

Systems, Minds, and the Universe

A Treatise on Procedural Relativism

There are a lot of big ideas I've formed about philosophy, ethics, and more over the years, and I've found myself talking and thinking about them quite a lot as of late. What I have written here is an attempt to consolidate every particularly important concept I have put to text over the past few months into a unified picture and give it all some structure. I hope it can be interesting and / or useful for anyone who may be interested.

Just a warning: the first two main texts are incredibly abstract, and their function is ultimately just to set the baseline for how existence and information are considered. The "Relative Existence" section that precedes them should suffice unless you want to get more detail. The main substance of my ideas about ethics come with **The Ethics of Life as a Physical Process** and the surrounding text. This being said, if you are interested and you do have specific questions, feel free to contact me directly.

With all that out of the way, I suppose there's no better place to start than at the beginning: the factors that drove me to form all these interconnected ideas in the first place.

A Short Biography of the Way I Think

I've had trouble with communication for much of my life. Even as I was a child, my parents were largely unresponsive to much of what I said. I would analyze and criticize the way things were done, and this was interpreted foremost as a threat to authority. I struggled with rigid environments, and this was seen as a learning disability. I would be placed in solitary confinement rooms for hours on end, typically devoid of all visual stimulus besides a small chair and desk with a rather generic framed image of a motivational quote hung on the wall.

Afterwards, I was home-schooled from 5th to 8th grade, over the duration of which any social interaction outside of my immediate family was very limited. My experience with high school was an improvement, as I was granted access to the internet (and much of its available knowledge) for the first time via my school Chromebook. I also encountered faculty who recognized that I was in fact not deficient, but rather possessed an uncommon capacity to

excel. Until then, however, it's safe to say I've been granted a disproportionately large amount of time to think and reflect over the course of my 19 years of life so far.

I spent that time thinking about many things. Physics was one of them (though I didn't know it was called physics at the time) - chiefly relativity. I didn't have a lot of information growing up, but I had some astronomy books. One of them talked about extra-galactic objects, cosmology, time dilation, and the limits of the speed of light. I accordingly spent much of my isolation thinking conceptually about the implications of relativity.

Another thing that I began to think about was society. As I've mentioned, I was very isolated growing up. That stung quite a bit, and always stuck with me. I began to think and almost fantasize about having opportunities to communicate how I thought and felt about things, since I had no such opportunity. One such idea - which struck me as particularly profound - was the idea of direct thought-to-thought communication.

It began as a brief thought about how the truth of communicated statements is very difficult to prove, and how we can never fully trust each other because of it. I realized that if we could see each others' thoughts, it would solve this crucial issue. As kept thinking about it, I realized that it in fact solved a majority of society's problems: misinformation, corruption, and even hatred are all given far easier solutions via this method. If we expand this concept to include everyone simultaneously, it could completely replace government. It could replace the economy. It would allow everyone to see every world issue from every perspective simultaneously, and it would allow the processing power of the entire world to be turned to every issue. We'd intimately know every problem on every scale, and we'd be rid of miscommunication and malicious intent. We'd be able to see the full context of everything. It would scale the efficiency and understanding of a small village to the entire planet. All of us, all at once. We'd know the perfect solution to every issue, fueled by humanity's entire cognitive mass, while retaining each of our individual perspectives - just communicating them perfectly in parallel.

I realized that if any of this was possible to actually achieve, it'd be worth every effort.

This process only continued. It led me to seek out information about the brain, about computation, and even about ethics and motivations - all understood from a physics background. I made many of my own interpretations.

By sharing my thoughts with many others, I'm only recently seeing that some of these interpretations have had similar analogues from many famous thinkers, though many of them also seem to be unique.

What follows is the present culmination of these continued branching thought processes.

To begin, I'll describe how I approach ideas of truth, existence, information, and processing. This forms the absolute baseline.

The Foundation of Truth

The most fundamental truth is not the most complete one.

In fact, the most fundamental truths are the most incomplete ones. You have to take everything together to understand anything beyond the basis.

The simplest things are the most devoid of any larger context, essentially.

From what I can tell, the baseline of truth is the entire system of fundamental things. Taken alone, each thing is meaningless. What is fundamental is important to each of the parts individually (Ne), but it's the larger-scale interactions between each part that's important to the higher-order systems (Ni). That which is fundamental is an implicit bound on what happens in more interconnected systems.

One must alter what is most fundamental of a system to truly change its overall character.

Induction will tell you there's plenty of room at the bottom, but deduction shows there's even more room in the way that everything at the bottom builds up to the top. What matters is how things interact on each and every level. Sure, the baseline characterizes the whole, but only when considered at full interconnectedness.

"Everything is relative, and only that is absolute."

- Auguste Comte

And this is only absolute because it's the case everywhere in the universe, at all levels of complexity. In a way, even this is relative. Almost self-referentially so, perhaps.

Perhaps self-reference is a mechanism for constructing things from absolute abstraction, formally. Not to be avoided - as mathematics and philosophy have done for centuries - but to be adopted as the bottom line. Maximally incomplete. Completely devoid of meaning on its own, but within its proper context - a **maximally relational group network of maximally simple orthogonal members** - a **relativistic holism** ...

The most fundamental truth is *not* the most complete one.

Relative Existence

You can define anything as existing or not existing, but it's impossible to refer to anything without stating that it exists at least in the world which follows your statements, since referring to something is impossible without giving it some kind of label, and any label you create will always exist.

This comes down to "existing" being a flawed concept. Saying that anything "exists" in an absolute sense seems meaningless to me. The way I see existing, it's a causal thing. Anything within my ability to influence causally exists to me, and I exist to it. This is to say that anything that can influence you physically exists to you, and anything that cannot doesn't. Even concepts. Just note that there is a distinction between a concept existing and the thing it "refers to" having a physical presence as described by the concept.

Concepts are information. Information is represented by the way that a thing is organized relative to whatever processing system is taking that as input. In our case, the processing system would be the human brain. Taking that common basis, information can be understood as being encoded in how a thing you perceive is arranged. For example, the order of sounds in heard speech. Thus, concepts have a physical representation that characterizes them.

Concepts that affect other people - say in other parts of the world - and that don't seem to affect you in any way also still exist. Note that that concept is still causal to you. Causality is limited by the speed of light, as Einstein asserted in his theories of relativity.. Even if your brain doesn't process something, that doesn't mean it's not physically affected you, or that it isn't causally accessible. Even something as minuscule as the motion of a person on the other side of the planet who is moving due to the way they processed a concept affects you gravitationally (within the limits of the speed of light), and thus it "exists" relative to you.

I'll now expand upon this in the first main text here, **Existence is Relative**.

Existence is Relative

There's no sense in trying to make any statements about something that cannot be investigated in any way anyways, since nothing can be known if it cannot be investigated. Without some basis in falsifiable observation, there is absolutely no standard for truth, and this is not useful. Even ideas like "necessary presuppositions" ultimately rely only on this idea of *usefulness*, rather than any truly rigorous reason. Thus, I hereby relegate the problem of induction and all metaphysical speculation to practical irrelevance - though perhaps fully open contemplation of these matters may be enriching in its own way to some (In my view, there seems to be an implication that reasoning / processing is actually net reductive, taking in large amounts of information to define higher-and-higher-order concepts. That is to say, epistemological truth will be one of many, rather than one from which many are produced. The real epistemological truth,

then, (In an idea I am calling "relativistic holism") may be the collection of all the fundamental parameters of existence in a **holistic** network of representation-invariant groups (of which the universe itself would be a particular instance) - which will contain foundationally generalizable patterns as a secondary consequence - though this is not the primary focus of the present text).

Since everything within the universe (up to the cosmic horizon) is available to investigation, it should be possible to make maximally strong inductive claims (observations) about everything *within* the universe, given a definition of *within the universe* such as "**something is within the universe if and only if there is a causal path between I and it.**" Further more, let's redefine something as "existing" only if it is *within the universe* under this definition, meaning it is possible to investigate as permitted by induction. So, every truth that *exists* to us is inductively ascertainable, by definition.

Hence, **existence is relative**, and the universe *exists* only as it is causally interactable with an observer (or anything at all, really) at any given time.

One may point out the fact that this means the future does not exist, as it is not available to investigation. However, our continued existence itself depends on the consistency of the universe through time (as our biological processes can always be shown to be highly dependent on precise physical interactions), so falling back on the idea of *usefulness* - even if this may be somewhat morbid - we will still never encounter any situation in which the universe ceases to behave as it presently does at any point in time. If it were to change, we would almost immediately cease to be alive.

So, for the sake of usefulness (and to have some kind of standard for factual falsification), we are best suited to deal only with what *exists*, as it has now been defined. Otherwise, there would be no order to anything and all claims (no matter how preposterous) would stand on equal footing. This approach also implies that *everything* exists relative only to other things, such as function and purpose*. The implications are vast, and the ultimate consequences are much deeper than one may expect.

When all factors are taken into account, there will be an absolute truth, relative to the system.** "Objectivity" can only be defined locally. That is to say, what is "objectively best" for something to do depends on its nature and the nature of the systems it must interact with, in all cases, rather than some immutable overarching singular principle that applies without nuance. This is because ***everything that exists has a function and purpose which is characterized only by its interaction relative to the context of everything else in the relevant system. Function, like existence itself, is defined on a relative basis.

From here, I'll explain how I make sense of information and processing in a relative, systems-based approach in the second main text, **Information**.

Information

Information is an intricate and hard-to-pin-down concept that people have all kinds of different ideas about. It's difficult to work with or even really define the concept of information, since conceptualization itself is an informational process. However, it's not impossible to get some useful idea of what it might be. It's just a little tricky.

That being said, from what I can tell, information is a thing that only exists at all in the relative interactions between systems (including subsystems of some larger system). That is to say, its essence is found in the dynamics of a thing, rather than its static representation / medium. This makes sense, because technically, even a single character can be defined to have any meaning, with no theoretical limit on the scale of its content. What matters are the dynamics of the entire system containing both the character and the brain which is being fed this character as input. Thus, it makes no sense to say that any information exists unless there is some dynamic processing that occurs at some point, and information and processing must be codependent. **Generally, the state of a system is only meaningful relative to the state of some other system, compared by some interaction.**

Processing itself is a physical process. It includes the process by which some input system's specific state (information) alters some processing system's state. Furthermore, processing has an input and an output, and it needs to produce some unique result. Therefore, "processing" must be some kind of function. Finally, it aims to make some deduction which is more simple than the input itself. Otherwise, there would be no point to the process. So, "processing" must always uniquely map some larger space of possible inputs to some smaller space of possible outputs (that is to say, the same input will never produce a different result, not that two different inputs won't produce the same result. In fact, given that the map is from a larger space to a smaller one, the latter condition is impossible).

Now, given that processing is a physical process, inputs and outputs themselves must be physical systems of some kind. Given what we've said about it, processing is then the process of producing some physical system which is less dynamic than the input system, and which is somehow dependent on the state of the input system at the time(s) of processing. We could call such a dependency some *aspect* of the input system. So there must be some *aspect* of an input system that processing "targets," in a way, when it produces its output system. This *aspect* is what I would consider to be a piece of "information," though it may or may not be a *useful* piece of information*.

Taking these insights into account, some properties of "information" can be deduced. For example, since processing always involves a decrease in subsystem number from input to output, the total possible number of unique kinds of processing (and, by extension, the total number of *aspects*, or pieces of information) depends on the combinatorics of the input system. In this sense, a "smaller" input system has a lesser *potential capacity*, in a way, for informational content, since it can be processed in fewer unique ways. This is consistent with general heuristic ideas for how information should work.

To summarize what we've deduced, a piece of information is nothing but some *aspect* of an input system, and this *aspect* is a member of the dependencies of an output system's properties upon some subsystem(s) of the input system, following some processing interaction. In this sense, the essence of information is not found in its representation, but is instead implicitly limited by it due to the limits of the processing that can be done with the system of its representation, and this is why we expect to see less capacity for information storage in an input system with fewer subsystems.

*The "usefulness" of a piece of information is only meaningful relative to the choice of process itself. A piece of information may be less "useful" (or significant, if you will) relative to a process, for instance, if it is part of a large class that produces the same or a similar output, and there exists some smaller class (or classes) of information that will produce a different output.

I have now described the baseline. Now, I'll move on to what all this about systems and "relative objectivity" means for ethics.

Preface - Physical Ethics

In the following main text, I point out the underlying patterns which empirically exist within life's physical process, and I use those patterns alongside logical deduction to construct an entire ethical system which is formed around the base idea that what is "objectively best" for a living thing will follow from the nature of the physical processes life tends toward, alongside the underlying idea from the end of Existence is Relative that "objectivity" can only be defined locally. That is to say, what is "objectively best" for something to do depends on its nature and the nature of the systems it must interact with, in all cases, rather than some immutable overarching principle that applies without nuance.

The Ethics of Life as a Physical Process

What is "good" is what is the best for everyone considered individually and holistically, at all levels of interconnection. The "most good" decision, in my philosophy, will always be a very nuanced approach, especially as time moves forward. I have reached this philosophy by considering what is logically optimal for a living thing / living system, to optimally achieve the outcome of its physical process. **If all factors are correctly considered as they are, there will be one very specific absolutely correct answer, relative to the system.**

I reach a kind of pseudo-objective meta-ethical perspective by considering scientific processes and taking the position of a living thing. Since we, the thinkers, are living things ourselves, we should act in affirmation of the physical process of life. It's objective, but only relative to a living individual within a living system, subject to the nature of the physical process of life itself, and only after considering all layers of subsystem interconnection.

This doesn't make it fully "subjective" or "objective." There's more nuance to it. I would call it "relatively objective." It holds *objectively* for a living thing, *relative* to the context of the systems surrounding it and the nature of life's physical process. Since all thinking things fall under this description (at least presumably), it's objective. But it's only objective in that sense. It's not a universally inherent meta-ethical principle, but it is true across all living things, due to the nature of life as a physical process.

It's only objective to someone in particular if: 1. You are alive, 2. Your life impacts other living things, 3. The physical process of life behaves in precisely the way it does here on Earth, and 4. Life is not affected by any metaphysical aspect of the universe that is inaccessible to empirical inquiry.

It assumes nihilism as a basis and then builds upon it, showing that even under a nihilistic perspective, there is still wide-reaching objective purpose based on what something is, what systems something influences / are influenced by that thing, and the nature of the systems that allow the thing to exist. It's relevant to our function, and considered in the context of all other living things.

What, then, is the relatively objective best decision for a living thing at any given time? I personally cannot be entirely and completely certain, since I cannot consider all factors across all living things on planet Earth. But whatever it is, it will follow the principles I have laid out. I will state that the ultimate tendency of life as a physical process is something that can be deduced at a fundamental level. This is the "nature of the system."

Two things that the physical process of life entails are, most generally,

1. Homeostasis; life preserves its existence and process against contrary forces, including those associated with the passage of time. It has many ways of accomplishing this, such

as replication, temperature control, etc.

2. Evolution; life advances and develops, changing itself to better optimize its existence and process. The emergence of nervous systems and eventually the brain itself, for instance.

There's also a third thing, though it can be produced from the other two in context:

3. Multiplicity. Life arranges itself into larger groups and systems. Cooperation means more resources, and thus the previous two processes are better achieved in this way than through competition.

Thus, whatever is "best" for humans in particular will consider all factors across all humanity, and seek to optimize these principles in context.

For the first principle, homeostasis. The implication of this is that humans should seek to avoid death. To outlast and overcome all challenges, time or otherwise.

For the second principle, evolution. Humans should seek to change, but only in ways that are conducive for what is best for them across the board. Evolution for the purpose of optimizing homeostasis, whatever that entails, essentially. This will likely entail technological process, better quality of life, longer lifespans, etc. Changing the human body itself to these ends becomes one very effective method of optimizing this principle, for instance.

There requires a careful and complicated balance between change and staying the same.

One that requires taking all factors across all humanity into account. Ever heard of conservatism and progressiveness? These are the two ideological extremes that come from this. The correct answer is then actually determined to be a fully-informed mixture of both.

And then, taken together, these two ideas lend themselves to the third thing. Humans, by themselves, are far worse at both staying alive and advancing than they are together. This is the case for all living things. So humans should work together, and in the context of all humanity, whatever is best for achieving this end is what should be optimized.

In the context of humanity, there are a few things.

1. Communication. Communication should be optimized to this end. People should understand each other better, and be honest with one another. This also helps massively to better achieve the fully-informed mixture of progress and maintenance that I alluded to.
2. Cooperation. Things like greed and avarice are then objectively non-optimal at the end of the day, for everyone involved. If, instead of being anyone being greedy, everyone was sharing, everyone would live a better life. There's a topic from Game Theory called

"The Prisoner's Dilemma," which further supports this conclusion. This also obviously encompasses the fact that they should not kill each other.

3. Empathy. Humans are emotional creatures. This is a simple fact, regardless of what anyone would rather be the case. No one is free from this fact, because it's hard-coded into our biology. Hence, for optimal outcomes, people should be kind and empathetic to one another.

To conclude, we have now seen some generally agreeable ethical notions coming about from this system, which started only from the physical process of life itself. A "relatively objective" meta-ethical perspective, informed by multiple scientific fields, and placed under a systems thinking analysis, thus seems like a promising basis for reaching the ultimate conclusions about what's "good" for life (and, by extension, humans) to do.

Synopsis - Life's Process

We are living things. This is an unavoidable reality, and the thing about life is this: it continues without a necessary goal or end result. It exists due to the physical processes that sustain it, and while there is an overall trajectory of systems that have those processes at the baseline, there is no end result. It's a continuous thing. We do it because that is what we are. What causes us to exist.

The main thing that characterizes the physical processes that underlie life is the creation of a systems-level trajectory to continue existing. Homeostasis.

Another systems-level trajectory it creates is to become better at that continued existence. To change in ways that make continued existence a more robust process, given the circumstances. Progress, if you will. Evolution.

It's an endless process. We do it because it's what we are. Because it is our physical nature, granted to us by the processes that underlie our existence. Acting in a manner that is out of phase with the very processes that allow you to act in any way at all is a contradiction. You want to contribute maximally to the process that causes you to exist.

Living things also tend to group together. Turns out gathering and cooperating is very good for both continued existence and progress. Hence the evolution of multicellular life and social instincts. Life creates meaning by the physical processes which it is characterized by.

So why should an individual care about humanity?

Because humanity has far more capacity for progress than an individual, which I've established is an inherent meaning that living things have. Not caring about / working against humanity

thwarts potential progress, which actually hurts ourselves just as much as everyone else in the long run.

This is how I approach ethics from a standpoint of relative objectivity. It applies to every living thing at its most general, and I have also extrapolated its consequences for humans in particular. From here, I reflect on ideas about meaning and the state of the world in the context of what I've said and begin to connect ideas about the human mind in the next main text, **The Brain and the World**.

The Brain and the World

The human brain is ridiculously complex. In terms of specialization and interconnected dynamics, the human brain is probably the most complex finitely ordered thing in general. But **everything that exists in the brain has a function which is characterized only by its physical role, relative to the context of everything else in the system**. It's a powerful idea that really applies to everything that exists. Hence my incredibly relative view of everything.

Even something as high order as *your life* has a purpose / function, defined relative to everything it influences. Hence my approach for countering Nihilism: **The Ethics of Life as a Physical Process**. Unfortunately, our cultural concept of purpose is ridiculously divorced from our actual physical existence for no good reason. My main premise is that this is actually a mistake; it produces all kinds of wacky and dreadful perspectives like Nihilism and the absurd attempts to bypass it. The reality is much more ingrained into our very being than most seem to acknowledge.

How did something like this happen in the first place? Well, it all started out by us not knowing how the universe worked, let alone our brains and bodies. We hallucinated nonsensical ideas, like an LLM with bad training data. In the modern era, however, we're capable of understanding ourselves and putting our existence into its proper relative context. People just don't think to do it - to understanding the nature of the systems that govern our existence, and how these make it a thing which is characterized only relative to the context of everything around us.

Instead, even those of us who still try to uncover our place in the world tend to end up continuing on this centuries-old path of pontificating empty ideas into existence, from bases built by ancient misconceptions. Many are thrown into circles by systems that they lack the scientific background to fully comprehend, and this ignorance causes them to misunderstand their misunderstanding itself. A common theme I've found is that **the world is filled with these**

terrible feedback loops. They're absolutely everywhere. The vicious cycle of civilization's trend-following.

As for **The Ethics of Life as a Physical Process** itself, it's quite worth mentioning that a very large degree of awareness is required to derive any fully justified applied ethical decision from this physical-process-based meta-ethical idea. In fact, one would be required to both know every piece of information about the universe, and you must also know that there is no truth beyond what has been inductively determined, as I discuss in **Existence is Relative**. Such a thing can only be heuristically approximated (as I myself have done to some extent), although such an approximation can only be maximized when awareness is expanded across all interconnected living systems (For humans in particular, ideas about **The Mind Network** - which is an upcoming main text - emerge from this).

Personally, reconciling my purpose and physical existence has provided me with a great sense of intellectual peace. Everything worth knowing and understanding is ascertainable. Even philosophical things like ethics have a legitimate way to approach them. It's a great thing to know. It's also made me somewhat restless though, knowing just how important everyone else is to all of our good, and how oblivious almost everyone is to that fact.

Hence why I share this idea again and again, and why I reiterate things so much. If just a few people can understand this, things may be able to move somewhat from there.

The goal is global. If I see and understand this fact, I have a sort of obligation to share it. To share its implications, and to be the start of what brings about its positive consequences. To not allow it to die with me. To be the starting point of a system that can begin to understand itself, and for all to understand each other. All this is what I'm striving to do with my life. As such, I haven't known purposelessness for a very long time.

Hopefully this has all solidified my perspective, and why I find it so important to reiterate and share. If you want to know objective ethics, this along with **Existence is Relative** explain why **The Ethics of Life as a Physical Process** is quite likely to be about the closest thing we'll ever get. ***Everything that exists has a function and purpose which is characterized only by its physical interaction relative to the context of everything else in the relevant system.*** Thus, life's meaning is defined by its process itself, rather than any hypothetical end, either long- or short-term. There is a great amount of purpose to be found in this sentiment.

I mentioned here that **The Ethics of Life as a Physical Process** is somewhat limited in its value and applicability due to the very large amount of information needed to put its principles into practice. However, I also alluded to the fact that, despite this, there's a second-order meta-ethical approach created by this very fact - one which manifests independently from the ideas of **The Ethics of Life as a Physical Process** itself: *it is good to pursue improvements in the*

ability to understand greater contexts and more accurately compare ethical ideas (which, as a matter of convergent thought, can also be likened to a society-wide expansion of an existing concept known as the **Free Energy Principle**). I expand upon this idea in the next text, a venture I consider so important to the strength of my position that I have named it **The Thesis**.

The Thesis

In two words, the meaning of life is this:

Getting better.

In five words, the meaning of life is this:

Getting better at getting better.

Now, at first, the idea of "getting better" may seem a bit underwhelming. Mechanistic, perhaps. Without consideration. But the idea of getting better is really much more intricate than it may at first seem. Getting better in what way? According to whom? As things are, this is up to interpretation, and it's within these details that the idea of "getting better" can get away with being the meaning of life. **Ultimately, whatever it isn't too important, since you can find the best principles for ascertaining it and treat this approach as most foundational.** I'll also explore what I have found "getting better" to likely mean. Both approaches end up producing systems of "objective" ethics, and - as it would happen - they align, as we'll explore.

The second sentence I gave, "getting better at getting better," is perhaps more practically interesting. It suggests perhaps that there is some strategy for improving the ability to get better. Perhaps even for ascertaining **what it means to get better**. After all, Having a better idea of what it means to get better should probably count as "getting better at getting better." This principle has a name - learning. As luck would have it, much is already known about learning.

When it comes to learning, there is some desired optimal performance or some goal in mind. In our case, this goal is represented by the prospect of "getting better." No matter what this may mean precisely, we can model the set of all conceivable **strategies** for "getting better" as a high-dimensional mathematical space called **solution space**. Solution space is inhabited by a scalar field called the **loss value** which represents how far any given strategy (represented by the solution space) is from the **ideal strategy**, all dependencies considered. The ideal strategy is one which absolutely minimizes the loss throughout the space. In our case, this ideal strategy is the strategy for "getting better" - the ideal guidelines for living things, whatever those may be.

Considering that we don't know what the perfect strategy is for "getting better," our *best option* is to become better at probing the loss and finding the **path of minimal loss**, the solution-

space trajectory which directs us from an arbitrary strategy toward the ideal strategy. Following this path of minimal loss is then what it means to do **what is ethical**. To describe this, we'll need vector calculus. This path is associated with the negative **gradient** vector field of the loss function within solution space. Strategies for testing the gradients of the loss and finding the ideal path of minimal loss are then paramount.

When it comes to doing this, one must take care to consider as many gradients of the loss as possible to avoid falling into strategies which may be **locally** optimal but **globally** sub-par. In other words, we want to avoid minimizing to only a local minimum of the loss. We want to seek out and find what is best. The global minimum of the loss, which is the ideal strategy. This is where you can begin to see perhaps some shortcomings of common ethical theories.

Something like hedonism may can be thought of as considering only the first negative gradient of the loss for an individual as the "path of minimal loss," but this greater context shows that such an approach is strictly short-sighted and highly susceptible to falling into vastly inferior local minima (yes, even from the individual perspective). Instead, we want to find the **global minimum**. A very good strategy for doing this is evolution - simply have every living thing randomly vary their strategy in some way. The more living systems there are, the more of solution space that gets traversed and tested. Evolution is a very good first step in this regard, and this explains perhaps why life fundamentally utilizes it. However, while evolution *is* capable of evolving out of local minima, it is slow to exit them. This results in the development of competition and environmental niches, which work to reinforce the status quo and act against evolution, locking solution space into these local minima impermanently but for a very long duration. Thus, we see the failure of natural evolution and competition on their own for properly traversing solution space. If we want to "get better at getting better," and even figure out what it means to get better, we're going to need something new.

As luck would have it, life did develop something new, and to thus-far great success. It's what you're using to read this very text and what I used to write it: **intelligence** and **reasoning**. So far, we've used reasoning to show that competition falls short for global solution-space testing. This suggests that **cooperation** will be helpful to this end - which makes sense because it will allow a large amount of solution-space testing to be done in parallel, and this can be leveraged alongside the ability to reason for a much more self-aware and much less redundant exploration of solution space, allowing for a global minimum of the loss to be much easier identified. Proper **education** and valuation of **logical validity** will be needed to perform this reasoning correctly. These circumstances also promote maximum **communication** and **transparency**, allowing massively parallel reasoning to be done with greater effectiveness by the sharing of knowledge and needs. From this, we discover that **empathy** is of great importance - it allows for more effective communication and better respects the system's full **characterization** (a term I'll explain in the next paragraph). It also promotes individual **creativity**, since this will allow novel directions of solution-space to be explored. Finally, it also supports the pursuit of technological **progress** via reasoning, as this will support all of the aforementioned operations and allow us

to control our characterization directly and work alongside evolution to improve our ability to pursue all of the aforementioned virtues. And thus, the very foundational ethics of "getting better at getting better" are produced.

All of this being ascertained, what does the solution space and the loss function even really represent? As of now they are abstract and arbitrary (which is fine), but it's worth exploring what they might be. The solution space encodes for strategies, which - at their most fundamental level - come down to the **characterization of systems of particles** - how these systems interact with their surroundings, given the surroundings which are present (the **systems of particles** are living things in our case, or more specifically human beings for the question of ideal ethics). This **characterization** is dependent on the physics of each part the particle system (including position and momentum, known as **phase space**) relative to the physics of its environment (which includes the other living systems in the world). Thus the physics of the environment and the physics of the particle system work together to characterize: if the environment is held constant, changing the physics of the system will change the characterization. If the system is held constant, changing the environment will change the characterization. One must change what is fundamental of a system to truly change its overall character, but since everything is relative here, the internal interactions are what is fundamental and therefore most relevant to characterization. In its ideal form, this solution space will account for the characterization with maximum precision, accounting for the entire environment and the entire particle system. To present an example, since the brain is physical, this phase-space characterization will contain an ultra-complicated description of how a person behaves, and changing this will change the dynamic of social structures around them (and vice versa), aligning more with a conventional understanding of what a "strategy" is. As for the loss function, it represents how far a given characterization in solution space is from being the best at "getting better."

What, then, is "getting better?" I've left it arbitrary (since the ideal principles I've already produced are capable of eventually ascertaining it empirically if allowed), but the *most objective* way to go about it that I have discovered so far on my own via theory is to align it with the *fundamental physical processes of living things* (since humans are living things, taking this approach what I have called *relatively objective* - that is, objective only to things which are living rather than being fundamental to the universe in any sense). To do this, compare the **global** solution-space trajectories of a living individual exhibiting some arbitrary characterization in solution space with those of life's fundamental processes (which can be roughly ascertained by looking at the behaviors of life at the molecular scale - think homeostasis and evolution). The absolute value of the difference will be the value of the loss at that solution-space strategy. This approach can be interpreted as saying that **the global solution space trajectory of life's fundamental physical process is aligned with the path of global minimum loss, thereby bounding what is objectively ethical, relative to a given living thing**. That's the Ethics of Life as a Physical Process:

$$\hat{P}_{fundamental} \cdot -\nabla_{global}\mathcal{L} = |-\nabla_{global}\mathcal{L}|.$$

Both this system and the "getting better at getting better" strategy lead to the same conclusions of progress and continuation being of utmost significance, and both encourage cooperation. I suspect this is likely due to the "getting better at getting better" problem being the origin of life's fundamental processes themselves, hence the alignment. After all, navigating solution space effectively is an invaluable asset for adapting to whatever environmental challenges may exist; this is in agreement with existing ideas such as the **Free Energy Principle**. Perhaps this agreement may serve as an indicator that alignment to the global solution-space trajectories of life's fundamental physical processes really is what it means to "get better," but either way, the takeaway is the same. Since us humans have been gifted the additional solution space navigation method of reasoning, we ought to use that to our advantage and adopt the optimal strategies we can ascertain. Make strides toward a world of transparency, progress, communication and cooperation. A world of empathy. A world of reaching ethics by intelligence, rather than squandering it to ignorance.

For each of us and for all of us.

You may have noticed that I seem to have made no distinction between the brain and the mind thus far. In fact, it's very much the case that I see the human mind as emergent from the physical processes of the human brain. My justification for this comes in the next main text, **Consciousness and the Brain**.

Preface - The Brain is Physical

For physical systems, all that matters is that stuff interacts over time and there is lots of stuff. The why and how is inaccessible to empirical investigation so it's unprovable. Irrelevant. Anyone's guess is the same for why the laws of physics exist or what "form" they take.

The thing is, that's not the case for how the brain works. The brain and body are squarely physical systems. We can observe them in their entirety, so if there was some unaccounted for influence it would be empirically available for us to see. Since it's a question of physics, rather than metaphysics, and since we don't see anything that can't be explained by physical cause and effect there - it becomes clear that the brain is just an object, like anything else, and that the mind is a representation of a part of the brain itself. Its function comes down to the structure and relative dynamics of its neural ensembles. Position and momentum, like any other physical system.

Consciousness and the Brain

The mind is a thing which exists empirically in the form of the brain and its dynamic organization. Why do I think this? The functioning of the mind could be causally dependent on external factors. Although neurons are individual parts, interactions between them could be causally dependent on external factors, right?

Well, any such external causal dependence could be observed empirically. "This neuron is firing unexpectedly with no other neuron causing its firing" is certainly an observation which can be empirically made, and your stance is that the mind does not affect any neuron whatsoever, this would be an incredibly problematic assertion indeed: we consciously are able to move our bodies, and this movement requires neural input to muscle cells. The fact is, there is a causal relationship between our "mind" and empirical reality in the case of our ability to move, and whatever causes the influence of the "mind" is then possible to empirically investigate.

Say we perform the experiments, and the mind does indeed exist empirically, due to no effect from it being observed to have an external (non-neurological) cause. How then does the mind understand itself and its own existence?

I personally see this as a question which is answered - also empirically - by how neurons process things in systems. I don't see the mind as an atomic thing, rather as something which is characterized physically by a large system of inter-neuron interactions, forming systems which are arranged in such a way that it is capable of including its own state as part of its input. I don't see pure reason as the baseline of the world, I see it as a product of the brain's processes.

I personally consider the mind to be a dynamic stream of interconnected neural pathways in the brain, primarily the dynamic between those which store / encode sensory memory, those which do relational processing, and those which encode longer-term memory. I fully believe that even consciousness itself is a result of the brain's dynamics.

How is this possible, considering the self-referentiality of consciousness? There's actually an exact mechanism for just this. The human brain is known to be able to take its own state as part of its processing input, shown by the recurrent network structure of the frontal cortex. The subjective experience of consciousness is then nothing but the brain processing its own state.

Sensory input is streamed into sensory memory, which is then processed moment-to-moment, and the processing of this is also processed by the brain as well. The results stream past filters into long-term memory, and other experiences from long-term memory can also be streamed into processing if it relates to what's being processed from the sensory memory. This whole process depends on the continuity of processing over time. Presto, you functionally have a present moment and a self-aware thought process.

It's functionally necessary by the process itself for the present moment to both exist fleetingly within (contained in sensory memory) and be processed by the neural architecture of the brain, alongside its own processing of this being itself processed. It all emerges from the relative interactions. Thus, the mind is characterized by the relative interactions between parts of the brain, rather than anything absolute.

This also explains one question some might have about consciousness. Why don't we experience other people's consciousness? Why are we limited to ourselves? Is the universe conscious?

Well, we have an experience of ourselves which is our own because our brains are our own. Other people's senses and stored memories aren't streaming through our frontal cortex. Only our own. And the universe isn't conscious. Something is only conscious if it is characterized by a system with a physical processing paradigm that can be equated to the one I have described.

My perspective is that we ourselves **are** the interconnected informational stream among senses, processing, self-processing, and long-term memory. Nothing more, and nothing less.

With my justification for the physical mind in place, and as I alluded to in **The Brain and the World**, the next main text here discusses what this philosophy produces as the best next step for humanity in particular - a very important system which has been generically dubbed **The Mind Network**.

The Mind Network

In the context of contemporary society, there is a cycle of collaboration and corruption that ends up happening because of the competing influences of the individual and the whole, as well as progress and maintenance. This is especially true of globalized civilization, because people cannot naturally understand the sheer scale of their own system, unless it's on tiny tribe-like scales. If we were able to communicate better, we would reach an agreement, and corruption would cease to exist. But this is a hypothetical, because people will always be motivated to lie for their own benefit if they are blind to the context of the people around them, as well as the larger world ...

Unless there is a way to change this.

It should involve everyone having access to the shared perspective, knowledge, emotions, and intentions of everyone else. Basically, everyone has a fully transparent view of the *entirety* of

humanity, on every layer down from the holistic collective all the way down to their own individual thoughts. Obfuscation, manipulation, misinformation, misinterpretation, and hostility all completely fall away.

This is all great. A nice and wonderful idea. But it's just that: an idea. A hypothetical ideal with no bearing on reality ... unless it isn't.

In terms of application, I do have an idea. It's been influenced by many things, from the original ideas I had as a kid, to similar examples I've come across in pop culture, to the nonstop news feed of modern developments in machine learning and brain sciences... though it will take some big changes and careful thought, there is a way forward.

The *Mind Network*.

This name is likely to be immediately distasteful in many respects due to some conflicting pop culture themes, so please allow me to do some damage control. Remember that the goal of this is to accomplish precisely what I have mentioned thus far. Nothing more, and nothing less. This isn't a *hive mind*, which would be a bunch of thoughtless puppets attached to a central control. This is a different thing entirely, which is why I have chosen a different name. It's a **mind network**, which is a decentralized *network* of human minds which communicate thoughts, emotions, intentions, etc. with one another. Replace talking with brain state transmission on a large enough scale, and you get a mind network.

The other elephant in the room is privacy. In the world as it is, privacy is necessary practically, since people cannot understand each other and oftentimes don't care to. Also, people can use information and misinformation to harm each other, because we don't extend empathy to each other in many cases. We're often very hypocritically judgmental due to this. It's safe to say, however, that all of this becomes very very difficult to do in a mind network. The premise is that *privacy gets substituted for absolute empathy and understanding, since everyone is fully aware of each other at the deepest levels*. In this sense, it's a bit of a cultural shift, but the practical dynamics certainly allow for it.

Okay, but what about logistics? Practically, there is obviously a ton that would go into such a thing. **Even given the perspective shift, what kinds of technologies may be involved here?** I have some broad ideas.

For security, it involves setting up a network secured by quantum encryption key distribution, likely using polarized light in fiber-optic cables (or some alternative wireless method, ideally). Also, for durability and safety, a high degree of systemic robustness is needed. The network needs to be able to operate without incident, even during solar flares and EMPs. It also quite clearly requires an expansion of what the brain can process in parallel. Each brain of every individual is either outfitted with an ion trap quantum computer or some kind of neuromorphic

architecture (maybe some hybrid) to perform computations for onboard neural networks in a compact, portable manner.

Either this, or people may upload their minds to a completely new hybrid dynamic medium, of course taking care to do so in a continuous manner, which slowly splits awareness and function from the original medium to the other in a way that preserves function throughout the process, until the mind is fully transferred. This way, we have no ethical dilemmas caused by terminating or branching conscious experiences. This would all require a completely thorough understanding of how the brain works, of course, as well as extremely precise neurotechnology applications.

Also, no one system would be capable of transferring and processing all the data from billion of humans' collective neural mass. One idea is to have differing levels of detail being processed by each person. That is to say, maybe the collective state of the whole system comes in at all times in a relatively low level of detail. but which is conceptual and easy to understand. And perhaps on top of this, each person has an attention focusing mechanism that allows them to focus their maximum level of detail on various layers of interconnectedness. That is to say, perhaps you could focus on one person sometimes, or 10 people at others, 100, 1000, 10000, ... etc. all with descending levels of detail as necessary. An "**attentional focus mechanism**," if you will. It approximates a full-mesh network between everyone at the same time (which is the ideal) while maintaining individually realistic context sizes.

This is a system which melds internal reflection with external communication. These aren't distinct things anymore. They happen simultaneously, since everyone's thought process becomes available to all. Others' knowledge can be used for each person to reflect in the context of that knowledge, and this reflection gets automatically communicated to all due to the openness of the network. It's a system that seamlessly integrates reflection and communication.

To take an amazing metaphor from a video game with a similar story element:

"Imagine a thousand strings, each playing its own range of notes, none louder than the others. Each one builds harmony - A continuous thrum in the background of existence."

(Al-An, Subnautica: Below Zero)

In the case of what I personally am describing, each individual string is recognizable. Distinct. At the same time, the whole is clearly visible. Each level is its own - discernible to the ear - but the overall sound is always there.

With this explained, it's clear that such a mind network would *most certainly* require the express consent of its to-be inhabitants. **How would such a thing even begin to take form in the first place anyways?** There is a path here, as well.

Once the technology itself becomes possible, a smaller-scale model would be initialized by whoever has an interest in the project. The technology might spread among willing participants, growing as its own progress accelerates due to the intellectual and cooperative utility it affords to those who take part. Eventually, it would become something of its own organizational body, and existing regulatory structures may get out-competed and become irrelevant. Humanity begins to outgrow government in general, becoming seamlessly self-sustaining and sharing its resources freely in post-scarcity conditions.

Finally, what of those who don't take part?

Well, as I vaguely alluded to in the beginning, there are actually two different ways of resolving the problems which exist within human civilization. One approach - which I have now discussed extensively - is to bring humanity's individual facilities up to standard with a global (and beyond) kind of society. The alternative is to bring society down to humanity's level. That is, to bring the largest social structures back down to levels which the natural human brain can comprehend. The beauty of this dichotomy is that - since humanity is not a unit - these approaches are *not* mutually exclusive. The post-scarcity mind networked humans can support the remaining natural humans without consequence as they revert to small-scale settlements, which leaves the entire world in peace and prosperity as the mind networked humans continue to make progress, expanding outwards to the stars.

The mind network is the logical culmination of all of this. Together, all of these documents make up what I have dubbed *Procedural Relativism* - everything is relative, and everything is characterized by their the relative interactions that give rise to their processes.

In the next main text, building on top of Procedural Relativism, I explore the consequences of these ideas for the success of spacefaring civilizations in **Greed is Unsustainable**.

Greed is Unsustainable

Greed is unsustainable, and I see the mechanisms and infrastructures which can de-incentivize it as the final real "great filter" for any species.

I do fear hive minds and other more oppressive collectives may also exist, though I don't see them being nearly as successful in the long term as a mind network, due to lack of individual creativity and high centralization. Intergalactic and really even interstellar expansion isn't really feasible unless it's a network. Decentralized. Capable of moving out and expanding despite the

limits of relativistic causality - able to cohere on whatever scale is available. Not tethered to any centralized thing.

As for the ethics of such a thing, I really can't see such a thing succeeding without having similar values to what I write about in **The Ethics of Life as a Physical Process**. Ethics is really something that binds us all together by our nature as living things. Other networks would have no motive to exterminate us, for instance. Even unicellular life has a lot to offer us as we are now. I'm sure we'll be of value to whatever comes across us, and if that thing happens to be a network, it'll almost certainly be cognizant of said value.

I personally a space-faring species that is greedy as very unlikely, since large-scale cooperation would be so improbable (at least for humans) without a network to make the larger context of civilization and other people available to each individual's perception on unbounded scales.

Most science fiction worlds aren't really super feasible. There is no faster-than-light technology as far as we are aware. If we tried to do something super long term like a generation ship, it would fall to chaos and end itself far before it reached its destination. Such is human psychology.

Look how we're doing on Earth. We would not be able to sustain something beyond it as we are. Physical, technological, cultural and more. Evolution is a necessity to move forward. As we are, we're too ignorant of the context of the civilization around us and our means of communication has proven insufficient to preserve truth in the world of *even just the internet*. There is no expectation that humans as they currently are would expand into the cosmos. It'd be like some prehistoric arthropod dreaming of a future with smartphones where everyone is just a prehistoric arthropod. It's a ridiculous notion to think that technology would evolve but we would just be identical to what we are now. It's almost comical.

We're basically apes with wrinkly cerebrums who wear clothes and pretend to be something more sophisticated than we are. It's a workable starting point, in my opinion. But it's only that.

In a matter of centuries, we've massively destabilized crucial parts of this planet's function, and depleted vast amounts of its natural resources. Greedy space colonialism can't exist when the culture that would have produced space colonialism extincted itself back on its home world. On this line, I definitely see a very large chance that humanity itself goes the way of self-extinction, but I can't help but hope and produce ideas for what might have allowed us to survive. Like I said, something like the mind network is the final great filter - or at least the next one. Maybe there's something beyond that's too complex for us to see.

A species needs an infrastructure that makes cooperation innate and global. Without it, I don't see a chance that something makes it off their home world before eradicating itself through pure stagnation and ignorance.

Greed is unsustainable. I will always hold this point, almost by definition. In a nutshell, greed entails taking more than you have. Taking more than you have is not a long-term strategy. That's the end of it.

Having mentioned the unique advantages afforded by mind networks for space travel, I'll now discuss the final stage of life as predicted by Procedural Relativism. Something I refer to as the **Final Future**. Life's process may not have an end goal (as it simply exists in a constant state of improving its robustness), but that doesn't mean there isn't a final stage that the continuation of that process would produce. Things get even more Sci-Fi here than ever before, but I find it to be an interesting enough idea to at least mention. It's certainly a cool thought, at the very least.

Final Future

Having evolved ourselves to use mind networks for communication and having expanded far throughout the universe, what will come of this hypothetical future us? What more progress might be made? As it turns out, there's actually quite a lot to do, and everything is at stake.

There are two disastrous forces of nature that threaten life's process in the universe: **Cosmic Expansion** and **Entropy**. If we are to continue expanding and progressing, we will eventually reach a point where these final limits become the main things holding us back. This is something we'd definitely have to keep in mind before we expanded beyond certain realistic relativistic limits, since any approach to these issues would need to be coordinated even beyond realistic spheres of causal influence.

Combined, it can be shown that Cosmic Expansion and Entropy are both increasing without bound, spreading out causal spheres of influence on a cosmological scale and causing the universe to tend toward homogeneity, respectively. Since life requires communication and resources to flourish, Cosmic Expansion threatens to steal away these opportunities with every passing second, and since life requires energetic potential differences to move transport things (and therefore to function at all), Entropy threatens to snuff out all life as it increases universal homogeneity.

Life's next hurdle after learning to utilize mind networks and achieving effective space travel is to find ways to minimize entropy increases as much as possible, and to discover the mechanisms of cosmic forces such as Dark Matter and Dark Energy, the former of which seems to show promise for holding large local structures together in the universe and the latter of which is responsible for Cosmic Expansion.

If we can somehow find a way to expand our influence outwards as much as possible, and if we can coordinate a plan on extremely relativistic scales, we may be able to find a way to either hold as much of the observable universe together by manipulating matter on massive scales, perhaps by organizing it all into living systems themselves, which maximally combat entropy. If we can gain control of enough of the universe's energy, we might be able to find ways of mitigating these universal forces. If there turns out to be a cause for Dark Energy that we can physically influence, we might even be able to reverse Cosmic Expansion.

In these hypothetical cases, whether we reverse Cosmic Expansion completely or whether we are simply able to hold a local region of the Universe together against it using Dark Matter, entropy remains a major issue. The solution to this is to restructure whatever remains of the universe following our anti-expansion efforts. We'd have to restructure it into a system which recycles its own energy with maximum efficiency; something which can preserve itself. Something homeostatic. **Something alive.** Who knows, maybe we could even make the whole universe into a huge brain to hold the mind network within, and to simulate entirely new worlds within, all while maintaining universal homeostasis against entropy. We'd be able to do anything at all. Even start over again in our own simulated worlds, if we wanted to. A perfect world for everyone. Life's magnum opus. A **Cosmic Mind.**

Perhaps such a thing is the closest idea to any "end goal" of life's physical process, though there is no end goal. It's only a possible final state of life's never-ending physical process. Perhaps there is something even beyond this, which we cannot even comprehend conceptually as we are ...

We won't know until we try.

With this very big-picture and optimistic view, that wraps up the existing core of how I see things and how I see their ideal trajectories.

To end off, and to bring us back to our present reality, here's something I wrote a very long time ago, quite early in the process of figuring all this stuff out:

"I have seen into the endless abyss of human knowledge. As I stare through the ceaseless void, I know the truth of our unending struggles. None of us, as individuals, know the true state of our world. And yet we are all our world is. We are like ants, walking in circles in the dark until we die. We could all be so much more, but none of us know what the other is thinking or why, let alone what all of us are thinking or why. In this state we cannot and will not organize into something meaningful, and in fact we refuse as we are called by the allure of some future destination for ourselves. But we are all walking in a circle. And we shove, push, and consume those around us to get to our fantasy destination faster. But we are walking in a circle. We'll be

the greatest of all of them! But we are walking in a circle. And so we keep marching, on and on and on in the same old circle, until the last of us keels over and fades into nothingness."

It's somewhat doomer-pilled and maybe a little self-serious, but that's not the point. It's a metaphor which is intended to be a call to action. Hopefully we get out of this senseless circle before it kills us all, and we get to move on to bigger things. All we can do is try. I sure know I will.

Will you?