do you believe in infinity?" Middle of the fence is most often seen as a derogatory, 'luke warm.' My uncertainty about infinity is not a question of its existence, but one of my relation to it. Originally I approached this with the notion I should not exist if I am a singular temporality held in infinity, as infinity would go in both/all directions - I should always be waiting just one more moment for infinity to wrap up so that I might finally begin. My reason adopted the notion that a temporality held in infinity could only exist if it had already existed an infinite number of times, and will exist an infinite number of times to come. Existence as an

echo, coming from and a going into forever, but which is this one? Additionally, this concept of infinity applies not only to time but space. A present Now held in infinite space would eventually repeat itself, ultimately realizing all possibilities in all directions forever, right? Nothingness is all possibility. Nothingness forever is all possibility realized. In infinity, most possibilities would have nothing to do with this one, but occasionally... An attempted categorization of the universe to extend a temporality beyond itself. Ligus reminds us of Georg Simmel's model of three wheels on the same axis rotating respectively at speeds of n, 2n, and n/π , which even in infinity will never reproduce their original position. "This cosmic model is constructed with wheels, fixed entities, and considers their combinations; one could object that the Nietzschean universe is constructed not with entities but with processes... the infinity of time does not necessitate the recurrence of the same events" (Linus, 1989, p.98). And I lose all grasp of the infinite. My best guess as of today is that it travels in both directions which might create an infinite oscillation, some strange reincarnating space that might allow for Nietzsche's universe or that of any one of the optimistic (or not so) religious ideas related to such.

'Do I believe in the sun?' is a more tangible question, which I can assume the answer to with some certainty or proof. Of course there are always potential Daemons. I do not, however, stare in the sun's direction too long. Its presence is only meaningful through the illumination it offers. The sun's proximity (93 million miles, and the bases for the astronomical unit AU) grants it the power to reveal, while also powering life on earth. Any closer would be too hot, farther away too cold. At night its absence reveals distant cousins who offer new knowledge, perspective, and guidance. I would not argue the sun's existence relative to its diurnal period. The gods are the sun in our story/scene which offer illumination and knowledge, even in their

absence, but I remain careful not to let them make me lose sight of what is important, what they illuminate, here. Careful not to stare too long into the sun, even while demanding it's not there. Jungian archetypes, based on a global pantheon of human mythology, would suggest that the human psyche is prone to certain categorizations at the extremes of awe and disgust, so that deals made with gods and devils are real, regardless of some scientific certainty about gods and devils.

In this epistemological framework the extremes seem to me mostly like hubris, desire for certainty in uncertainty, while indeed the middle class seems a demotion. This demoted lost place is arrived at without much effort. This place is not really a choice, it is a condition of being thrown. The tea cools down. It finds equilibrium relative to its environment. Is it really now undrinkable? There is a joy finding that tea I left in an odd place from earlier in the day, and forgotten about until the moment of its rediscovery. I don't mind lukewarm tea, the various papers on this desk are stained with it - a memory of internal discourse, of creation, various illuminations. Those stains from the placement of tannins forged from carbon in the air with the power of the sun, grown and harvested by the might of man, transported across oceans, and brought to my cup only to grow cold in my distractions. They leave their mark, these tannins, their memory, a stain, same as mine, right next to the notes of my own hand, but how would they ever know anything of me, whether spilled or devoured, hot or cold or otherwise?

Spirit of the Times (post reflections)

The preceding two chapters reflect my own inner turmoil as my minute knowledge battles with my absurd intuition. That I use Jung as my scholastic justification against Abrahamic

ritual as well as ponder his archetype system is ironic as months later I grind through his very own Liber Novus, finding my previous conclusions had become my own certainties. Terrors of the night shatter those into a thousand pieces. Writing in anger at the orthodox use of otherworldly insight that is beyond the meanings I seek, or find, in this writing, I now find this my own attempt to create such an orthodoxy. I would rework these words but they remain true to my feelings at the time, and are not without some merit, yet I now seek the very source of faith from the Abraham of old necessary for the leap that lies just ahead. As I reinterpret the story I question whether it is the love itself placed on the altar, and any notion that one is alone powerful enough to divine fate or rationalize the next steps necessary for the determination of a prophesied life. Each life as its own may require a directionality into the abyss, the abyss of darkness, the abyss of the unknown, the inconceivable, the irrationality of an inspired will individuation. If his only Will was to have Isaac what is the faith that he possesses, and how are we to interpret this divine command against it. Patriarchal rules of establishment aside (Delaney, 1999), I see something in, "God will provide himself" (Gen. 22:8). How else are we to go forth unto the Will. There are those that will use Abraham's story as an excuse to the evilest ends, or as I have done use it as 'proof' of its own ridiculousness. But for Abraham in his time, at that moment, that challenge against his very Will, his Love, this leap toward the divine is to know thyself and know that what comes is already written - especially if time is a multidirectional oscillation, making the future a past from which there is no escape. Any/All copiers seek a past will and a self love of representation rather than their own will and that ignorance is the state/spirit of every modern time - every time is modern. These are copy cats who miss the point and carry out only in the shadow of something/someone else - they are

living the wrong story. The original is not seeking power as the followers do. Will and Fate meet in absurdity to create an individual course and against all odds and reason who can know/experience it but the individual?

"He took away my belief in science, he robbed me of the joy of explaining and ordering things, and he let devotion to the ideals of this time die out in me. He forced me down to the last and simplest things... 'The desert calls you and draws you back, and if you were fettered to the world of this time with iron, the call of the desert would break all chains. Truly, I prepare you for solitude'" (Jung, 2009, 230-231).

The Elixirs

If dying is a dying that leads to runaway more dying, a bad apple spoiling the bunch, one rotten potato, can I see and act upon the rotten potato in the pantry and save the rest if only I notice in time? Could senescence be treated the same, save the bunch by removing the source of spoil? The action at a cellular level is a bit trickier perhaps than picking apples but might be found in a kind of elixir which has been hinted at since the beginning of written language. That plant flavonoids emerge as promising potential senolytics should be unsurprising, and I wonder what knowledge of them has been lost or hidden by the ancient alchemists. Mathusala was a winecrafter, back then who wasn't and how many likely died trying for immortality, and about those: who would know to write or tell of it? Elixirs are common in mythology, sometimes drank, sometimes bathed/baptized in, magic rivers and fountains, the blood of sacrificed children, the semen of the god-king, elixirs of immortal powers. Is there a modern child alive who hasn't tried to draw a toy sword using only the power of the force? One part body, one

part blood, one part soul, a dash of madness, a bolt of lightning, a drop of mercury; how many wrinkles before why not?

Fisetin The Favored Flavonoid

Gilgamesh spoke to Urshanabi, the ferryman, saying:

"Urshanabi, this plant is a plant against decay(!)

by which a man can attain his survival(!).

I will bring it to Uruk--Haven,

and have an old man eat the plant to test it.

The plant's name is 'The Old Man Becomes a Young Man.'"

Then I will eat it and return to the condition of my youth."

The average number of days enjoyed over a modern human lifetime is roughly 28,000. I find thinking in days rather than years more "personal." Mice live 2-3 years (730 – 1095 days)

Senolytic treatments indicate it's possible to extend that figure to 3-5 years (1095-1,825 days)

(Kirkland, 2020). Mice do not live through fragility like we do. There are no wheelchairs or retirement homes for elderly mice. They die before reaching that indignity. The responses to aging in these experiments result in extended good health, not a mere, dragging on. The idea that life extension could only happen in some fragile state where there will be little more than an extended suffering of old age isn't uncommon. But the fragility of old age is what kills you, so it is that fragility that is being challenged; these treatments are meant to alleviate the fragility itself. There are studies showing reversed aging in mice as well. These experiments are now in

human trials! If similar results in humans are realized, we can expect 14,000 more healthy days with this treatment alone. This paper is a long-term project and I find it difficult while writing it to even keep up with current developments in the field. Each discovery I might wish to mention is quickly surpassed by another, but for posterity here is an overview of the most recent and/or personally intriguing.

For further information on current senolytics see Kirkland (2020). The latest senolytics and senomorphics research see Zhang et al (2021). See David Sinclair, The Salk Institute, Innovative Genomics Institute. The field is quickly growing and is no longer a taboo pseudoscientific subject difficult to fund. Students can now actually pursue this path without the once understood career stifling stigma that would have them laughed off campus asking such questions. To mimic the fisetin study in mice, a 140 lb. human might need to take 300–800 mg/day using Anroop's (2016) conversion methodology. Apples contain 27 ug/g of fisetin, while strawberries contain 160 ug/g (Yusuke et al, 2000). Twenty-four pounds of apples is a lot, although 2 pounds (dried) of strawberries is possible to consume. An apple a day may not be quite enough for the experiment, but I find myself buying them more often now that I know what they contain. Indeed, the produce section at the grocery store is starting to look a little different, so are any nearby farms. So, fruits and vegetables are good for you, nothing new, but to reach the levels in the experiments will require concentrates or an alternative dosing source.

But what of Gilgamesh's plant? Still unknown, but Toxicodendron vernicifluum, the Chinese lacquer tree, contains an unusually high amount of fisetin as well as a few other now known senolytics (Seon-Ok 2018). Its use is restricted to those with proper knowledge of the

needed processing due to the fact the sap also contains urushiol, the main irritant in poison ivy/oak. Despite this limitation it has been used successfully as medicine for thousands of years, although its name comes from its more common use as a lacquer. On processing methods for Chinese lacquer sap see (Lee, 2018). Perhaps Gilgamesh's plant was hidden in poison rather than lost or stolen. A natural substance, Fisetin can be purchased online, although the nutraceutical market can be hit or miss. Like many such substances, I find the quest for a natural source an alluring endeavor, the wrinkled furrows ever growing in the mirror.

Light and Sound Elixirs - the Path to Mood - Brief

Lee Bartel (2021) outlines some of the most current research on sound as therapy. Bartel has found a special interaction with 40Hz, as the brain and nerves seem to utilize this frequency. The earth puts off a constant hum of roughly 8Hz, one fifth that of the therapeutic effect. The closest note on the piano is low E. (41.2Hz)

Water 4.0

Seek the Sun. (Pollack, 2013). The fourth phase of water. We are the water – its thinking vessel. Charged sack of saltwater, vibrating consciousness, I will not return to the ocean as a river or drop of rain, I've been the ocean walking about the earth all along. Dr. Pollack's ideas challenge the foundation of Brownian motion, suggesting attractions drive the dispersing physical forces of water rather than randomized collisions and repulsions. Pollack's idea about water, and how lattice organization of bipolar water molecules further organize in layers to give various forms and phases change how we think of water. Water 'behaves' according to surfaces it is in contact with and organizes specifically around various ions that allow for a kind of water

'code' or memory. Just like the scars on the sand grain, the arrangement and order of water molecules hold a kind of memory, ours is only an extension of this inorganic form of memory. Equally arising from the earth as descending from the sky, made almost entirely of water in the fourth phase, we are a cloud of salt, a cloud of clay, children of earth and sky, vibrating into and out of existence. As a vibrational entity, I can only see music as an extension of that very being, the hum of god, cast forth from the mouth of charged water.

Missing Chapters

Like the Epics of Gilgamesh,

there appears to be missing fragments here,

it is still unknown,

the author's intent.

Entheogen – Spirit Elixirs, The Word Just, Kinds of Power, Loss of the Heirloom,

Ambiguous Loss, Cain is only able, Magic Sciences, Mystic Coloration, Belief is not a Choice?

Applied Hope

If we want this(an) outcome that is demonstratively possible then failure is not an option. The possibility of positive outcomes yet unrealized (globally) requires deterministic pessimism to achieve. As a kind of optimism, this determinism trusts the necessity of obligation to the positive outcome and acts accordingly to that responsibility. There is no delusion of hope, only the clearest of focus on the problem at hand – that hope itself relies on our delivery of it. In this way one does not have optimism but is Optimism. The weight of the responsibility overrides potential long-term disparity while dedication passes the time when the helpless

suffering of anticipation might otherwise lead to giving up - sour grapes. Without an actionable plan(hope), hope becomes a means at avoidance where avoidance is submission to that hopelessness. Avoidance doesn't work against reality except by rare chance - the place for miracles. The difference between hopes is the direction of avoidance. We cannot avoid the obvious - death. We can avoid the expediency of its approach, and unto that end avoid the notion of failure, "failure is not an option." Being with a plan versus being without one – hope versus wishful thinking.

In medical ethics it is understood that treatment be granted to those in need regardless of social caste or monetary means. This right does not last indefinitely, but grants "a few" more days to the recipient. We can now approach a potential postponement of death to a point beyond need where the ethics of due treatment meet the undeniability of death. Yes, we must avoid Pojman's mausoleums of living corpses, but unto technologies that might offer a few more days of standard living, I suggest applied hope rather than wishful thinking.

Best Part of Waking Up

Every morning my cup of coffee. I've created a tradition of coffee, a morning ritual.

Anything pre-ground is sacrilege ignored only when being hosted or during a sale. My particularness is for me only, and I try not to be too serious - however. There are many types of coffee but the two main kinds used to make the beverage are *arabica* and *robusta*. *Arabica* is the finer of the two growing only at particular altitudes in tropical regions. *Robusta* grows in a wider range of climates, and is less sweet and acidic than *arabica*. Instant coffee is made from the cheaper, 'less tasty' *robusta*. Most drip coffee and whole bean offerings are *arabica*, and are

often named by their country of origin. Kona are from Hawaii, and get the most respect, typically found in blends that are but 10% what one is after - although they are unlikely to add crap to the ever-precious. I find myself mostly picking Latin American blends like Guatemala, Honduras, Costa Rica, etc. There are great quality blends out of Africa as well that I've yet to explore. I'm sure there are those who could differentiate locale by taste; I'm not one of them. Sometimes cost and/or familiarity make the choice for me. I think regardless of region, visual inspection is the best way to ensure quality. The lighter the roast the better. Dark roasts have gone past what is called the "third crack" which releases oils that oxidize and ruin the flavor. That oil should be avoided. One might notice all the dark roasts will have the shimmer of oil released because it has passed the 'third crack' – it's burned. Oil in a light roast container indicates it's old and the oils have seeped out over time. With light roasts the aromatics are nuttier rather than bitter, requiring less sugar. Dark roasts are marketed like dark chocolate, where that charred bitterness couples with a caramel sweetness, the secret ingredient to our intoxication, the smell of campfire, the milky sweetness left on the tongue, the capacity to sell a cup for more than a meal, even while delivering 50% or more one's suggested daily sugar intake. Strangely *robusta* is more bitter and has a higher caffeine content, but is not the desired species in the US, that fruity acid taste in the arabica, even if/when burned is preferred. Perhaps bitterness and the need for coverup-sugar is not everything, some kind of market forces are also at play. My point is coffee is not chocolate where dark means unadulterated. A rue that is too dark is gross, there is a difference between a pleasant charr, and burned through, no sane person enjoys black toast, why do we treat our precious arabica that way. The local grocery has a supplier that uses an air roasting method that removes the ash. The lack of ash is noticeable

compared to the traditional method. By freshly grinding light air roasted beans one can capture the essence of a place most precisely. I travel to these places in my mind and smell the ripe soil and feel the moisture of transpiration and the sweat of agricultural workers, the stinging of fire ants, the songs of exotic birds and languages, an experience I take with a grand posture during morning consumption, pinky out, always with the slight grin of Chryssypus. I prefer brewing with a Moka pot, the Italian method. I pre boil the water so the grounds are exposed to the least amount of further 'cooking.' Careful, the metal bits are now hot. It takes 7 to 8 min at a medium low setting for the brewing to finish. I use all 6 espresso shots worth then fill my mug with the remaining boiled water. I used to add equal parts sugar and honey to taste, and whole milk fats. Now I sweeten none at all, having learned so much about the ill effects of sugar and that everything I consume is already laced in it; or I'm getting old. I also add salt which binds to bitter taste receptors in a similar way to sugar, further reducing the need for it to cut the medicinal taste. How often is a meal brought to life with a simple pinch of salt? Source region, roast and brewing method - resulting always in a unique experience of acidity, salinity, sweetness, viscosity, zeta potential, and mouth feel - each try at the magic is the birth of a new universe. If I feel like a chocolate flavor, I'll add chocolate. If we are out of milk, I use butter, and most often both, that's how the French do it, or so I've read. Such is my ritual, and I'm certain most of it is complete nonsense, but what humbling fun will be mine to find out.

We have a special connection to our elixirs. Coffee, tea, wine, and beer each become part of every culture that finds them. More than a part of everyday life, these compounds take on a spiritual quality for those who utilize them. The ancients kept many secret elixirs because alchemy and magic hadn't yet parted ways. Alchemy and magic part ways to create a sense of

certainty that doesn't exist. There is only one certainty – death – takes another sip, or is it uncertainty that's certain, making death likewise – more sipping – death is only certain once it's done – sip, but eternity would eventually manifest any/all alternatives, nothing can be final in infinity – and I need another cup. If the universe is like tea or coffee for the god(s), an enjoyment, a pleasant aroma, would not their enjoyment in infinity lead them back again? What knowledge would the last tea have of the next? How many tries would infinity grant? What difference is under investigation on this round of a temporality held within infinity? You've had a lot of caffeine today, don't forget to eat.

Life in the Third Crack

The secret ingredient for the beverage industry is sugar. Whether coffee, soda, energy drinks, kombucha, successful products must have a minimum addictive concentration of sugar. Less sugar, less addictive, less successful economic product - capitalism. In Iran there is a 'sin tax' on soda that is used to fund diabetes treatment and research - American beverage companies help fund Iranian healthcare, even while they enjoy no burden of the health costs they cause here in the US.

Sugarcane was first domesticated by Austronesians, and spread from there into Asia where it was used primarily as feed for pigs. Muslim traders adopted its use and spread its domestication throughout the ancient world. Refining sugar to its crystalline form, "sweet salt" is a laborious process but creates a product once traded more like a spice. Refined sugar was a luxury for most of human history. Colonialization brought sugarcane to the new world and due to its high labor needs is a large driver for the slave trade. Sugar is processed near the farming

operation, being too bulky and perishable for long transport as a vegetative cutting. The need for mills and ironworks to support the rapid expansion of the sugar trade builds the infrastructure that can be considered a precursor to the industrial revolution - thousands of mills in thousands of settlements across the new world. The efficiency of slave generated sugar production transformed sugar into a regular global commodity rather than the rare spice it once was. Over the last 300 years, humanity at large has gradually replaced seed calories with refined sugar calories. Our tastes change over time as we become used to this refined sugar. A modern loaf of bread is likely to have 2 to 3+ grams of added sugar per slice! I wonder if gluten, or processedness, is the actual culprit of this modern fear of an agricultural diet; as if 'paleo' was somehow superior while keeping all the sugar in that teriyaki beef. The sandwich in a child's lunch, or the burger in their happy meal, provide much of the calories via the sugar in the bread. The easy calories in whole grains are no longer enough for our taste. Removing the bread and keeping the sugar as an alternative to grain diets is... silly. Paleo would mean mostly, little to no sugar, lots of vegetables, long laborious days filled with exercise, and periodic fasting, rather than some glutinous all beef diet with little exercise and an extra large coke. So how did we get here, creating such odd dietary merits along the way?

Refined white sugar must be filtered to get that desired pure white consistency. Bone char makes the best filter for this process. There are newer methods, but modern refined sugar is supplied in a way that cannot guarantee it is animal free. Vegans cannot use regular market refined sugar, and must rely on beet sugar or raw cane sugar to guarantee an animal free product. In the colonial new world animal char must be shipped from meat plants in Europe and is expensive. With a flux of slave labor living 4 to 7 years on average there's always a taboo

source for char. With the addition of steam, in a world where, "even an atom of steam" is not to be wasted, when boiler houses are most busy refreshing the char than operating boilers, spaces with hundreds of overworked slaves in sweltering conditions, flourished the scientific pursuit of finding a path to perfect white purity. We discover enzymes because of the sugar trade, Louis Pasteur (the microbe guy, where we get 'pasteurization' from) works on these problems, entire trade empires are forged, and several centuries worth of these discoveries only deliver an ever increased demand on efficiency of production. The negative consideration towards 'coloredness' advances through disregard of the lives of colored slaves and the scientific attempt to master the spoiling of cane sugar - to turn the contaminated wild colored juice with its molasses, to pure unspoilable whiteness. Color becomes a central point of the slavetrade because of the sugar trade. To use one's slaves in this barbaric way seems a taboo, no one is bragging about it, at best they might admit to, "...replacing bone char 'with something more appropriate to our needs and our local conditions." (Rood, 2017). There is large variability in the styles of these plantations and process centers, each defining efficiency and productivity in their own ways. Whatever the extent of the use of human char, the global ritual of tea time, that humorously pompous act, pinky finger in the air, the truest disclosure of leisure, leisures always built on others' lack of it, is a consumption of the very disregarded themselves figuratively and once literally. But don't forget ye citizens of the third crack that this sugar in the tea, in the coffee, in the soda, this magic powder, once washed in the bones of man, was first meant to fatten up the pigs - and so I must ask as I sense the hidden forced feeding, whose squealing porcus am I?

Kinds of Care (Feeling Alright)

Using the common idiom, "how are you doing?" as a greeting typically comes with an obligation. That obligation is to respond positively as an affirmation of a generalized lack of worry. Those that know better will hide the truth of problems actively faced, and everyone is always facing something. Whenever the answer to the question, "how are you doing?" is answered with a negative reality, most often the asker will become somewhat offended. This is because they did not actually care to hear concerns; they didn't care at all. Many, probably most, seek a state of carefree. Generally, the expected response to "how are you doing?" is, "well, and how are you?" The expectation is to validate each party's desire to be without worry. Being without worry is to assume that there is nothing to fear. If there is nothing to fear, then anxiety is quelled by an expectation of unchanged-ness - certainty. The objective is to remove negative possibilities, so that an honest negative response insults because it then only acts as a reminder of the ridiculousness of certainty. Death helps validate care because it reminds us it is our only certainty. In the shared vulnerability of death, care is revealed in earnest. Perhaps a more appropriate question to ask than, "How are things" or "how's life going?" is "how's death going?" "How goes the becoming of un-being?" Be leery those who would use the mechanisms of love/care to serve their own carelessness, only to escape from worry.

Worry-for is not care but rather concern. Worry seeks to continue its avoidance of the reality of suffering, while care bears the reality of suffering to lighten the load of those cared about. If being is care, then careless worry is beingless. "To be afflicted with another's suffering requires that we care about the things the sufferer cares for." (Lingus, 2000 p. 50) These

sufferings are signposts for meaning. That over which one suffers is about the thing for which one cares. Care is not a concern about suffering, but a suffering about the cares of another. This care is about the story of/in testimony, to care about the story of another, not just their pain, but their purpose, their journey. The differences between care and concern are a revelation about the desire of the expression - a correlation to the reward pathways. Serotonergic care is to care for what someone else cares about. Dopaminergic care is an egocentric concern about ownership and control. There's a motive, a meaning, behind the difference between care and concern, and in the complexity of oughts within a story, it is often hard to subjectively tell the difference between them. Concern is a worry about uncertainty, it is a form of anxiety, and fillment comes from an attempt to correct or contain it. Care is known, it is certainty, it is the sensation of love for another, it is an uncontained sharing equally expressible in good or bad times, and when it asks, "how are you?" it means it.

Camp Consideration

Viktor Frankl's description of his concentration camp experiences in *Man's Search for Meaning* (Frankl, 2011) includes an interesting opportunity for disclosure. In those descriptions of human life in its most fragile condition emerges a story that is fundamental to human experience. Frankl describes the organization of a cabaret within the camp where members are willing to skip their once daily "food" ration to attend. This kind of "open mic" scenario, and the great lengths that those who appreciate it suffer to attend, was for me one of the most moving parts of Frankl's story. Why would these gatherings be considered more important than food,

potentially more important than life itself? As I seek a potential extended life, I also feel the need to gauge the value relatively.

With an ambition and understanding of the possibility of life extension, of more life, what would one do with it? The temporal martyrs whose state of thrownness into the world fleets away like all those of the past, find solace in a story. Death's mirror challenges us with notions of meaning and purpose that are not fulfilled by simply fighting for more of it. When life itself is on the scale, in the direst of times, man seems somewhat left with only art's expression. Art, as an expression of one's own story, becomes more important than life itself to those who can appreciate what happens through such expression, in such sharing. It becomes the escape from death's terror, it makes the story about us, which can carry on, rather than a fleeting story about only one's self. The men who forfeit their daily meal to feed from something else have at minimum gained an understanding of meaning and value that is beyond their mere usefulness. They fulfill a serotonergic reward through collective disclosure that is a recipe for transcendence.

So, what future might we imagine for our best selves? I hope not to fall victim to some false optimism about the nature of death. Death is coming. Life extension offers only a notion of quasi-immortality. We are limited regardless of what powers our future technologies might deliver. The power-law model of fitness demonstrated by Lenski's bacteria might suggest current limits are temporally limited in scope only, but I find eternity too well beyond my own subjectivity to consider myself able to escape it. This notion that some action could grant more life was at first paralyzing. How could I work towards anything else? Then I learned that science

also suggests that lifestyle choices and attitudes also contribute to wellbeing and longevity. Whatever the outcome of these experiments on longevity, I already hold multiple keys to that end. In fact, if the living word has within it codes for extending life, we will likely find them. That power will be manifest whether I work on it or not. Society is somewhat obligated to put resources towards discovery, I am myself obliged to yell about it at a minimum.

My own story becomes a yet unrealized optimism for the future. Although my optimism is potentially fanciful, renewed is my dedication to finding meaning in-the-now regardless of how many then(s) I might hope to gain. In this way my now is the future and my eternity. My optimistic directionality is already gaining me momentum towards any longevity worth having. So, I conclude that when life hands one lemony death, as Nietzsche suggests, do not avoid, or cover it with sweetness – avoidant hope. Do not try to conquer the idea of death. Instead yield to knowing, congregate as is ancient custom, recite a poem, sing a song, make art, play the piano, dance, drink one's elixir, and love using whatever lifetime is granted you otherwise engaged in the intimacy of exchange. Discourse of a scene, the scene a story, a story containing meanings, meanings from what is cared about, care as being, being as disclosure, disclosure an expression, expression a discourse.

The Mic is Open

If unfamiliar, an "Open Mic" is a kind of show where a venue opens the stage to anyone who signs up. Each person then takes turns playing short sessions, usually one to three songs.

One can find advertisements for open mics in most local papers. It is not unusual to see a bar do open mics, usually on a slow day during the week. One might see a promo like, "Open Mic

Mondays with 5-7 happy hour." At these events you can usually commingle with local musicians, but bars offer open mics usually to sell drinks on an otherwise slow night rather than necessarily promote local musicians or the arts. Often the music is novice, further driving the need to have a drink on top of those meant only to quell one's nervousness. I enjoy open mics, and have been participating in them since I was a teenager, using a fake id to get in. I am always keeping an eye out for open mics, there is something intimate about them that I cannot resist.

I moved with my family to Ashland Oregon in the fall of 2019, months prior to the pandemic outbreak. I was eager to explore our new home and searched for open mics online. The closest one was at the Wild Goose Café & Bar, which is close enough to my home to ride a bike, even walk. Pictures online show a piano, which is rare in my experience. My search revealing, they do a weekly open mic on Sunday starting at seven - I went the first Sunday I was able.

The Wild Goose is a small diner/piano bar at the corner of Siskiyou and Highway Five.

There is a diner in the front and a piano bar and lounge in the back. The back has a separate area from the lounge with a half dozen slot machines and two billiards tables. There is a kitchen in the middle serving food and drinks to either side. The diner, with its tall windows, is a brightly lit sit and eat family friendly affair with obvious classic charm. The bar area remains windowless, where time of day is less obvious. One can access the bar from the diner through saloon style doors where the glow of the jukebox and stage lights create an obvious transition between environments. There is energy emanating from that back room. What the locals refer to as "The Goose" is owned and operated by Dal Carver, who is not only a restaurateur but an avid pianist

(Unfortunately, he passed away during the writing of this paper, having written it already I guess it is now a eulogy. RIP). There is an obvious motive for running this establishment and that is the music. The food is top notch, and they have a full bar with local draft beer etc., but the heart of this establishment is that piano in the corner of the back room.

My first time to The Goose was fraught with the typical nerves. One can bypass the stares of diner guests by entering the bar from the back. There is a little awning over the back door that gives it that jazz lounge, speakeasy feel. Entering from the back entrance one can take a left for slots and/or billiards, to the right is a lounge with booths, tables, and a full bar. The lounge wraps around a small stage area along the back wall that has built in lights and a PA. The jukebox separates the stage area from those saloon doors. The piano sits humbly in the back corner, sitting on casters it can be rolled out or tucked away quickly. I got a drink and found the sign-up sheet, a standard at any open mic - the contractual obligation that seals one's fate - it is a formal commitment. If you find yourself signed up, might as well settle in, and enjoy yourself, knowing your name will eventually be called. No one is forced to play, but if you sign up at an open mic backing out becomes a public affair. One's name on the signup is a declaration of desire and intent. It proves one wants to play, trying to back out will be met with encouraging prompts from the audience that are usually less yielding than a timid heart. So, I sat with my drink, mustering up the courage to sign-up while taking in the who is who and getting an idea about what to expect. I scanned over photos of local musicians and paintings from local artists that ordain the walls. Amongst the memorabilia there are some famous people, the one that still surprises me is William Shatner. I watch Jim Quimby, who just finished his show, in a sports jacket and fedora socializing with lingering fans. I became aware I was not in the typical hole in

the wall bar. A few more sips and I approached the ball cap and overalls wearing gentleman, who was quietly setting up for the open mic. I asked if I could, "bang on that" pointing to the piano he was pushing back to its corner, and he grinned and guided me to the sign-up sheet, which was already quite full. Being low on the list, I would not be playing until quite a bit later. Before the ink has had a chance to dry begins the swelling anticipation, and the conscious effort not to nervously drink too much. The man setting up, quite a contrast to Quimby's suit wearing persona, is Dave Hampton. Dave studied piano at Southern Oregon University, an early student of Grammy nominated Dr. Alexander Tutunov. He does not carry himself as a classically trained pianist with a degree in music. Dave has been running the open mic at The Goose for the last 10 years prior to the pandemic. There is an unusual amount of talent among the musicians that participate. This group of local and visiting musicians is unlike anything I have experienced. This is one of those rooms where a high percentage of the audience is going to hear one's mistakes. Even with the expertise present, there is no pretense however, and all levels of performers are welcome and encouraged to play. I will never forget my first impression of Dave, eager to loan his guitar to - I'm guessing a homeless man who wanted to play but didn't have his own guitar with him. Without hesitation Dave said with a smile, "you can play mine." When my turn came Dave set me up with a mic and got the piano ready. He worked as a humble servant. Dave did not know me from Adam, but I felt as important as Bill Evans. I was nervous, but Dave was not, which eased my own tension. The piano was surprisingly in tune, well... It is a bar piano but not bad at all. Dave introduced me by name, and I banged out my three tunes and made new friends. I cannot remember what I played that first night, only that I had fun and would be coming back. On subsequent nights I had the opportunity to play with other performers and

practice jamming live. I found myself practicing more during the week in preparation for the open mic while learning new tunes from others that perform there.

I have met some great souls at the open mic. The bartender Tom who knows most of the patrons by name and carries a no bs while relaxed attitude that works with the lounge type environment; he is a cool kat. There is the "deacon of the open mic" Gene Bernette who has published hundreds of songs and has one about anything you can think of. Seriously, say, "Gene I need a song about the sun, the moon, pools, love, leaves, winter, riding your bike," he will start playing original music about just that. He might even hand you a CD with that song on it. Gene also used to, prior to the pandemic, host a themed open mic on the first Wednesday of every month - summer songs, love songs, breakup songs, etc. Gene comes up in conversation around town without prompt, he is a local favorite. Darrin is a tall cowboy hat wearing singer songwriter guitar and harmonica player. He wears all black in proper Johnny Cash style. He has been coming for 10 years. Avram, a local retired high school math teacher, takes lessons from others in the group and gets noticeably better every week. He likes to arrive early to get an early spot on the list, not always staying till the end. Avram is low key, but Prince would have a hard time being as purple as that guitar case of his; he claims it's all they had, whatever the reason, it's rock star. I prefer to go last, to try to "headline," but that is not a thing at open mic. There is an extensive list of regulars. RIP Manny, Neil Young's, "Out on the Weekend" will always be your song to me, and I will forever imagine you, and Judy, in a pickup on your way to L.A. It is common for traveling musicians to stop by as if that is a standard part of their tours. One never knows who might drop in for the next show. I got to play a break performance for Dal Carver, he told me I could come back any time, and I guaranteed him I would; now I've made a promise. I

came early one Sunday to catch Jim Quimby's show. After his set they put on the jukebox.

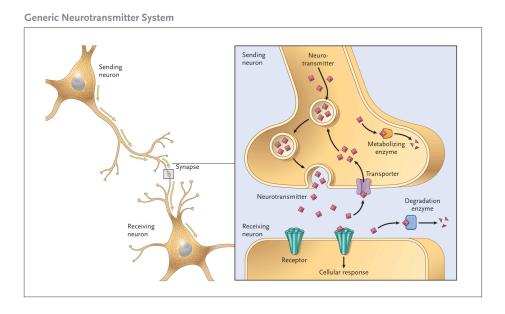
Because the piano was still set up, I sat down and played along with the background music. Jim Quimby came up and whispered, "I didn't know there was another pianist in the house" a comment I will forever cherish. I have potential confirmation for the story my a priori understanding seems to seek. I felt a sense of becoming one of them, not a hobbyist, a real-life musician. Nights at The Goose became more important, and I looked forward to going each week. There is no requirement to consider these meetings hollow, but everyone who attends seems to give it revered respect. When the pandemic hit, I was devastated to lose access to this treasure; So was everyone.

Dave Hampton quickly responded to the pandemic by offering a virtual online substitute. He created a group page on Facebook and had each of us submit a video performance that he could play for the group at the regular time – Sundays about 7pm. This process was uncomfortable at first. All ages participate in the open mic and some members struggled to learn all the technology involved. Dave made tutorial videos on lighting and how to use one's phone camera correctly. There were online discussions about the best streaming gear, and everyone started upping their game. This virtual meeting became a lifeline for social interaction. I have watched more than once participants become emotional describing what these virtual meetings mean to them. With the stress of pandemic life, I did not always make it to the virtual meetings or take the time to make a video. But when I needed a social fix, I was able to count on Dave to be there providing the needed open mic service that he has carried for the last decade. Even without a video on any given week I might quickly visit, listen, and give warm wishes in the chat. I say, "rock and roll" a lot, which is cheesy. This phenomenon even

caught the attention of the local news. In an interview with kobi5 news, "I have been doing open mic at the Wild Goose for a long time now and it's where I got my start as a performer in the valley, so it's really important to me to keep it going," said Hampton – and keep it going he did. After 100 virtual episodes, Dave returned to hosting again at the Wild Goose. One can continue to find the sign up sheet there around 7 o'clock. Gene keeps the virtual one alive for anyone still needing a from home open mic fix. Frankl found meaning and then established an entire branch of psychology based on the meaning he found from the disclosure of friends at the darkest of times. Friends who, through disclosure, subjectively offer a mirror for life rather than the desperate lonely mirror of death. If you haven't already, find a mic that is open.

Synaptic Gap

I've started to realize a new scope about the synaptic gap, about biochemistry at all. All the textbook pictures look like this:



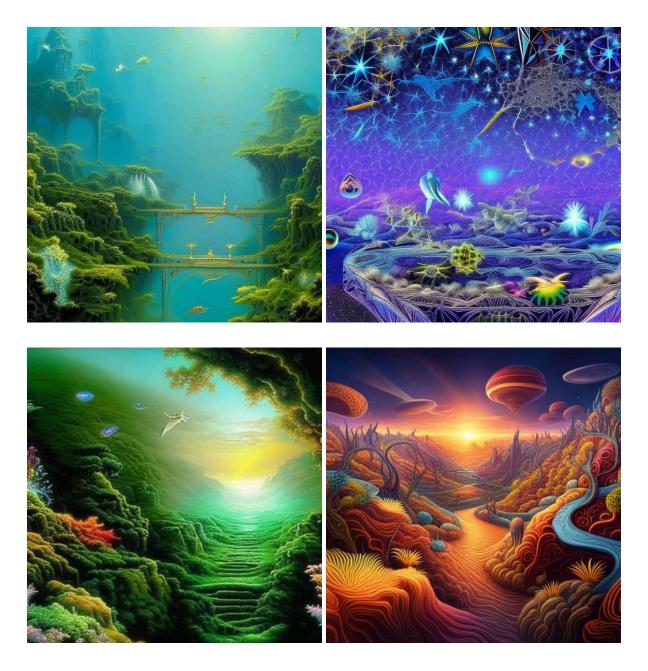
https://commons.wikimedia.org/wiki/File:Generic Neurotransmitter System.jpg

But all the pictures look like this. Neurons are large cells while the transporter proteins embedded in cellular membranes are all relatively similar in size. A larger cell represents more of these transporters over the larger surface area, rather than larger ones relative to the cell size. These proteins are ubiquitous across the cell membrane, but not always in the same density. Landscapes across cellular membranes will have unique 'biome' phenotypes, but the protein structures fall into a range of size like any other 'flora/fauna' category. The synaptic gap is a busy place, perhaps more a dense jungle than the sparsity of sage bushes across more dry terrain. There are hundreds of kinds of neurotransmitters, like the pollen from hundreds of different kinds of trees. There is variance in form and function, but even in the diversity, we deal with relatively similar things inside these classifications. When I begin to envision what this spectacle of the synaptic gap must look like, I see two giant meadows filled with a variety of trees and shrubs, buzzing bees, and swooping birds, two worlds caressing one another upon undulating horizons. I see a place of electric storms and cellular winds, each pouring of transmitters a rain from one world upon another, exciting the very flora and enzymatic fauna that receive and/or feed on them. The 2D image above, familiar to any budding young biology student, cannot conjure the awe inspiring reality of this hidden world, but over time my imagination begins to grasp the bounds. These embedded proteins 'planted' in the cellular membrane spray and suck, they breath, and the air becomes thick with a charged mucus, synaptic humidity, and the musky aroma gives us a notion of 'feelings' while all the little enzymatic creatures devour that very sensation in a consumptive orgy that creates the tedium of every always fleeting satisfaction. The washing rain's ecstasy is felt by us only in the volume of pollen ejaculated from these proteins while the cosmic spectacle of this surge flows across

rolling fields like an electric storm. Each field but one forest among billions of neurons, trillions of these synaptic gaps, it is hard to imagine the breadth, to even begin grasping the scale, the awe - the sensation itself a cascading storm across all these worlds imagined. The collective space bound in such a tight cranium, the maximum the birth canal could handle, a capacity for the fractal organization of ever growing spaces of wires built from forests of receptors and buzzing neurotransmitters each in the act of ecstatic exchange with every thought and feeling I believe somehow to command. The surging pulse plays out like the blossoms of spring, every creature dancing in the excitement and heat of the glowing sun, emerging from winter with a stretching swollen growth - swarms of butterflies in every pleasantry, swarms of locusts in every despair. This world that gives one their mood, is a fractal expansion, one layer upon so many more. Diagrams like above are for the classification and order of names, dull certainties, but that representation is nothing compared to the true landscape of the synaptic gap. The synaptic gap is a garden world that if witnessed would be two horizons with a swimming alien ocean between them filled with molecular creatures.

Everyday is the nurture of this alien garden, these alien gardens. Eden is housed within us, consisting of ambiguous gardens that require self-care, the kind of care that operates over seasons, over the course of growing, because I am a growing garden in need of care; I am Eden. And who will feed the chicks, and pull the weeds, and milk the cows? The kind of environment managed in the synaptic gap is the same as what one might manage here, and the styles are similarly varied. A lack of care is visibly obvious, while overuse is the other tandem extreme. The effects of too many drugs perhaps transforms these landscapes to dust bowls. The bored personalities of overworked accountants - monocropped monotony in the flora of a synaptic

landscape. Greedy dopaminergic seekers, consumers, consumptive transcending, those lost to the ever driving want of stimulants and opiates, have removed the diversity from their synaptic gaps for fields of corn that must constantly be managed with higher doses of industrialized fertilizer. The wild naturalist gardener versus agricultural efficiency, personalities but phenotypes of synaptic biomes. The true awe of this unseen universe that has the same high resolution of any fractal layer above it (mine, forests, solar systems, galaxies, below it atoms and ever more) requires more than bland nomenclature and yawning latin. The scope of this synaptic landscape needs better representation, if only to expand the notion of what learning is. Every sensation, a planting of proteins in the landscape, Bob Ross adding one more stroke, a decision about the flora/fauna of the synaptic gap. Every new thought is the growth of new synaptic worlds of which my consciousness consists - trillions of synaptic forests and the countless connections between them. In the branches of proteins folded like weeping willows are mosses and finches and little aphids each the framework of the fractals both above and below them. The background electric stitchwork illuminates the night's sky beyond the horizons of the synaptic gap, and the background activity is heard as rumbling thunder beyond the chirping call of enzymes and drizzle of synaptic rain. As a fractal layer in the cosmos of consciousness, I asked the AI to help me envision this world. Using Stable Diffusion 2.1 with the prompt, 'molecular scale point of view from synaptic gap. inverted fields with neurotransmitter fauna and enzymatic creatures,' here are a few of my favorites:



Outside this realm of empirical taxonomy, outside the need for categories to drive our imperatives, worlds on top of worlds on top of worlds. The cosmos is also inside us, and so, not as far away as it might have at first seemed. Every new idea is the birth of a cosmos of jungled horizons. We are not meager things, entire worlds pulse with the slightest change in our emotions, and the intensity of presence of any new growth through and about these worlds forge them into place with the intensity of the experience from above, creating our moods as

environments. I am caught in the overwhelming sensation of ecstatic worship that occurs in this place upon my every notion and whim, because the ecstatic worship there is my very experience. To these worlds I am god. But, I am also nothing without them. I create my own cosmos, transhuman transcendence, the becoming of the creator of universes. And yet every idea already was such a birth, so to what end is, will be, this advancing? How many more births am I to witness? What is the threshold? Should we challenge it? First, let's conceive the scope of what is, only then are we ready to ask about the boundaries. This is that which grows across countless fields of synapses in the process of my imagining them:



Aristotle's Target

To sum up, I assume throughout history that the binary classification of pleasure, then of happiness, then of meaning, is a byproduct of two competing reward networks. Dopamine and Serotonin play a central role in desire, pleasure, and reward pathways. These effects are classified dopaminergic or serotonergic depending on which is central to the experience. These are respectively the seeking vs nurturing reward pathways that also either fortify or diminish the egocentric directionality of the rewarded. Seekers – dopaminergic – are rewarded-toward individualistic conceptualization where nurturers – serotonergic – are rewarded-toward collectivistic conceptualization.

While trapped in a kind of handedness towards egocentric means, modern man longs for a seeking that does not consume him by valuation of his mere usefulness. He wants a way to disclose himself. He seeks an avenue towards balance in the seeking and sharing of disclosure, which is an attempt to reclaim subjective meaning by fulfilling the desires of seeking and nurturing. In a modern economic sense this balance is almost impossible to find. At the best of times and the most hopeless, man creates meaning through the disclosure of himself - a temporal agent's impression of the soul.

I conclude that Aristotle's target represents two variables (these two pathways) being treated as one variable (pleasure) and thus the constant scalar binary 'doctrine of the mean' consideration that so many philosophers since seems to extend to the notion, even when by another name (goodness, duty, happiness, utility, resentment/responsibility). When there is an

ought to consider the other, it is the same for the shrew – the need for serotonin (group) to balance dopamine (individual), a balance respectively between: them vs me, the collective vs the individual, returning vs seeking. If one is refused their den at all, not only in the case of a physical home, but from the solidarity of humanity itself, then humanity becomes the seeker source (den) manifest, which is the modern human condition. In this isolated seeking reality we are all but high on dopamine, there's no reason to remove the 'coca'ine from our national soda name, it represents us perfectly well. Which one did Indiana Jones choose during the superbowl commercial from my childhood? I can't recall, I don't drink soda, that part lost its meaning to me, I reference it because culturally it was iconic. Should I go back and clear this up, search out the proper reference, check my sources? Sometimes knowing what you don't know is the point.

Aristotle suggests virtue is like shooting at a target. The randomized probability of a (bullseye) being less than not (bullseye'). The probability of a circular target can be calculated by multiplying the probability of x by the probability of y. Shooting at any target, leaves one with a sample of throws within two bell shaped distributions of x and y centered around the target/axis. The expertise of the archer can be defined by the sharpness of each bell curve. At a certain maximum sharpness every shot is bullseye, P(bullseye)=1. The notion virtue is aiming higher than the target adds only the constant variable gravity and a continuously distributed velocity correlated directly to the y axis distribution. The notion works in vacuum and/or zero g equally well. The distribution of velocity and the target y distribution will be the same in a constant gravity; it's still x by y. I believe the x and y on Aristotle's target, that which we are aiming at in the Doctrine of the Mean, are dopamine and serotonin where one must attempt a balance between these two reward networks; each with its own range of deficiency vs excess. It

is more likely that we fall into a sort of handedness in this regard early on in life and prefer to write with one network over the other through practice. Once established one's handedness will always determine which hand reaches for a falling object. Once established the handedness of one's reward pathway becomes a lifelong preference. Aristotle's virtuous character is revealed by a virtuous person through a recognition of a kind of ambidextrousness in the reward networks of the virtuous person in question. In order to deal with the probabilities of a bulls eye it has to be two variables, two kinds of reward, an ego fixing vs an ego diluting one, where virtue, the target, is the meaningful balance between them.

A person more handed towards dopaminergic desire, in excess, is driven solely by an egocentric 'seriousness.' A person more handed towards serotonergic desire, in excess, is driven by the 'pleasure of submission.' (De Beauvoir, 2018). At their extreme these person types attract each other like magnets, pure disclosure of their desires, fancifully growing eternity bound egos and their childlike beloved sycophant lovers. The balance of virtue, a balance between these reward networks, is the source of desire, even when not held within the same person, so that Aristotle's target is always the aim both individually and collectively; excess of one requires more of the other.

Towards Serotonin

Our own complex "societal invention" is but a memory dedicated to the power of the grain. Our will to power isn't even our own, which is the doorstep where nihilism and existentialism leave us weeping in our disposable cradles – or floating down the Nile in hopes for something better than death's decree. The defeat over natural death will grant the only

liberation possible for man. Otherwise, we are lemmings walking over the edge of a bridge under construction, gathering gems rather than, "BUILDING THE @#\$&^#^ BRIDGE!" It seems impossible to yell loud enough, all the-other voices clamoring their own supposed values, often based on their handed desire for dopamine, a reward matrix most seemingly reserved for some far-off eternity - consumptive transcendent desires of narcissistic projected certainty rather than genuine ambiguous serotonergic care.

Perhaps I am deceived, but subjective to the story scene, I am left with little ought than to play my song till the Titanic capsizes – disclose myself – not as a virtuous man, not as the Antichrist, not as an intellectual with responsibilities, not as one with some truth to tell, but as feces recycled, apathy, death itself, grateful to have vibrated at all, yet ultimately agitated at the absurdity. My song attempts to have no truths, by suggesting that the only absolute (death) may not be as absolute as it once was, and that liberation is not from each other but from the grains by escaping their fate and valuation. We must bring death closer than ever only to reclaim from it its decisiveness. Freedom would include a will to choose, even death, so that man, not death, becomes what is decisive - we must show death its own mirror. Without this capacity, facticity creates a lack of self that only allows responsibilities toward desire of limited duration existential ones. Death's facticity allows only a temporary recourse towards-one-another, a serotonin-based transcendence which dissolves the boundaries of self to soften the blow. This transcendence is an ought that fades in light of transcendence of another kind, not a will to power, but actual power – the power, and therefore the responsibility, to exist, and then to also keep existing, not in grace, but with the consequences of the ambiguity of the existence gained.

We will be much less eager to trash the planet and each other if we each exist long enough to feel the effects of our own exploit. The shortness may be the cause of the brutishness of man whether in nature or society. Once alleviated the shortness, perhaps an era of nurture and building might give rise to a less anxious pursuit of togetherness. An expansion of human temporality will hopefully also deliver a maturity, a weeping joy at the sight of an adult after so long trapped amongst these youngsters - lords of flies. Of course, when dictators, barrons, and high priests no longer conveniently die eventually, what absolute dystopia might instead take hold? "For life," whether in punishment or leadership, becomes a new relative concept, perhaps one that can no longer be tolerated. The relief of resentment won't last when those resentful acts no longer fade into some obscure human past but remain as current memory to be judged. The blood of patriots and tyrants will likely still water the Tree of Liberty, but it will be a choice less of fate and more of a human one. We will be Choosing who lives and who dies, rather than merely hastening the inevitable, which may be the first time we have had a real choice at all. If liberation is possible, it comes as we become like gods by defeating Thanatos himself, choosing life and death in gratitude, for ourselves and others, only then do we have the freedom of choice and thus a supposed responsibility. If we deny Thanatos' harvest, then we deny Terra her corpse prize and remain with and as Care herself - we walk among the gods.

Until the capacity of longevity escape is realized, the only option is death, leaving only the choice of how to approach it. The only responsibility without a real capacity to live is as a temporally limited self, desperate to creatively disclose itself before time runs out. The asymptote isn't real but an imaginary line that Life is always working towards overcoming -

overcoming facticity. The only real seeking left to be done, the only way to outlive the grain is a new slave revolt. Humanity's transcendence isn't a mere consideration towards/away-from the self. The final transcendence is over death, not merely dealing with, but surpassing; we must escape the flask. After that we will have an actual choice what to do with ourselves 'now.' Is that not what we are, bacteria that has escaped one flask only to find itself now stuck in another? And why write this paper right now at all, with such a view of the possibilities beyond this present asymptote? I look for the excuse to utilize myself in the least 'useful' way to the corn by disclosing a seek-able idea, a human idea, an experience, an impression of the soul upon time. I wish a utility that earns nothing but the reward of being found, and whatever solidarity that might foster. As but another squirrel in the forest, I sense a taker, so that short or long, irrelevant relativity, at this moment, the only thing left to do is to sound the alarm. I am the man who yells at the corn – this is my song:









Annotated References and Notes

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Agar, Nicholas. *Humanity's End: Why We Should Reject Radical Enhancement*, MIT Press, 2010. *ProQuest Ebook Central*, http://ebookcentral.proquest.com/lib/sou/detail.action?docID=3339444. Created from sou on 2021-11-09 01:24:39.

This book is a multidisciplinary approach to potential problems related to life extension and other kinds of human enhancement. The author offers arguments against enhancement to four of its loudest advocates including a technologist, a therapist, a philosopher, and a sociologist. This range of arguments opens potential discussions across several fields. I'm opposed to Agar's general argument against enhancement, but I appreciate his multidisciplinary approach, and hope to use that as a blueprint for my own writing. Though I critique many of Agar's points, I'm appreciative of his work on the subject. I hope to continue some of the discussions presented in this book while challenging some of the author's definitions, cultural references, and predictions. We cannot properly discuss humanity's end until we define being human - a condition that isn't contained by Agar's limited view of it.

Like the use of the term "humanity", the author's use of the term "radical" isn't very clearly defined. Agar wishes to create some magic point on the charted line of enhancement where self-improvement becomes more definitive than the self alone. It would seem radical enhancement would require abilities greater than that of the longest-lived persons now, 122, and the smartest, an Einstein. In the case that the enhancement was only capable of increasing ability to the highest possible among a naturally varied population, then Agar might consider that as merely enhancement, falling short of so-called radical. So, if medical improvements come along that allow people to be as smart as Einstein and allow them to live to 120, Agar might accept these and not claim they will result in the end of humanity. This point would be fine except that Agar's assumptions made about the future seem to jump quickly past this ill-defined point - human and "post-human" persons. What if we limited ourselves to mediocre enhancement, or moderate? A paper title idea: Humanity's Continuation: Why We Should Accept Super Duperest Enhancement? We can use the Ninja Turtle Scale of Human Enhancement: Bogus < Tubular < Excellent < Radical (Super Duperest falls between Excellent and Radical). The point is these terms are arbitrary.

Agar also highlights the effect of focalism as a critique of Bostrom in Chapter 7, "I wonder if Bostrom's hugely optimistic evaluation of radical intellectual enhancement may be a consequence of focalism" (p147). I wonder if Agar isn't suffering from focalism on the issue of "radical," where he references the most extreme far in the future hypotheticals from some of the loudest, most imaginative thinkers in the field. The

people he has chosen are certainly entertaining and provide for good book selling material, but these voices and visions should not be the only representations for the potential. The field is exciting already and there are more practical near future considerations.

Agar's radical could also mean uploading ourselves into machines. Agar starts with prosthetic brain parts, like small hypothalamus cybernetics that might assist with memory, where most of the organic component remains - but by adding more as better improvements come online, one ultimately replaces the whole brain. Quickly, we find ourselves irreversibly uploaded into machines, with little further need for a body at all. He misses a few steps here that might define that moment where this becomes radical; few would argue considering the upload option quite extreme. Prosthetic limbs, hearts, kidneys, etc. are all products available now. Prosthetics will not raise ethical questions until their functions outperform what they are replacing, and that won't happen at some finite point. Artificial hearts already will outlast those who receive them, a technicality that means we've past a hypothetical point already. Where ethical lines will blur is when I consider opting for the artificial heart when my own is working fine, motivated by some advantage unavailable or difficult to obtain without the prosthetic. But Agar doesn't start with that crossover, instead jumping forward in time to a fanciful place - he cautions Bostrom about making a similar fanciful jump. The only difference is Agar's fantasy is a dystopia instead of Bostrom's more optimistic seeming one. This is not a good platform for Agar's argument. He uses this extreme vision to sell his warning. At Bostrom's utopian vision, Agar states, "The emotional coloration of this sales pitch for radical enhancement seems like that for a timeshare" (p148). If Bostrom is selling a timeshare, Agar is selling insurance, where his advertisement focuses on the doom and next disaster, rather than the potential for sunny beaches.

He also leaves out aesthetic and functional augmentation. One only needs to check their spam folder for a glimpse at some humanity, radical enhancement having its own meaning there. Even as he paints his dystopian warning, I wonder what experience is lacking a more tangible grasp on the dingier, more desperate side of humanity. Agar limits the imagination as if the cost will keep these things out of most people's reach. With the potential in mind, it is unlikely Govern/Pharma will be able to restrict access to these developments, and enhancements will sell and evolve on many fronts. I imagine tattoo parlor type establishments offering genetic alterations from an open-source library containing enhancements from millions of the world's species and an ever-growing repository of synthetic alternatives. Think franchise day spas for your longevity therapy, ones for the rich and I'm sure one's resembling high volume dialysis centers for the poor, but the cost will continue to fall, making prohibition ultimately impractical. I'm seeing something more like Cyberpunk 2077, to make my own cultural reference.

Agar writes pre the invention of CRISPER and doesn't give proper respect to the fact that Kurzweil's law of accelerating returns includes ease of access to the technology necessary. This means the "god children" from Gattaca will not be contained in the way

he seems to envision it. For example, Agar mentions an elite type of chess that "post-humans" might play he calls 8-dimension chess. With Kasparov, the world champion of the time, as humanity's best spokesmen, Agar paints this helpless disparity between 'our' current best and a hypothetically advanced post-human alternative. It's interesting we have already realized an AI far better than Kasparov, or any potential future champion, with the development of Stockfish, the world's most advanced chess engine. Current chess engines are now so superior to humans they must compete against each other - there's already an advanced competition unavailable to human players. In these competitions, Stockfish remains the reigning champ. Despite several commercial/academic attempts to beat it, open-source Stockfish remains the best chess player in the world. I'm not sure Humanity's End stressed enough the importance of open access when developing better intelligence or otherwise. Open-source might be the exact model necessary to avoid Agar's greatest concerns when it comes to enhancement. If we are all working on humanity's enhancement in an open-source fashion with examples like Stockfish and Linux as our guide, perhaps we are witnessing a new beginning, rather than some end of what we are.

Agar also speaks about a potential Neandertal-Human sexual revulsion that resembles the revulsion we might feel for the character Gollum in *The Lord of the Rings*. This reference confuses me. The main love story in *The Lord of The Rings* was a cross species union, where the elven 'Juliet' must give up her immortality to live a life with her mortal human lover. How is that crucial part of this cultural reference not more relevant to the topic than speculation about Gollum's repulsiveness as psychological proof that humans wouldn't want to sleep with neanderthals, or vice versa. Also, Gollum is granted a kind of immortality by the ring he carries even as he slips deeper into his maddened revolting state. These points in the story seem more relevant to Agar's message, and I find his missing them telling of his unfamiliarity with the cultural reference. Using pop culture references is likely necessary to describe humanity at all but failing to connect to the story and message of those references while doing so is like using a single phrase from a proverb out of context to prove some point that directly contradicts it. It's hypocritical. I'm a little offended that Agar continuously uses sources I cherish like Star Trek, X-Men, Dr. Who, etc. in ways that seem to suggest a lack of familiarity and/or authority on the respective canon. I believe the commoners are much further along in the conversation than Agar appears to appreciate, and 'humanity' might be moving on without him, perhaps the real source of his fears.

All species exist on a wave, there is no single point where they get to claim they exist. Humans cannot be defined by some specific moment, other than perhaps now – an always transient moment. We are always on a continuum, a varied population; there's few if any absolutes. Apart from cataclysm, humanity will not end but will evolve. I hope to demonstrate with developing science and more relevant cultural examples, that Agar can reject what he wants, enhancement, even radical, is a consequence of humanity, not its end, but its beginning.

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I stumbled across this review and was intrigued because it is outside my normal epistemology. I had not previously considered some of the ideas represented in Dame's critical review of Tolstoy's use of music. Music and sexuality seem to contradict Tolstoy's ethics which rely heavily on rationality and suffer in the realm of the ineffable irrationality caused by music and sexual desire. Because Tolstoy uses female sexuality as a metaphor for music, he gains linguistic limits to maintain his ethical stance, while allowing a yielding to their powerful trance. The limits are arbitrary however and as the author points out, "caught in a typically Tolstoyan contradiction between enjoying pleasure and rejecting the moral premises for this enjoyment... Tolstoy's uncertainty about the ethical qualities of music due to its strong influence on one's emotional state parallels his ambiguous attitudes about the force of sexuality." (p.163)

Many of the points made by Dame are relevant in my critique of the book Humanity's End. Agar might suffer from a similar one-sided male centric view of sexuality, desire, and the human condition. Where there are holes in Agar's arguments about sexual desire and human nature, Dame bridges the gaps. I knew there was an aspect of human nature missing from my argument and found a voice for that lost element in that of Dame's review of Tolstoy. A major part of the development of human enhancement will be driven by sexual desire, and like Tolstoy we might suffer from a fear of loss of control when human nature is released and takes hold in such a powerful, irrational, and life altering way.

- de Grey A. D. N. J. (2004). Escape Velocity: Why the Prospect of Extreme Human Life Extension Matters Now. *PLoS Biology*, *2*(6), e187. https://doi.org/10.1371/journal.pbio.0020187
- Delaney, Carol. (1999) Abraham, Isaac, and Some Hidden Assumptions of Our Culture. *The Free Library,* May, 1, https://www.thefreelibrary.com/Abraham, Isaac, and Some Hidden Assumptions of Our Culture.
- Dolgin, E. Send in the senolytics. *Nat Biotechnol* 38, 1371–1377 (2020). https://doi.org/10.1038/s41587-020-00750-1

This article in Natural Biotechnology outlines some business developments in the field of senolytics. Dolgin discusses Unity, the anti-aging company backed by Jeff Bezos. He also points to some other players, discusses why Unity under-delivered, and closes with how insider researchers outside of the media are viewing these developments. On the surface, or from an investors point of view, the holy grail of senolytics seem out of reach. Researchers with inside knowledge and on the front lines might disagree with that assessment. Cynics in the media and business shouldn't be judged too harshly, promises about escaping death aren't new, and haven't always had the best result for those who fell for it. But the technology is advancing to the point that investors can now be motivated by the potential profits of trialed therapies, instead of by some audacious plight for immortality; investors might start to listen to the former while historically they might have scoffed at the hubris of the later.

English King James Version Bible. (2001). Bible Gateway. Proverbs 6:6-11.

- Erikson, E. H., & Erikso, J. M. (1998). The life cycle completed (extended version), WW Norton & Company.
- Frankl. (2011). Man's search for meaning: the classic tribute to hope from the Holocaust. Rider.
- Guignon, C. B. (2016). Existentialism. *Routledge Encyclopedia of Philosophy*. https://doi.org/10.4324/9780415249126-n020-2

This article outlines the main ideas of existentialism in its most current form. Guignon describes existentialism more broadly than how it was coined in the 1940s. To Guignon existentialism is broadly defined as a "backlash against philosophical and scientific systems that emphasize the standpoint of theoretical detachment...treat[ing] all particulars, including humans, as members of a genus of instances of universal laws." (p.1) I reference this article to highlight that life extension is more than a mere natural science problem. When Guignon states, "The process of self-making, on this view, is always 'dialogical'... that we draw on to compose our life-story." (p.12) I find this practice of composing a life-story matching the educational goals of e-portfolios, "because we exist and understand who we are only in the interpretations and **stories** we choose to create for ourselves." (p.12).

As I create a narrative for my own eportfolio, I'm forced to face questions about life's meaning. Authenticity is a buzzword in existentialism that to me means overcoming narcissism, trying to strip away fanciful ego service. "Authenticity pertains not to what specific kinds of things you do, but how you live – it is a matter of the style" (p.11). Style as a definition for life's meaning makes the design of this project part of the message. Style is less concrete than science, so a conversation on the scientific viability of life extension/enhancement needs to stress that quantity of time may be less important than quality. Quality relates to the style of living, having a purpose, and living authentically. Style is the art of life, and existentialism is well suited for such discourse.

Guignon mentions various players in the history of existentialism, some of whom I'm more familiar with than others; Nietzsche isn't the only voice for this philosophy, he's also not a Nihilist. I would like to return to some of these references and use this text as a gateway into the subject, a bridge gap for my ignorance and quick reference to the topic.

- Hoffmann. (1986). Japanese death poems = [Jisei. C.E. Tuttle Co.
- Jacques, Chaaya, N., Beecher, K., Ali, S. A., Belmer, A., & Bartlett, S. (2019). The impact of sugar consumption on stress driven, emotional and addictive behaviors. Neuroscience and Biobehavioral Reviews, 103, 178–199. https://doi.org/10.1016/j.neubiorev.2019.05.021
- Jung, C. G. (1958b). The undiscovered self: Translated from the German by R.F.C. hull. New American Library.
- Jung, C. G., & Shamdasani, S. (Ed.). (2009). *The red book: Liber novus*. (M. Kyburz & J. Peck, Trans.). W W Norton & Co.
- Kaneda, T., Haub, C. (2022, November 15). *How many people have ever lived on Earth?*. Population Reference Bureau. https://www.prb.org/articles/how-many-people-have-ever-lived-on-earth/

Kierkegaard, Hong, E. H., Hong, H. V., & Kierkegaard, S. (2009). *Kierkegaard's Writings, X, Volume*10: Three Discourses on Imagined Occasions (Hong & H. V. Hong, Eds.). Princeton
University Press,. https://doi.org/10.1515/9781400832323

Kirkland, J. L., & Tchkonia, T. (2020). Senolytic drugs: from discovery to translation. *Journal of internal medicine*, 288(5), 518–536. https://doi.org/10.1111/joim.13141

This article is a key source on how senolytics work. It is also the most up to date reference for studies utilizing senolytic methods of discovery. Table one lists fifteen first generation senolytics with reference to those studies. There are thirty-nine health conditions listed where emerging evidence suggests senolytics may be of benefit, a great source for further reading.

Multiple Phase 1 and/or II human trials have shown promise using senolytics. Conditions showing promise include idiopathic pulmonary fibrosis, bone marrow transplant complications, Alzheimer's disease, and diabetic chronic kidney disease. Work is even underway in treating elderly hospitalized patients with COVID. Senolytics are a new chapter in medicine and revolutionary on several fronts. "Since clearing senescent cells with senolytic drugs is a completely new therapeutic paradigm, a novel strategy for translating senolytics into interventions for humans is needed." These studies use different methodologies to typical pharmaceutical research. There is serious probability that these methods of treatment and delivery will cause a cascading effect - Kurzweil's, "accelerating returns"

Kovacs. (1989). The epic of Gilgamesh. Stanford University Press.

Lane. (2018). *Power, sex, suicide mitochondria and the meaning of life* (Second edition.). Oxford University Press.

80 pages into my thesis I read this and realize my methodology towards biology and meaning is far from original. I can't put this down while there seems not enough time within this writing to zoom past the corn to this lower fractal world and see the same occurrence of balance machines in their own subjective story scene launching themselves past any facticity that might suggest a limit to its final capabilities. Dammit, he uses my 42 joke, I'm 5 years late! He does use Aristotle's teleology, in Lane's case the purpose of an organelle rather than the mere scope of organs, to hint at the 'meaning' that these purposes might reveal. His close is where I hope to begin, and there are many parallels between the purpose/function of mitochondria and ourselves and the purpose/function of the corn (who themselves contain remnants of that same mitochondria). Lane suggests that it is the gene itself that is selfish, which would manifest as Ceres in the corn at the macroscale, and means that the gene seeks its end with no regard for the 'individual.' "If they [mitochondria] don't show us the meaning of

- life, they do at least make some sense of its shape. And what is meaning in this world, if it doesn't make sense?"
- Lee, S. O., Kim, S. J., Kim, J. S., Ji, H., Lee, E. O., & Lee, H. J. (2018). Comparison of the main components and bioactivity of Rhus verniciflua Stokes extracts by different detoxification processing methods. *BMC complementary and alternative medicine*, *18*(1), 242. https://doi.org/10.1186/s12906-018-2310-x
- Leigh, G. J. (2004). *The world's greatest fix: a history of nitrogen and agriculture*. Oxford University Press.
- Lennon, J. (1971). Imagine [Song]. Apple.
- Levitin D. J. (2008). *The world in six songs : how the musical brain created human nature*. Penguin USA.

While enjoying Levitin's writing, I'm confused about his 6 categories of songs that make/create human nature because they are not the same nor different from one another. Levitin takes us on an exciting voyage, but his map is more like geography than taxonomy. This is why every referential song seems to fall into multiple of his categories. I find Susan Roger's (Levitin's student) listener profile approach much more rewarding, because the profiles lean towards why we have subjective interest in music at all, and why there are so many categories and meanings that are derived from the enjoyment of music for each listener. Levitin's categories are somewhat random. As an example, although historically significant, religion isn't really a continuous categorization, while the others have the ability to be so. (the six song types are friendship, joy, comfort, knowledge, religion, and love) Personally I'm fond of the category comfort, much of my own music listening is motivated by it; although I'm more of a study listener. I believe our brains are wired for music, but these categories only help explore themselves. Studies have revealed since the publication of this book that animals show similar preferences regarding music. These categories are not very helpful for the dissection of desire towards different music types. Roger's music profiles do a better job, of course she gets there on the shoulders of Levitin's ideas about music in the first place. Levitin is a central character in music psychology, and I enjoy his perspectives, stories, and expertise, but find him falling short with his categorization. I like bell curves representing isolated variables, and while Levitin's 'kinds' of songs do exist, the difference and distance between them potentially creates only another jigsaw layer rather than isolating particular features of music to help us understand it. The book is more ethnographic, which from a character like Levitin is appreciated, but his 6 categories don't break it down quite like Roger's 7 profile categories. My album project idea for this thesis wants the title, Subjectivity in Six Songs, a nod, but also a critique of this book.

Lingus, A. (2000). *Dangerous emotions*. University of California Press.

- Lingus, A. (1989). *Deathbound subjectivity*. Indiana University Press.
- Lenski, R. (2017). Experimental evolution and the dynamics of adaptation and genome evolution in microbial populations. *ISME J* 11, 2181–2194 https://doi.org/10.1038/ismej.2017.69
- Lou, Rømer Thomsen, K., & Changeux, J.-P. (2020). The Molecular Organization of Self-awareness: Paralimbic Dopamine-GABA Interaction. Frontiers in Systems Neuroscience, 14, 3–3. https://doi.org/10.3389/fnsys.2020.00003
- Lu, H. et al. (2012) Rat brains also have a default mode network. Proc. Natl. Acad. Sci. U.S.A. 109, 3979–3984
- Mariahmillstv. "Local Restaurant Hosting Virtual Open Mic Nights Every Sunday Kobi-TV Nbc5 / Koti-TV NBC2." KOBI, 4 May 2020, https://kobi5.com/news/local-news/local-news/local-restaurant-hosting-virtual-open-mic-nights-every-sunday-127784/.
- Maslow, A. H. (1970). New introduction: Religions, values, and peak-experiences. *Journal of Transpersonal Psychology*, 2(2), 83-90.
- McCay, C. M., Crowell, M. F., and Maynard, L. A. (1935) The effect of retarded growth upon the length of life span and upon the ultimate body size. J. Nutr. 10, 63–79.

McCay et al. wrote this journal article in 1935, which is why I mention it. This work is mostly important for its relevance to the timetable leading to senolytics. I don't mean to mention much other than the use of "length of life span" rather than longevity, again to highlight development even in the language used to describe it. It's interesting to think for a moment that these scientists had proof of the possibility, yet are, despite our best efforts so far, themselves now dead. Will we, despite our optimism, find ourselves similarly fated, life sacrificed for the noble pursuit of more life that might have been better spent appreciating the moments rather than seeking more of them?

Miller, R.A. (2002), Extending Life: Scientific Prospects and Political Obstacles. The Milbank Quarterly, 80: 155-174. https://doi.org/10.1111/1468-0009.00006

An article from 2002, I find this to be a great foundational work in what has been the controversial field of life extension. More pragmatic than optimistic, Miller et al. detail what the environment was like twenty years ago. Miller uses a little humor to pragmatically detail human nature as it prevents further rapid development. Describing from where we have come, the article helps define why anti aging medicines are "no longer silly." (p1) Also Miller et al. explains why anti aging research wasn't progressing rapidly at the turn of the century. I believe this is the most appropriate place to start as I wish to outline progress by comparing this to more recent works to detail the trajectory.

Metz, Thaddeus, "The Meaning of Life", *The Stanford Encyclopedia of Philosophy* (Winter 2021 Edition), Edward N. Zalta (ed.), forthcoming URL = https://plato.stanford.edu/archives/win2021/entries/life-meaning/.

Metz starts with chapter one, "The Meaning of 'Meaning." A perfect philosophical start to something as cliché and yet universal as, "what, if anything, makes life meaningful?" Metz points to 3 groups for consideration on the subject — supernaturalism, naturalism, and nihilism. From these groups Metz delivers a comprehensive dialog. His thorough research and in-depth analysis provide a starting point for further study. I don't think I can avoid these philosophical questions. Once established, the meaning of meaning, we must then proceed to defining life. It is the "radical" (Agar) change to life itself that is upon us that naturally leads down this road of inquiry. The value placed on human life cannot escape consequences of extending and enhancing it. The question becomes: will the value of each day seemingly increase or decrease as we are given more of them? Will we cherish the extra days, or will our days become less precious - granting plenty of time to procrastinate? If one has a thousand years to live, will that result in a different value or meaning being placed on life, or will Metz's modern take on the subject prove foundational and survive a new kind of test on time?

Another almost humorous note, as it points to my obvious ignorance early in my exploration. Oh library, what fun new things I'm about to discover. I am the shrew who seeks its prize - little seeds of knowledge to cram into cheeks!

- Nair, A. B., & Jacob, S. (2016). A simple practice guide for dose conversion between animals and human. *Journal of basic and clinical pharmacy*, 7(2), 27–31. https://doi.org/10.4103/0976-0105.177703
- New International Version Bible. (1973/2011). Biblica, Inc. https://www.biblegateway.com/passage/?search=ecclesiastes%201&version=NIV
- Nietzsche, Friedrich (1998). *On the genealogy of morality*. Maudemarie Clark and Alan J. Swensen (Trans.). Indianapolis: Hackett.
- Nirvana. (1992). Bloom [Song]. On Nevermind. DGC.
- "Open Mic Hosted by Dave Hampton" Facebook, https://www.facebook.com/davehamptonopenmic.
- Ott, L., & Longnecker, M. (2001). *An introduction to statistical methods and data analysis*. Brooks/Cole Cengage Learning.
- Pagels. (2003). Beyond belief: the secret gospel of thomas (1st ed.). Random House.

- Piaget, J. (1952). Jean Piaget. In E. G. Boring, H. Werner, H. S. Langfeld, & R. M. Yerkes (Eds.). *A history of psychology in autobiography*, Vol. 4, pp. 237–256). Clark University Press. https://doi.org/10.1037/111
- Pickford, H. W. (2015). Thinking with Tolstoy and Wittgenstein: Expression, Emotion, and Art. United States: Northwestern University Press.

I hope to include some of the existential crises that Tolstoy experiences after studying Schopenhauer. I'm interested in how this experience leads Tolstoy to write Diary of a Lunatic, and how it shapes his ideas on art, specifically music. Tolstoy was a musician who incorporated music into many of his writings and used it to reveal aspects of human nature that he struggled to describe in words. Sometimes it takes music to tap into difficult to describe aspects of our being, and the medium of time is significant, especially considering the potential change in our perception of time if/when granted so much more of it. This is an early read in my journey, and I love to look back at such notes and grin.

- Pollack. (2013). The fourth phase of water: beyond solid, liquid, and vapor. Ebner & Sons Publishers.
- Rogers, Susan (2022). This Is What It Sounds Like: What the Music You Love Says About You. W Norton.

I waited for this book to come out, which was published as I pursue my master's. Rogers breaks down how various attributes of music listening work in the brain and why one might like one kind of music over another. Her sliding scales act much like Aristotle's sliding scales of virtue and I find another example hinting at the binary reward networks associated with desire, likes, wants, needs, etc. I had a limited scope of appreciation for various non familiar music, but after reading Rogers I understand music more deeply and appreciate the plethora of options to desire fulfillment in music listening. I feel pushed to listen to a wider range of music, listen more deeply, and seek a more balanced, perhaps more 'virtuous' listener profile.

- Rood. (2017). The reinvention of Atlantic slavery: technology, labor, race, and capitalism in the greater Caribbean. Oxford University Press.
- Sagan. (1997). The demon-haunted world: science as a candle in the dark (First Ballantine books edition.). Ballantine Books.
- Schnitkey, G., C. Zulauf, K. Swanson, N. Paulson and J. Baltz. "Potential Disruptions in Nitrogen Fertilizer Trade." *Farmdoc daily* (12):57, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 26, 2022.

- Seligman. (2004). Authentic happiness: using the new positive psychology to realize your potential for lasting fulfillment (First Free Press trade paperback edition.). Free Press.
- Schopenhauer, A., Kolenda, K., & Schopenhauer, A. (1960). Essay on the freedom of the will. Liberal Arts Press.
- Stability AI. (2022). Stable (1) [Diffusion 2.1]. https://creator.nightcafe.studio
- Tolstoy, L. (2009). *The death of ivan illych*. Melville House Publishing. Ivan Illych
- Tomkins, D. M., & Sellers, E. M. (2001). Addiction and the brain: the role of neurotransmitters in the cause and treatment of drug dependence. *CMAJ*: Canadian Medical Association journal = journal de l'Association medicale canadienne, 164(6), 817–821
- Veech, R. L., Bradshaw, P. C., Clarke, K., Curtis, W., Pawlosky, R., & King, M. T. (2017). Ketone bodies mimic the life span extending properties of caloric restriction. *IUBMB Life*, *69*(5), 305–314. https://doi.org/10.1002/iub.1627

In this journal article, Veech et al. attempt to explain the life span extending effects of caloric restriction. In their study, the researchers use Caenorhabditis elegans (round worm) as a model, as they test various treatments that affect aging. Each treatment is based on hypotheses on the nature of potentially affected pathways during caloric restriction. In their study Veech et al. show that ketone bodies are present in correlating concentrations in life extension studies. Since ketone bodies in urine are one indicator of diabetes, the team dives more deeply into glucose metabolism and insulin production. The life span increasing effects of caloric restriction may be caused by changes in the NADPH pathway. When ketones provide the NADPH in the cell a different pathway is used that has other downstream cellular effects, potentially leading to increased life span.

Wissler Gerdes E.O., Zhu Y., Tchkonia T., Kirkland J.L. (2020) Discovery of Senolytics and the Pathway to Early Phase Clinical Trials. In: Muñoz-Espin D., Demaria M. (eds) Senolytics in Disease, Ageing and Longevity. Healthy Ageing and Longevity, vol 11. Springer, Cham. https://doi.org/10.1007/978-3-030-44903-2_2

In this chapter, Wissler et al. outline current progress towards clinical trials in humans for promising senolytics – drugs which target senescent cells. The group uses their own experiments with some in collaborating labs to highlight a research approach atypical for pharmaceutical research. Wissler et al. change targeting tactics as well as use a unique filter to narrow down the list of potential compounds. Traditionally research might focus on a particular molecule, receptor, or biochemical pathway, but instead this group has targeted senescent cells themselves. "This novel concept goes against the traditional drug development paradigm of 'one drug-one target-one disease' (p8). The idea is to cause apoptosis in senescent cells while leaving non-senescent cells alone. The more

traditional approach results in significant non-senescent death as well, the main shortcoming with modern chemotherapy.

I believe human trials is a step towards a business model that will drive the next .com era in pharmaceuticals. However, some of these compounds are naturally occurring flavonoids, which may be difficult to patent. I hope to outline a reasonable expectation from these studies/trials and shape the premise of my thesis. Extending lifespan and healthspan is no longer speculative fantasy. The expectation that this technology will lead to further longevity discoveries may be optimistic but shouldn't be considered mere science fiction. With this outlook I hope to ask some important philosophical, economic, and cultural questions.

- YouTube. (2020, August 8). ASMR Apple eating mukbang donkey eating sounds no talking. YouTube. Retrieved May 7, 2023, from https://www.youtube.com/watch?v=3NFLLCF_KP8
- Yusuke Arai, Shaw Watanabe, Mitsuru Kimira, Kayoko Shimoi, Rika Mochizuki, Naohide Kinae, Dietary Intakes of Flavonols, Flavones and Isoflavones by Japanese Women and the Inverse Correlation between Quercetin Intake and Plasma LDL Cholesterol Concentration, *The Journal of Nutrition*, Volume 130, Issue 9, September 2000, Pages 2243–2250, https://doi.org/10.1093/jn/130.9.2243
- Zhang, L., Pitcher, L.E., Prahalad, V., Niedernhofer, L.J. and Robbins, P.D. (2022), *Targeting cellular senescence with senotherapeutics: senolytics and senomorphics*. FEBS J. https://doi.org/10.1111/febs.16350

Appendix One (Referenced Songs & Poem)

The song (a death poem 2021) Now and Then

V1 - Now and then, sometimes settles in

And that which will be is ending

Then just as now will never end

You will get it once again

C - Fearing then is of nothing else

And what I find when I get there myself

For what I know is what I will forget

When I'm gone

V2 – Now and then, sometimes settles in

And that which will be is fading out

Then just as now will come again

You will get it in the end

- C then end

The poem (a death song 2023) Flags and Crosses

Flags and Crosses
And now Golden Arches
From here to there
The symbols declare
An eye that sees
The buildings square
A compass pointing
The power of heirs
North or South?
Ancient whispers
Still in the air
And which are you
The rabbit or the hare?

Over the Rainbow (a satirical rewrite)

I wrote this version and tell the story of why during my shows. I discovered some blue jays eating a still live baby redbird on an icy winter morning. At that moment I didn't understand what I was seeing, ignorant of this behavior, I caught on soon enough. I chastised the birds chasing them into the nearest tree. I lost the baby bird under nearby cars, and spent the next moments trying to locate it while still ranting at the bluejays. People walking by seemed confused. After some time I gave up my search and went online to find that indeed blue jays, and many others, take advantage of fledgling birds for an easy meal. The parents of these fledglings can sometimes spend days still feeding their offspring as they learn to fly, and if found should be left alone, the parents will return with food soon enough. My attempt to save the baby in the above case likely only prolonged its suffering. To feel better I rewrote the classic song:

Somewhere over the Rainbow Way up high There's a land that I heard of Once in a lullaby

Somewhere over the Rainbow Skies are blue And the dreams that you dare to dream really do come true

Somewhere over the Rainbow
Bluebirds fly
And those bluebirds don't eat other bird's babies
While they are still alive

Someday I'll wish upon a star
And wake up where the clouds are far behind me
Far above the chimney tops
Where troubles melt like lemon drops
That's where you'll find me, singing:

Somewhere over the Rainbow
Bluebirds fly
And if baby eating bluebirds can make it over
Rainbows
Why, oh why can't I

Blackbird (see Tower of Silence)

Imagine

Imagine there's no heaven
It's easy if you try
No hell below us
Above us, only sky
Imagine all the people
Living for today

Imagine there's no countries
It isn't hard to do
Nothing to kill or die for
And no religion too
Imagine all the people
Living life in peace
You

You may say I'm a dreamer But I'm not the only one I hope someday you'll join us And the world will be as one

Imagine no possessions
I wonder if you can
No need for greed or hunger
A brotherhood of man
Imagine all the people
Sharing all the world
You

You may say I'm a dreamer But I'm not the only one I hope someday you'll join us And the world will live as one

Elenor Rigby

Ah look at all the lonely people
Ah look at all the lonely people
Eleanor Rigby
picks up the rice in the church
where a wedding has been
Lives in a Dream
Waits at the window,
wearing the face that she keeps
in jar by the door
Who is it for?

All the lonely people
Where do they all come from
All the lonely people
Where do they all belong

Father McKenzie
Writing the words of a sermon
that no one will hear
No one comes near

All the lonely people
Where do they all come from
All the lonely people
Where do they all belong

Eleanor Rigby died in the church and was buried along with her name nobody came.

Father McKenzie wiping the dirt from his hands as he walks from the grave

No one was saved

All the lonely people
Where do they all come from
All the lonely people
Where do they all belong

Bloom (modified slightly for gender equality)

Sell the kids for food Weather changes mood Spring is here again Reproductive glands

He's the one
Who likes all our pretty songs
And he likes to sing along
And he likes to shoot his gun
But he don't know what it means
No he don't know what it means
To love someone

We'll just make some more Nature is a whore Bruises on the fruit

Tenderness in bloom

She's the one
Who likes all our pretty songs
And she likes to sing along
And she likes to shoot her gun
But she don't know what it means
No she don't know what it means
To love someone