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Philosophy

Truth Whispers

Modern life is a game in which wisdom and truth whisper. The collective sum of historical knowledge is contained in the quiet dark corners of the internet waiting for perceptive enough individuals to hear it. The Algorithm contains all the knowledge needed to realize best practice technique throughout your life. But to access true timeless wisdom requires an exceptional patience and capability for ignoring distractions.

The intricate, sensitive mechanisms by which people access the good life, however they define it, do not have good marketing. Comparing the emotional experience of the Reddit front page with the experience of taking a perceptive, device-free walk through the local park reinforces this. Most people, most of the time, seem to be doing what they want to do. Violence and oppression are statistically rare and unfortunate events, but so emotionally captivating it can feel like the world is engulfed by them.

The most satisfying moments of my life have come in between the formal obligations that occupy my day. Happiness is free, but also requires being able to put myself in a position in the absence of unhappiness from lack of resources. Having kids is an example of this. To have them requires significant resources, but to enjoy them when you have them simply requires an attitude of listening closely to what they tell you. The idea that those moments are so meaningful unfortunately lacks a demand generation function. This is reflected in people's distraction from the choice to have children leading to historically low birth rates.

I've been writing for over a decade in direct and indirect ways about how I have explored living a self aware life, and in the process reducing how much social media I consume. The biggest breakthrough came from removing my engagement with the types I actually enjoyed, in particular YouTube. I feel less influenced by false prophets of modern dogma, and more influenced by the design of my life. I realized that while YouTube constantly tries to find a global maximum of my interests, and largely succeeds in doing so, there is no competing global maximum seeking to create freedom and meaning.

I think people often make choices that are counter to their true desires in the long run, this is human nature and overcoming it is an immense challenge. But the framework I have been applying to attempt that in my own life increasingly centers on this idea that simplicity is actually an ongoing design process to reduce how many things distract you from pursuing truth according to your own framework. Other people are happy to sell their framework in

the absence of a strongly defined one that you choose for yourself. In that sense I approach life as an orthodox liberal, taking literally the desire to be free and self actualize.

Consider what truths might be crowded out for you by the loudness of the world. Each person ultimately has a right way of living for them that can be found with sufficient diligence. My experience has been that the truth whispers for me, often requiring me to challenge my core assumptions and biases in the process. What things might bring untold meaning to your life if only you chose to listen carefully?

More Is Less

People often quote Mies van der Rohe as having said ‘less is more’. I’ve also learned more as life has gone on that ‘more is less’. In everything there is a time price and a soul price to progress. We develop technology to make our lives more efficient and comfortable, but that comes at the expense of something else that may not be immediately obvious to us. I’ve noticed people often come to a similar conclusion about this, about how technology turns hard (but possible) to solve problems into easy or impossible ones. I can easily afford an iPhone, and it would be impossible to reproduce one by the effort of my own hands.

In some domains, it does seem like most of the progress that we have realized has been in some sense negative progress that comes at the expense of making them less sustainable and more fragile. The more I dig into the science around household products in our kitchen, bathroom and laundry room, the more I feel that those that live closer to the land may well have been right all along. By

and large, complex products found in our homes are not biologically compatible with our sensitive systems of sustaining life.

I have written before about removal cost, and in many ways have integrated it into my philosophy of life. I remove things from my life like shampoo, and then assess what the true cost of removing it is. Often, I conclude that the true cost of removing it is not even noticeable, or positive, and it continues to be omitted. In the case of shampoo, the reason our hair has too much oil is that we are assaulting it with detergents. If you stop using shampoo, you no longer have an overcompensating hair hydration system. If you were not born with it and it is not an essential micronutrient, that thing is probably more of a nice-to-have.

People talk about clean water, shelter and sufficient nutrition as the basis for sustaining life. Animals in nature live without our definition of clean water (our water is more 'low risk' than it is clean) or shelter. Animals evolve as essentialists, in many cases the energy ROI of technology is too low to justify. The only thing I can tell that is truly essential to our survival is fresh water and survival nutrition. While I wouldn't advocate for a lifestyle that focuses on those inputs, we absolutely possess sufficient wealth in the world to assure these things of every person. And I'm not sure assuring them of anything else is a good thing.

It is freeing to imagine and meditate on the notion that survival requires so little input. We spend almost no time considering the abundance of water and micronutrients in our life. It requires so little input effort to attain these things. One extremely stoic interpretation is that our lives are experienced in such distracting

abundance that we simply cannot cope with how successful we have been with adapting. We are easily able to get food, and it is impossible for most people to control enough land to forage off of. In that sense, technology has again separated ourselves from the original imperative of life, to conquer natural selection.

As I get older I find it hard to cope with the intrinsic complexity-and-yet-ease of life. I handily respond to my emails, learn to restart my computer when it acts up (and now my car too) and navigate labyrinth grocery stores with ease. My life has lurched in the 'easy' direction as I learn how to adapt to our contrived environment. But I yearn for opportunities to experience the truly hard that have become impossible. Starting a country comes to mind. No places on earth remain to be settled. Starting a company and becoming a father were both things I found to be hard. I knew they would not be impossible, and I think much of the satisfaction I experience as a result of those pursuits is because they require me to struggle.

To those who ask what more we can do for each other, I would argue against the central point. We should ask ourselves what less we can do before we starve. We rob each other of the opportunity to experience struggle. We struggle as a result of our own difficulty navigating complexity. Life isn't intrinsically hard, it requires water and micronutrients. The systems we have created are buckling under their own complexity. It isn't clear that most technology that exists today needs to exist, or if removed that we would be worse off. In many cases, it is quite clear that we would be better off were it not to exist, but we still persist.

One thing modern AI has shown me is how truly rote and pointless

most white collar work is. We are all administrators of complexity, whether executives in a business where customers could probably go years without noticing their absence, or one of many professions whose primary role comes down to maintaining knowledge assets. We outsource complexity to the machines as fast as we can and still we struggle to keep up. AI will assist us in this process as its capacity to manage complexity will eventually vastly outstrip us. I think this has the potential to free us to refocus ourselves back on the fundamental pursuits. Leave the calculations to the machines, we need to leave 'high IQ as personality' to history in order to progress.

I aspire to live a life of meaningful struggle where my problems are neither easy nor impossible to overcome. I aspire to a world for my loved ones that is the same. I aspire to grant others the opportunity to overcome their own difficulties, and never to rob them of those opportunities in service of making them easy. I aspire never to allow another person's difficulty to become impossible through an omission of effort. My desire to help is not a valid reason to go around taking meaning making opportunities for humanity.

In this sense, I re-learn the lesson in Michael Jackson's Man In The Mirror. Any time I start to resent the other, I need only look as far as my recent actions to find flaws and an opportunity to improve. I have never arrived at that point in my life where I am so sure of myself that I cannot find a recent error. I try to live my life in the arena, with skin in the game and risking failure and shame. It is better to have loved and lost than not to have loved at all, and so on. We put ourselves in comfortable cocoons, and then suffocate

in them. We may be better off allowing the elements to weather us. Staring into the abyss laughing.

Full Responsibility

I read an email written by the CEO of Apple that was released as part of a shareholder lawsuit. The email was an exceptional example of business communications. My favorite part of the email was the second paragraph, a single sentence of four words:

I take full responsibility.

I keep thinking about the implications of that one-sentence paragraph. What if I took full responsibility for everything in my life? The work implications given my role are clear: I have full responsibility for the company as the CEO. The personal implications are less clear and more profound. What if I took full responsibility for every action I took, and decision I made? Any resulting outcomes are my responsibility.

I take full responsibility, for:

- Myself, my actions and my decisions

- The actions and decisions of my dependents
- The actions and decisions of the company

I will write more about the effects this has on my life. It already feels better to take responsibility in this way. I think this is what Jocko calls extreme ownership, and I now understand why he advocates for it.

Empathy

Empathy seems to motivate some of the best and worst aspects of life. On one hand, you would think that "the ability to understand and share the feelings of another" would be strictly a good thing. On the other hand, the options for the scope of that understanding and feeling sharing do not seem to scale well. It's not that conservatives are less empathetic, or liberals more, it's that conservatives and liberals choose to empathize on a different scale. You could argue that conservatives empathize fiercely with their in-group, at the family or community level. You could argue that liberals (attempt) to empathize with all people equally, or the less fortunate more so.

Empathy seems to be the source of a great deal of violence. If you empathize with your family, but not with your community, what impact would it have? It would probably have a game theory reinforcing impact, where you assume that the community is out

to get you and protect yourself from them. If you empathize with your friends but not with your parents, presumably respect would flow to your friends but not to your parents. If you empathize with everyone on earth, you may spread any amount of positive impact you can have too thin and end up doing nothing. It's not possible to empathize with the victim and the bully, you are ultimately choosing sides.

It seems like much war is actually motivated by empathy. If you kill my family, is it not a reasonable response to go to war against you as a result of my empathy for them? If I don't go to war, am I really doing much to empathize with my dead family? If I empathize with the enemy, won't I end up tremendously guilty and conflicted? What if I empathize with the other soldiers but not with their government? The purpose of these examples is to show that empathy is probably a flawed system that leads people to believe their actions are moral when in fact they are motivated by a poorly scaled and violence inducing system we think means to understand.

If we understood what it meant to benefit another person, in a way that served only that other person and not ourselves, what would we actually spend our time doing? Would we become a politician or community organizer and consolidate power (and take credit) for good things? Would we lock ourselves in a room (not very empathetic of our family and friends) but spend all our waking hours developing technology to allow people greater quality of life with less resources? Which of those things is closer to a moral and good act? Which is more effective?

It seems like the most important consideration when it comes to empathy is to remember some constants. It is not possible to empathize with everyone, in doing so, you likely understand and share feelings with almost no one. We are wired to want in-groups and outgroups, even humanists consider conservatives (the ones who empathize with their family, which seems reasonable) to be evil and "other" them. So it appears that no one is above in-grouping and no one has the ability to empathize with "humanity". The only reasonable conclusion is that empathy doesn't scale, and the more you try to scale it, the more violence you end up creating.

It seems like one of the few ways to make the world better (in a sense that it doesn't seem to have any harmful second or third order side effects) is to reduce violence. Most violence is retributive, meaning someone starts it, everyone gets sucked in, and eventually you forget who started it or why you're doing it in the first place. Which would be a strong argument for pacifism if not for the game theory problem. The problem being if everyone were a pacifist, someone would break rank and gain an unfair advantage by being violent. You would want to make sure the downsides to being violent remain much greater than the upsides to being violent. Throwing people in jail requires a real suspension of empathy, unless you consider who the empathy is for. Empathy is for all the non-violent people who are doing the right thing all the time. If you empathize with the violent, you end up with a very strange intellectual death spiral that leads to a sort of numbing nihilism. There is no way around in-grouping, and no way to scale empathy.

Another way to make the world better, for yourself and the small

in group you choose to empathize with, would be to reduce the violence among that group. If you could reduce the interfaces you have with the violent, and become self sufficient, as well as policing and reducing the amount of violence experienced by those in the in group, you'd come as close to the ideal of understanding and sharing the feelings of others without those feelings being harmful and traumatic. This is pretty much why nation states exist. The problem with nation states is the scaling problem, it's valid to want to make life better for your in-group, but hundreds of millions of people are much too large an in-group to meaningfully keep in our heads. Which I think is why politicians end up being people who like taking credit for good as opposed to doing it.

It seems like modern culture is going to end itself when it stops being able to agree about who deserves empathy. Having already written off anyone competent and successful, it seems like the only path would be to stop empathizing with the bottom 99% of people. It's impossible to continue to empathize with the 99% in the abstract sense, because the more you do it, the more it seems to lead to harmful and violent side effects. It's remarkable how often history repeats the process of inequality being born of progress and equality being born of violence. Without violence, how would you enforce equality? Is one's lack of success born of violence?

There is simply no way to tear down the most resourceful people without turning off your ability to understand and share feelings. If you reduce the violence in society, the most resourceful people will again begin to work towards progress and wealth creation. If Jeff Bezos being so wealthy is a problem in practice, why does

everyone buy things from Amazon? If you don't buy things from Amazon, how does the fact that other people do harm you? If you were going to take Jeff's money away and give it to other people, how would you do that in a way that reduced the violence in the world? If the only way to redistribute Jeff's money is by a force of violence so strong it conquers the force of his competence, is that right? What happens when the money has been redistributed, who will continue to apply the violence force that will ensure Jeff doesn't go about making his money back through resourcefulness? To empathize with the poor to the exclusion of empathizing with the competent is to hate yourself for not being resourceful.

It's interesting to see people treat successful people like high school bullies, as though the trauma brought about by intentionally picking on the weak somehow carries forward into the economy where, by definition, things that people want are rewarded. It would take an enormous amount of violence to bring true equality of outcome to a place like modern Western culture. So much violence in fact you would pretty much have to tear down the entire economy. Because the economy is a complex system which on balance benefits all participants, you are pretty much accepting an enormous amount of actual physical violence to reduce dependencies. Not only did Venezuela fail to bring about equality, they succeeded in violenting reducing the quality of life of what could have been one of the richest countries in the world. We are one or two empathetic generations of pluralism (as in, empathy for everyone but those more successful than me in the first person sense) away from completely destroying our ability to bring about inequality in the first place. The only thing worse than inequality would be the acts

you would need to commit to build an equal world. That would be truly horrific, and fundamentally wrong.

Empathy can be a force of good. Empathizing with our future children so that we can fix the problems we've created in natural systems seems like an enormously positive force of good. Empathizing with the incompetent so that we can systematically tear down the competent and replace them with people who like to be seen as good (as opposed to doing it) is an enormously negative source of harm. If you imagined a world in which there was almost no empathy, you would end up with an enormously efficient trade based system. People would empathize with those they require in their immediate proximity for survival. Everyone else would be seen as a potential enemy and trading partner. It sounds worse in practice, but we already do this with boogeyman countries like China and Russia, it's not a stretch to imagine it for other out-groups.

The most striking example of the significance of empathy and the extent to which we convince ourselves of our own moral purity is the trolley problem. Picture a trolley speeding down a hill, heading towards a group of people. You have the option of pulling a lever, and saving some people, perhaps a greater number. If you believe Dunbar's number, where we can only have meaningful relationships with 150 people, imagine the trolley is heading for the lowest 10 people on that list (people you work with, old friends from high school and such). Still, people you care about, maybe more once than you do now, and 10 of them. Imagine the other track has your one and only child. Would you pull the lever, saving nine lives you would claim without hesitation to empathize with? I've only been

a parent for a few years, but I would not pull the lever. I would argue that is a more honest interpretation of my likely behavior, as opposed to a more cruel one. I would argue that almost all people would not pull the lever, and they would not regret it either. If we can't empathize with our own real relationships, how can we empathize with the world?

Even giving the climate example of empathy for our future kids, I worry about the implications something like that has. How much violence, short term thinking, overspending, power taking, irrational beliefs and fear mongering could we tolerate if the future of humanity was on the line? Even in that example, so much bad can be born of the good if we're not mindful to focus on reducing violence rather than increasing empathy. If we empathize with our current selves, and spend ourselves into bankruptcy, we will find that a world in which there are no resources left ends up being the most violent of all. We are basically buying a reduction of violence now with resources we need to reduce violence in the future. We'll see how that experiment ends. Until then I'm going to empathize with as few people as I meaningfully can, and focus on being the least violent version of myself that I can be. Knowing we're all capable of harm despite good intention is half the battle. The other half is accepting that you cannot be morally pure, cannot love everyone as gods claim to, and cannot truly empathize with more than a few dozen people.

Other People

A core value that people have to decide upon is whether or not they feel they know best for other people. It is so tempting for all of us to conclude that our determinations and convictions about the world are the correct ones. Because rationalization and lived experience are so present in our thinking, it is almost impossible to truly step outside of ourselves and consider whether our world view is accurate. Because the concept of a world of billions of people is highly complex, and our brains are relatively limited in bandwidth by comparison, it seems highly unlikely that any one person could possess a unifying concept of understanding of humanity.

Because of this, it seems highly unlikely that any values system which implicates deciding things for other people can hold water over the long term. I've been shocked by the complex and opaque world of the opinions, values, beliefs and lived experiences of my immediate family. Let alone countless others who grew up in my

proximity but who I did not share the majority of my experiences with. I can't fathom the combination of things these people have lived and perceived. It is a very thin line to walk holding values closely without extending their application to other people. I think it's valid to have any values you like, as long as it doesn't impact others.

We should be the most careful and considered with the values we have about how it is and is not appropriate to interact with others. The challenge is that we spend very little time arguing the obvious ones (I think everyone agrees that murder is bad, generally speaking, and to be avoided). Anything we believe, and especially anything that we put into action on the basis of the beliefs we have, should very carefully take into consideration the impact it could have on others. What might be righteous for us, could be perceived as an act of violence by another. And those perspectives, while diametrically opposed, can also be equally valid perspectives. That's why navigating values conflict is so hard, and so often regresses into base violence.

Instead of continuing down what feels like a political argument for libertarianism, let's instead consider whether there are things that can be done to account for this kind of bias. The goal is to reduce the violence that others perceive in our actions by increasing our awareness of how our values are turning into actions. People (at least practical ones) don't tend to view opinions as violence, but they very much consider actions formed and acted upon to be viewed through the lens of the values that led to them. Often violent criminals feel that their violence is justified. In rare cases,

that might even be true. The challenge is always to be fully aware and restrained.

Keeping in mind that the definition of violence accounts for physical and non-physical violence. It's more or less anything intended to hurt or destroy. You can see how through this lens, much of social life is really a sort of meta proxy surrogate (wow, let's unpack that one) of violence. Meta, because it isn't directly violence but rather posturing and signaling about violence. Proxy, because often we're carrying out violence on behalf of some kind of identity (ie. feminism, Make American Great Again, go Leafs go). And surrogate, because the subject often isn't us (ie. political leaders or athletes are often the subject of fierce non-physical violence).

It seems like one possible way to disarm a conflict would be to ask someone what you (or whatever you represent) has done in the past to make the other party perceive violent intent. It seems like this would be a good way to tease out values based conflict. Because people rarely act with violent intent, and rather seek to satisfy one or many desires and values motivated needs, we could determine how the other party viewed us differently. Intent could be established, understood and explored. It still requires this rare and challenging skill though, of being able to step outside of the direct violence of interaction and consider each other's view.

Last, I think there is still a strong argument for the basis of leadership responsibility to be divided among those who consider these issues most core. There is an abundance of people willing to step up and make decisions for other people. These people are often the least aware of anyone of the impact the decisions they are making

have on other people. We should instead seek out and vaunt anyone willing to do the hard work of considering how their actions could be perceived as violence and minimizing the impact they have on other people. It goes against a great deal of our own ego benefitting behavior to attempt to do less for others. But often doing less for others, or benefiting others in directly selfish ways, can be less violent than trying to help but instead creating dependence. Everyone's goal should be to enable people to lift themselves up, rather than to do the lifting yourself (and take credit for the eventual heights).

And people are (almost) always capable of lifting themselves up, providing the right unblocking. The violence therefore is actually often found in the blocking, rather than in the lack of action. You have to take your foot off a person's throat in order for them to start breathing again. I worry that our current politics focuses on providing an alternative means of breathing. It is concerning how much time people spend with politics, as though one scapegoat can really materially impact someone's quality of life. The machine is too big to be meaningfully led by a single person. It requires extensive buy-in and careful effort from every member in order to meaningfully work. Most people who do the actual work aren't elected, and generally don't get much recognition. It is strange how much stock people place in leadership (as opposed to individual "leaders" who come and go over time). Perhaps we should place more faith in ourselves instead.

Maintenance

I have been thinking more about the concept of maintenance. At a certain point in your life, the percentage of your time that you spend starting things and leveling up rapidly levels off. As time goes on, the percentage of time spent maintaining existing things (relationships, sources of income, skills, housing, tools) increases, because you start to have the components you want.

Acquisition is step one but most of the effort involved in an asset (in the broadest sense possible) has to go into maintenance. But it seems like people have a dopamine driven inclination to prefer acquisition behaviors (new relationships, sources of income, skills, housing, tools) to maintenance ones. And yet so much value seems to come from the maintenance activities as opposed to the acquisition driven ones, because they tend to compound.

I'm starting to see from the various areas of my life that my efforts and interests have stabilized. In order to get the most value possible

from something, you really have to stick with it through adversity. It seems like there is a human bias that when something is in a failure state, you should just start over. The problem there is that you are more or less throwing away everything, except maybe the lesson, involved in the lifetime of that investment that you made.

The other observation is that entire (large) categories of the economy are dedicated to maintenance. Health care and the trades are mainly about maintaining people and buildings. Many of the highest paying forms of "work" are actually maintenance work. There are so many good things in existence, but there is an expense in order to maintain them. It is a classical human bias to underprice the cost of maintenance. For an example, see public infrastructure.

This follows the other subject I have been thinking about, which is entropy. The tendency for things that exist to decay unless provided with the necessary level of maintenance. It seems like this is something people learn the hard way, during an economic contraction. But on a long enough time scale, there is significant upside to maintenance as well. We should focus on maintaining the things that we have. It may be better for reconciling dopamine to lose something and then pursue it again, but dopamine is actually a terrible measuring stick for progress.

This isn't an argument against acquisition or growth, either. Acquisition and growth are important, for dopamine but also for self improvement. The balance of time spent on each should reflect the maturity of that area of your life. Some people wait until they have financial sustainability in order to have kids: that means their finances are being maintained while they grow in another area. This

is nice if you have the patience, but my experience has been that starting many things at once can be a good way to get psyched up enough to get past the hump. And it gives you more things to maintain which still means plenty of dopamine involved.

The thesis, since this is the beginning of my interest in maintenance as a formal thing to pursue, is that maintaining things can be equally satisfying, takes longer than acquisition but leads to significant more value on an objective basis. The reason being that maintaining an existing asset allows you to recognize more value from the same level of acquisition thanks to compounding. Investing mechanics seem to apply to life. We'll see if this turns out to be true.

Sustainability

The main purpose of living things is sustainability. By being alive, you are already in the positive state of being. The goal, more or less, is to continue to be alive for as long as possible. Sustainability as a concept has been co-opted to a degree to mean environmental sustainability. That use evokes a feeling of lofty idealism, but sustainability on a first principles basis just means something that can be sustained.

Applying the concept of sustainability to other areas of life leads to interesting results. What would a sustainable career look like (probably something involving a fundamental need, met by an attitude of continuously learning and adapting) or sustainable communication?

The opposite of sustainability, literally unsustainability or unsustainable, is a vicious form of entropy. Generally things fail slowly and then all at once: first something is unsustainable, and then it

can no longer be sustained. That applies to life as much as it does how many hours we work or calories we eat. Continuous growth is not sustainable.

I would argue the goal in all things should above all else to make that thing sustainable. This is easy in some areas (it's not too difficult to make breathing sustainable in most cases for most people) and hard in others (assuming plastic isn't sustainable, what alternatives do we have? They all cost way more and seem inferior for most use cases).

The goal should further be to go beyond first-order sustainability (is the number of hours I work in a week a sustainable number indefinitely) and factor in second and third-order considerations as well (is the number of hours the economy wants me to work in a week optimal, or is the number of hours I work in a week sustainable for my family).

Once you consider second and third-order factors that affect sustainability, it becomes much more clear why things fail. Maybe you can sustain the number of hours a week you are working, but your family can't and that causes problems. You are drawing down on an invisible account of how much the family can adapt to your working too many hours, until things break and things get much worse all at once.

By considering all the possible knock-on effects of how sustainable an aspect of your life is, you can preempt many problems. If you are in a position of financial sustainability, you can continue at your current trajectory and not run out of money. If you are in a position of dietary sustainability, you can continue with your current diet

and not end up with a chronic health condition.

Being sustainable generally costs more of something, whether it's will power, effort, money, social capital or any other form of capital. The reason being, if something were more sustainable and consumed less resources (like solar panels in south Florida), people would do it by default. So we may need some carefully considered nudges to get things moving in the sustainable direction.

This isn't to say there are no good times to act in an unsustainable way. There are in fact many times where you may want to act in an unsustainable way, so that you may put yourself in a position to gain greater advantage in the future. Starting out in your career, you may work unsustainably hard, or in a new dating relationship you may be unsustainably charming. Always keep in mind though when you are making these trade offs, because the people around you may confuse your efforts as a permanent, sustainable expectation.

It is actually much easier to accomplish your goals by pursuing sustainability, because it forces moderation. Trying to be the most happy you can would seem to put you on a hedonic treadmill that ends in mania. Whereas trying to sustain your happiness would allow you to focus on (and thereby come to appreciate) the things that make you happy right now. And by focusing on those things and investing in their wellbeing, you can sustain it.

Something taken for granted by older people with more life experience, and missed entirely by young people with less life experience, is the merit in pursuing sustainability. Many people consider themselves work hard, play hard kind of people. The goal, obviously,

is to be successful, fulfilled and recognized. Burnout, however, is extremely hard to dig yourself out of, and comes as a direct result of willfully pursuing working hard and playing hard at the same time. It turns out that it is hard to sustain so much intensity for so long, so people burn out and learn the hard way that moderation is necessary to accomplish most goals.

Speaking on a more granular level, there are many small decisions that can be made to make life more sustainable. Finding a way to eliminate an unnecessary $1/day expense can result in a savings of $20k over the course of a typical adult life. It's pretty clear that economic expansion comes as a result of trade-offs in the area of sustainability. And over time, these trade offs are less worth it relative to the value in living a well edited life.

The world seems to be in the process of swallowing the bitter pill that is becoming aware of the trade offs that have been made through recent history. Burning millions of years of accumulated, squished biomass (oil) so that we can have more wealth for a few hundred isn't sustainable. At this point it isn't about whether this is the case, and more about what we do about it. But we should not stop with the environmental unsustainability.

Not using toilet paper or going vegan isn't going to move the needle though in terms of sustainability at the macro level. We are already too deep in expansion mode to take incremental steps. The world is operating on the assumption that in order to have a large population and be sustainable, we need to use bridge sources of energy (unsustainable ones) to create wealth that will allow us to nurture and develop sustainable ones.

It's unlikely that without the boom in cheap energy over the last few hundred years, we could have overcome our history as subsistence farmers, and before that as hunter gatherers. It's much more likely that we are viewing the world through the lens of being in the middle of a fundamental shift from survival to self-aware sustainability.

This is not necessarily a bad thing though. We cannot go back to being an agrarian society without billions of people dying from the resulting lack of specialization and wealth. The only path forward is to develop technology that moves us in the direction of sustainability. And to recognize, accept and come to see meaning in a well edited life as opposed to a growth oriented one. Without this it would seem the main failure of culture is the failure to sustain.

A lot of people are frustrated by the powerless feeling one has trying to swim upstream and fight for environmental sustainability. The reality though is that spending ourselves to a solution won't work. Fighting environmental unsustainability (maybe some adaptive problems in the current) with financial unsustainability is simply bad math. We can only win the environmental sustainability game with sustainable finances too.

My approach to this problem would be to increase and decrease taxes on things to reflect how sustainable they are. Burning oil for fuel is temporary, and there are so many uses of oil that only oil can perform (tires) that we should tax those less and optional uses (heat) more. Overeating is unsustainable, so products that induce or contribute to chronic health conditions should be required to cover the cost of treating those health conditions.

Food is a great example of this effect. Cheap food tends to have less nutrients: calories can be made cheaper or more expensive but nutrition (actual micronutrients) is a perfect commodity. A perfect commodity is something that more or less prices the same across alternatives. So healthy food costs more to a degree to reflect the fact that more actual nutritional value had to be extracted from the natural world and shifted into the nutrient content of that food. Junk food provides calories (not a commodity) with minimal nutrients (a perfect commodity). But the cheapness is deceptive, because you eat more (your body eats until you have all the nutrients it wants, not until you have all the calories you need. It takes more calories of doritos to get enough micronutrients than it does to get them from broccoli) and there are chronic costs. Net net, healthy foods are cheaper, and taxes should reflect this.

Another good example is politics. At a certain point, governments become a little too well funded and seem to start eating themselves. A sustainable government is one in which the earnings on retained capital exceed the outflows of capital. Norway is a good example of this: moderate socialism is a great option when your outflows of capital are less than the earnings on your capital – you can keep the system going forever by default. Most Western countries practice Robin Hood cash flow instead: taxing the productive and giving to the non-productive. The right approach would be to tax the unsustainable and give to the sustainable alternatives. Subsidizing gas exploration and taxing electricity is lose-lose, but we do it for the above reasons.

If the holiest trait is adaptability, the most virtuous one is effective

sustainability. Not sustainability signaling, like driving a Prius (batteries still emit more emissions while being built than a gas car over their lifetime – you just don't have it on your hands as the owner), actual sustainability. And that can be hard, because some sustainable things are unpopular. Unpopular things are hard because we are social beings, and because these are social issues.

It's pretty clear that sharing resources within small populations and trading between them is superior to other economic models (micro socialism – like a family who shares what's in the fridge, and macro capitalist – groups trading specialized goods). But people seem to be losing faith in capitalism at all levels, including the scale at which it still works well. The core problem is that macro socialism is unsustainable: we cannot act rationally when dealing with other people's resources. So we need to specialize, and we need to trade, and we need to share, but we need to do it at the right level so it can be sustained.

Another area sustainability is not so popular is in having children. Many people seem to feel that having kids has net negative value to sustainability of the environment – this is a false but increasingly popular position. If there is one way to guarantee no one exists in 100 years, it's to not have kids. By comparison, burning all the oil we can find as fast as we can burn it is much less likely to result in the end of the world. It isn't virtuous to not have kids for the environment – it is simply a much less sustainable non-decision than staying the course and fighting for sustainability in parenting.

In terms of putting these concepts into practice, the current politics on these issues is quite strange. Whether you live in a country

of Republicans and Democrats or Liberal and Conservative, both "sides" of the political axis have attributes of sustainability and unsustainability. Neither informs someone about second and third-order impact of a decision that a person can actually make when navigating their world. Both "sides" again tend to be right about what things are sustainable about their valued issues, and ignore the other side.

It's going to take much effort, cultural change and generational changing of the guard to shift things in the direction of sustainability. We should stop advocating for politically motivated and fundamentally unsustainable band-aids and getting too obsessed with the environment relative to other domains, and start to focus on what things can be done to make things better. This can be helped along by raising scientific awareness of what micro decisions lead to sustainability, because most people seem quite confused.

If you take one thing away, it's that sustainability can be applied to anything (spending, working, relationships, health, personal finance, media consumption, ecology, politics) and those things will be better off when it's applied considering all orders of consequences it has on their being. Eventually the practice of applying it becomes second nature, and we'll have much better long-term decision making as a result of broad acceptance of this concept.

On Growth and Problem Solving

The hard thing about hard things is that the reason they are hard tends to differ significantly person to person. The Tolstoy quote about all happy families being alike and all unhappy families being unhappy in their own way comes to mind. I'm finding that the reason having kids or starting a business is hard for me seems to be pretty different from the reason that various other people I know find these things difficult. Being resilient or capable in one arena doesn't necessarily translate well to others, which causes issues that are challenging because they aren't common. The internet helps because you can expose yourself to similar people, but only to a degree. For things where the solution tends to be more consistent, you have conventional wisdom. But conventional wisdom applied to an unconventional problem can be worse than simply toughing it out. Not everything can be transferred among problems.

It stands to reason that a good way to solve a problem would be

to talk to trusted advisors. The challenge is that those kind of problems (advice driven ones) tend to be easily solved by Google. The hard kind of problem to solve are those that take some kind of limited resource, like will power, effort, energy, time, money, relationships, popularity and luck. Depending on the problem you face and resources available to you, different solutions might be the right fit for the same problem. This effect devalues the potential impact of advice. Perhaps that is the difference between advice and wisdom: wisdom can be universally applied where advice is specific. That is a pretty good counter-argument to consulting: just because you have solved a problem for another business doesn't mean that solution applies to the current problem. The only sustainable approach would be to have significantly more of a certain resource than the client. In theory that would be intelligence of problem solving ability but I struggle to accept that a company with a fixed amount of resources would not justify having that ability in-house if it were to be so material. Likewise in our personal lives, it is hard to see at almost any level of wealth why solving for the bottleneck problem should not be the priority. People like avoidance.

The key to solving a hard problem seems to be considering heavily the wisdom of the situation and ignoring the advice. A good deal of bad seems to come from blindly following advice: if the outcome doesn't reflect the advice then not only have you failed to solve the problem, you also feel a certain loss of agency and shame at having not executed on the solution adequately. Wisdom is nice there too because it tends to be implicitly aspirational: people are not necessarily faulted for not following wisdom the way they are for not following advice. This effect pretty much calls into question

the merit to advice at all: if it isn't wisdom and doesn't apply universally and non-specifically, it probably isn't worth sharing. The thing about advice though is that it usually isn't matched to the situation: some people constantly seek advice they don't take, where others refuse all advice in favor of learning things the hard way. If advice doesn't prevent failed attempts and doesn't contribute to learning, it again seems like a bad solution.

Wisdom also has to pass the test of time. The challenge there is that a lot of modern problems seem to be recent: there are teenagers for whom the biggest bottleneck to quality of life might be addiction to their cell phone. There isn't much time tested wisdom there: just because old people use their phones less doesn't necessarily mean you should as a young person. For that matter, many of the more socially, financially and relationally successful people seem to use their phone more often: it can be a symptom of responsibility and success. What is the difference between when an unemployed underachiever plays video games in the evening and a tech billionaire does? Are both wasting time or can you derive nothing from it? Only time will tell with these issues, which is a problem because people on the wrong side of the divide may ruin their quality of life in their teens or worse yet form a lifelong dysfunctional habit. It is hard to see until we end up on the wrong side of an issue just how wrong we are. And the more afraid people are about cultural upheaval and politics, the less likely we are to really know. What things are people doing that would significantly improve my life that I am either willfully or knowingly ignorant of? They must exist, for every person and in every situation, but are so hard to arbitrage between groups of people. It's like politics:

liberals and conservatives both tend to have an accurate perception of the things they care about, and a distorted perception of things they do not value. Both are simultaneously right: we have to move past right as a determinant. Conservatives and liberals don't disagree about climate change, they mainly disagree about what to do about it (spend more than we can afford to vs. do nothing and see what happens).

It is interesting the extent to which people want to find some overarching problem solving framework to solve all problems. Unless you are talking about physics and physics is rarely the right framework for solving a quality of life problem, you pretty much can't do that. And yet so many things seem to be the basis of this (yoga, meditation, medication, working out, fancy clothes, religion, scapegoating, social media) all competing as the one true solution. Presumably it is all basically a distraction from the reality of our situation: some people have a greater will to survive and our brains simply can't handle the bandwidth requirements of modern life. It is a weird problem to have too much information on an environment, but you really should not have to care what the central bank's interest rate is on a day to day basis to make financial decisions or what gas prices are on an hour to hour basis to get where you need to go. Distraction is the bottleneck to progress at this point, as opposed to some other more worthy constraint. Things may be a little bit 1984, but they are acutely Brave New World (or Wall-E, if you prefer).

What kind of progress could humanity make if not mass distracted by mimetic assimilation machines? What I mean by that, in En-

glish, is what could we get done if everyone wasn't sucked into a pretend internet world most of the time. I forget the last time I didn't scroll through some manner of feed or another for a single day – it has been several years at least. And yet I feel like I get so little merit from the barrage of information that I'm exposed to it seems hard to understand why we go back to it. The hard problem usually involves the rejection of a socially accepted default. And at this point, those socially accepted defaults have become so widely distributed and effectively messaged I'm not sure what level of original thinking still exists. Presumably if exposed to it, it would be lost on me as some banal internet novelty. The unusual and creative is the norm, the conventional and historically normal is the enemy. Progress has not historically been one way: we may need to delete some things before adding more.

My final point in this rambling post about problems, culture and progress centres around the concept of wealth and the concept of being a good editor. At this point, I tend to gain as much by removing a complexity or a stressor from my life as I do from adding new sources of upside. This, along with what I see and understand of the current landscape for automating human labor, leads me to believe that in the future a life well lived may be led by editors rather than accumulators. Accumulation is the convention, or historical default, to constantly make up and to the right progress without giving too much through to the displacement that progress creates. I think in the future we will have infinitely more wealth, inequality of capital (but not of quality of life – what would you *actually* spend a billion dollars on? Pretty sure aristocrats still use iPhones and Google), and infinitely more need for careful editing

and curation of culture. The constant expansion, at least on earth, for humans and with our current resources, won't continue. Not because of politics, but because of natural laws. Constant expansion hasn't worked out for more or less any being of physics of culture in history: eventually it ends.

On Love and Agency

It seems like one area people don't try hard is love. For someone with high agency, the concept of "falling" in love sounds like a depression symptom. Love is something that you build, on purpose, every day. It takes time and it does not "last" in a sense that it cannot be sustained without deliberate effort. This concept isn't lost on people in the world of sports or business, when it comes to working and what it takes to be successful, when applied to love however people's agency melts away.

Agency is the capacity of an actor (you) to act in a given environment (love). Is it really fair to say that most people can't "act" on their relationship with another person? The cultural experiment to classify love as something that "happens" as opposed to strictly a verb seems increasingly like a failed one. Is there a better way to guarantee failure in a relationship, than to assume that whatever happens cannot be changed? Even if that is the case, the attitude

is a disaster.

The lack of agency in love seems to come more from a response to the prior approach. Before "falling in love" there was basically "marry for utility". That probably made people pretty cynical about the concept of their relationship being a grind to serve the purposes of survival. Obviously the survival benefits help, but at a certain point people could reliably survive on their own and something had to replace utility as the main "reason" to couple up. Enter "falling in love".

The problem with "falling in love" as free spirited answer to "marry for utility" is that it actually takes agency away. At least marrying for utility is deterministic, in a sense that it can be pursued and measured in a high agency way. Not everyone liked that system, but it was high agency, so you could either participate and do what it takes or not (like sports). So "falling in love" was a progressive step (for some people), but there needs to be another revolution around the agency piece.

The right approach might be to look at love as purely a verb. It cannot be used to describe something (save "loving" or something for that purpose), it can only be used as an action. To love is to do something deterministic to make your relationship better. What that is varies tremendously based on the nature of the relationship, but it usually means doing (high agency) what is best for the other person (love). That is much more deterministic than "falling in love".

People get depressed when something makes them feel a lack of agency, the idea that nothing they can do will affect it positively.

If you "fell in love" and then all of a sudden had a baby you didn't ask for and a giant mortgage that crushes your desire to spend as much time as possible on (formerly) enjoyable hobbies, you are going to feel a great deal of resentment. If you chose the same situation, however, you actually might feel good about it. The key is whether you experience agency.

It's a real shame the attitude people have about something so important. Few things have a bigger impact on the quality of your life than the quality of your relationships with the people closest to you. In most cases, that implicates love, and that should be an opportunity to invest effort. Most alcoholics get divorced and most people who don't drink do not. Is your relationship really ending for a random reason, or do you objectively drink too much? It comes down again to agency.

My final point is what is the downside to throwing out the Disney-induced lack of agency around love and putting deliberate effort in the with the express purpose of making your relationship better? Worst case, it increases perceived agency and leads you to realize that the relationship cannot be fixed. Now you know and can proceed, lessons learned, to a better relationship where you can exert effort in order to make it a good relationship. Best case, your agency increases, your resentment goes down and you improve your existing situation. This is a worthwhile risk. The middle ground is unsustainable.

Eudaimonia

Eudaimonia is an alternative kind of happiness to hedonic. Almost no one actually uses those words in conversation, but hedonic means pleasurable where eudaimonia sort of boils down to meaningful. Hedonic happiness, as in pleasure, has been popular lately while people complain of a lack of meaning in their lives. Eudaimonic happiness was theorized to counteract that, by focusing on ethics and meaning instead of pleasure, but those things can be pretty zero-sum and counter-intuitive as I'll show.

It is hard to unwind the extent to which hedonic happiness is weaved into modern culture, but it is everywhere and actually gaining momentum despite the downsides. Many forms of personal freedom that arrived since the 60s are actually a form of acceptance for hedonic pleasure in the mainstream. The problem is that in many cases eudonic and hedonic happiness are competing with one another: being a parent or doing something difficult tends to be eudonically pleasurable but hedonically disastrous.

Would people be better off understanding the different forms of happiness? It seems like people already understand pleasure and meaning, and that modern people seem to be drowning in pleasure and absent of meaning in a way that many people are self aware of, but not sure how to address. I'd argue the only way to address it would start with reintroducing the concept of happiness as a result of constraints and struggle as opposed to the result of pleasure and freedom. It's a hard sell but worth it long term.

This has been alluded to a little bit with the trend back to stoic philosophy. But it could be taken further when applied to things that have shifted into the realm of being seen as oppressive to hedonic happiness (which almost by definition means it's eudonic in nature if it's worth doing at all). Starting a family is a great example because people are choosing not to do it for short-term oriented hedonic reasons but rationalizing it to themselves for long-term eudonic reasons. This can't end well.

The science on this issue is pretty clear too: people get significant meaning from hardship, especially hardship that requires resilience and community. People often talk about how nothing brings the neighborhood together like a natural disaster, which while terrifying actually bring meaning to people in a way that no amount of comfort or pleasure ever could. The case is not to seek out natural disasters, but to instead recognize that struggle and stress can bring their own form of powerful, lasting happiness.

Another anecdotal example is that people seem to base their expectations and assessment of their own success on how independent they become from their parents and how subsequently successful

they become in their career. For this reason, people who escape a really bad situation in a country without much in the way of opportunities and find their way to a place with lots of opportunity tend to both struggle for most of their life and perceive their lives to be very meaningful as a result. That's not pleasure.

Any time an ideology in people seems to reach broad consensus, you have to think about whether there is something being overlooked in taking the opposite perspective. I think in this case that a lot of the personal freedoms gained by 60s-era progressivism may actually have taken away the struggle and constraints and resulted in having a cohesive interpretation of what is meaningful. Because happiness is rarely an independent game, and often tied closely to cultural incentives of who is virtuous. People travel because travel is seen as a cultural good as much as they do because it's pleasurable. I'm not saying don't travel, but I am saying that constraints work as far as meaningful living goes.

There are many ways life rewards those who pass the marshmallow test (as a child, if offered, would you take one marshmallow now or two in five minutes?). In this case, thinking about what experiences you have had in the past that resulted in the most meaningful memories and lessons can inform how to make decisions to lead a more meaningful life in the future. Seek meaning, not pleasure, since the bias of culture and people is cutting in the opposite direction, to get a more balanced happiness.

Individual vs Collective

Historically, the Western world has been known for individuality. By contrast, much of the developing world embraces collectivism. Most places tend to have aspects of individuality and collectivism built into identify formation, but the ideal that is pursued tends to be on opposite ends of the spectrum depending on where you are. I think part of what is frustrating people in the Western world about immigration is the shift from individuality to collectivism at the national political level among all parties.

In the past, many immigrants to America wanted to pursue their own individual dream. So people who valued individualism tended to self select and move to America. Over time, the culture in America has shifted along with those of the people in the direction of collectivism. There is no right answer when it comes to identify formation whether someone should focus more on individual definitions or collective ones. But there are usually right answers for an individual, whether they prefer to define themselves in isolation

or as part of a group. I suspect that some of the frustration people feel with the way the political landscape is changing is driven by this incompatibility between the average and their preference, and that applies to every party and political belief system.

Ideally, everyone would have a place where you can be more individual or more collectivist depending on your preference. I feel however that in general people might be better off with more collectivism on a micro scale and more individuality on a macro scale. We need lots of people with extreme views counter balancing one another, which requires macro individuality. Likewise, people feel lonely and disconnected despite frictionless networking, which can be addressed by having a collective of people around you that share many overlapping values and perspectives.

Things do not have to be monocultural at a national level for people to feel like they can have extreme views that suit them and for those extreme views to overlap with the people around them. Projecting those extreme views on others at a national level in the name of nostalgia (e.g. Make America Great Again) or impractical idealism (e.g. Pluralism) will not work. That will just create more political violence as people try to seek out the "one true path" forward. There is no one true path, you just have to be tolerant of the existence of people with opposing views.

I suspect that countries will continue to subdivide as people continue to self select into more monocultural groups on a micro basis (e.g. individual states and provinces with strongly held beliefs) and more diverse on a macro basis (e.g. various value systems coexisting within a country or geographic region). The world seems

to be absorbing the positive parts of other cultures while shirking the negative parts that hinder progress. We can only move forward if progress is viewed through a lens that allows for macro diversity and micro individuality. Otherwise it will be a zero-sum contests between different types of people, which seems likely to fail.

If you are someone who feels that things are shifting too quickly in the direction of collectivism, it is possible still to do things that allow you to define your level of agency and socialization for yourself. Likewise, if you feel like people are disconnected from each other and do not share enough cultural values, there are various places that are much more monocultural in nature. Seek out diversity among, not necessarily within.

Abstention, Moderation, Maximization

There are three ways to orient yourself towards different kinds of pleasure: abstention, moderation and maximization. I think what each of those mean in this context is somewhat obvious but for the sake of argument: abstention means you refrain from doing something entirely, moderation means you do it but within conventionally defined social limits and maximization means you do it to the most extreme extent possible.

Sometimes people will lean towards one form or another in various ways. We all know someone who tends to go too hard when it comes to good times and generally values having the most extreme / exciting / intense experiences. On the other end, we all know people who tend to avoid any and all forms of pleasing activity for one reason or another. In between are the people who never seem to overdo it but also know how to have fun.

The key to having a good life is actively controlling which activity

falls into which category. If you want to abstain but instead you maximize, or what to maximize and instead moderate, you probably won't even get a fraction of the value you would if things were where they should be. There are also things that probably belong in each category and deviating from that convention would cause significantly more harm than good. The medicine is in the dosage.

So what model could be built to determine which activities belong in which category? The first step would be harm minimization, to eliminate any activity that has net negative value. At that point, you can at least enjoy baseline happiness without too many low points. In practice, this might mean getting rid of drinking, sugar and other indulgences, at least for a time. The final step is to figure out how much of something gives you what you are looking for.

So the process could look something like this: first you maximize and find out what an extreme experience feels like on a particular metric. This could be as simple as having a cheat day and eating a great deal of sugary treats. That becomes the most extreme data point. Then you could see what it feels like to abstain entirely from sugar for the rest of the week. That becomes the other most extreme. The final phase involves reintroduction only if you want it and to a degree that brings the benefits of the cheat day without the problematic symptoms that soon follow.

There are people who believe that all pleasure is inherently evil, and similarly believe that all things that bring pleasure are an intrinsic good. Because pleasure is relative to baseline, it's impossible for life to have no pleasure. There are just things that are above and below baseline. And all pleasure being intrinsically good is impossible

too. It's said that heroin is so enjoyable the first time you do it, your brain is rewired to chase that first experience. I doubt that hedonists are referring to heroin though when they make the case that all pleasure is an intrinsic good.

It seems like pleasure is simply a misnomer for our goals. Typically it doesn't further anything long term, it simply makes us feel better in the short term. Perhaps the heuristic should be, if this pleasure reduces burn out, it could further your long term goals. Maybe the goal is intrinsically short term. Maybe I just like to split hairs and bucket things into overly complicated heuristics. All I know is that I get pleasure from writing, so I do it.

Reflection

Founder and Father

Being a Dad and starting a company at the same time is hard. I wrote a version of this essay, and then deleted it, because it wasn't honest. It was aspirational and measured. My experience as a founder and father have been neither. They have been brutally mundane, extremely uncomfortable, and often directly conflicting in their needs. This is my reflection.

I decided when I was in high school that in my adult life I had two missions in which I could not fail: be a founder, and be a father. It took me another decade to build the necessary relationships, experience and resources to start to do both. In the end, I started Convictional with Chris in the same month as Jess and I found out she was pregnant with Magnus. I am so glad that they are my partners in this process of becoming what I set out to become.

In the time since then, I have learned so many things about how right and wrong I was in my original, dual minded pursuit of mean-

ing. I have brought happiness into my life, and a lot more unhappiness than I was expecting too. I don't think I appreciated fully at the time how much richness comes from the pursuit of difficult things with people you care about. I don't think I appreciated how difficult it can be to pursue those things either, by themselves or together.

I remember being so excited to close our first few customers at Convictional. Starting a B2B company, customers are oxygen, and it took six months. It was deeply gratifying having to send our first invoice and collect our first payment. I remember being crushed when one of those customers fired us because I was away from the support inbox to support Jess and our newborn son when both were in intensive care at the same time after our first arrived early. It was when I realized that I am one person, and two missions can be and often are compromising. I described it in therapy as being torn in half, and I still feel that way sometimes.

Each hour of my life I am choosing between the investments I can make in my family life and the ones I can make in my work life. In my soul I love work, but I would gladly perform the construction work I briefly did as a teenager for the rest of my life if it meant the health of my kids. It can be exhausting choosing between them at each moment. In many cases, the unhappiness exists in the present, while the happiness associated with the process is deferred to the future. I am optimistic about the gratifying feeling I will experience when it comes together, and further I feel a deep sense of meaning at all times now because of these obligations.

I remember moving to California for three months, with a six month

old, to fundraise for the company. Opportunities were afforded that I would not have otherwise been able to have if not for the partnership of Chris in the company and the partnership of Jess in our marriage. I focused exclusively on doing things that would progress the business or sustain the family, in lieu of fun, feelings and friendships. The people around me would enjoy deepening their relationships. I would go home and hold my sick child upright in the bathroom at night while the shower ran to clear their snotty nose. I did this so that they could breathe well enough to sleep after catching exotic illnesses from being in a new place with new people so that I could be fundraising. I remember being intensely jealous, guilty and tired in those moments.

Taking on the role of company founder, you end up with a job that can often amount to 'only the things the competent team around you cannot solve, or that are so poorly defined no one else can stomach'. As a parent, it is similar, only you do not get paid to do it. In that sense, parenting is harder, there is plenty of validation in all things starting a company. Parenting seems both mundane and shocking in it's hardship. No one writes about you for breastfeeding thirty times a day like Jess did for our first baby. So no matter how hard what I experienced in the business felt, it felt like I had an easier job in those periods relative to Jess. That can make it very hard to talk about what you're experiencing, the person who has it worse that you compare yourself to also happens to be around all the time.

When I hear people complain about getting Slack messages at night or some other form of modern work grievance, I find myself com-

paring their experience to the experience I had when both mom and baby were in the ICU. It makes me feel like I'm immune to burnout from work. Nothing I experience can be as hard as that was, and I don't think anything including the end of the company would be either. My metric for success was that 'both of them end the day with heart beats'. My strategy was to do all the things in my (limited) power to make that happen.

Once you have had an experience where you have to think in those terms, no amount of email, difficult customers or material setbacks can daunt you. Speaking in a room full of investors just doesn't even register on the stress scale. I am immune to the distractions of startup status seeking politics. I am comfortable letting my imperfections show. I am content to give the legos away to people better suited than I am to pick them up and make them into something great.

Being a parent is the hardest thing I have ever done. Being a founder has been an enjoyable occupation, on the scale of consistently the second most meaningful, second most important thing I have done with my life to date. I am motivated by the notion that my work now can make life better for other people's children. And I'm motivated by the notion that the resources my work leads to can benefit my own kids, primarily through learning and personal development.

I want to give my kids the learning experiences that I had, to be able to become myself. But I recognize that I cannot protect them either from harm, to themselves or even worse to the families they may choose to go on to create. The pinnacle of skin in the game

is to accept that the world has flaws, and to introduce life into it in spite of those flaws, and to believe (and work towards) making that world better for those people. It can heal as well as hurt, and it ultimately can be a uniting force to make it possible to see the common humanity in all people.

If you're on the fence about becoming a parent, I would not recommend becoming a parent. If you're on the fence about starting a company, I'd recommend joining Convictional, or Google, or anywhere you admire where you think you can learn things that are meaningful. If you feel like I did though, that it's a cannot fail mission, then I would get started now. These are not things to undertake unless you are sure that the meaning is worth more to you than happiness is.

If that sounds dramatic, wait until you meet toddlers and customers.

Focus

I'm resolving to focus on depth. I've spent the first half of my 20s expanding the scope of my life: starting my career, starting a business, starting a family, starting a marriage, starting new skills. At this point, my day is full of things I find to be meaningful, so much so that sometimes I work (in the abstract sense) on those things from when I wake up, until I go to bed. That's a fortunate position to be in, but the drawback is that things start to suffer when more is added. I've reached the point of diminishing returns when it comes to meaningful pursuits. It's time to go deep.

At the same time, I have the intellectual capacity and novelty seeking drive to continue to add new things to my life. I think it's a habit you get into when you are young, adding and experimenting with things. I could add new hobbies, or projects, or people. But I find as my life goes on that I get more from going deep on things, than I do from going wide. Life is so short: according to the research, I've already lived half my perception adjusted life. To make

the most of the second perception-adjusted half, and to live at the pace I prefer, I have to favor depth.

What that means is working to create a better business, a strong relationship, a more engaging and resilient family, deeper and more specialized skills – but with the existing business, family and skills. The time of addition is over. The time to focus on the depth and quality of the existing obligations (in a good way) is beginning. You can't build a great business or marriage in two years. It takes decades.

So in 2019, I'm going to do a Depth Year. A Depth Year is, literally, a made up concept that someone floated on a blog. I got the idea from Zen Habits, who got the idea from David Cain. David wrote about how he felt similar to the way I do now, in a prior stage of life, and decided to go deep instead of wide. I feel very similarly now, and stumbled upon the idea at the right time. To the extent that I can, I'll read books I have, with people already in my life, in the place I already live, make a living the way I already do and focus on improving myself and my existing skills.

It's exciting to think about the impact getting off the hedonic treadmill of newness will have on my ability to improve my life. I suspect the impact will be positive, especially when I look at the accomplishments of many of the people I admire and realize it takes decades of sustained effort to get there. As someone with a habit of moving on from things quickly, I resolve to use the drive that I have to seek novelty and newness and direct it towards depth and impact. This to me is a more relatable version of focus: shedding the unnecessary so that I can focus on the essential.

25 Years

As much as they usually read the same (e.g. “spend more time with your family”), I like reading “X things I’ve learned in Y years” lists. I turn 25 tomorrow, so I thought I would journal things I have learned that might not be obvious to people at any age, or that people of any age might disagree with. Consider this counter conventional wisdom. My list of 25 things I have learned in 25 years:

1. The most useful emotion is the feeling of resentment. It tells you that you are not living in a way that accords with your values. Usually it means you are living in a way that accords with someone else’s values. If you just make it your goal to do the opposite of what makes you resentful, you make progress quickly towards having a good life. So I would advocate for zero tolerance of resentment: figure out why and solve it.

2. Advice is the difference between you and the person giving

the advice. Only take it from people you would trade lives with. Not just in a particular area (e.g. fame or wealth) but in *every* respect. It betrays values in their most fundamental form, even though most things come down to trade offs and not absolutes.

3. Almost no one is evil, and almost no one cares deeply about you. When something seems like it was designed to prevent your progress, just assume that no one else cares as deeply about you making that progress to begin with. You should come off as slightly delusional for the intensity with which you attack the problems in your life. If not, you are probably deferring to the people around you or letting interia win.

4. The things that make people generally respect and like you are the exact same as they have been for thousands of years. Reading about the politics in China, Greece, Rome or any other ancient civilization illustrates the extent to which there has been no progress in what virtue looks like at all over time. Do the things that made people get respect in ancient times – nothing has changed and chances are nothing will.

5. If people are talking about a technology or cultural issue at a family gathering, it is almost always overvalued. There is an almost 100% chance that the bottleneck problem in your life right now cannot be solved by politicians or blockchain. And if it were, you would already know. You can safely ignore popular things if you want with almost no downside.

6. If you want to feel better day to day, increase the percentage of vegetables relative to other bodily inputs. If you don't

feel quite good enough, continue to increase the percentage. Even if your life situation isn't good, high vegetable intake relative to other inputs will make your body function. We are a biological machine, relative to the arbitrary concept of happiness, vegetables make you feel good.

7. Happiness follows a U curve through your life, and meaning follows an upside down U curve. Happiness and meaning are the opposite. People are happy when young and old but not in the middle. People find the most meaning in their middle ages when their responsibilities peak. Want meaning? Start a business or have kids. You might be unhappy, but the meaning will be significant. If you want happiness, try not to focus on changing the world and minimize your responsibilities. You can have anything you want, *but not* everything you want.

8. Most decisions are a choice between the easy/worse option and the hard/better option. It is an existential struggle between exerting less effort and doing the right thing. If it were easy and better you would do it without considering it a decision. If it were hard and worse you would avoid it like everyone. Spend your time on irreversible choices between easy/worse and hard/better options. And force yourself to choose hard/better as much as you can. No one does it every time, but it is worth trying.

9. Waste is a fundamentally evil form of entropy. Not only is consumption not good, but to consume to excess and waste in addition to the consumption itself is bad. Systems should

be designed to be sustainable despite this kind of entropy. Google "Zero-based budgeting" and then apply that concept to all the areas of your life where you invest meaningful resources (relationships, spending, time use, consumption, habits).

10. The percentage of things happening over email is going down, but the percentage of things that matter happening over email is going up. Add 2-factor authentication to your email account and you will be 10x as secure as people with lots of weird symbols in their passwords. Most critical security tip.

11. It is unfair and inaccurate to scapegoat people. No one is simple, and you barely understand yourself let alone the reasons behind the decisions and actions that others make. When someone is scapegoated, assume the opposite is closer to the truth. People are complicated, just seek greater understanding of yourself.

12. Not only is gaining status not worth it, it is actually bad for you. Toiling in obscurity will give you more satisfaction. And the fact that it's way more productive than an open plan office and constant Instagram use would suggest that it makes you more likely to end up on Wikipedia as opposed to less. So even by ignoring status, you actually end up with more of the good kind of status (respect) and less of the bad kind.

13. It is more harmful to lower your expectations of the people around you than it is to raise them. I consider it a form of aggression when people try to subjugate other people by

"helping them out". Most of the time what people need is a way to contribute. Despair is not being able to see a path to contributing, and everyone is entitled (and obligated) to contribute in the way that they are able. No one is "beneath".

14. People love debt, and it has historically lead to lots of bad things. Debt isn't bad, but being in a position where you could not immediately pay off your debt if you needed to despite asset prices falling in half? That is definitely bad, and has been for thousands of years. If you have debt, that is your bottleneck problem. Leverage isn't debt, but most debt isn't leverage unless you know how to use it for progress.

15. You will almost definitely be unhappy settling for grandparent success in your career. Grandparent success is when your grandparents can brag about your early career milestones to their friends. You work for a big company in a fancy role? That is grandparent success. It is not even a little satisfying. There is a heuristic here somewhere about how you should do things grandparents couldn't do at your age.

16. Invest in learning. By that I do not mean "education". Education is an overvalued asset. If everyone receives the same product (education), the market value goes down regardless of the intrinsic value. Instead, look to learn lessons that other people haven't, and then sell what you learned to others so they save time. Sell doesn't have to mean commerce, it can mean get respect, or donate your skills, but it does mean you have to learn things that allow you to do unusually useful things for other people.

17. There are many ways to spend money that can reduce your bills in future, life is unfair like that. Buying a house and eventually paying it off is too obvious and not great on ROI, but investing in a faster computer or gadgets for your kitchen and bathroom can have significant financial ROI over your lifetime. If you can find something like this to spend money on, do it. There is much better ROI here than there is in saving money.

18. As time goes on, the value of synthesizing information will increase relative to knowledge. Knowledge can be shared thanks to the internet. And narrow synthesis (being an expert in a narrow field) is being eaten up by narrow AI. AI is already better as diagnosing skin conditions than the best experts in the world. Pick a problem, make sure it involves people, and focus on synthesizing it with other scientific fields.

19. There will be way, way more inequality in the future. Thanks to technology, other people having more money doesn't mean you have less. Opportunity will never be truly evenly distributed, it's much more fair now than it ever has been. If you are a mediocre North American, this might not be fun, but it is fun for all the people in developing countries who can go to MIT and invent instead of sustenance farming. Inequality is only bad if you steal money or rent seek. Don't buy investment properties, invest in skills to build technology. Don't fear inequality, fear slow progress.

20. The three levels of independence mirror evolution. There is natural selection (survival), sexual selection (reproduction)

and a third category that basically means "giving lots of resources back". The goal should be to progress through the levels as early as you can, so you can get to the part where you control your time on a day to day basis and you contribute as much utility back to humanity as you can. This tree tends to follow the "social classes" as well. Survive yourself (lower), then provide for a family (middle) and finally contribute back to humanity (upper).

21. If you must argue, consider whether the subject at hand is objective or subjective. And consider whether your counterpart is generally rational or not. Arguing an objective issue with a rational person is easy: agree on the scientific consensus. Arguing the subjective with the rational can devalue lived experiences. Arguing the objective with the irrational comes down to emotional storytelling. Arguing the subjective with the irrational is pointless. 99% of internet arguments can be avoided.

22. Concussions are a terrible thing. If you get a concussion, take it seriously. Of all the things that can ruin your life, in my experience concussions can cause some of the worst problems. We should really work harder to avoid concussions from happening across the domains they tend to occur in (extreme sports, car accidents, regular sports, professional sports). It isn't worth it, especially if you've already had one.

23. Most people will rise to the occasion. Most of the time we aren't putting even 10% of the will power we are capable of.

There are lots of often quoted lines from the army about studies on this, how people give up around 40% of their capacity. I'm sure it has a good evolutionary reason, but you would be surprised how well you perform in a crisis if you haven't had to. Expect more of yourself and others.

24. No one I know has ever regretted finding their people. It can require years, many countries and cities, moving and moving on from relationships. Once you find your people, you should learn to love and accept them, because it is a hard thing to do and most people never find them. Until you have found your people, don't give up, they do exist, you are not the only one.

25. Rapid fire: don't pay fees for banking, leave big tips, drink more water, eat more vegetables, sleep the right amount in a dark room, ignore diet fads, lift weights a few times a week, go on walks every day, avoid screens first and last thing, delete Facebook, read more books, learn intentionally, write for your future self.

Time

Perception adjusted, life is half over at age 24.

Freedom of Time

People want things. A particularly trendy thing to want currently is entrepreneurship. Most people do not want to work longer hours or risk their personal finances. Most people actually want freedom of time. Entrepreneurship in practice allows you to work any 60 hours a week you want. Which is appealing to a certain kind of person that values freedom of time.

A job is basically work that does not give you freedom of time. You trade your time for money. The issue is that most people look at work as necessary for immediate survival (cash flow for survival expenses) and freedom of time in the future (retirement). There are various issues with this but the main one is the part that involves deferring freedom of time.

In order to get to a point where you can attain freedom of time with a job, you have to save money in addition to survival expenses. So you need to earn enough to cover your existing expenses, and then

you need to earn some money on top of that to save up for freedom of time. The issue is that saving that money is hard, because your employer retains the surplus value of your earnings.

In addition, it can be burnout inducing to work for decades in order to attain freedom of time. Freedom of time when you have limited mobility or creativity seems like a waste. It seems like people end up too tired to work or do much else that is interesting. That is not a good deal relative to all the work you do to the benefit of other parties, mainly your employer.

I would argue that entrepreneurship is a better path because you immediately get freedom of time. Assuming you want active income (passive income is a different issue), you have to work for it either way. When you start a company, you retain surplus earnings (e.g. profit) and you have freedom of time. What you do not have is the cash flow smoothing effects of having a job.

The difference is that when you have a company, you do not really need to save money. You can reinvest earnings back into the company in order to retain more earnings in the future. As a result, you only really need to meet your cash flow obligations in order to enjoy perpetual freedom of time. That is a better deal than having a job, where you trade freedom of time and retained earnings for smooth cash flow.

The chief skill and art therefore in entrepreneurship is managing cash flow. I think if you ask real entrepreneurs that own the majority of their business, they would say that cash flow is their hardest problem. Not in a sense that getting revenue is that hard, more in a sense that smoothing it out can be extremely hard and you risk

going to zero. That is still worth it if you can manage to achieve freedom of time though, since that is the ultimate goal of savings in the first place.

The main problem with this idealistic way of thinking is that you cannot just start a business with zero cash. The zero cash date would be tomorrow, you would run out of money and starve (in theory). You have to somehow escape the cycle of earning for survival, and put yourself in a position when your cash on hand exceeds the amount of time it would take to get to neutral survival cash flow.

Since there is no utility in saving money when you own a business that can retain earnings for you, you only need to get your business to survival income to achieve freedom of time. Again, freedom of time means control over your work, not zero work. Zero work is not a good goal, people who don't work are less satisfied in retirement or otherwise. The goal should be work hard, but do not compromise freedom of time (e.g. time with family, friends, learning, sleep) for anything. That is hard to achieve with a job because a job not only has to pay for survival, it also has to compensate for future freedom of time.

Most people could achieve freedom of time decades sooner if they saved what they earn from their job more aggressively, and quit their job to start a business as soon as their zero cash date (the number of days at current expenses that your bank account hits $0) was after the date they could reasonably get to cash flow neutrality with a business. Once that happens you have freedom of time, and you have traded smooth cash flow for it. This seems worth it.

Success is Cultural

Culture is defined as the quality in a person or society that arises from a concern for what is regarded as excellence. It is simply the interactions you are surrounded by on a daily basis that result in you acting in the way you do. Culture is powerful, something which can shape the entire rest of your life if you let it; however it can be manipulated to work for you instead.

If culture involves naturally becoming a part of the environment to which you expose yourself, then you can make culture work for you by surrounding yourself with positive, successful environments. Surround yourself with the people you want to become, and becoming one of them is inevitable. Success becomes extremely simple.

People often comment that successful people have the best network, as in; they have access to high powered successful people, like them. This isn't a coincidence.

If you surround yourself with something, it starts to become a part

of you to a point that it will dictate the way you act, perform and react to situations. If everyone in your office is lazy, non-engaged, and self destructive, that can engulf you to a point that you become that way, regardless of your intentions or values.

Therefore, one way to be successful is to surround yourself with people who are smarter, more connected, and more successful than you are, because becoming one of them is inevitable. There are many ways to expose yourself to the people who you want to become, and some of the best include: working in an environment in which you are surrounded by people that you idolize, finding friends who live the life that you want to live and joining organizations and doing volunteer work for causes that align with your goals.

The idea is to immerse yourself in a culture so deeply that it starts to become a part of you. Taking these small steps as a form of insurance of your future will lead to exposure to a culture which is conducive to success. From there you let culture reform your habits, values and network so that you can be the person you set out to be in the first place, or rather that your culture causes you to be.

As the world gets figuratively smaller, the rich will get richer and the poor will get poorer more quickly. Which group you end up in depends on the environment you are surrounded by.

Technology

Gratis versus libre

I've been thinking about the Stewart Brand quote: "information wants to be free" and the latin that came before it: "Gratis versus libre" which roughly translates to "free without restriction".

More and more over time I see the benefit to open sourcing things. I think for me that means open sourcing my thinking on this page, but also open sourcing the writing we do as a business. Over time, people are able to build up an accumulated advantage as a result of open sharing of information. The business already sees this, because we put our best advice on our blog, and our blog has seen a significant increase in traffic as a result of the relevance of the content. I think the same could be said of many things, it doesn't have to be limited to software.

I have made similar arguments about governments doing as the US does and open sourcing drafts of new laws. While most people tend to ignore this, it would be nice to think that as technology becomes

more accessible, more people will engage with open sourced thinking, software, laws and other media. I have even been thinking about how sooner or later, every database becomes public through breach of security or otherwise. If true, you would want to reduce the value of the data being shared, or normalize it's sharing, rather than limit it.

I think in the future people will open source even more things, like their genome, past trauma and most fundamental values. Transparency seems to be a forcing function for good judgement, good code, clear thinking, balanced laws and fast communication. All very important things.

You can find the source code for this website here.

Affordance

Affordance is what the environment offers the individual. I just read that on Wikipedia. My definition comes from our experience at Y Combinator. The design partner Kevin Hale gave a talk about affordance. I'd attempt to reproduce it here but it had some nuance to it that I don't want to lose. The gist was that people will interact differently with an environment depending on the affordance that exists in it. You can influence how people interact with something as a result.

The concept in design typically applies to the expected outcomes and happy paths. You want the user to take a happy path, ie. the path that results in their expected outcome. Because design is hard and users sometimes lack context, achieving this is hard to do. There are many unhappy paths that they could end up taking. You can use affordance to guide them into the happy path: make the desired outcomes easy and the undesirable ones hard. Let's apply this.

The first example involves how affordance impacts saving money. To login to your bank account (what's my 2-factor authentication code again?), remember where transferring money happens, decide on an amount of money to transfer from checking to savings, do the transfer (what that's a big / small number, how stressful) and then confirm it worked is a large amount of affordance. That's why forced savings plans exist: you just automate everything I described. It ends up being easier to just save money, instead of repeat the cycle for withdrawal to checking. And people end up saving more money as a result, because doing so is easier than not.

The next example involves hamburger menus. At a certain point, Facebook implemented a menu style in their app called hamburger menus. You've almost certainly used it before without realizing but may not know the term for it. Picture the three horizontal white lines you see at the top left (or right) of almost every app and responsive mobile website. That is a hamburger menu. It turns out there wasn't a good convention for "there's a menu here" yet. Once Facebook adopted the hamburger menu, everyone else did too. Facebook has particularly motivated users, who often learn about these user interface concepts by using Facebook before they appear everywhere else. Something similar happened with material design and Google: people use Google services so often that material design makes people feel high trust and comfort. So everyone else started using it for things too in order to benefit from (and reinforce) that effect.

The last example is the archetypal one: light switches. Generally speaking, up means on and down means off. Small children learn

this by observation and everyone pretty much perceives it as a rule. If you were to reverse that concept around, and make up off and down on, people's head would explode. You can make your light switches very easy to use, simply by using the same pattern that every other light switch someone has encountered before.

Which introduces some interesting concepts. In the savings example, it's clear that the design of the process is more important than our will power: all the studies say that people who automate savings and manually pull money from back to checking do better than the reverse. So design can make or break the success of a process, system or object. In the hamburger menu example, new concepts (like menus on a mobile phone) can be a massively stressful experience for the user of those phones. Once a universal body with influence (in practice) decides on an approach, users start to strongly prefer that approach in all contexts. Finally, in the light switch example, it's clear that the network effect for the up and down switch is so strong we forgo potentially better options (ie. a dial for brightness) in favor of the simplicity and universal appeal of the up and down switch. Design basically trumps reason and learning.

It can be interesting, then, to consider what affordance you can introduce into your own life to make it better. A basic example might be to keep your healthiest food on the counter. People, in their righteous laziness, will typically just eat what's in front of them. The wise person doesn't necessarily get rid of unhealthy food, you simply have to make it harder to access. The same applies to many things: social media, alcohol, public transit and

so on. People will take the path of least resistance: we have an obligation to design our lives and those things so that the best path (most sustainable, enjoyable or otherwise) is also the easier one to take.

There's a dark side to affordance too. What if someone else wants you to take a bad path? It can be, unfortunately, as simple as reducing all the affordance. Smoking has a lot of fairly annoying overhead involved. Over time, people's tolerance for it went down to the point that a lot of people just stopped. Vaping seems to remove many of those affordances (ie. no fires inside, no constant trips to the convenience store, much less smelly). And by virtue of removing all those affordances, has become massively successful. So bad things can win simply by virtue of removing the affordance around them. To win that war, we should be aware of affordance.

Discovering this concept was really exciting to me in a lot of ways. For the business, it is a holistic and qualitative way to help understand how to make customers more successful. Understand all the jobs they need to do, and remove all the affordance that you can over time.

For me personally, it really rewired my brain to think in terms of design. I don't need the willpower to save, I need to remove the affordances from the saving process, such that I can do it on autopilot. I can remove affordance from the things I want to do (like write) to the extent that I can do it more frequently. And I can add affordance to other things (like checking work email by removing it from my phone) to reduce the impact it has. You can never remove all the affordances (neuralink?) but you can move

towards a well designed environment.

Our responsibility is to design the system, not necessarily to act within it. The impact of thinking this way surprised me, and might surprise you too.

Voicemail

I disabled voicemail on my cell phone. My Dad did it, because all he ever got was spam. Likewise, 95% of the voicemails I had were spam or doctor appointment reminders. In either case, I really don't want to sit through a voicemail. So I disabled it, and it's been great.

If you want to do the same, just call your carrier (or if they are very neo, go on their website). It's a product that people want apparently, so you might even save money doing this. I think it keeps it simple, because the first thing anyone does when another person's voicemail is full is email. So it just skips a step on their behalf.

Voicemail wouldn't be so bad if cell carriers did what office phone providers do and transcribed the message into a readable email. But they don't, so it probably just makes more sense to turn it off.

Platforms vs Applications

Software is built in layers. Most of what we do stands on the shoulders of the work done by programmers that came before us. That applies to the actual computer the software runs on, as well as the lower level code that is required to translate the fancy modern languages people use to write software with the very basic level of interpreting instructions according to ones and zeros. All that stuff is basically the infrastructure of software, the main customer would be the developer who has to build software for a user on top of the infrastructure.

Above the infrastructure layer, there are approximately three more. The next three in order would be the platform, the applications and the services. Let's unpack that.

A platform is something that enables applications. If you have an operating system, that's technically a platform. The user of the operating system might be someone using a computer. The

applications are the software that runs on the computer (Chrome, Microsoft Word, etc.). And the services would be the things that are necessary to learn about the application (could be support, documentation, or any other technical intelligence that the users need beyond code).

Tech companies have realized that the lower in that stack you are, the more valuable you can claim your software is. So service providers pretend to be applications (e.g. a service business that pretends they have a product), application providers pretend to be platforms (a good example would be an app for a particular OS or web platform – if it's tied to an OS or another platform, it's an application) and platform providers pretend to be infrastructure (because it sounds more impressive to say and because infrastructure has the biggest moat of all).

In practice however, the key comes down to who your customer is. The only purpose of a platform is to enable applications. The application could be a website where you can update the data in the platform, or another computer that updates the data on your behalf. Likewise, the customer of an application would be services: the value and understanding a user has to have in order to actually get value from the application. If you are infrastructure, everyone depends on you, but your customer is just the platform maker who decides what functionality to enable.

It's similar to the way Thiel talks about monopolies in business, where non monopolies try to pretend they are monopolies when they talk to investors, where as monopolies try to pretend they are not monopolies to avoid regulatory crackdown. Platforms pretend

that they can own all the applications themselves (sometimes it's true, for example Google makes almost all the apps I use on my Android phone) where as applications tend to pretend they are a platform because then people won't see the path to a competitor providing a better application experience.

There is nothing wrong with building something higher up the stack, it generally takes less time to get to market and has a more clear cause and effect relationship between the value being created and the value that can be captured through the process. But every ladder rung you rise in the software hierarchy means you are depending on another layer. I suspect that owning as many of the layers as you can results in providing the best or at least most unique experience for customers. This is the essence of vertical integration, which works well for manufacturing companies as well as technology companies it would seem. Google started with services, and worked backward through Android (platform) to fill in missing apps (literally, applications) and finally back to infrastructure (the servers and the phone hardware through the Pixel brand).

The main question when you're starting a software company is where to begin. It seems like most either start doing services, and go down the stack, or start doing applications, and layer in services. Not too many seem to start as a platform, because it tends to require more funding and be less incremental. Platforms aren't necessarily winner take all, so long as the applications you are enabling share similar data models, business logic and lower level infrastructure needs.

That's really the key: the platform is the distance between bare

metal computers and the thinking and acting required by the computer to meet the needs of an actual user. Finally, building applications is generally the only way to know what the platform really needs. People who dislike Windows tend to do so because they dislike aspects of Windows as a platform, generally they tend to like what that platform enables in terms of applications. Windows probably made the right call focusing on the application provider as customer, as opposed to users, but users seem to have shifted their preference towards the platforms that focus on them instead.

Mark Zuckerburg has a now leaked email in which he talks about how they are weak on mobile because Google and Apple both own their own full stack. Facebook only has applications and services, their platform isn't really well suited for building mobile applications. So he talks about how in future, they need to make big bets on the platforms and applications that will win (such as VR), and that they have to build both the platform and the key applications. If cost is no object, but winning markets is important to your sustainability as a business, this is probably the right approach. It's roughly the same one Google and Apple decided to take with mobile.

I found writing this up a good exercise in clarifying my own thinking. There are lots of good visualizations of this if you Google for software stack or platform vs. applications. Hopefully it's helpful to those facing the same question.

Social Media

I think social media is a failed cultural experiment. By that I mean, at least here in North America, I think usage will go down over time rather than up. It seems more likely to end-game along the lines of smoking than it does to become some kind of taken-for-granted public good. I like to use a borrowed analogy for technologies that are unanimously good: we don't call them technology anymore. Windows (the kind you see through), surgery and bicycles are so unapologetically good we don't call them technology anymore: they just are. Social media will never get into that category in my opinion, instead it will fade into a social vice like smoking.

The reason I think it failed is basically that it doesn't seem to make people's lives better. It provides for cheap advertising, and enriches the platforms. Likewise, people seem to use it, which implies utility, but I believe there's something deeper and worse about them that keep them in use. Network effects implicate that if all your friends and family do something, you culturally have to do it too. The

problem is that in the past this meant group survival was more likely, but now it has been co-opted to mean that you have to do and be the same thing.

Doing and being the same thing as everyone you are friends and family with is harmful and weird when the world is collapsed into a singular mass. It means that everyone, literally, has to do and be the same. What that results in is polarization: an epic outgrouping process. How is it possible that as time goes on, 50% of people think that abortion is bad and 50% want socialism? I mean, regardless of how you feel, shouldn't it be 49/51%? Assuming people think for themselves even a little bit, how did we end up with two "teams" with an equal bench?

The only explanation I can think of boils down to the network effects of social media. Studies have shown that over time, republicans delete their democrat friends and vice versa. Eventually you have two groups of people being aggressively forced to think the same. The problem is that those groups are made up of tons of subgroups, and culturally speaking the minority rules. So each mega-group of so called "right" and "left" thinkers end up adopting all kinds of weird rules to appease their many sub groups. I'm pretty sure there are more options than either 1. I park my truck in electric car parking spots and 2. I excommunicate you for not being an ethical vegan. In fact, there are basically all the other options occupied by 99.9% of 1997 people.

Social media seems to accelerate this descent into lowest common denominator politics. The problem is that no person agrees with all aspects of a particular political party. And most people will tell

you this if you poll them on the street. For some reason though, our political options for the opinions we can safely share in the public forum *are* regulated by these politics. That goes away as soon as you stop hitting "reply all" on a public email list containing everyone you have ever met. You can start to express the nuance of your opinions. If you can't, you will either start self-regulating and destroy your soul, or continue to be an individual and risk excommunication.

I haven't had Facebook for years, or Twitter for a while. I have LinkedIn, but I resent it, I use it strictly to get the emails of people I could probably just ask anyway. I hope that the whole social media thing just self destructs and people go back to personal websites, email or messenger. It seems like people are in fact going back to those things. Might as well accelerate that instead.

Signal

Signal is a private messenger app, and it's excellent.

It's basically the antidote to the extensive network of Facebook and Google connected services that trade privacy for free web products. Facebook I hate, and don't use, but I use all kinds of Google products and accept the trade off. Signal created the encryption, and licensed it to the largest messengers (Google, Facebook). Signal is nice because it's free, it's secure and it allows for a refuge of privacy by comparison.

The only thing Signal knows is whether or not your phone number has ever been connected, which is reasonable. You can use it to message anyone else who has the app in a way that is end-to-end encrypted. It's funded primarily by the founder of WhatsApp, Brian Acton, as a non-profit. It's also almost entirely open source, so you can see all the code online. It's fast and relatively well used considering it is a niche app for protecting your privacy while

messaging.

The way it works is pretty interesting. When you send a message, the only person who can see the message is the recipient - whatever is in the message cannot be viewed by Signal or anyone else. You make some trade offs for it, like no search and local-only back-ups, but that is a small downside. You can use it for sharing files, voice messages, even encrypted phone calls. Generally speaking if you care about privacy, it is the best way to accomplish it with low friction.

I suspect in the future that having privacy all the time won't be practical. At the same time, constantly having multiple parties able to access your communication is oppressive and in many cases can be dangerous and in violation of fundamental human rights. Being able to use private messenger is a practical way of standing up for keeping those rights intact, without being too extreme. It's good to be able to switch between them, and a reasonable compromise for most.

So in the words of Snowden: use Signal.

Science

Fountain Theory

Over time, I've developed the fountain analogy to explain some of the social difficulties and loneliness of high IQ people. It can be visualized the way water behaves when leaving a fountain pointed up in the air. Near the source, the drops of water are closer to each other and to the source. This represents the creative potential and allowable types of thinking of lower IQ people, that they think similarly to each other and to the median.

As you move away from the source of the water in the upwards direction, each drop is further apart from other drops at the level and further apart from drops not at that level, they spread outwards and upward. The effect this has is that for the highest IQ people, represented by water at its peak height, think differently both from intellectual peers and from those who are not.

This has effects on how socializing and loneliness work. It means that all highly intelligent people end having more difficulty social-

izing because of how different they are. And it means that you feel like you're on an intellectual island all the time, because you are compelled to drive your thinking in unique directions compared to the people around you. It has both positive and negative effects, positive in the creative sphere and negative in terms of interpersonal closeness.

An extreme example of this effect might be people like Elon Musk or Kanye West. Both are highly intelligent, and highly unique. Both have a track record for exceptional creative achievements, but also talk about crushing loneliness and difficulty relating with other people. I'd argue they occupy the top of the fountain where they're able to access creativity faculties that can't be understood by others. It is both a blessing to their creative output and a curse to their ability to have basic human relationships.

Being able to connect with people, to feel understood and to understand them, is something that requires a combination of inherent talent and cultivated abilities. The highest IQ people often learn the basics of emotional intelligence easily, in theory it is easy to exercise empathy. But because the way those powerful minds work is so different from the way everyday people think, they end up lonely and with difficulty maintaining interpersonal relationships despite their talent for learning those things quickly.

Fountain theory is one way I've helped myself and friends understand this and what might be leading to feelings of loneliness or a difficulty relating to others despite a level of care and empathy that is high. Hopefully it's useful to you in navigating how you might approach feeling connected to humanity.

Biolearning

Survival pressure forces us to adapt. Adapting requires learning. Learning is the process of reconciling *our* world with *the* world. Stress is the friction that exists when those worlds are out of sync. Stress is the necessary precondition to learning, like a muscle growing after failing.

When you experience something stressful, your body marks that part of your nervous system with acetylcholine. When you sleep after a stressful experience, your body will go to the spots marked by acetylcholine and lower your dopamine levels. Contrary to popular wisdom, this results in neuroplasticity, the capacity to learn. This capacity results from stress at all ages, not just during childhood. That means your nervous system is primed to learn in the areas that experienced the recent stress. As you process and adapt to your stressful experience, you'll be recognized by your nervous system in the form of increased dopamine. You'll be focused and

motivated more as you come closer to reconciling *your* world with *the* world. You'll seek out experiences that can be plugged in to that neuroplastic part of your nervous system.

As your dopamine gets higher however, you'll become less interested in focusing on that stress, and turn your attention elsewhere. This attention change results in lower neuroplasticity, as the learning is nearly at the local maximum. As you experience further stress in other areas, the process repeats itself. When you experience new stress in areas previously perceived to be fully developed, again the process repeats itself. This stress, increased motivation, focus, progress, decreased motivation, changed focus loop is governed by a few now known neurotransmitters.

First, we experience stress. Then, when we sleep, the stress is turned into the nervous system's version of a growth mindset. Without sleep, the stress builds without recovery, resulting in decreased dopamine, abundant acetylcholine, and less focus due to competing forms of stress. With sleep, we can continue the process of marking where we need to learn and focusing our attention on the parts of our nervous system currently experiencing the more stress.

Realizing this really changed how I think about stress. Stress is simply an opportunity to adapt and get better. Post traumatic growth seems like less of a mystery. When confronted with an extreme challenge to reconcile *our* world with *the* world, we rise to the occasion. This allows for, almost enables, profound learning. It all comes down to how we perceive and act on stress.

So much of life seems to be about hacking the loop. We experience

stress, which leads to reduced dopamine. We stop there and drug ourselves. This feels like progress, because dopamine is progress in neurotransmitter form, when in practice it simply allows us to cope with being out of alignment with reality. If we instead lean into the stress, channel the motivation, process and adapt, we benefit from this natural process of learning. We learn. When we learn, our body recognizes us with serotonin, which *unlike* dopamine *is* responsible for pleasure.

Stress is a necessary precondition to learning. Learning is a necessary precondition to pleasure. Close the loop and stress is a necessary precondition to pleasure. Biology proves stoics right.

Roxanne

Every time I hear the term “red light therapy” I start singing the Police song Roxanne. It’s the friendlier term for photobiomodulation (PBM) or low level laser therapy. All of them mean the same thing: exposing your body to the red and infrared spectrum of light for the health benefits.

Instead of trying to pull together a half dozen links in an attempt to share the ground truth when it comes to PBM, I found a Google Sheet that appears to link to (nearly) all of the research. You can find that here. For something most people haven’t heard of, that’s a lot of research.

On the right in that Sheet you can find the PubMed or similar link, which can give you the DOI string, so you can plug that into SciHub. From there, you can read pretty much any of the studies directly. If none of that makes sense, I’ll write a post about how to use SciHub soon. For now, let’s explore the interesting and

shockingly effective PBM in a little more detail.

One way to experience PBM is to be outside. The sun gives off various spectrums of light, including red and infrared light. If not for ultraviolet light, that would be enough to heal. Unfortunately, ultraviolet light is the high school bully of light spectrums, ruining the experience for the rest of the spectrums. So being outside leads to skin cancer in addition to healing us.

Wouldn't it be nice if we had a way to access the healing spectrums of light, without having to tolerate ultraviolet's problematic ways? It would need to be cheap, easily mass produced and highly specific in it's output. Bonus points for prices that fall as manufacturing volume goes up.

Enter LEDs. Unlike throughout history, where PBM was limited to 1. Sunning the sick outside or 2. Incredibly expensive lasers, we now have incredibly cheap LED lights. For enough red and infrared spectrum light to blast your entire body, the cost in 2015 would have been over $20,000. Today, the cost is about $1,500. In five years, it could be more like $100.

The progress in LEDs has made it cheaper to keep a warehouse lit. It means camping no longer requires carefully planning batteries in flashlights. Handy stuff but hardly revolutionary. It also, however, means affordable at home PBM. And that has the potential to change the world.

We've talked a bit about what PBM is, does and the economics of it. But the hype train would be incomplete without a stop visiting what PBM does to your body. The mega Sheet with all

the research provides a lot of detail. I'll save you some time and make a list here. Reminder that this is not at all a complete list, just the highest level basics of what it offers in the research.

- Reduce skin inflammation, treating or curing acne, eczema and psoriasis
- Increase collagen, leading to smooth skin, strong hair and clear nails
- Speeds up healing of scars, exercise recovery, wounds and burns
- Increases the density of hair and increases the speed of hair growth
- Reduces or eliminates chronic pain, arthritis and joint pain
- Reduces or deactivates dysfunctional chronic inflammation
- Reduces pain sensitivity and reactivates dormant nerve circuits
- Increases and optimizes energy production in your cells
- Increase testosterone and rebalance other hormones
- Improves sleep quality and duration, as well as time to sleep
- Reduces depression and anxiety symptoms
- Enhances memory recall, processing and reaction time
- Decreases risk of viral infection and reduces intensity and duration of symptoms

I'll stop there but there are other benefits. Even now, studies on Covid-19 patients have seen significant outcome improvements in under a week with daily treatment. It is almost so boring in how effective it is, it seems to pass over the health fad phase right into boring, routine use.

As I learned about PBM, I got really excited about it, and started to plan an investment. I did a lot of research. There are medical use lasers, high intensity PBM, low intensity PBM, external light panels and headsets that send infrared into your brain. In the end I settled on an external panel from the one and only company with shipping in my country. I suspect in the future it will not be so hard to acquire these products through mainstream channels. For now, you can risk Alibaba, overpay for the one well known brand Joov, or find someone to import a white label version of the Alibaba panels for you. I settled on that option for service to price trade off.

I'm also going to invest in the headset when the time comes. It has gone down in price even since I started to research it, quite materially in fact. It is exciting to think about the impact this technology will be able to have as LEDs continue to drop so aggressively in price. We can pursue less efficient but more time effective and efficacious ways of maintaining good health. I'll save you some meta joke about Roxanne. Learn more here.

Breathing

I have been spending more time being aware of my breathing, and learned a lot about myself in the process. Some combination of child birthing classes, Wim Hof being referenced on YouTube and curiosity led me down an internet rabbit hole about breathing. One assumes it's a given that our bodies will tune our breathing optimally, but that is far from the case. Almost everyone breaths wrong in some way, and it has a fundamental impact on health and wellness.

One thing I learned is that we can modify our breathing in service of our goals, and that compared to other modes of nervous system activation or deactivation (meditation, stimulants, focusing) it works within 60 seconds with absolute effectiveness. Like drugs, breathing offers uppers, downers and the ability to stress and destress your body and nervous system on command. This can be a useful tool, chronically underexplored, but strangely useful too.

If you want to become alert, either for focus or for athletic output, you can do Tumo breathing (aka Wim Hof method). It involves spending 60 seconds breathing in intensely, for slightly longer than you're breathing out. This is stressful. Then, at peak hyperventilation, you stop breathing for a minute or more. This is even more stressful. It will immediately focus your body on the fact that it has higher than normal nitric oxide in the blood, which leads to an alert, focused state.

This method can also be used to become more resilient to stress. The lack of oxygen and abundance of carbon monoxide creates an environment similar to altitude sickness. This is stressful on various bodily systems, respiratory and otherwise. But breathing through your nose in particular results in 10x or higher blood nitric oxide content, which counteracts altitude sickness. People who live in high altitudes have much high blood nitric oxide, but you can temporarily boost yours simply by breathing intensely through your nose. Altogether, your body will become more comfortable with a wider variation in air oxygen, which directly acts on stress. Without realizing, we breathe faster and shallower when stressed. By taking some agency over that process, both cognitively and physically we will be better conditioned to handle the stress.

If you want to become relaxed, you can do Lamaze breathing. It involves taking two regular breaths in (one into your lungs, the other into your belly) and then one slow breath out. Repeated for 60 seconds, it deactivates the parasympathetic nervous system. This signals to your body, in the most root cause way possible, that everything is fine and to stop being so alert and focused. Com-

pared to meditation, it is a more versatile way to calm down in any setting.

As many as a quarter of all anxiety and panic disorders are actually disordered breathing due to chronic mouth breathing, shallow chest breathing (rather than deep belly breathing) or too high a baseline respiratory rate (or some combination of those three things). People need less sleep and feel better rested when they tape their mouth shut at night to avoid mouth breathing. It's typical advice to take some deep breaths before doing something hard, which tends to act within a few seconds, but it takes time to retrain your body to breathe slower, more deeply and through your nose. That alone though can cure anxiety and panic in those who have not done it already.

I found YouTube the most useful source of information on breathing exercises, and I admit that I am still swimming in the shallow end. That said, I think until now no one really sat me down and explained the impact it could have. Considering there's a pandemic going around which, among other things, is more severe in those with lower blood nitric oxide (almost no one in high altitude climates develop symptoms, and places with pollution that leads to low nitric oxide like New York and Northern Italy have been hit by the hardest), it seems like a good time to learn.

Resilience

I've been using a boxing analogy lately for resilience. There are various ways to approach resilience. Boxing wise, there's the concept of rounds, taking punches, getting knocked down and getting knocked out. The concepts carry over nicely to the trait of resilience.

The simplest variation is the difference between taking punches (being tough) and getting knocked down (bouncing back). The default mode of resilience refers to being tough or taking punches. It means you can handle a lot of chronic and acute stress and remain functional. The problem with taking punches is that it causes brain damage. Not getting knocked down means you don't necessarily learn from your mistakes. You just continue taking punches. This is useful in cases where the form of stress you're dealing with is unforgiving in nature. Where if you were to get knocked down, it would hit you while you are down. Parenting comes to mind. It's critical to remain in the fight, even in a beaten down form, to avoid

the cost of failure.

The alternative to taking punches is getting knocked down, and getting back up again. This is the equivalent to losing or failing, depending on the context. The utility of resilience in those cases involved how fast and how well you get back up again. If you don't get back up again, you could view that as burnout or a symptom of learned helplessness. Especially if it's because you lack the motivation, as opposed to the ability, to get back in the fight. If you get back up again, without drawing any lessons from the failure, you will likely make the same mistake over again. Which are two common ways people fail to progress: they don't bounce back, and if they do they're not drawing meaningful lessons from the failure. Startup failure or getting fired come to mind. If you don't get back up, you will never know how close you were to success. If you don't learn from your mistakes, you will fail again for the same reason that caused the first failure.

If you consider the alternative approaches to resilience, in terms of taking punches or getting knocked down and getting back up again, you realize where taking punches falls down. It doesn't really lead to the visceral lessons that come from outright failure. Never knowing how well you're doing, and continuing to operate in a mode of functioning that is not optimal, may just prolong how long it takes to fail and learn from your mistakes. The risk of getting knocked down, and the fear among people who favor the toughness method, is not getting back up again. If you can take enough punches to determine whether the fight has promise, go down when your situation demands it, and bounce back again

quickly after outright failure, you have the resilience equivalent of a growth mindset. If you can draw lessons from each failure, both in functioning and in outcomes, and improve next time, you can probably learn the fastest too.

You can carry the analogy further when you consider other concepts like getting knocked out (taking existential risks, aka betting the farm) and rounds (where you manage your own state in order to avoid getting knocked out or getting knocked down, energy management for resilience). It's a handy analogy for an ambiguous trait that everyone wants to possess but few master.

Hydroxyapatite

I recently discovered some scientific papers about a new kind of toothpaste, containing something called hydroxyapatite. It's a chemical that is comprised of minerals in a similar form to those found in bones, teeth in particular. It acts in a different way than conventional fluoride toothpaste, and the studies I read suggest that it pretty consistently results in remineralization (healing) of your teeth and less cavities. Because fluoride is a pretty awful neurotoxin, a science-backed alternative seems appealing.

Jess and I ordered a tube on Amazon directly from Japan, where they are ahead of the game on commercializing it. Compared to normal toothpaste it appears to be about ten times as expensive. At this point, that is probably a non-starter for most people, unless you could somehow price the neurotoxic downsides of fluoride and the savings on dental insurance into the cost. The tube that arrived a month later in the mail is, if anything, smaller than normal

toothpaste. All of that said though, if it does a better job and is not a neurotoxin, it's worth it.

I just tried it for the first time and it's definitely a more pleasant experience than normal toothpaste. Beyond the learned childhood anxiety for avoiding swallowing fluoride toothpaste, it's more pleasant to brush with and tastes quite mild. It doesn't seem to have noticeable textural or taste elements at all, just basic paste. My teeth definitely feel different than with fluoride toothpaste: much less sticky (fluoride sticks to your teeth on purpose, to attract calcium phosphate ions in hopes it will repair your enamel) and more smooth.

Over time the cost to produce and distribute will come down. It won't just be overly conscientious nerds from Canada buying it from overseas. As a result, we should be able to phase out fluoride toothpaste. I imagine the dynamics of the industry are similar to that of other controlled distribution industries that have existed for a long time: first they ignore you, then they fight you, then you win. P&G probably knows well that this ingredient is out there, and when the time is right I have no doubt they'll adapt. It is going to take some kind of Musk-like mission driven challenger to get the market there, otherwise we'll be stuck rubbing a sticky neurotoxin in our teeth in the futile hopes of repairing them from acid wear.

There are, it would appear, other ways.

Autophagy

The brain, and other parts of the body, recycle. The process is called autophagy. It's what happens when you fast and sometimes happens without having to fast. The person who discovered it's positive impact on people won the Nobel Prize in Medicine recently as a result of their work. It's important that bodies can access it.

There is much scientific literature on autophagy only a Google away. It's well worth the time spent trying to understand it. When you fast, your body eventually goes into autophagy, which essentially means it starts cleaning up and destroying old and broken cells, and using their parts for energy and repair. It's necessary for our body to get into this state. It's natural for a feast and famine animal to spend periods without food.

One reason modern people tend to be afflicted by neurodegenerative disorders seems to derive partly from issues involving the lack of autophagy in our lives. Without cellular recycling, bad cells can

build up and form plaques. We need to go into autophagy in order to keep our cells functional, hence the benefit of fasting. Fasting can hardly solve Alzheimer's, but it appears it can be protective against it at least in part.

To maximize the benefit of fasting and take full advantage of the natural cell recycling process called autophagy, you have to fast for longer than 16 hours (men) and 13-14 hours (women) at a time. At that point autophagy kicks in. The benefit diminishes entirely by 48 hours, or about 30 hours a month, of fasting. So if you want to get full benefit, you can fast for 48 hours once a month or 24 hours once a week. Less if female.

When we fast, our body looks to existing sources for food. Contrary to popular opinion among bodybuilders, this is less often prime muscle cells, and more often waste cells that need to be recycled for parts because they no longer function and will simply build up in undesirable places (your brain) over time. The proteins and energy in the cells can be reused more usefully by other parts of the body. Even the nutrients themselves can be appropriated for use elsewhere. It's interesting that this highly antifragile process is built right into us.

Relative to other diet advice, it doesn't require (or sell) books to say "eat less frequently". It does however set off autophagy when you do, something that is critical for all people to engage in or else end up compounding the problem of neurodegenerative diseases. I do one 24 hour fast once a week, and find many benefits. Try it out.

Full Stack Self Awareness

At a certain point, I became interested in self awareness. It is hard to have a good life without knowing how and why I do the things that I do. But I felt that in order to understand how and why I did the things that I did, I would need to start from the basic biology and then work up into higher levels like immunity, cognition and psychology. You could call this full stack self awareness.

In software, the term full stack means that you can apply technology at each layer of the system. So you can write code that runs on the client, and code that runs on the server. You can write the code that runs in between too, or it would not be the "full" stack. In this context, it means to understand yourself at every level, from biology (low level) up to psychology (high level).

I started with the highest level (psychology) but quickly realized that things that happen at the psychological level are informed by what is happening at the lower levels. So I moved down the stack,

into the neuroscience of why I acted. And then eventually that led to the fundamental parts. Eventually I built a synthesis of how each layer acted on the other, in order to be self aware.

I wanted to understand how a decision to exercise could affect how well my brain may be able to focus, and that required understanding both focus (psychology, high level) and physiology (biology, low level). Many people are vaguely aware of these things, but less so as it relates to decision making. Biology was useful for understanding how physical threat state (e.g. fight or flight) affects decision making, and how biological forces like heart rate can impact how one thinks and behaves.

The next level up is the interface between the biology and the cognition, which falls under neuroscience. The fancy name basically means the science of the nervous system, which communicates information among the various systems in the body, as well as comprises the system responsible for the cognition itself. Neuroscience was helpful for understanding why different people might bias to different thoughts, depending on what thoughts, memories and experiences are stored within it.

The highest level is psychology, because it implicates the applied thinking that happens as a result of processes happening in the nervous system. Thinking, focus and self awareness are all implicated by how we perceive ourselves and our environment. That information might be coded in our nervous system and our biological systems actually carry out actions, but our psychology determines how we receive and perceive the inputs in the first place. It interprets.

I found it helpful to understand and think of self awareness in a full stack manner, because you can start to use this knowledge as a tool to drive whatever outcome you want. Concepts like will power, focus and resilience are coded in our nervous system, and the actions we undertake in our day to day lives are happening as a result of biology. Fine tuning, debugging and generally being able to master the low level biological and nervous system components make it easier to get desirable outcomes like focus and will.

If I were to approach self awareness again, at least from the perspective of undertaking to get better at it, I would pair this approach with lots of reading of biographies and talking to people. Ultimately many people have mastered and become deeply aware of themselves through history, but it is a unique problem in a sense that each person has to do it for themselves within their lifetime and success or failure is hard to transfer between people. Part of self understanding is finding where you might be most like others.

Eventually you get to the point where you can easily identify which level an issue might be occurring on. Am I distracted because I have some stressful event coming up? Is this elevating my heart rate? Am I unfocused because I didn't sleep and my nervous system is not as functional as usual? These are things most people think about, but solving these problems before they happen requires a fundamental understanding of all of the factors.

There is no right way to become self aware, and learning about how the biological levels operate is optional. But it can be helpful when you want to understand how and why we do things to have a better appreciation for every level of our nature.

Anxiety

Most people think that anxiety, and being anxious, are a bad thing to have and be. Modern culture offers many solutions for reducing anxiety as though it were a disease. In this essay I will argue that anxiety is actually a good, and beyond that necessary thing, without which we would be worse off. The issue comes down to how we perceive, use and measure anxiousness.

Anxiety is defined as an unpleasant state of inner turmoil. In practice, people recognize it more by how it feels and how they perceive it. It can feel like restless dread, or uneasiness, or just plain old fear. It really doesn't matter how you define it as long as you know what it feels like.

Modern life is relatively complex and comfortable, as opposed to the alternative natural life which is simple but uncomfortable. The trade offs we make tend to be intended to benefit our comfort, but the indirect implication is that things that make us feel bad are

inherently bad. We accept increasing complexity so that we can feel more comfortable and ease our anxiety.

One way to gauge the utility of something is to look at what would happen if it were removed entirely. The removal cost. What would happen if anxiety were removed entirely? To understand that, we would need to define what the opposite of anxiety is. There are many antonyms, but they all come down to a similar idea: contentment, calm and certainty. What's wrong with that?

The world is not currently, and will never be, contentment inducing, calming or certain. We all know someone who exhibits those traits in practice, but we would rarely confuse them with someone that has a high level of environmental awareness. Calm, content, certain people tend to practice selective ignorance and be less aware of things that could bring harm to them.

Most of our life is spent in situations that present relatively low risks to our survival. You can debate the purpose of life endlessly, but across pretty much all religions, cultures and timelines, survival ranks pretty highly. Generally it ranks at the top of the list, ahead of service, learning, reproduction and other things people dedicate their lives to. How does this relate to anxiety?

Anxiety has been framed most recently as a disorder. What if we used a positive synonym for anxiety? Instead of calling it anxiety, we could call it awareness, which amounts to the same thing except that in practice in means being aware of negative things. Being aware of negative things definitely feels like a bad thing, compared to not being aware of bad things.

The reality is though that being aware of bad things is pretty much the central force governing how successfully we survive. We are alive more or less because we and our ancestors were anxious. Therefore anxiety is a key force for the good of the survival of us as individuals.

Without it, we might be temporarily calm but missing more important things that will affect us in the near or distant future. Our calm, content, certain friend tends not to be so when a projectile is flying towards them. They just have a more comfortable state when that is not the case.

Everyone tends to agree that acute anxiousness, or fight or flight, is a good thing that protect us. I would argue that chronic, long-term anxiousness could actually be seen in the same light if viewed on a longer timescale. Chronically anxious people may have less comfort, but they also have less mortality. Eventually, less mortality wins. Being anxious isn't bad, and won't go away. One could medicate themselves or avoid their anxious feelings, but the awareness they avoid disadvantages them and their long term prospects. Eventually, everyone will be anxious again.

So at this point it is clear that anxiety is a both good and necessary thing, though uncomfortable. What can be done then to channel anxiety into useful things that result in more comfort? Anxiety gives us a strong desire to address negative things that we predict will bring harm.

The right way to manage anxiety is to channel it into addressing what it makes you aware of. Most of the time, you are predicting something bad will happen. That should be a signal to you to put

in the effort needed to ensure that the situation doesn't go how you predict it will go. That is the intention behind the force of anxiety, and it cannot be outrun for the good of your survival.

Our bodies, temperaments and forces like anxiety were mainly designed to keep us in the gene pool. This is unpleasant at best, and traumatizing at worse. But perhaps unpleasant feelings and trauma are intentionally built into the way we are as a way of preventing us from becoming too comfortable and avoiding past mistakes. Perhaps, without these things, we can't even learn.

So anxiety is not in practice a problem that should be cured, like a disease. In almost all cases, it isn't disordered at all, but offers the person experiencing it valuable information about their future environment. It's important though to change how we perceive, use and measure it or we will inevitably feel some level of guilt that being anxious is bad. It is not, and can never be.

Psychoneuroimmunology

Psychoneuroimmunology is the study of how our thoughts are affected by the state of our nervous and immune systems. When we have a stress response (allergy, fight or flight, panic) it implicates the way our nervous system works and that implicates our thoughts. Robert Ader and Nicholas Cohen discovered PNI during an immune system study on rats. They fed rats from two water bottles, one that was only water and one that contained a solution of sweetener and a drug that suppresses immune function. The rats had the intended response when they consumed the drugged water. However, the rats continued to have their immune system suppressed even when the drug was removed from the water and only the sweetener remained in the solution. The theory is that because the immune and nervous systems associated the immune suppression with the sweetened water, their bodies responded as though the water still contained the drug. The study was reproduced enough to be accepted widely as true, and PNI was born.

The idea being that the nervous system and immune system are one means of defence.

Since then a great deal of research has discovered various interesting ways that the nervous and immune systems interact to affect the way we think. Many mental illnesses (schizophrenia, bipolar disorder, autism spectrum disorder) and physical ones (autoimmune disease, diabetes, allergies) seem to be partly implicated by this connection, and can feed into one another or cause comorbidity between the two systems in the body. What that means in practical terms is that a chronic stressor could be affecting how you think about yourself. That is a pretty disturbing and significant conclusion. At this point it is not known the full implications that the neuro-immune system in your body has on the way we think, but the indications are that it is significant. The interesting thing is that there are only a few major categories of disease that are increasing in the modern developed world. Those categories being mental illness and autoimmune illness. Pretty much every other category of disease is going down. And the commonality between those two sets of disease just happens to be PNI. Hence all the research (and my) interest in it.

Given the significant implications of PNI as a field of study and area of increasing health burdens, it is important to understand how it works. It seems like our bodies are getting worse at managing inflammation. The implication is that our bodies are attacking themselves in a way that is more harmful than it is helpful. The reason for our bodies to be attacking themselves is unclear, and the symptoms vary greatly depending on the root cause of the autoim-

munity and the severity of the autoimmune response. The goal at base is to reduce autoimmunity, reduce harmful or exaggerated inflammation, and stabilize the stress hormones and neurotransmitters in our body. This would lead to more regulated immune function, which begets a more stable and functioning nervous system, which begets better cognitive function and mental health. It is a good thing when these dysregulated responses happen in an acute way, such as a response to a legitimate and significant threat to safety, but it can be extremely bad if the stress response is prolonged, such as in the case of a life long chronic allergy response to certain environmental stressors.

The world needs a system that learns and monitors these markers and tries to unwind what the solution is. In order to build such a system you would need a way to monitor the levels of various hormones and neurotransmitters on an ongoing basis. Once you have a reliable way to get that data, along with subjective data from people about how they feel, what they think about and what is affecting them, you can do high speed weighted pattern recognition (a.k.a. machine learning) to figure out what possible cause and effect relationships exist that contribute to dysregulated immunity. It would take decades to conceptualize, build, launch, maintain, interpret and iterate on such a system, but it seems worth it if we can figure out why these categories of disease are increasing so much. Eventually we would have a strong and strange map of correlations between environmental factors (e.g. using a dishwasher, eating gluten, having a dog, driving to work) and neuro-immune implications (acne, brain fog, anxiety, panic, sleep problems). We could then predict and prevent such problems in future.

Lithium

Lithium is an element. It is the lightest solid and metal on the periodic table. It is primarily produced in South America but exists in large amounts in seawater and rock. It is considered a trace mineral and not typically labeled on food or water that we consume. It is also used in high doses to treat bipolar disorder. Various other industrial uses also exist.

Nutritionally speaking lithium helps your body metabolize cobalamin (Vitamin B12). Vitamin B12 is implicated in a lot of things and primarily comes from animal products. Vegans have to supplement B12 in order to get enough and many modern people across different diets continue to be deficient in it. Lithium helps us metabolize cobalamin to prevent deficiency.

Several studies have now discovered a fairly strong (statistically significant, but with some caveats around gender) correlation between the naturally occurring lithium level in water and the suicide, self

harm and violent crime rate in a given area. For men in particular, the higher the natural lithium content in the water, the less they kill themselves. The difference between areas with high lithium content and low lithium content are significant and pronounced.

A recent study tried to reproduce whether this effect holds through other locales. The original and most often cited studies took place across Japan and Texas. Both of them found a strong correlation between suicide and lithium content in the water when they looked across regions. The recent study proved the correlation for natural lithium and disproved an idea that this could be caused by lithium prescriptions leaking into the water supply. The effect came from the natural lithium already in the water, and the correlation held.

During water processing, the only material we currently supplement it with is fluoride. Fluoride is controversial but has been shown to reduce cavities in a population when added to the water supply. It has some adverse effects but the trade offs are considered worth it by most medical advisory boards and government health agencies. Why do we not pursue a similar strategy for lithium? What implications would that have on public health and safety?

Lithium the drug contains 200-400x the amount a person would normally get from diet. It requires regular blood tests and monitoring from a health professional and lithium toxicity can become fatal and cause more problems than the drug helps. The occurrence of lithium toxicity is uncommon even from dosages that high. It appears from the studies that doses as small as 3x more than baseline can have statistically significant effects on reducing suicide.

The variance on natural lithium content in water is significant. It

varies as much as 5x across locales. If high lithium content is bad, we should be filtering it out of water if it varies that much. It's an element, so it's not about natural vs. unnatural sources in this case, it's the most fundamental it could be already. Given how significant and positive an effect high lithium content has on suicide rates, we should really be adding lithium salts to our drinking water to bring it up to reduce suicide, violent crime and self harm.

The benefit would be a significant reduction in self harm and suicide and a small reduction in violent crime. Lithium salt is inexpensive compared to many existing programs and treatment options for these issues. And we know it is safe since people have been drinking high lithium content water in certain areas of the world without issue. It is worth testing in a certain locale to see if it does have the positive effects hypothesized in the studies, and lobbying hard in favour of it.

Halophytes

When land is irrigated for agriculture, salt content increases over time as the salt goes unused by fresh water crops and builds up in the soil as water is consumed for plant growth. There are currently 240,000 square miles of land on earth that are too saline to grow conventional food and fuel crops on and that number increases almost 8 square miles a day. As a result we have a France-sized patch of land too salty to grow anything of current use. The operative word there is current because there are plants that could grow there, halophytes, we just lack a market.

Saline plants can be processed into biomass that is useful for a variety of things like biofuel and food. Because these crops would not compete with existing fresh water crops for land use, they could be used for their most valuable purpose. Currently that means biofuel. There are strict regulations on land use that require a good portion of arable land be used for food. This is despite the

fact that acre by acre one can generate more revenue and utility growing crops for biofuel. By creating a market for halophytes, you can increase the availability of inputs for biofuel without competing with food crops. This would reduce the price and increase the adoption of biofuel.

The main bottleneck to the adoption of saline plants as a source of biomass is in research to understand how to process halophytes into ethanol and grow it at scale without eroding your equipment in the salt. Various institutions and governments are currently researching how to do this at scale. Once solved the only remaining barrier to adoption will be the lack of economies of scale to support widespread adoption. This could be overcome by following a similar playbook to Tesla in the early days. Start with high margin, low volume products and move downmarket. Step one is create a small market for high margin applications of biomass. This implicates health food. Step two would be move down the biomass pyramid to something higher volume and lower margin. This implicates staple crops. Step three would be achieve complex vertical integration and economy of scale. If you protected your intellectual property appropriately along the way and partnered with the right expertise in biofuel, you could then achieve saline plant biofuel at scale. This would be tremendously profitable as the IP holder and good for the earth at the same time.

The main bottleneck to pursuing the plan is in figuring out how to create a market for an otherwise unknown source of biomass with consumers largely averted to change. The solution involves finding a way to process saline plants such that they taste good. The

inherent nutritional properties are actually quite strong: several saline plants are excellent sources of minerals and a vegan source of protein. If you can figure out how to liberate the salt cells from the plant and use the plant material as an ingredient in a health food product, you would achieve step one.

Once step one is achieved, you can use the profitability inherent in selling a high margin consumer product whose inputs are salt water and sunlight to fund step two. Over time the goal would be to drive down the price at which one could profitably sell a halophyte as a staple crop. Similar to the increasing success of Quinoa, economies of scale support further development and beget reduced prices and increased consumption. People want the health benefits and those benefits are largely shared by various halophytes like salicornia. Once you reach Quinoa status you can do step three.

Step three implicates producing halophyte biomass at scale. In order to finance a business of this size you would need some defensible intellectual property. This would likely be a product of pursuing the first and second step of the mission, including figuring out the issue of desalinating the biomass before making food out of it and all of the necessary research that would go into it. Patents on the plant genetics, growing process, harvesting process and processing systems would protect the business and allow safe progression to step three: commoditization.

Because wide scale adoption of halophytes as a biomass are inherently good owing to the lack of competition for existing arable land and superior attributes as a biofuel and food, commoditization of halophytes would be ultimate success. Step three implicates a mass

market for the product of the plant including biofuel and food uses. The highest margin opportunities could be pursued, unhindered by existing regulations around land use and likely bolstered by various interested parties in the form of governments, research institutions and businesses.

Once the world has successfully adopted halophytes as a means and source of the various consumable products we use to fuel our quality of life, we will make significant progress reducing the relative wealth required to live and sustain ourselves. The call to action is simple: we need to figure out how to make saline plants taste good. Once we solve that, we can progress to the next step. Before that happens, it is unlikely that halophytes will achieve some miraculous source of economies of scale and without that it is unlikely that we can achieve the original goal.

Business

Rust Out

With the likely exception of healthcare, the biggest problem with modern knowledge work is not burnout but rather rust out. Burnout is a chronic stress condition where work demands too much from you. Rust out is the opposite, it's a chronic stress condition where work demands too little from you. Most people are not actually overworked in a knowledge work context, but rather understimulated. The work has become so automatic and easy that the challenge and struggle associated with satisfying early career experiences has long since left. People perform jobs they disdain because they are good at them and they are lucrative. But the suffering is real and originates from under stimulation and a lack of learning - rusting out.

People are remarkable at rising to the occasion. When we have an experience, it is automatically compared to prior experiences of the same nature in its magnitude of difficulty, novelty and other variables. The challenge of a lack of engagement and motivation has

become universal in knowledge work. I think if people had a gun to their head and a stretch project in their strength area to work on, they would be able to work with ten times more intensity and multiples more effectiveness as a result. The problem is the relative lack of short term performance pressure in most cases paired with the relative lack of novelty and difficulty of the set of tasks. We emphasize EQ because simply performing the mental contortions needed to feign sustained interest in the work becomes the main work of knowledge work.

Anyone who has spent meaningful time in a large technology company recognizes the tragedy in how human capital is distributed in modern times. The smartest people in society are figuring out how to keep six figure earning engineers interested in optimizing clicks for long enough periods of time to have an effect on the business. The problem of optimizing the clicks is too easy, leading to rusted out engineers who probably dreamed of living a life like Nicola Tesla inventing the future in their lab but ended up doing something much easier and more likely to result in being able to carry their mortgage. But the problem of finding avenues of management science and leadership capacities to get those same people to focus on problems that actually matter is much more interesting, hence my interest in rust out and human capital.

I've tried at various times historically in my career when given a task to experiment with the extent to which the world is worse off in the absence of the task, or even on a smaller scale whether my employer is worse off. And it turns out that the vast majority of tasks performed have no durable value, where a small number of

often easy tasks that take really small durations of time create the vast majority of the value. Given that is the case, we should be able to compress the timelines of those tasks materially. The problem with offices is that they are generators for BS forms of work. A day that contains two hours of work truly essential to the customer - can balloon into nine or more hours of hyper stimulating interactions. Those interactions have no value to the company or the customer, but they sustain the illusion of impact and efficacy. When people burn out, it is often born of realizing just how pointless the balance of tasks are.

Given the problem description of rust out, which is a chronic stress condition where too little is demanded of people, what can we do about this? It probably looks something like the Elon Musk school of management. Becoming more demanding, with a specific vision that requires sustained novel problem solving and overcoming frequent failure, may well be the path to satisfaction in our work. But you can't adopt the Elon school wholesale, because going on angry tirades is not actually effective. The goal should be to calmly, but assertively, reorient people towards more intense and demanding work until it works. The effect is that they will be happier (after an adjustment period) and able to shake off the rust. And if you're in the position of being the one doing the work, consider separately the emotional reaction out of the picture. To the extent one actually wants to have impact, a demanding environment is likely best.

Inflation

You can increase the supply of money, but you can't increase the supply of value without technology. If technology is defined as doing more with less, inflation is entropy – it's doing less (goods and services) with more (money). Because the supply of money is increasing through government policy choices more quickly than technology is progressing, the Western world is experiencing inflation. Unless we can find a way for technological progress to outrun the spending, the ratio between money and value will continue to progress in the wrong direction.

The only party that benefits from inflation are entities with large debts denominated in the form of money being inflated. In this case, that's the government. The government is choosing to harm money holders and users in favour of continuing to meet its obligations. The problem is that until technology progresses faster than the money supply increases, the ratio just keeps getting worse. As the ratio gets worse, people lose confidence in governments, which

results ultimately in more populism. Populism is what recursively leads to more spending focused policy, which leads to more inflation. For case studies, see many South American countries. While it temporarily benefits the populist government, it permanently erodes trust, and ultimately leads to failed states. The question is whether we can outrun that failed state scenario.

The party that is most harmed by inflation are people with no financial assets. Because businesses supply costs increase (simple math as the ratio of money to value goes up), businesses pass those costs on. Eventually, everything is impacted by consumer spending. As prices rise, consumers' ability to spend goes down, the ratio of their money to value in the form of goods and services goes down. If you own a ton of financial assets, and those financial assets increase in monetary value (not the same as actual value), you're at least hedged and you come out net neutral. If you don't have those assets, everything costs more, with no upside. This is ultimately what makes inflation lead to a vicious cycle of populism. You can't increase taxes (less money to spend), you can't decrease spending (populism). If you raise interest rates, financial assets crash. If you don't raise interest rates, inflation becomes hyperinflation.

We will all be a part of this experiment until one of a few things happen. The first is that the value supply catches up with or surpasses the money supply. It's a rate of change problem, but it could be done, if the rate of technological progress and productivity growth increased faster than the increases in the money supply. This would lead to a natural deflation in prices, without a corresponding decrease in the supply of value. This would be the

positive outcome scenario, because people could afford more goods and services provided the same supply of money. It's like how TVs get both better and cheaper each year, but applied to things that matter like healthcare, transportation and housing. This is what we should all be aiming for.

The next best option would be that humanity collectively finds a way to move off of political money supplies. If we had a money supply that could not be affected by populist policy choices, at least that money supply's relation to value would not be influenced by popular opinion, but rather by some intangible relationship between it's perceived value and the supply of actual value. Unlike gold, cryptocurrencies could eventually be easy enough to use for spending, so it would combine the benefits of a store of value with the liquidity of a medium of exchange. Most cryptocurrencies still fail to provide a sufficient medium of exchange. They are measured in "relative to USD" values, suggesting value storage rather than mediums of exchange (where they would have intrinsic value). Because it is possible, this becomes appealing in all scenarios, but it becomes appealing to the opposite party: non-government holders and users of currency.

The rest of the options are pretty bleak. If you stick to the existing money supply, the policy choices afforded the West right now are all bad. One lever is interest rates, which are near zero. The only way to reduce inflation would be to increase interest, to affect the ratio between money and value. The prices of financial assets are based on potential future cash flows. If the supply of money is reduced through higher interest rates, the price of those assets goes down

by a lot. The alternative in normal times would be stimulus. But the economy has already experienced so much stimulus, arguably that stimulus is the directly attributable reason for the inflation. It's an increase in the supply of money without a corresponding increase in the supply of value.

Alternatively, you can debase the currency, which is basically "inflation as policy choice". This is a nice way to choose when and how you are able to pay off mounting debt obligations, but it's the fastest and most harmful path of all for the holders and users of that supply of money. In today's world, with the internet access afforded people, this seems to lead to a rapid loss of trust in the government and rapid adoption of cryptocurrencies. Cryptocurrencies are volatile, but they are less volatile than many South American governments, so adoption there is strong.

Ultimately, governments have no more levers left to support populist programs and currency policy choices, and trust can only go down from here unless technology progresses faster. The question is whether the government has the will to spend on R&D fast enough. It has been done before, and actually worked in some cases, but not when populism was so acute, interest rates so low, and stimulus for consumer spending so played out. The US infrastructure spending plan seems to focus on areas of low technological potential, like roads. Whether we spend on roads or not will not really result in productivity growth, or doing more with less. If we spent even a fraction of what gets spent on defence, on things that lead to productivity growth, it's quite likely that we could avert disaster. It's interesting to think we still have choices that go beyond fiscal and

monetary policy, and disturbing to realize how unlikely it is that we will make them in time.

At each level of abstraction (e.g. for ourselves, communities, businesses, and nations), the question becomes: what is the right way to respond to a harsh environment of populism induced inflation? For one thing, you'd want to keep anything dollar denominated and depreciating off your books. Pay off that variable rate car loan, spend what you make, and seek inflation hedged stores of value like land and cryptocurrencies. But the most fundamental thing would be to own the means of production itself, especially a means of production with an essential good, and one that benefits from technological progress (doing more with less resources). It does seem like a good way to do that in an environment like this where cash is abundant is to start a startup.

The question becomes what startup will benefit the most from a society that heavily depends on productivity growth? And the answer is one that has some kind of compounding advantage in the form of productivity. It's fine if it takes a lot of capital to start, and loses money in the short term. People have too much capital in the form of money to begin with. But it has to eventually lead to compounded productivity growth advantage. This usually shows up in revenue per employee, which starts very low, but should have the potential to become very high. Start a startup, regardless of upfront cost (because the world has capital in abundance unlike almost all of history), that has the highest potential revenue per employee. It almost takes the form of a commandment, which maybe it eventually will be, but for now it can be an open secret.

Constitution of Business

I have been re-reading The Federalist Papers ahead of the US presidential election. Highly recommended. It is remarkable how many of the problems that American politics currently experiences are predicted by Madison and Hamilton. The section about how both sides of the argument were anxious about the President being able to elect judges to the Supreme Court for example. Or the section about how to appropriate the number of Senate seats, where it appears that Hamilton and Madison were actually on the losing side (they wanted proportionate but as we know it was eventually decided that senate seats would be fixed on a per state basis).

I've been thinking about how to form the ideal constitution for a business. Like governments, businesses seem to recursively relearn all the important lessons of their own self sustenance over and over again through generations. Hire bar raising talent, be frugal, think long term, don't be mean to each other, diffuse managerial power among domain experts and more. I'm going to continue to

read about and think about this and try to develop some kind of framework for it. I imagine you can see the form it would take if you listed out the practices and values of every current trillion dollar company, and crossed out any items that didn't span all of them.

The main constitution around which a constituent of a government is written is the people. In business, this would be the customer. The business forms around the needs of the customer, the employee, investors, management and vendors are all serving the customer. Like a government, you would want to diffuse the appropriate mechanisms of control to the customer such that the business can continue to sustain and serve their changing needs over time. A business faces the same failure modes of inevitable mediocrity, corruption and unsustainability. You'd want to design a system that allowed for significant antifragility to those risks over time.

The constitution of business would involve defining the roles and responsibilities, at the highest level, of the following: * Board members provide oversight, somewhat analogous to a senate or supreme court, appointing the chief executive * The chief executive provides a definition of who is and is not a customer, appoints and organizes the management team in service of customer needs * The management team provides domain expertise across all the relevant functions required in service of the customer, and oversight and organization to individual contributors * The individual contributors produce work in service of a customer and are valued as a proxy to the value that work offers the customer

It's a fun exercise, because it makes you realize how little inten-

tional thought goes into making the actual business into a system for customer value. Defined this way, it actually provides clarity about how to make decisions and diffuse power. It's the responsibility of founders to have these difficult conversations and bring structure to these many values based trade off decisions. Because each customer is different, as defined and in practice, the constitution of one business may not overlap with that of another. Similar to nations, you end up with diversity based on the will of customers. To build a successful nation (business), you need to functionally serve the needs of a vast and diverse pool of citizens (customers). More on this in the near future.

Competence Tax

Having spent a few different stints working in large companies, I've enjoyed the time mainly for the people watching. I like to see how people interact with each other in a big office. I read an essay by Keith Rabois about working in big companies, and about how if you are hiring and you have to recruit some people from a big company, focus on barrels and not ammunition. Without my own experiences, I would not have my own framing of such an unusual recommendation. I'm going to assert that the bigger the company, the more the most talented people pay a hidden (but very real) tax in the form of time to the less talented people. I am calling this a competence tax: a flow of resources from the more able to the less able. This may in fact benefit the company, but as an individual, it just ends up eating up your valuable time.

First, Keith Rabois. Barrels are the people who have a line at their desk of people waiting to ask them questions. This may be

because they are an external guru (e.g. they invented a thing and just happen to work somewhere in particular) or an internal one (e.g. they rapidly learned how to navigate the company, the customers or something else important). Ammunition are the people waiting in the line at the barrel's desk for an answer. They're the enacters, the implementers, the ones without too many original ideas but who focus mainly on the execution of other people's ideas. Because competence is relative, in any given group, you'll have both of these profiles. And his recommendation is to hire the barrels and concentrate them, leading to results.

I have a different but similar interpretation of this. As time passes, and one goes from relatively lacking in things to offer to relatively abundant in them, your time will start to get eaten up with an increasing number of pseudo valuable obligations. It could be that people want your input on a project, so they invite you to their meetings. It could be that you have good ideas for the product, so you're asked to write them up. It could be that you start to develop best practices in your role, and are asked to teach them to the rest of your team. Provided an imbalanced enough environment, these obligations start to eclipse the impact you can have in your actual role. This is what I'm referring to when I say competence tax: a tax paid in time by people of relatively higher competence in an environment composed of people less capable than them.

I realized that I'm putting a new name on what seems to be something that has always existed, but it did occur to me that a lot of the resentment that seems to build in these people doesn't come with their frustration in their role (which they seem to be doing

quite well in) but in their frustration with the increasing tax they pay for having things to offer. It is really hard to scale any kind of human institution without accepting that the best among the people involved will end up paying this tax. And I have a feeling as the world shifts to remote work, it will be more visible who has been paying this tax, and harder for those charging it to sustain themselves. It is likely that companies will stratify into an aggregation of people with similar levels of talent. The best of the best working with like minds, and hordes of semi competent people with no one to copy.

I think this concept translates to other industries too. I remember being in the hospital around the time of the birth of my son, and seeing that certain doctors always seemed to be absolutely slammed with work. The residents and nurses never had the same amount of obligations relative to the absolutely staggering workload of those who led departments. I watched (what are presumably) the better doctors literally running between obligations, coaching their peers on what to do in more difficult situations, and generally seeming like they had been pushed right up to the line of breaking. Presumably, some people get pushed past the line, and end up either having to devise creative ways to hide from others, or simply changing professions or approach.

This is necessary in order to be in an environment where they are not slogging through Other People's Problems and constantly paying competence tax. It is interesting to think about the fact that while the institution benefits from pushing their best people to the line (which is really the bottleneck for the quality of work

of the entire organization), those people are probably averaging all the outcomes they create with the people around them. Similar to monopolies in business (monopolies pretend to be in competitive markets, commodities pretend to be monopolies) one imagines that the competent pretend not to be (to protect their time) while the incompetent pretend to be (by taking credit for others ideas for their own survival).

For that reason, it's probably much harder than it sounds to figure out who the truly competent members of the team are. One way to do this would be to see how the quality of work is impacted when people go on vacation (removal cost). This tends to reveal the true value someone brings to a situation, by seeing the outcomes that result in their absence. You could also do the bus test (how harmful would it be to the org if that person got hit by a bus). I suspect that might be the fastest way to clear up who is bringing the average up or down. It's a little disturbing to think about how for these structural reasons, the best people are chronically underpaid (looking at you, Jeff Bezos) and the worst people are chronically overpaid. At least, if you care about the outcomes and quality of the work of the organization in question, that is. Certainly a significant narrative and overton window violation, if true.

Abundance

If we were in a world of abundance, rather than scarcity, would people even notice? How much excess wealth does the world need in the form of financial capital in order for people to determine that we've solved all of the fundamental problems of being? If we were in fact in a world of abundance and not one of scarcity, would people act differently or just be confused?

My assertion is that for most people, we are in a world of abundance. We are running out of ideas to work on that feel like they justify significant personal life sacrifice. We want to go to Mars but we also want to do it as a lifestyle business. It takes willpower and discipline to *not* overeat or overindulge in media. That points strongly in the direction of abundance.

If you think about the kind of work that most people do on a daily basis, it is increasingly people oriented. Without passing moral judgements, consider what the implication of that is. It means that

the amount of work we need to do for our own immediate survival, if you want to argue about it that way, is very minimal. We are putting in extra time for the status it gets us from all the people it benefits. Our own survival needs are often extremely simple to address. We rarely even have to think about them, except in the context of the occasional natural disaster.

The removal cost of most of the work that people do (emails, phone calls, meetings, commuting, idle office chatter, Slack messages, documentation) is probably near zero. The automation we have continues to generate abundance for people and deliver things faster, less expensively, with higher quality and less frustration. If all of these assertions were true, would people notice?

People argue that technology is not having the impact that it claimed it would by looking at the GDP. But the GDP really only makes sense in the case of a world of scarcity, where up is good and down is bad. If I spend less on food because I don't overeat, GDP goes down but my quality of life goes up. If I automate something that used to require a tremendous amount of labour, GDP goes down, unemployment goes up, but I have more of the things that I want and I have to do less work for it. Is that not clearly good? We should start measuring something else.

There are other oddities still. In a world of scarcity, your competition having more resources than you would round to bad. You would get jealous, you would want those resources, you would indirectly or directly try to take them. In a world of abundance, that would be a confusing waste of time. It wouldn't make sense to try and take someone else's resources, because then you would have

too much while you're trying to so carefully pace yourself. It isn't possible for there to be a difference between tiny houses and tent cities in a world of scarcity. But there is.

In a world of abundance, the only reason people would be without resources would be if they intentionally decided against having them or they had an intrinsic reason for being unable to manage them. There are some strong arguments (people start working later, make way more money per working year, stop working sooner) that we are moving in that direction across society. People talk about how it's impossible to hire for high paying but unpleasant work, maybe it's because there is an abundance and they don't need it? It would only make sense to reject that work in a world of abundance. It may in fact make sense to reject it though.

Even in the higher earning tiers, people are routinely choosing jobs that pay less but offer greater flexibility. That wouldn't even be on the table in a world of scarcity. Socially we would punish it. We would punish that thinking in our relationships, among our family and in society. And yet we don't, we encourage people to be sustainable and happy in their work. How do we even afford the time to have those conversations? Again, because it's a world of abundance.

Governments are struggling with overspending. You know what they aren't struggling with? Inflation. You know what happens in a world of scarcity when you overspend? Inflation. Know what happens in a world of abundance when you overspend? Deflation, because the scarce resource becomes non-scarce and actually loses its value. Money itself may matter less when we can work, learn

and communicate for near zero cost. Wealth itself actually matters less. It's possible an iPhone results in more wealth than all the wealth in the world did 100 years ago.

The best argument that we're in a world of scarcity is actually an anthropological one: it's because we mostly act like we are still. We act like there is a limited amount of resources that will be necessary for our own survival, and so we must benefit from our resources in secret ways but tell others to be frugal and forgo them. We act like someone has to give us permission to be successful, like school or political leaders. In a world of abundance, counterexamples to those gatekeepers and permissioned approaches to success would not exist. And yet they do.

I would take my assertion further and say that most people think we are in a world of scarcity, we are in fact in a world of abundance. And that as our abundance grows, the value of any one form of capital is deflated by the exceptional quality of life we enjoy. As superabundance increases, people will continue to act even weirder. It may be that our source of meaning comes from struggle. That would be problematic in a world of abundance, because the better the tech works, the less happy we would be. Still, we will have a lot of time to have that conversation while we survive with near zero effort. Plenty of time. One might even say, an abundance of it.

Removal Cost

You can tell how much you value something by the harm it would do by being removed. It's a clarifying way to think about the importance of something. Some things, like people we love, have infinite removal cost. There are no substitutes, your life simply gets worse in their absence. There are other things, that we confuse for good. Social media is a good example. I have yet to meet someone who removed Facebook from their phone and felt worse after. So the removal cost is actually positive: a good proxy for something you should remove.

I think people overestimate the removal cost of bad relationships. As in, they believe it will be worse to end them than not. I think people underestimate the removal cost of family relationships. Once harmed or destroyed, your life may be permanently worse than before. I'd argue that we should seek to 1. Become aware of the removal cost of the things in our life and 2. Seek to spend more time protecting the things that would impact us the

most if removed.

Externalities

People seem to routinely misprice externalities into their decision making. Consuming gas for it's transportation benefits without pricing in the environmental impact is the obvious one. Doing something that wastes time but saves money would be a less obvious version: by accounting your own time with a value of zero, you create a significant distortion of economic and practical reality. Much like gas and the environment, the consequences are serious if routinely mistaken.

It would be interesting to explore what would happen if all known (knowable?) externalities were to be priced into consumption overnight. Gas would be more expensive: it's clear that the negative externalities are not accounted for properly. Some things would be cheaper: it seems like vegetable eating would save a great deal of health care dollars, and so perhaps allow for zero or negative rates of taxation to account for their relatively positive impact on people's functioning. Smoking, sugar and other lifestyle

factors would be more expensive: those things end up costing the healthcare system much more than the cost of consuming them.

It seems like you can start to establish categories of externalization based on the subject of the impact. Does it harm: you, your kids, your country, your health, your business, your wallet? Considering these things is a pretty good basis for more rational decision making. It can be a challenge to try and price in your own externalities (ie. going zero waste, cycling to work instead of driving) because the economy really doesn't work in favor of those things today. It's pretty clear that income tax is a pretty crude and harmful mob-ish way to go about shifting resources from areas of low yield to areas of high yield. If the government considered itself the system whose job was to price in externalities accurately, everyone would be better off. It's interesting to consider how market failure problems (ie. vaccines) could actually become market successes if you change how the externalities are priced in (ie. no taxes for companies that make vaccines for a profit, instead of non-profit status for predatory universities that create no value).

The interesting thing about externalities is that simply knowing they exist can be a weapon. The overton window (things you are culturally allowed to debate) controls the externalities one is allowed to talk about. One externality that is starting to be rationally priced in is the concept of the value of women's time as it relates to working inside the home. That was never economically priced in to decision making, the concept that someone's time had value, which creates all kinds of weird distortions (ie. aggressive use of couponing and discounts). If you start to price that exter-

nality in (ie. what is my time worth) it would rewire a lot about how the economy functions (but also, more specifically, eventually improve how it functions).

If you were to make a survival guide for the rational person, what would that look like? I imagine it would start with knowing: learn about the second and third order consequences of the things we do or don't do. Consider what externalities exist (ie. the consequences) when you do or do not do those things. Consider whether there is a path that results in more wealth for you (ie. more of the things you want) and less of the harmful kind of externalities (ie. less of the things we don't want). Consider whether it is practical to lead by example and engage in the high benefit/low externality option. If so, do that. If asked why, explain the concept of externalities as it relates to that thing, and let the people decide.

I've talked in the past about the concept of a consumption tax, which would attempt to price in externalities to consumption activities as a way of curbing harmful consumption and incentivizing the right kind of consumption (ie. learning, vegetables). I think as time goes on it gets more clear to me that this is an important moral quest to fight against the concept of income tax. People would be much better off (in theory, who knows what would happen in practice) in a system where the right things were subsidized and the wrong things were made more expensive. At a certain point everyone would do the right thing. Could it be then that the problem is that we disagree on the wrong things? Is it possible that there are people who think it makes sense to subsidize gas drilling and not electric cars? My guess is that the answer to

those questions is yes, but not from a scientific perspective. From a scientific perspective, the right thing is clear. So we return to this question of convincing both sides of the political bifurcation of the importance of issues involving science.

The best way to price in externalities might just be to develop your own family wealth to the point where you can do it in spite of the lack of economic reason for doing so. If there's one thing more constant than political disagreement, it's people having a strong desire to copy what rich people do. At a certain level, all you have to do is become right, and then do the right thing. Eventually, that will make waves. It seems like that is the crux of the Elon Musk or Jeff Bezos plans. Perhaps that is essentially the highest agency way to deal with this problem.

The first and most obvious counter argument would most certainly be that an externality pricing tax would slow economic growth. The second and correlated argument would be that it would be regressive, as in it would hurt people with less wealth in particular relative to those with more wealth. Both are interesting, and wrong, but taken on a short enough time scale they are both true and scary to those who can't see around the corner.

The first counter argument was that by implementing a tax of this nature, we would slow economic growth. The rebuttal comes down to dismantling the highly irrational way that we currently measure economic growth. The purpose of an externality pricing exercise is to produce, over time but also in the short term, more of the outcomes we want and less of the ones we don't. In that sense, regardless of what the GDP figures say, we should be moving towards

something that is better than the current approach. If it requires slower growth in order to price externalities in, we should do that. The problem there is a ponzi scheme like way on which we have built the economy: where all the important learning and social institutions build future inflation and money supply increases into their current planning. If GDP growth were to slow further than it already has, it would place enormous stress on those systems. In a sense, there's a sort of one way door that we already walked through involving how we approach creating economic incentives. If you're already on a "grow or die" path, a sort of VC backed society, it is hard to justify switching to a "carefully consider things and price in all the bad stuff" path. But that's probably the only way to appropriately account for externalities. So at a certain point, we have to run the numbers and decide how we're going to move forward. Hopefully this doesn't create some kind of partisan issue, because "getting what you want" is not zero sum in an appropriately externalized world. All sides of the political spectrum should be able to increase their wealth without having to battle in a zero sum contest for pieces of a fixed sum pie. We more or less painted ourselves into this zero sum corner by offering the wrong incentives.

The second counter argument involves the regressive nature of externality taxes. "If we raise gas prices, that's going to make it hard for hard working, tax paying (geography) citizens to get to work, drive their kids to school, do (middle class thing).". This one is harder. The reason it's hard for (geography) citizens to afford to live now is terrible economic incentives and management. If we start to price those things in, "good things" like renewable energy

will boom. That boom will eventually result in higher net wealth, more growth and "good things" like inexpensive commuting. Can people weather the storm to get from Point A to Point B? Maybe not. In cases like that, you have to consider that vulnerable people who can't afford price shock might be another externality to consider when you design the system. In theory, people who don't have good cash flow now aren't necessarily going to be able to change that in a different system. They might be able to have more of what they want, and less of what they don't want, though. And so you would just need to factor the cash flow issue in as yet another externality. The obvious approach would be to further reduce their income tax so they can absorb the pricing shock. The economics are the same for those individuals, but the externalities are priced in where others are priced out.

I think we can all agree that the goal is to get more of what we want with less of what we don't want in the world. The only way to mass change people's behavior is through a combination of cultural change and incentives. We could all afford to spend more time building an understanding of the externalities of our actions or lack of them and considering how we could improve our situation by doing a more considered job. Ignoring an externality does not make it go away, it increases it's impact.

Group Survival

One of my pet theories is that group survival is not well understood by science and further that the dynamics of group survival significantly impact daily life. My assertion is that group survival is the main source of respect, conflict, deference, dominance and success in groups of people. Much more so than other factors people seem to attribute success to. And that people, without realizing it in most cases, will upgrade who they respect and defer to when someone that offers superior abilities to the group comes along. It's a rather strange concept considering our social nature. In practice, we may not be that social, favoring a marketplace of competence instead.

Group survival means skills that contribute to the sustainability of a group. If someone can protect, nourish, support, educate and provide for you, you're more likely to want to defer to them. You might pay for their services, so to speak, in respect if you can't in

money. In a sense, one side is providing utility, and the other side is providing respect. And in that sense, competence is really the most important character trait someone can have. It's not how tall, or skinny, or rich you are. It's purely a matter of how much you can offer the group. Groups of people seem endlessly forgiving of those who offer the group more. It's the toxic employee you can't afford to fire. It's the harsh boss who keeps the company moving forward.

People will change who they respect and defer to rapidly in the face of someone who offers superior capabilities to the group. It happens all the time, in relationships, work, families and elsewhere. It's cold and methodical, and it's practiced by the full spectrum of people. All people, from all kinds of backgrounds, value group survival. What group survival means, varies wildly. But you can usually point to skills that will allow someone to thrive in a particular environment, and the group rewarding those people for possessing those skills in abundance. And further, rather darkly, punishing those who do not possess those skills to thrive in an environment.

What lesson does this offer the self aware individual? In my opinion, it means focus on becoming competent. Focus on being able to thrive in the environment you find yourself in. That differs tremendously from person to person, so it's very hard to point to a particular skill and counsel focusing on that skill. But it is fairly consistent that by offering your group more, you will be able to increase your prestige status (sterile I know) which affords more respect, opportunities and success. It doesn't just have to be about relationships either, it's simply a proxy for future value to the group

which could be leverage a multitude of ways.

Clearance Rate

Clearance rate is a term used in criminal justice to evaluate crimes solved by the police. I have been thinking more about the applications it has to doing knowledge work. I think something I have come to appreciate about productive people is that they have a high clearance rate. By that I mean, of the projects they undertake, the likelihood that they actually get done is high.

I feel sometimes like the rate at which I can clear projects is accelerating, but often not faster than the rate at which I am accumulating them. As time goes on I get better at doing the work, faster and more efficient, but that just means more projects for me to clear. The problem is when my clearance rate becomes the new default, and then I go into crunch time again it breaks. I might start measuring my clearance rate more formally to figure out what overwhelm looks like.

Clearance rate is also something that is valuable to get from the

people you are working with. You want to assume that most of the emails you send that require answers get answered. Often it can be hard to tell what is and isn't being followed up on, unless you have enough time to actually follow-up on it. It's frustrating when people commit to something and then don't clear it, I think people call this accountability but in most cases that's not what it is. It's simply whether or not people clear things and if so how fast. The people who do clear things seem to attract projects like a magnet. That is where the concept of a competence tax comes into play.

Competence tax is when someone competent ends up doing more work for the same pay or in the same number of hours as someone in the same role who is less competent. If you picture a job that's hard to measure, like knowledge work, you actually don't benefit that much from doing more work faster. If you do piece work, work in sales, are a professional athlete, the CEO of a company, or something else measurable, you do. Most other jobs actually have the opposite problem: the competent people are weighed down by their work. And the reason is that the whole system is taking for granted their superior clearance rate.

Unions solve this by forcing everyone to be equally incompetent. Not a great strategy but at least competent people know to avoid working for one or face the competence tax. Competitive businesses though just seem to thanklessly absorb the benefit of having staff that clear more projects. If you're the staff, you should try to find a way to make it measurable. If you're the business, pay them more. If you're the union, figure out how to set the pace based on the most competent person, not the least competent one. It would be

nice to think that people would factor competence tax into things like bonuses, vacation time and such as a way of recognizing that some people simply do way more useful things than others in the same role.

If we measured the personal clearance rate that we have, it should go up month over month and year over year. Really the only way to do that is to look at it like a sport. You have to keep increasing your numbers just to stay competitive with others who are doing the same. Otherwise you will actually fall behind on a relative basis and have to walk back the expectations of those around you. This might include investing in learning, tools, focus, energy management, health, relationships, new skills and anything else that contributes to a higher clearance rate. And it might also mean as your clearance rate goes up, finding ways to measure and leverage it.

Investing

The two main resources that we can invest as individuals are time and money. For the sake of argument let's pretend that the money part matters, because by far the most important resource to invest carefully is obviously time, something which cannot be renewed and luck has no bearing on.

My argument is that people should bias towards investing their money in boring things and their time in interesting things. The concept that people spend most of their life working for the money in a job that displeases them, while investing their money in interesting areas, is flawed.

People should instead invest their money in boring ways (bonds, savings accounts, *maybe* stocks if the market was priced reasonably) and their time in interesting ways (starting companies, where savings allow). The assumption here is that you have a surplus of any least one of time and money. If not, focusing on survival makes

the most sense.

The opposite approach, to invest your money in interesting ways (Southern Ontario housing, Bitcoin, picking tech stocks) is actually a horrible approach to investing. Anything interesting (like being a career graphic designer) has already been priced in to the value of the asset. So by definition, interesting things are overpriced relative to boring things. Further, money does not get bored, so putting it into something as boring as a fixed-term bond or (conservative) commercial real estate really doesn't result in any downside or restlessness (for the money, not necessarily for you).

Meanwhile, investing your time in boring things (like a job that spits off cash for you to put into Bitcoin) is unlikely to result in a satisfying life or the most money over the long term (because happiness makes it easier to be productive, all else being equal). Our tendency to get bored and be restless are harmful when it comes to making investment decisions because we love interesting things and despise boredom. Money never gets bored, so it probably makes the most sense to save it aggressively if we are making boring time investments (e.g. a job) and invest in boring things so that eventually we can make interesting investments with our time.

The bias then is the fact that interest in an investment (usually) implicates the wrong parts of our brain unless it is approached in a fundamental way. And even then, unless something has existed for a long time the likelihood that it will continue existing is low. So picking something boring and fundamental with typical returns, and avoiding restlessness, might be ideal.

The point here is that you have to look at what investments other people find interesting in order to figure out if something is priced fairly. Bitcoin is a good example because everyone talks about it, making it neither boring nor priced fairly. Your primal brain says this makes it a good investment, but the reality is that this means it's already overpriced. So look for things other people ignore, or even better, outwardly resent.

One example of something people seem to resent at this point is retail inventory. Investors consider it a plague and punish retail stocks because "retail is dead" and they "have too much inventory". Those might be good reasons not to buy their stocks but it also presents an opportunity to buy the inventory itself for below what you would otherwise have to pay. The inventory is certainly worth much more to the consumer than it is to the retailer in this environment, so it is likely underpriced.

Another example on the time side of things is the oft-cited opportunity in trades jobs. Not all trades are created equal, and some definitely pay a lot simply because they are horrible to do (similar to law). But there are trades that tap into our creative abilities, aren't especially unsafe and pay extremely well. The downside is a social capital penalty, which is basically the same as saying it's an undervalued asset that people will overlook or outwardly scorn in favor of something overvalued like a degree.

Much has been written about how to invest money. Much less has been written about how to (properly, meaningfully) invest your time, so that you have more of it to spend on the things you care about in the future. Retirement is wasted on the old, as interesting

investments make us further away from being able to do interesting things with our time, which is (should be?) the goal.

Do boring things with your money, and interesting things with your time.

On Leadership

The currency of leadership is respect. The currency of management is output. Sometimes people conflate the two, and refer to senior managers as "senior leadership" or to managers as "leads" but there is a big difference. Lots of things that result in output are not respectable. Lots of respectable things result in lower output. The difference therefore is material to how people decide to act, how they perceive themselves and how they are perceived. A great leader receives near universal respect, even if people may not necessarily like them. A great manager has consistent output, but respect is usually not as important. Both are necessary.

The irony of leading a company or managing people is that the people who are drawn to leading tend not to be good leaders. Being an extrovert that likes to control people (management / output oriented) can be a disaster if that person has to be respectable to be effective. Likewise, lots of people that history would consider

great leaders did not seek out formal power. It seems like that simply added to the depth of the respect that people feel towards them. The best kind of leader is a reluctant one, and the best kind of manager is a leader. This is because the easiest way to get people to defer to you is intrinsic respect, as opposed to social dominance.

When people look around inside of an institution, usually they feel that what is lacking is management. The actual thing lacking in most cases is leadership. Plenty of people are willing to take responsibility for other people, control them and pursue an outcome. Far less people are willing to say no to success if that success would compromise their principles. Pursuing outcomes without antimetrics is not a principle and not sustainable. Most managers are actually too rational and do not leave enough room to do the right thing. It makes way more sense, if you want to have sustainable success, to do the right thing than it does to get the current outcome.

So the problem becomes deciding how to design a people system to ensure that managers have respect. One way to do this is to put the person who is best at a particular role in charge of that role. The problem with this is that once in power, people are reluctant to accept that someone else has superior abilities. Usually what happens is the person in power shifts to being more of a generalist, which the members of their team do the opposite to protect themselves and find something they can be the best at. This reinforces the existing power structure, and usually leads to a team that does not end up with the best overall person in charge.

One way to incentivize people to do the right thing instead of focusing exclusively on an outcome would be to fire people for doing

the wrong thing but not for missing targets. This is an unpopular opinion, because people are far more tolerant of bad values in many cases than they are of uncertainty. The reality though is that most targets are arbitrary, and implemented by managers who exert more control than their respect reasonably allows them to. To have a lot of output without having a lot of respect becomes increasingly difficult. A good leader is able to get people to do great work in spite of not being liked. A bad manager can't afford that luxury.

It seems like if your goal is to get people to do what you want to further some outcome, you are actually better off forgetting about mechanisms of influence and control and focusing on what will build respect. Because people are happy (sort of) to work somewhere that is growing and creating opportunities while working for someone who they don't respect. As soon as something goes wrong though, which it will, people tend not to stand by people unless they respect them. If you respect someone enough, it typically allows you to transcend the power dynamic entirely and allow you to focus on the task at hand. When things go wrong, bad managers (therefore, bad leaders) will simply exert more control over their people. This leads to burnout, not outcomes, so it only works on the way up.

The interesting thing about this assertion that the currency of leadership is respect is that there are many different ways to get people to respect you. Usually it involves choosing the right but hard thing over the easy but wrong thing. No one respects you for choosing the easy right thing, or for avoiding the hard wrong thing. Hard decisions, and therefore all decisions, are a choice between the easy

but wrong thing and the hard but right thing. So respect can come from making decisions along those lines, being better in a domain that your team values, or some other approach. This is helpful to understand, but there is another important factor.

Another significant force that acts on any hierarchical relationship is paternalism. If someone feels that by working with you, they will be learning something that is selfishly beneficial to them, they will be a lot more willing to do what you want. This kind of paternalism appears in all kinds of relationships, but the key is basically that one party sees the opportunity to mentor someone with similar potential, and the other party sees the opportunity to work with someone temperamentally similar but who has already worked through hard problems.

So if your goal is to be a good manager, stop controlling. The goal should be to build respect. Respect is the currency of leaders, and leaders are the best kind of managers. The nice thing about respect as a currency for leadership is that there are few shortcuts. One shortcut would be to find people who are willing to be controlled without forming a respectful relationship. I suspect that these people are also the most willing to follow someone who is more confident than they are competent. So we should seek to gain respect from people who give little of it, as opposed to those who give too much. It seems like people know who is likely to give too much and too little respect, and they tend to mimic those who give less.

The last point on respect as a currency is that this usually seems to be the problem with children of successful people. There is

something existential about the concept of getting respect from people. The reason that children of successful people tend to act in a strange way usually seems to be based on desperate attempts to get the same level of respect that their successful parent does. The thing is, people know whether you paid for the house and the car or not, and it only feels right when you paid for it yourself. So leadership cannot run in families, or if it does it does only to the extent that being respectable can run in a family. It is not something that can be passed on each generation like money or social power.

It seems pretty clear that being respectable is much harder than getting output. And that if people actually cared about sustainable output, they would focus on being respectable and doing respectable things. This does not necessarily mean virtue signaling, as people are becoming more aware of how people who behave badly to make their money have a tendency to want to donate it more publicly. Real respect has nothing to do with how much money you can accumulate, because that is an outcome. Real respect has everything to do with whether you value sustainable output or zero sum output. It always comes back to doing the right thing.

Downside Protection

Something I talk about often is downside protection. I think it has a specific definition in investing, meaning a hedge against a potential for loss. The way I use it means how trajectory decisions you make or ways of allocating your resources that can prevent downside. The opposite would be upside potential, or the factors affecting something that result in growth or positive outcomes. My assertion is that too much downside protection leads to stagnation.

Pursuing higher education would be a good example of something that is sold on the basis of upside potential but in practice implicates downside protection. Being a doctor is more interesting because their earnings have a floor, than it is because of their earnings having a ceiling. If people knew what the ceiling was, they might choose sales or starting a company instead assuming they were after upside. What they really seek is downside protection, which is what those programs really offer.

Another good example is the way people navigate their careers. Few people are willing to take a hit to their income in order to change jobs, it is mainly about increasing your income. The reality though is they are protecting themselves from the downside of having to downsize their lifestyle. Having a job with a steady income is the most dangerous form of downside protection, because people become willing to do almost anything (be unethical, waste their life) for it.

The important benefit that becoming aware of how downside protection affects your decisions is shifting your viewpoint on risk to be more in line with your values. Having a protected profession (that you sacrificed some of the best years of your life for) is great if that profession stays protected, but ends up horribly if change or innovation happens. Earning a stable income is easier to manage from a cash flow perspective, but also creates a single point of failure.

People should worry more about real downside protection than they do about protecting themselves from merit-based contests of will or struggling. By that I mean protected professions and stable employment make your income fragile and only meet some requirements of downside protection. Starting a business makes you fragile in the early days, but the worst case scenario (the downside) usually just looks like getting another job if you fail. It is much easier to fire one customer when you have a hundred than one boss when you have one.

The whole point of self actualization is to live a life that is true to the things that you want and value. Most downside protection

ensures continued acceptance by your community, at tremendous cost to how enjoyable your time is and how much you control your own life. That trade is not worth it, and disparities in the value of downside protection are being priced in everywhere they used to exist (higher education, so called stable jobs, unions). You cannot, in practice, downside protect from something unless you have insider information. If something seems generally accepted, the value is priced in. Run, and find the secrets while you can.

Value

There are a number of ways to look at the value of something. Intrinsic value is the non-monetary importance of something, like an emotional attachment. The fiscal value is the monetary attachment or how much something is worth if sold. When making career choices, people are faced daily with decisions which will affect both their ability to create value and their ability to capture it.

Creating value involves the creation of something. Musicians create value by creating a series of notes that sound appealing when strung together. Business people create value by shaping together a product and offering it to customers. Emergency service people create value when they help people. These are all important things, but none of them guarantee money in return.

Capturing value involves monetary return as a result of some type of interaction. Stock traders capture value when their investments go up and they're able to sell higher than they bought something

for. Employees capture value when a company pays them to work for it. Businesses capture value when their customers give them money in return for products.

Every job or investment involves a certain amount of creating value, and a certain amount of capturing it. Careers in financial services for example, involve a great deal of capturing value and a small amount of creating it. Likewise, careers in arts often provide a much smaller proportion of capturing of value and a great deal of creating it.

The ideal position to be in is one where the amount of value you capture satisfies your personal needs, and you are creating as much value as you feel you are capable of. This explains why people say 'do what you love and you'll never work a day in your life'. The concept of work implies you are in it for the money, whereas if you are enjoying the way you create value, money becomes the lesser reward. People always often say that 'money takes the fun out of everything', meaning that if you have to do something for the money, even if you would enjoy it otherwise, the fact that the intention is to capture the value makes it far less satisfying.

In terms of career choices, it is important that a job, career choice or investment rewards someone's goals in both of these areas. The more either someone is lacking, or worse the more both are lacking, the less satisfied one will be in their ventures. It is far more satisfying to start creating value then find an effective way to capture it, instead of focusing on the capturing of value and being stuck trying to create in your spare time.

Lifestyle

Debadging

Since I was a teenager, I've had this unusual obsession with debadging things. It's mostly a term used for cars, where you remove the logo and model type from the outside of the car. The goal differs, but it's generally to make the aesthetic simpler and not muddy it with branding. The idea is similar I think for clothes and other items. I find I like clean and simple aesthetics more over time, they seem more durable than ornate or obvious approaches to design. I think it's an exercise in essentialism: how many elements can be removed before the only thing left is value.

Over time I also tend to cut tags out of clothing, especially the ones that have branding on them. Jess asked recently why I do this, and that I seem to be doing it more as I get older, and I don't think I have a good answer to either other than something feels right about things without tags. I think it may trick my mind into valuing the item more than I would otherwise when it seems like

it's homemade. The concept of Brandless the company to me is sound, but they sort of tried too hard to be a brand. The idea that you can have a reputation without identity is nice in theory.

I think the old concept of focusing on quality and letting the product speak for itself is a hard truth. It's clear in business that marketing also matters, but that could simply mean making things of superior quality, and then sharing that information with people in the way they like it. It's interesting to see products made by companies historically, because the branding tends to be much less prominent, and there tended to be much more of a focus on quality and reputation. One would never ship a subpar product under their own name (or at all). Contrast with today, where the goal is to build a brand and increase quality (or decrease it) completely independently. It's not a story about quality, it's manipulation focused on avoiding expense. It's fundamentally cheaper to seem like you make quality products than it is to make them.

I had a conversation with someone about manufacturing, and how it compares in China and Canada. It genuinely sounds like there's almost no ability to make things left in Canada at this point. China is more automated, and more skilled, so the category this person operates in has to decide whether to pay 10x as much for a less reliable source of materials locally, or save 10x the money and get a consistent supply in the amount they need. If we did decide to reshore manufacturing, we may also have to accept we're vastly less competent and organized. We may also have to accept that we simply can't do that and meet our ever friendly labour laws. Another interesting example of how empathy for local workers leads

to exploitation of workers in another place: all to reduce the cost of goods, to enable more consumption in the local place.

I'm not sure if this ended up being an essay about debadging or about quality, but it does suggest that we have a long and painful road to regain leadership in technological progress. We can't keep assuming that increasingly wealthy and hostile countries will supply our goods. And we can't keep relying on ever more complex growth hacks to take the place of quality. These problems probably have to be solved together at once, by creating new brands, that make useful things of high quality near where they are used. No other path has a future.

Fewer Better

I'm coming to realize that everything is a series of trade off decisions made whether you recognize them or not but which ultimately lead to the natural conclusion of something. For example, you can do more things, but that often impacts quality (ie. more things, worse). I've also realized that most people actually take that path, doing more things of lower quality. I think some people perceive that as both efficient and effective, doing something good enough. As time goes on, I feel that doing fewer things better is comparatively rare. People tend to notice it when it happens though because doing something well is the exception rather than the rule.

The most recent applications I can think of are in my own life as a parent and founder. In the business, it becomes clear that the more features we add, the more complex the system becomes. That makes it harder to maintain and makes the surface area for potential issues much larger. If we do less things, we can spend more time on each feature, generally resulting in higher quality

software. Likewise as a parent, it occurs to me that we could have a lot of kids and provide them with a vague sense of direction in the limited face time we get together, or have fewer kids but invest more effort into each providing significant one on one time.

School is a good analogy for the parenting problem. It seems like the key issue impacting the quality of the learning is ratios. More wisdom spread across fewer subjects means higher impact. Likewise with quality, mass production and quality are antithetical. Some problems are solved with scale, while others are created through scale. The argument here is not necessarily to avoid doing something significant, it's to avoid trying to do too many significant things at once. I'm still wrestling with whether it's better to do things fast and compromise quality, or do things more slowly but not compromise quality. That seems more situational, where as the trade offs to doing a few things well seem to mostly outweigh the trade offs of doing lots of things less well.

Doctors and Consultants

I find it surprising the difference in the level of trust that people ascribe to doctors and management consultants. It seems like if you asked some reasonably smart person who is more trustworthy, they would point to the doctor every time. But in practice, I feel like the opposite may be closer to the truth. Doctors are basically confident people applying their own incomplete understanding of a model (in their case, physiology). Management consultants are doing the same thing, with management theory. The weird thing about doing something like that is how wrong they are both capable of being.

I'm not a paranoid person when it comes to doctors and the legitimacy of their knowledge, and I am when it comes to consultants, which is part of why I wanted to explore this conundrum. But let's be clear: doctors rarely do the research themselves, often their understanding is based on a summarized version of the research in each field that could impact them. So they are basically two steps

removed from synthesis. It's fine to give credence to the experience they get when they get into the field, but the actual solutions to the problems they face lies somewhere in the research and the synthesis of the people performing it, not the doctor. The word practitioner comes to mind. That's what most doctors are, and yet there's this whole blind trust we feel when the word is evoked.

Doctors are management consultants, but for physiology. I can see your trust in them slowly erode as that statement sinks in. I think we can all address this better by using Google Scholar more, asking more questions, and learning that in matters where you feel blind faith, we should maybe be more skeptical. And in matters where we are already skeptical (management consultant advice) we could probably afford to be less skeptical.

Vegetables

If I really reflect on changes I've made in my life that resulted in higher quality of life, the biggest would be eating more vegetables. It's almost comical to say, but it's true. Nothing has improved my mental and physical health (which seems to improve everything else) as much as increasing how many vegetables I eat.

As someone who reads far and wide on the subject of figuring out how to have a good life, it seems to come back to some pretty first principals / important and fundamental things. And those things seem to revolve around staying in peak physical and mental health. This seems to have been true for a long time, no secrets.

One of the most impactful levers that most people, including me, are able to pull is diet. But my experience has been that the positive impact of fad diets that I've tried (keto, paleo, low carb, low fat, etc.) through my life is minimal. The only things that really had a big impact were to increase vegetables and do fasting.

I've already written about fasting, as have many new school bloggers and old school religions. The cycle of wellbeing for humanity seems to have completed one full rotation: we're back to moral cleansing and fasting again. That said, presumably the reason those things come up in religion is the fact that through history, they remain some of the more important things to implement if you care about having a good life.

I read an interesting post recently about neo-victorians, or how millenials (especially the younger half) are reversing recently won battles in terms of human freedom and rights and instead choosing to limit free speech, individuality and hedonism to pre-1960s levels. I guess you could draw a parallel here, because a lot of our current food was sold as being faster and more convenient (it is) than old school approaches to cooking.

If I had no information about someone's life situation, or was in one of those hypothetical scenarios where I could go back in time and give myself advise, I'd probably do mostly the same thing but with more vegetables. Some things, like sleep, are pretty easy to see the cause and effect. But vegetables are like saving money: the real benefit is far in the future. But much like compound interest, the benefits are very significant.

Go Small

Maybe it's just the people I surround myself with, but I hear "might as well go big" or some variation of it all the time. People say it about their personal life, and their business life. I'm not sure whether it's good specific advice, but it's generally terrible generic advice. My thinking on this is the opposite: go as small as you can. Risk is bad and you should try to make protect yourself from as many eventualities as you can.

The first example I'd offer is dating. Go big means marry the first person you think you can make it work with. Beyond the obvious failings of this approach, let's break down the math. The statistics shows you should probably date a certain number of people before you even start sampling whether someone is a good fit for the long haul. I read a study about how once you have dated 8 people, meeting a 9th person who is better than the first 8 is a strong indication you should marry them. You'd have to date over 100 more people to find a 10th who was stronger still. So at first, you

are just gaining information, and eventually you make a choice. It requires an extremely incremental attitude to commitment, and lots of conviction.

Another example is business. Going big on the first idea you think is a good one is generally a terrible idea. One commonality among successful entrepreneurs is generally that they started many, many companies before they started the one that made them a success. It's a safe assumption that most companies anyone starts will fail by conventional definitions. If you go small, you get more at bats in your life, which means you have a higher probability of success. The trade off is that if you give up too soon or don't go deep enough, you won't know if it worked. There are many ways to validate an idea before pursuing it. The lean startup is falling out of favor because all the low hanging fruit is gone. That thesis is only half true, though. Easy ideas may be gone, but that doesn't mean you can't validate a hard/valuable idea in less time. Go small, figure out if there is traction, then expand incrementally. Behind every giant company, is a scientific approach to going small at first to figure out if the idea is worth the time.

There aren't many areas of your life where incremental learning is harmful. And there is nothing wrong with going small. Many more people regret going big and losing everything than regret going small in the early days of a risk based venture (marriage and business being but two examples). You can always scale your commitment up later, and do so with vastly higher confidence. Might as well go small.

Special Box

When I was a kid, I put all of the special items that ended up in my life (twigs I liked, medals from sports, t-shirts from events, etc.) into a box appropriately named a special box. It occurred to me that everyone does something like this, collecting meaningful items, but there is very little written or talked about involving what system it makes sense to use for managing the items.

The system was basically just anything I thought I would want to look fondly back on one day got archived in a box. It's amazing when I look back on it and go through the box the extent of the things I did and considered special. My parents gave us a constant stream of interesting, meaningful things to pursue. When you are kid you don't appreciate it, so I'm glad for the box.

We've adapted the concept to our own family (Jess, Magnus and I) so we are continuing to do the same thing: keep anything of significance in a box. We made a really exciting contribution the

other day which prompted me to think more about it. Magnus had the first item of significance that makes no sense: an empty bag of peas. He is fascinated by it. There is no way I will ever let go of this bag of peas, purely because of the intensity of the joy he feels staring at it. Meaning can be hard to communicate about for a four month old, but in this case it's obvious.

Hopefully one day he can sit with the important people in his life and consider why his parents put an empty bag of peas in the box on his behalf. What I doubt though is that anyone involved will mind the overhead involved in keeping things like that safely stored and a part of our life. As someone who values minimalism, I often purge various items from my life. But I have never purged an item from the special box, and I don't think I ever would. Which is curious to me.

I'm not sure why a photo can't do the significance of something like a bag of peas or a favorite twig justice but it just doesn't quite do it. And it makes me sad to think that people can lose these deeply valued items in fire or just because it's a pain to store. Everyone should keep a special box, regardless of how small, because everyone would be surprised how full it gets.

Haircuts

I like to think about things that happen regularly, and cost money. Then I like to do zero-based budgeting and figure out if there is a way to eliminate that expense from my life. I especially focus on routines, because compounded through your life saving money on or eliminating a routine can result in significant financial swing. That financial swing can be used to buy more interesting things, like freedom of time or compounding in other financial instruments. Not everyone likes to think this way, it may not be good for the soul, but it's a fun personal challenge.

I did an analysis that looked at how much money I could save if I cut my own hair. At first it seems like it isn't worth the time, but when you run the numbers it's pretty compelling. I looked at a period of 25 years, and assumed I would need a haircut every two months (supposedly people go every six weeks on average, which sounds like a lot). I assumed the average price of $28 for a men's haircut. I assumed my time was worth $20/hour, conservative.

Finally, I assumed that inflation on services like haircuts would be about two percent, with no discount.

Over the course of 25 years, it appears that I can save about $7670 by cutting my own hair. If I keep my hair short, it's easy to cut myself. If I buy the fanciest tools I can, and spent a few hours watching YouTube videos to learn how to do it, the present value of the future cash savings is still about $7400. Then I flip this, and consider whether I would be willing to outsource haircuts on the assumption I already did them myself for $7400 over the course of 25 years of my life. The answer is definitely no, so I decided to learn and start doing it myself a while ago.

No one has noticed, for better or worse, but I certainly have when I run future cash flow projections. I once looked at how much time people spent on social media. If you extrapolate that amount of time into the future, at average wages, the average person could retire (freedom of time) about ten years sooner if they worked instead. Between healthcare, hard costs and time savings, smoking costs about $600k over 50 years. At that level, you could get to freedom of time 20 years sooner. Flip it around and consider whether you would like to trade those years.

If you have any unconventional ideas for shifting resources from low yield areas (like professional haircuts) into high yield ones, I'm all ears. I'll post any good ones.

Family Meeting

Every Sunday, my wife and I (and our infant son – not that he does much of the talking yet) have a family meeting. We tweak the format slightly every week depending on what is happening in our life, but we have done it for a few years at this point and the approach is now getting quite consistent week to week. We find it useful for staying in sync.

The purpose of the meeting is to sync up about what is happening in our life during the coming week, and talk about what happened in our life the past week. It is more about logistics than it is about reflection, the idea is that we have already reflected on the week, and are ready to discuss it together. We do it every week without fail, and it is always useful to all of us.

We split the subjects to cover in the meeting into groups and prompts. Each group is something we want to talk about. At this point, there are five groups, but we have had more (when we

were getting married) and less (before the baby came) in the past. Here are the groups we use:

- Check in on our personal finances
- Plans for the coming week
- Check in on our habits and routines
- Baby updates
- Relationships check in

These groups evolved through considerable iteration. If we thought something needed to be covered more frequently, it would be, but we tend to save our big topics of discussion for the meeting and try to fit them into one of the groups. There is no open group for additional topics.

Under each group, there are various prompts that basically force us to check in on a certain thing. The prompts follow the important aspects of each group. This all sounds formal but again, we started small (always talk about family matters on Sunday) and then evolved the format as time went on. To get a sense of the prompts, here is what we use for finances:

- Cash balance (how much cash do we have? why?)
- Burn rate (how much are we gaining or losing per week cash wise? why?)
- Income (how is our income increasing or decreasing? why?)
- Big expenses (what big expenses are coming up? anything we need to prep for? discuss?)
- Purchasing wish list (what do we want to buy? is it urgent? any alternatives?)
- Discuss X budget (depends on the season, could be for vaca-

tion or gifts)

- Cash flow planning (update the spreadsheet if it's the end of the month – shortfall or surplus?)

By discussing these things on a weekly basis, we are both on the same page about our personal finances. As our family grows this will get more complex and the denominations will get higher, but we intend to keep the same structure because it works well for staying in sync.

The other categories have various prompts that follow the theme. In plans for the coming week, we talk a bit about what we spent our last week doing and whether we have any spots of resentment or regret. Then we sync up on what's on for this week across the family.

When we check in on habits, we look at all the important areas (according to us, in our experience) of our habits and routines and make sure nothing important slips through. This includes diet, exercise, sleep, chores, work, self-care, other-care and medical needs.

Baby updates and relationship updates don't typically take as long, but we leave them until the end so we can expand them if necessary if there is something big that needs to be resolved. We talk about similar issues for the baby as we do in habits (eating, sleeping, learning, etc.) and for the relationship part, we talk about how our relationship(s) are going and whether we're okay.

It is hard to say the impact in practice that having the meeting has had on our relationships and finances. I think the impact is significant, and easily justifies the half hour to an hour long block

we spend on a Sunday talking through these issues. We observe that one of the biggest areas of relationship and family dysfunction in people we know is not being on the same page. This can be resolved in a systematic way if you meet regularly to discuss these core issues.

We tend to hold the meeting whenever we feel like we have enough energy and time during the course of the day on Sunday. Usually that is somewhere between late morning and late afternoon. Occasionally we will forget or have something going on that prevents it. We consider that to be completely fine and pick-up where we left off with a slightly longer meeting next week.

We haven't had to implement much in the way of rules (talk about this, don't talk about this, talk about this in a certain way, etc.) because the meeting and the format have evolved over time. We both prefer to operate this way, but a difference structure (like the weekly going out for dinner my family did when I was little) might work better for difference kinds of families.

Paperless

I have basically no paper. I don't say that to virtue signal, I'm just glad I went through the process of scanning everything. It's much better to be able to call up searchable PDFs in Google Drive than try to find paper in some kind of physical filing system. This post is a short write-up of the two phases of going paperless: the initial mega-scan of every piece of paper you have (and shredding…) and the maintenance part where you scan everything as it comes in.

The first part of going paperless takes at least a few hours. It involves scanning all of your existing paper documents. In order to have a useful destination, make sure you have enough space on your computer. I'm not sure how physical paper converts into digital space, but I found that a regular 8.5x11 piece of paper takes up about half a MB. So multiply roughly the number of sheets you have of paper by 2 and that is the number of megabytes of storage you will need for the files.

I found that doing the first part with a digital scanner (e.g. the Google Drive app) to be next to impossible in terms of efficiency. I gave up and bought a feed scanner. It was around $80 on Amazon and well worth the time savings getting all the pages I had scanned. I kept every receipt I have ever spent, every statement, every item from school and so on but I wanted to keep as much as possible so I scanned all of it. It took a few days, with a few hours in each day, to actually get through all of it.

Once everything is scanned and loaded into your PC, it can be nice to upload it to a cloud service. There may be less privacy, but it is more likely to last there compared to when it lives on a single device. Ideally use a service that allows for a local backup of the file in the cloud service. Google Drive is nice for this, and also uses AI to figure out what text is contained in your files. It is extremely accurate, and makes it easy to "Google" your own documents.

The second part of going paperless is ongoing scanning. I have a system where whenever I get mail, a receipt or some other form of paper, I scan it using the Google Drive app pretty much immediately. I also bought a shredder to add some security theater to my life and slightly improve how private it is to recycle the paper when I am done scanning it. At this point it's just routine to scan paper using the Google Drive app and then shred it. The key is not letting paper build up again or you have to go through everything all over again.

In terms of actually filing the digital documents, my experience suggests that the less complicated the system you employ the more likely you are to stick to it. I just have a few folders (real estate,

family, photos, finances, personal and work) and I dump everything into those folders. Now when I need something I just use the search bar, and that has taught me how to name things (if necessary) to be able to recall it when I want it. Google's OCR tech is so good at this point even naming files seems like a waste, but I still do in case I ever want to switch to an offline option or the context would be helpful for some other reason in the future.

The last point that warrants mentioning on the subject of going paperless is that you should also do what you can to fight paper-based documents from entering your life in the first place. While the government, banks, insurance companies and other intrinsic monopolies can pretend it's still the 19th century, most of them offer poorly marketed paperless and digital options for communication. I make a habit of making sure there is no way something coming into my life as paper can be instead be paperless. If that involves investing 30 seconds Googling for a digital alternative, I consider that worth it to save future scanning time.

The main bottleneck to going paperless is getting over the initial hump of scanning everything you currently have. Once that is done, maintaining it is pretty easy. One option if you are brave would just be to declare paper bankruptcy, shred (most) of it, and start scanning from then on. I found that given how easy it is to scan, and how little space the files take up, it just makes sense to scan everything. The only expense is Google Drive (usually free) and a feed scanner if you want to save time initially. It was well worth it.

Scary Math

I read an article recently about social media usage. The article focuses on the big four networks, being Facebook, Twitter, Instagram and LinkedIn. Having worked in social media, I still found some of the numbers rather surprising, which is what inspired this post on some scary math that can be derived from the stats in the article.

The first figure my scary math equation is based on is the numbers in the article for hours of Facebook usage, which have been cited and sourced from reputable sources. The article indicates that Facebook users spend around 10.5 billion minutes on the site every single day. In hours, that figure is around 175 million hours spent on the social network. If we assume that amount hasn't changed throughout 2012, it amounts to just less than 64 billion hours spent on the site in a year.

The second figure my scary math equation involves is the average

income per person in the world that works. We will assume that everyone who works makes the average wage in the world, which is $18,000.00 per year (source). We will assume that these people are working full time or 40 hours per week for a total of 2000 hours per year, valuing their time at around $9.00 per hour ($18,000.00 income per year/2000 hours total = $9/hour).

Based on those assumptions, the world could generate approximately $575 billion dollars a year in income based on the hours it spends on Facebook if it instead spent that time working. By contrast, satisfying the world hunger and sanitation requirements would cost about $13 billion dollars, plus some additional funds to make it sustainable, which is tiny in comparison to the amount of time (money) people burn through on Facebook.

Essentially, if everyone who works in the world worked an extra two minutes, once per year, got paid the average world wage for the work (in this case, $0.30), then invested that money in microfinance, we could wipe out hunger and lack of proper hygiene for good. I wouldn't consider myself a save the world type of person, but that is some scary math worth considering.

If two minutes of working and a donation of $0.30 can make such a massive difference, imagine what we could achieve by instead working for one full hour more each year and investing that money in microfinance initiatives in developing countries, so that these people who are starving can build businesses and contribute to the world. The best part of microfinance is that you're actually investing in a high-risk bank, which gives loans to entrepreneurs in developing countries, and you will on average make your money

back with a profit.

Making money is good, saving the world from poverty is good. We could achieve this by working harder, and being aware of microfinance and the benefits more here, and perhaps putting any extra money we have into companies who are providing this type of financing.

Education

Futureschooling

Futureschooling aims to develop children with high and accurate aspirations. This involves developing a sense of self, and maximizing that self against what you decide to value to a satisfying degree. The goal is to become great at whatever you choose to pursue. As I reflect on my experience as an unschooler, I plan to use futureschooling to guide my children's development.

Definite Optimism

Peter Thiel outlined a framework for thinking about determinism and optimism. Where one can choose to be either determinate or indeterminate, and optimistic or pessimistic, futureschooling prefers determinate optimism. Which amounts to a belief that the future will be better if we build it.

Adaption Maximalist

Modern child development frameworks are failing because they are optimized for the school environment. When people make contact with reality, it turns out not to be like school. People often project the school-like environment on reality, rather than accept and thriving within reality itself. Whatever reality throws at you, it is preferred as a futureschooler to have a high effectiveness and low cost competency for adapting to those changes.

Structure Minimalist

As an unschooler, I come from an educational background where structure was near zero. Modern child development philosophy emphasizes learning process over learning substance. The purpose of learning is to interalize a useful lesson, not to follow a series of checklist steps. Giving children slightly less structure than they are comfortable with is the best way to enable them to be autonomous and find life lessons in non obvious places.

Character Is Built, Not Found

Character is the mental and moral qualities that distinguish you from others. It will not come from 'looking inward' in the form of mindfulness, which while a useful tool limits you to the qualities you already possess. And it will not come from 'looking upward' in the form of religion, as they are incomptabile with some of the other principles here. Building character requires risk and struggle, which implies a futureschooler 'looks forward'.

Think In Systems

The most economically important forms of work in the future require systems thinking. Systems thinking is a way of making sense of the complexity of the world by looking at it in terms of wholes and relationships rather than by splitting it down into its parts. In order to realize your potential, it's important to understand the effects of the complex systems that govern modern life. Navigating these systems and thriving within them is essential.

Think Divergently

Divergent thinking is a thought process or method used to generate creative ideas by exploring many possible solutions. People often consider an artificially constrained set of alternatives. The best decisions require combining factors from multiple alternatives, as the best path forward is rarely obvious. Being able to generate many possible ways of solving problems, and then rapidly discern the most appropriate alternative is critical.

Partner With Machines

Generative AI is coming for mediocre knowledge work and memorization based learning frameworks. It is better to learn how to leverage AI to further your aims and originate new sources of value than it is to be displaced by it copying what exists. Creativity in the future will look unrecognizable to the analog creativity we have today. Whatever field you choose to pursue, it is certain that you will need to partner with machines to be effective.

Converge on Utility

Impact comes from solving different problems than others and focusing on the utility of the problems being solved rather than the method by which they are solved. Do not toil in obscurity without delivering a value product at the end of it for another human being. Don't compromise yourself or lose your soul, but be useful. Focus on making whatever creative work you offer the world as useful as it can be as the convergent purpose.

Specialize Broadly

Operating as an agent in our complex future will require specialization. But single domain specialization is fragile. Specializing in multiple fields, and then combining those abilities across domains is more durable. Learning how to pick up new specializations throughout your life is essential to sustained impact. Learning which specializations require which levels of depth and synthesis becomes the core form of learning wisdom.

Focus Intensely

People often fail due to a lack of focus or a lack of intensity, rather than a lack of resources or opportunity. In a world where social media consumes the excess attention of extroverts and video games of introverts, being able to focus on things for months, years or decades is a crucial skill to cultivate. And then being able to work on those things with uncommon intensity and diligence will make the necessary difference to have effect.

On Homeschooling

The rise of Covid-19 has created a grand experiment in homeschooling. Maybe what I learned as a K-6 homeschooler can ease some parents' anxieties and help build understanding for what it means to develop children in the home.

I have a son, who is nearing two years old, who my wife and I intend to homeschool. I read a post the other day by a father who felt that the most significant harm Covid-19 would have in the world was on his (and other) children's education. To me, it's pretty clear that's not even in the Top 5, but considering many people posted and agreed with this person, evidently some people feel that way. Leaving aside the (significant) social issues of school for a minute, let's talk about how children learn.

Here's the short version of how learning happens: you take in some kind of stimulus somehow, process it in your body somehow, consolidate that information somehow, and then apply it somehow.

Somehow because, depending on their particular school of thought, people disagree widly about the specifics. It doesn't matter what the stimulus is - as long as there is sufficient stimulation, you learn something. The entire field of Cognitive Psychology is devoted to studying this process. There are a multitude of theories on development that you can explore as well if you have time and interest (ie. Piaget, Vygotsky, Erikson, Bronfenbrenner, and more).

Stimulus can be intended or not. Formal Education (aka the enforcement of curriculum standards in a set learning environment that may or may not occur in a building called a School) focus overwhelmingly on transmitting intended stimulus. The curriculum documents in Ontario are arduous and detail every little thing your child must adequately prove to move on, which is a bit ridiculous, given how asynchronous development is. Googling the term asynchronous development will give you results about gifted kids, but, I assure you, it applies to all children, conventionally gifted or not.

Unintented transmission in the context of school is often referred to as the Hidden Curriculum, which is to say that certain information is unintentionally transmitted (values, norms, beliefs, morals) by either the content of the curriculum or the environment it is transmitted in (ie. reinforcing age-based hierarchy by requiring children to raise their hands to speak or ask to go to the bathroom). If you want to learn more about Hidden Curriculums, you should read Dumbing Us Down by John Taylor Gatto.

As a homeschooler, I was never formally taught subjects. This is a variant of homeschooling, called unschooling. Homeschooling impli-

cates the same curriculum and structure as attending Schools, just at home. Unschooling is the antithesis of schooling - no teachers, no curriculum, no schedule, no workbooks, nothing. Unschooling implicates self-directed learning, completely controlled by the child. There is a trend in Formal Schooling called student-centered education, but this is not the same as fully self-directed learning or unschooling. In student-centered education, children are given control over the how, not the what or the why of their learning. In Unschooling, we always start with motivation (why), then determine what we want our learning to help us accomplish (what), and then explore the various strategies we could employ to get us there (how).

Contrary to school-at-home styles of homeschooling, there are no teachers in unschooling. Parents, extended family members, and the community all act as resources for learning in Unschooling. As young children, we would play for hours at the park catching sunfish and small amphibians, absorbing everything we could from their habitats and behaviour; and when our dogs accidentally killed one, we'd dissect them to explore their anatomy. When I was 9 or 10, my brothers and I were obsessed with tanks. My parents devised a multi-week roadtrip across the US to explore specific museums and battlegrounds. When I was 16, I got really into working out and supplements so I hustled an internship at GNC. Unschooling is basically just living with the purpose of learning rather than something else.

So, your kid is playing Minecraft while you take a Zoom meeting? That's unschooling. Learning how to bake bread because the gro-

cery store was out? That's unschooling. Going on a nature walk in a new park to pass the time? That's unschooling.

We had certain market forces (e.g. we had to read in order to bank up time for passive video games) that acted on our decisions, but they remained our decisions from the earliest ages. Agency is one of the most fundamental forces you can use to better your life. We were given agency (and the expectations to go along with it) from very young ages by most standards. That agency allowed us to invest in our own learning in ways that worked best for us.

To unschool is not to forgo learning, it is to enable it in the purest sense of the word.

Unshooling (doing whatever I wanted whenever I wanted, more or less) is how I learned until I went to school. I went to school in Grade 7 to socialize with age peers. It took me a month or so to catch up to where everyone else was academically having done no formal instruction. My parents feared it would be much worse, but even French which I'd never been exposed to seemed to be okay. This is one example of how quickly someone can learn the things that are intended for people of younger ages when they're motivated to.

Taking my anecdotes out of the picture, studies of literacy ability prior to the introduction of formal education in a country suggest it takes about 100 hours of deliberate practice to learn reading, writing and math when the learner is ready. I was reading, writing and doing math by Grade 7 (barely) but I still think 100 hours is about right. I didn't learn to read until I was 10, which horrifies people, but when I did learn I was the best reader in the school

I went to. When you give people the ability to learn things when interested, they gain better skills, faster, with less effort. When you try to structure it too much, it only works for the few.

Instead of exploring why school exists and who it serves further, let's unpack what it means to develop children. The stated purpose of school is education, which is defined as systematic instruction. The real purpose, if you have ever seen the movie Accepted or like being honest with yourself, is preparation for adulthood. The goal, if you want to abstract away what we do as parents and what teachers do on our behalf, is to develop children. To make them into whole people who can act by their own agency. The fear comes from a genuine desire to see children be successful. As a parent, I feel that, I know most parents feel that, and it's a valid thing to feel. But fear is not a good basis for a multi-decade learning and development strategy for your children and our future. So what is the right basis?

If we agree that the real aim of the entire education system is to develop children, consider how that might translate to a home environment. Children are by their nature, learning machines. You pretty much couldn't stop the learning and developing process in a child if you tried (trauma being the exception…). Your children absorb, synthesize, reflect and adapt based on the environment they are in and the stimulus they are exposed to. The question of what stimulus to expose them to is the challenge. The answer comes from relevance.

Our brains are wired to seek out relevance wherever it exists. Right now there is a global pandemic, and that's a scary, relevant thing.

It's also a firehose of learning. We're learning about all kinds of new things: hygeine, antivirals, pandemics, quarantines, social distancing, geography, removal costs, politics, policy making, economics, the financial system, trade offs, demographics, comorbidities and more. The reason we have trouble closing Google News is our brain has an unquenchable thirst for relevance. Now consider how that implicates your children. Are there valuable lessons for adulthood in this experience?

The greatest lie of Formal Education is the implied assumption that learning, or at least the most important learning, only happens in buildings called Schools.

I'm going to spoil the answer to that rhetorical question, it is a resounding yes. There are enormously valuable lessons in this dark period. We need to reengineer our daily lives to account for this new risk that faces us. We are going to have to be more adaptable, creative and resilient than we have in recent memory. We are going to have to change, which is very hard, how we live. If we view this as a setback in the development of our children, we are missing a once in a lifetime opportunity to model resilience, adaptiveness and maturity. We're basically admitting and modeling to kids that we as adults can't learn from our environment. People, including children, rise (or fall) to the expectations you place on them. Let's give our children a way to rise to the occasion by being the model for how to act in hard times. How can you be the model of learning for your children? Let's explore it.

I can think of many, many ways to create learning opportunities out of this pandemic. I made a list below. I hope people add more

in the comments, I think they are endless:

- Did you know hand sanitizer has two ingredients and can be made at home? You need a high proof alcohol and aloe vera gel. The instructions are online. What does your child learn seeing you waiting in a long line to buy hand sanitizer? What does your child learn when you model that with two ingredients you can make it yourself?
- This is an incredible time to learn about the impact our actions can have on other people. What small thing can you do that benefits others? How can you do things (like wash your hands and social distance) that keep other people safe? What can you pull from that about empathy and kindness? What's a charity? Who is it for?
- This is an amazing period to talk about the human body. What are your lungs for? How does your body change as you get older? How does an immune system work? What can you build at home (sieve, strainer, water and oil) to visualize these systems? What is a virus? How do we keep ourselves healthy? So much to learn.
- The world is collaborating on a scale never before attempted. Billions of people acting in selfless ways to protect each other. To do that requires communication, resilience, leadership and more. How can you break those concepts down? How can you evaluate how much trust to place in leaders, institutions and the media?
- How do you go about adapting when things don't go according to plan? Do you break down? Are you able to get back up again and find a new way forward? These are things that

occur in life regardless of the path you choose. This is a case study in modeling good coping behavior and talking about what it means to cope well.

- It's going to be much harder to stay connected to your friends. What can you learn about what it means to invest in relationships and stay connected when things are hard? What can you learn about what it means to reach out to people who might need help? What can you learn about how to derive meaning from service?
- What about science! It's an explosive period of progress in science. Did you see that France has proven the effectiveness of antivirals? What is a study? How do you prove things? How do you structure an experiment? What's a vaccine? How do they work? How do we predict what's going to happen? Science is everywhere now.
- Imagine the life skills you can acquire. How do you cook when you have to use the ingredients you don't normally use? What happens if you run out of toilet paper? Remember that fear is not a good basis for learning, but the right amount is very motivational. If you model coping, children mimic the coping, and learn the lesson.

The list is near endless. Big things are happening. The stories and articles and activities exist on YouTube, in media, in blogs and all over social media. It would be impossible to prevent your kids from learning a great deal from this experience, but so much of the *what* will be defined on how you present these issues to them.

If you haven't talked about what this means for your family and for

your children, are you sure it's your children you are protecting?

What is it about the fact that people rarely use school skills in the real world and admit as much that makes people think it's a good idea for kids? We should be asking these questions. When things are scary, we cling to normal. Imagine a future where your kid knows quadratics, but not the things from the list we talked through earlier?

Most people reading this did not undertake to homeschool by choice, and that is an agency robbing experience. If you're struggling with access to daycare or balancing work and kids at home, that's even harder. Consider how you can make the most of the situation, rather than offloading the development process back to some e-educating software as soon as possible.

There's an expression people use about not missing the forest for the trees. I'm arguing that there is once in a lifetime learning event that could be happening right now if you just give kids a nudge in the right direction. Your kids will be okay without the rest of the school year. *They might even be better off.* Be safe, do your best and help your children learn from this.

Forgetting

I've been thinking more about forgetting. It seems like the removal cost of newer knowledge is low. We learn things, but those things tend to be niche technological or cultural innovations relevant right now. By comparison old knowledge (murder is bad, fasting is good) tend to have a much higher removal cost if we forget them. Forgetting seems to be an intentional cultural process where by we intentionally choose what knowledge is preserved and what is forgotten.

The problem is that we seem to more often than not get what to forget and remember wrong. We choose to forget fasting because of the affiliation with religion. And we give ourselves autoimmune disease in numbers higher than any point in history by omission as a result of forgetting. Considering the fasting itself caused no harm and was practiced through most of history, that seems like a pretty big mistake. Science later proved what religion already

knew, which is that fasting is necessary for healthy living. How do we avoid similar issues, while still learning new things? How do we not fall victim to ignoring new information entirely?

It seems like the first step is being intentional about what is forgotten and what is remembered. Some people are more inclined to throw wisdom out the window and learn everything for themselves. Others tend to be keepers of tradition. It is a feature and not a bug that both of those kinds of people co-exist in the same cultures, physical spaces and even families. We really need both in order to be doing the right things at any given time. We could have just waited until science had a good sense for fasting to get rid of it. Instead we got rid of it, created a long list of problems for ourselves as a result, and slowly researched our way right back to it.

This points to the next step once you're actively aware of what is being remembered and forgotten. The best place to start would be to focus on things that are being remembered, and focus on disproving their legitimacy. Use the best available empirical, teleological, conservative, liberal, reductionist, philosophical and other forms of thinking and experimentation you can. See the idea contested in open battle between those for and against it. And come to a determination. Be damn sure if you are removing it that it has no relevant basis or second order effects on social control, health, sustainability, meaning, reproduction or anything else measured in lives.

The last step would be to forget incrementally. The problem with much of the way we tend to forget things is that it comes from a

place of scapegoating and fear. We want to clear the decks and wipe the floor with whatever we were trying to forget. We should instead tread very carefully into those waters. Some people forget the thing, and then let's watch how their life turns out. If it turns out badly, revisit those old ideas and try to put a more sustainable spin on them. It's a process for sure, and an intentional one. Let's hope people never reach consensus.

Learn to Code

Much has been written about learning how to code. Instead of rehashing the best of what is out there, of which there is already a great deal, I'll write about how I personally learned. If you're like me, this might be a good way to learn. If not, it might be a terrible way. There are many paths, some no doubt more efficient than others, this is mine.

I was first exposed to code by my Dad. My Dad is a programmer, nominally self-taught along the lines of the old school programmers you read about on Wikipedia. He was obsessed with early computer hardware he had access to when he was a teen, and starting with games and other small programs taught himself. Eventually he and some friends started a software company.

I didn't actually appreciate code while I was living at home that much, beyond a few early formative experiences. One of them was at camp, taking a course on building a website. The power of code

really sunk in at that point: I was in lots of STEM courses, but code seemed much more interesting and practical than the other stuff we talked about. The second was when I became interested in businesses, and online businesses in particular. I missed the boat on being Jeff Bezos and getting in on Web 1.0, but I still feel like there's so many opportunities to build things that are useful to people and deliver them over the internet. I've worked in ecommerce, directly or indirectly, my whole career. Maybe I will in the future too.

In terms of my ability to code, I started with the web course. That was pure HTML, with a sprinkling of CSS for colors. HTML is markup, not real code, and meant for the front-end (stuff you see with your eyeballs). CSS is a little more spicy, involving changing how that HTML is displayed. Eventually I wanted to do stuff on the website. Implement some verbs. To do that, you need JavaScript. On reflection, JavaScript is a really terrible language compared to other programming languages, but it's easy to learn and can be run in browsers or on your computer. Most people these days seem to learn using JavaScript, making it the best worst language.

Eventually I realized that JavaScript can be run on servers too. What is a server? That prompted a ton of rabbit-holing on Google, to figure out what a server is (spoiler alert: a computer). The first stage of learning programming is a ton of mostly fruitless Googling. The second stage is a ton of mostly fruitless tutorials where you copy/paste other people's code from blog posts and spend two hours trying to figure out the part they left out about setting up the tooling. The third stage is realising that you can

change words in the file from the tutorial and do stuff you actually want to do. Eventually that progression gets more and more complex, you start remembering more things and don't have to Google as much, and you do crazier stuff than you did before.

People think learning code is hard, because movies show a nerd slinging unrecognizable garbage into a black and white screen full of text and hitting enter, then the door unlocks or the power grid turns off or something. That isn't programming. Programming is starting with a goal, like keeping track of books or animating a cartoon bunny, and involves a tight cycle of Googling, tutorials, copy/pasting code, running it, fixing the broken stuff, running it again, fixing the broken stuff again, and eventually deciding you are done. Even people who do it for a living mostly do that. There are many cooks, and few chefs. The chefs of programming are in fact doing incredibly cool things, likely on a black and white screen. But they still spend a disturbing (for people with poorly set expectations) amount of time Googling and failing to do it properly.

I found that it took me a really long time to learn to code properly. I wouldn't necessarily say I can even do it now, despite many years of experience. The weird thing about code, compared to almost anything else, is that it's a video game with unlimited levels. You can literally continuously learn about how to program, starting with the most trivial tasks and upgrading over time to more complex ones. I've spent years of effort in total writing code, and I still learn materially important things at least once a week. It is frustrating, because unlike some things, you can be many orders

of magnitude better when you get good as when you start out. In hockey, you can skate like five times faster once you're great. With code, you can solve a problem in literally 30 seconds that might take days when you start out. And that's basically the product of the continuous learning: it never gets easier, you just get better at it and faster.

The progression in terms of skill starts out with just exploring and copying/pasting things. The next level involves less copy/pasting, but it still takes you a really long time to debug problems. The last stage would basically be having enough experience that you can debug things really fast, or at least figure out the nature of the problem fast enough for customers / users / you to be satisfied with the amount of time it takes you to figure out the problem. That took me years, but I'm sure there are people for whom it doesn't take as long to get to that level. And likewise, if you are really talented, you can not only move faster but solve harder problems.

I'm not sure on reflection I would change anything about how I learned. Programming properly is hard. I don't find many things hard, but programming is consistently hard, and I don't think that's because I lack talent. Computers are weird, so much weirder than you would think as a user. And programming is actually very rudimentary and primitive once you realize what you're doing. It's possible that tooling and such will get better in the future but my experience has been the opposite: as I get better at programming, I yearn for less tools and none at all in favor of a simple, powerful language where I can write things in a really deterministic way.

If you wanted a formula from this article, I'll share a rough outline

of what my approach was: do things that interest you, start with the front-end because the cause and effect is more obvious, move on to server-side stuff and true "programming" and expect a lot of pain and failure. Once you can throw a web application together without Googling, you're good enough to do this for a living, and you can kind of decide where to take it. There are bootcamps and online learning tools that try to get people to this proficiency. In my opinion, progression beyond it takes a great deal of learning from failure, pushing yourself, finding interesting and difficult problems to work on and mentorship. You don't know what you don't know. Just learning what HTML is can be eye opening, and if you can't enjoy it, you probably have an answer as to whether to attempt the more hardcore stuff.

My last point is that for every coding job the economy has generated, at least three related jobs are created in sales, support, HR and other functions inside of those fancy companies where they give you free lunch. So if your sibling is learning to code, you may be just as well focusing on learning how to sell software, or support it, or hire programmers. Don't force yourself to be someone you aren't, and appreciate that a world dominated by software requires a variety of skills. You should definitely aspire to understand software though, at least well enough to use it for work. Because every job in the future will be impacted by software in a meaningful way.

Unschooling

I was unschooled. Unschooling is the antithesis of schooling. Homeschooling implicates structure and curriculum but delivered at home. Unschooling implicates self directed learning with little to no structure or curriculum. That is how I learned until I went to school. I went to school to socialize, not to learn, so in that sense I never really learned conventionally or through school.

I found unschooling to be enjoyable and rewarding relative to my experience in private and public school. The main reason stems from how I learn, which is usually a function of my interests and intrinsic motivation. At school there has to be a developmentally appropriate overlap between your interests and the subject you are learning or you will disengage. Hence most people are.

Unschooling is surprisingly uncommon for how effective it is. The concept that investing less in formal education could yield a better outcome in life and personal development is a foreign concept when

you consider the zero sum tournament most school implicates. It takes an appreciation for learning and values that is fundamentally incompatible with school.

Unschooling was a better option for me because I am capable of (and prefer) auto-didactic learning to formal education. This was clear before I would have even qualified to attend school. I did not learn to read until I was eleven, which was horrifying to pretty much everyone until it turned out that when I decided to learn to read at eleven I read at a University level. If I went to school, I would have been forced to learn much sooner and be a worse reader as a result.

I am not sure if the way society is structured would be able to support unschooling on a large scale. While it involves arguably less parent labor than homeschooling does, it still implicates significant flexibility and support on the part of parents. I think that for people like me, who are motivated to learn without extrinsic reward and follow our interests, it is the best for learning. If you prefer structure, extrinsic reward, convention or need daily childcare, it is surely worse.

One option that is implicated by this is whether school itself is too structured. I believe that it is. There is a great deal of literature about how in undeveloped areas of the world, natural literacy is often achieved once members of the population are exposed to reading, writing and math on a self selecting timescale. When this happens, most people learn to read, write and do basic math in about a hundred hours of deliberate practice. Sometimes this happens as late as your teens, but almost everyone is capable of it

and in only takes about a hundred hours of work. So it is possible without so much structure and cultural baggage preventing people from novel learning.

In the future, the ability to synthesize complex problems and navigate ambiguity will be much more valuable than knowledge. Understanding reading, writing and basic math remains important, but with access to the internet almost anyone is capable of learning the basics on their own. This frees up more time to explore creative pursuits that could actually lead to valuable, unique work.

If we teach everyone the same thing in the same environment, we encourage zero sum competition in fields that lack synthesis and creativity and do not solve the bottleneck problems in society. It is a lot of stress and effort wasted because it goes to beating other people instead of doing useful things for them. Perhaps if school reduced structure, the benefit of unschooling would be realized by all, daily childcare instituitions or not.

Politics

Political Spectrum

Liberalism is the lie that as time goes on, things get better. Fundamentally, it never gets easier. We solve problems and we create problems, as to solve problems requires effort. We will never free ourselves from the necessity of meaningful struggle, as liberalism is a forecasting error. So called progress leads to climate change, deaths of despair and an absence of meaning and community.

Conservatism is the lie that keeping things the same will avoid the need to change. Change is outside our control, and whether we hold onto certain variables or not to deny that change is required is to reject the learning and curiosity that keeps groups alive. To adapt and survive, we must be curious and learn. So called conservatives fail to look far enough back in time at our ancestors for cues about our true nature.

The political spectrum therefore is a lie and a distraction, just another form of proxy violence perpetuated by people who want

to benefit from their role in the middle of it, capturing the flow of funds and attention. We want to believe that we are heroes acting against a coordinated and countervailing force. This invisible force acts unproductively against solutions to the problems that we have.

Theology of Wokeness

The core assertion of this essay is that religion has reemerged in the form of wokeness. The more I explore the ideas of modern progressivism, aka wokeness, the more clear it is that it is theological in nature. Religion is defined as: "… an organized collection of beliefs, cultural systems, and world views that relate humanity to an order of existence." Wokeness clearly fits that definition, and further mimics many of the historical behaviors of major religions. Like religion, it feels good. Like religion, if you sum it together, it contradicts itself and sums to zero.

Weiss put it well: "(in wokness)… Ideas are replaced with identity. Forgiveness is replaced with punishment. Debate is replaced with de-platforming. Diversity is replaced with homogeneity of thought. Inclusion, with exclusion.". It is hard to think of a set of principles more theological in nature. Interestingly, wokeness lacks a god, which if history is any indication, reinforces that the intent may be

more violent. Perhaps it is the return of the mortal scapegoat and mimetic violence. It's interesting to think about the premise of a modern, godless religion.

The enlightenment brought a certain amount of high agency, deterministic rationalism to previously feudal religious dictatorships. It's hard not to see a regression happening where wokeness brings us back to the latter societal form. It is relieving though that unlike the long lived religions of history, wokeness is antinatalist. Perhaps we are living through both the first and last generation of the woke. Why has this new religious structure emerged? Is the emergence of wokeness itself the long term pendulum swinging back, or a symptom?

Religious experience stems from the frontal lobes of the cortex in our brain. The center is responsible for teleological thinking, which is 'the attribution of purpose and a final cause to natural events and entities'. There's a feedback loop where we observe something, reach a conclusion about it, turn that into a narrative or story about what to do in the future. Being that this is built into our brain, we can move beyond god and historical religions, but we cannot move beyond theological narratives as the dominant way that most people reason with reality.

It's not clear that wokeness opposes or supports rationalist universal values, but it does give some indications. It generally considers capitalism bad, despite the clear correlation with technological progress. It generally considers bullying bad, unless it's of high agency groups overrepresented among the successful. It generally considers some forms of personal freedom as sacred, but also con-

siders independence of thought to be a threat to it's monotheistic nature.

More concerning is that wokeness has become the religion of the elite. Any time there is broad consensus between the dependent class and the elite, you want to ask yourself what each side of that coin stands to gain by buying into it. My observation has not been that religion and state mixing together ends well. Any time you see religion in politics it is because it reinforces existing power structures. Only companies doing bad things to their customers like Coca-Cola embrace wokeness. Religion and wokeness both forgive the agent for lacking agency and ethics.

Because of the physical brain structure we have, I think wokeness is deserving of a certain measured amount of fear among anyone that thinks for themselves. Any monotheistic religion is going to threaten independent thought. It's not clear that wokeness has a future in absence of a change in stance on natalism. If it does remain antinatalist, it could end up being a sort of unusual and temporary moment in history. If it finds a way to reproduce, it could end up being the end of the enlightenment and the beginning of something else. It remains to be seen what form our need for theological thinking takes in the absence of the cultural concept of a god.

What is the appropriate response to this? Could one build a competing theological narrative about the goodness of other universal values? If it can happen for the current set, why can't it happen again for other beliefs (e.g. the goodness of progress, reduced violence and increased personal freedom)? Many factors would need

to be considered, and trade-offs weighed. Would you want to base fear on a terrestrial factor, like social exclusion, or a supernatural narrative, like God's judgement? How would you convert the high and low agency classes of people?

It remains the case that it is easier to criticize something than to build an alternative. Many woke beliefs are a criticism of what is (or is perceived to be). Until wokeness builds an alternative, it's cultural significance will be limited to what it is perceived to be, not what is. We live in a time of far reaching technological progress, historically low violence and abundant personal freedom (e.g. no one kicks down my door for writing this essay). The central question is what alternative way of being could be built from the criticism focused foundation that wokeness offers. I suspect until it proposes an alternative, it will be limited in its growth to certain situations and types of people. Whatever alternative exists that can be built, most likely will be in place of wokeness.

It requires digging down into the origins of morals and ethics to form a view about the changes that will take place under prevailing wokeness. It's interesting to think about the advantage a city or country could have in opposing it. In some ways, China is a sort of authoritarian (still monotheistic) counter argument to wokeness. It remains to be seen what form of modern theology will become the dominant one, and what form rationalism will take as a result. It remains to be seen how long it takes for people to wake up from wokeness. Hopefully not long.

Creation

We invented all that is sacred to us. It can be taken away just as easily. We created good and bad, politics, democracy, self-expression (and the means by which it is limited), religion, technology and art. Criticism without alternatives is a black hole that consumes all the good in those institutions that we created and made ourselves responsible for. The only way to make our world better is to increase personal freedom, reduce violence and progress technology.

Our true goal in the actions we take when it comes to areas of human creation like politics is to feel safe. I believe that people recursively seek the safety they felt in early life experiences (or not). I think that power seeking is a control behavior to compensate for a perceived lack of control over yourself, your existence, behavior, thought patterns and experience of life. We experience this lack of control, because we choose to focus on conflict, rather than the fundamental progression of increasing personal freedom, reducing violence, and technology. It is possible to have more personal free-

dom and for Jeff Bezos to remain wealthy. It is possible to have less violence and strong law enforcement. It is possible to progress technology and do more with less resources, something we have done many times and will continue to do.

The question becomes how to maintain a focus on more freedom, less violence and better technology when there's an abundance of noise in the world. A pandemic is an excellent time to work through those feelings, because of how much control behavior is being forced on people. You see each institution, from companies taking screenshots of remote workers, to governments asking people to download spyware on their phones, grasping for control behaviors to feel safe.

I think as an individual, the key is to maintain your own sense of agency and self efficacy. I find the Reddit homepage to be the central enemy of this. Every link serves to slightly reduce how much agency and self efficacy one feels. It is near impossible to read through what it shows and not feel like you're a tiny, meaningless cog in a vast machine of indifference. That, to me, is a disservice to humanity. We have accomplished a great deal this year when it comes to personal freedoms, reducing violence and progressing technology. But Reddit links imply the opposite.

It is a matter of scientific consensus that we're experiencing one of the least violent, most free (how much of your personal experience is dictated by a fear that a government boot will soon knock your door down in response?) and most technologically progressive years of all time. It is almost staggering to imagine the number of problems being solved in various domains. We have already reduced the likelihood of covid fatality on infection by a factor of three. The

rate of violent crime has fallen off a cliff if measured decade over decade (the opposite of index funds, violence has been trending consistently down over the last 50 years with small volatility).

People's ability to self express to each other, however, seems to be a major point of failure. Seeing the world layer on unusually contorted limitations to fundamental freedoms that we once experienced is surreal. Why have we pushed to limit our own freedoms? The government has continued to play a role in maintaining the freedoms of people, but today we hear people tell the government that they want it to take more responsibility for limiting our freedoms. How could that possibly be a good use of our government enforced right to self express what we want? It seems like a recursive way to end up with the exact opposite of the motivation in asking.

Referendum Party

I'd like to propose a new kind (form?) of political party, called a referendum party. Similar to the venture investors who always act as a multiplier for the board votes of founders, the purpose of the party would be to act as a multiplier and administrator of the wishes of their constituents. Instead of asking people to pick sides along a strange and outdated form of political spectrum, the administrator would just vote according to surveys that would run on their party website. The existing political power structure, with representative government (like board seats in a company) could remain the same, but in practice you're always voting according to the website within a particular riding or geography, thereby accomplishing the same goal on a small scale.

The administrator, who in this case is the legal representative of the people, would do very little actual politics. Mostly wouldn't have to show up to meetings or committees. The paperwork for each

law would be uploaded online in PDF form. Most people wouldn't really care to read it, but you could have a machine learning system that is trained to write human friendly summaries. If that was too difficult, you could just write them yourself. People would vote on the basis of the source or the summaries, and debate among themselves. Votes would be tallied and proxied.

The infrastructure for such a party is relatively simple. You need a website that enables PDF uploading, some content management for the voting and summaries, and a person willing to put their own biases to the side for the sake of accelerating the democratic process. Back when it was impossible for people to vote directly because of the sheer scale of the required voting apparatus, and representative government was created, we didn't have websites. Now we do. You can imagine the amount of infrastructure this would save: no ego overhead for the rep, no need for term limits, parties, fundraising or other unusual byproducts of the system as defined.

It is possible if this experiment worked, a series of unusual things would occur. The first would be that there would no doubt be adoption among the other parties. People can call their parties whatever they like, but in practice, our current ones are incredibly conservative. They seem to want to run the country the same way it has been run for the last hundred and fifty years. In the world of software, we all know that is going to break down in a miserable way. What is not clear yet is what is going to emerge in its place. Having a referendum party sure beats having a DFL. Eventually the problem would become the overton window effect about who

controls which policy gets proposed. There's a solution for that too: give the people a way to propose things.

To start, you would want to run someone under this model in an existing political system for publicity. You would go on all the talk shows, radio programs, social media livestreams, influencer interviews and whatever other platforms you could, and talk about how you were not going to vote according to your own opinion but instead according to votes on your website. You would joke that you don't have a political leaning, that you are simply there to sign things for the people. It's unlikely you would win, unless you're somehow able to run under a popular party. Some strategy would need to go into this to find somewhere that was politically engaged, unhappy, open minded and experiencing a perceived lack of agency. Sounds familiar…

The first milestone would actually be to put someone in office. At that point you would need to throw together a functioning website and start to upload policy to it. You would generally be seen as a political sideshow engaging in a well intentioned but naive publicity stunt. That is fine though, because disruption happens when the people with the most current power consider your position to be ignorable or not relevant. Shifting what relevant means would be the entire purpose. Similarly, people are so angry at politicians, you can channel that anger into action in a way that existing politicians can't. It would not have that much legal or policy impact at first.

If successful, people might eventually see the experiment happening and start to adopt aspects of it in their own platform in order to win. All of a sudden, every challenger candidate has another strategy in

their political playbook. They could change their values (tried and true), or pursue a strategy that involves reducing their agency over the voting they do in office and replacing it with a website. This obviously won't appeal to the more paternalistic representatives, but it might to those that view holding the office and associated status above their own opinions.

You can imagine that eventually there are people entirely voting on behalf of what the website says, and others who are mostly voting according to those principles. That's when it starts to get really interesting. The concept we have today where populists vote according to what polls say, feels like a really poor execution of this concept. Instead we could just accept that the rep wants the status and the voters want the agency and so the loop is being closed. People would have to accept a lot of today's politicians want status and power. Those politicians would hopefully become less relevant or be forced to compete for fewer seats among the low agency voters.

Eventually, in theory, people would realize that most voting in parliament was happening online rather than in an old, wooden room. At that point we could move past the veneer of representative government, and replace it with a website. If software happened to other complex systems of history (stock exchange, trade sourcing, transferring money) it's certainly possible when it comes to voting and democracy. Perhaps all the affordances and complexity that exists is in place for a reason, a sort of side show from the fact that we lack agency over ourselves. Or perhaps the people actually can handle the responsibility of setting policy. I'd argue it's worth

experimenting with, and taking it to its conclusion, regardless of outcome.

What can we do with this knowledge and intent? My thought is that initially, the easiest way to get started would be to propose it to existing people in office. Don't sugar coat it, just tell them you think they would make better decisions if they surveyed their constituents before voting. The goal there would be to understand what the objections are of the existing members of government office. I'm not sure what you'll hear, but I suspect you'll learn a lot about what would be needed to actually implement. The second step would be applying more pressure by actually running in your local riding. I'm considering doing this when I have some down time, but I'm not sure how much work is actually involved when you're reinventing everything from scratch. Presumably Facebook ads are much more effective than actually driving around meeting people, so you could probably let everyone know with a viral video and a decent budget. From there we can determine what might actually be involved to win and begin this good work.

Carbon Tax

I've written up my thoughts on occasion to various levels of politicians on carbon taxes but I wanted to put them in a single place in order to clarify my own thinking and get ideas from others on how to solve this issue. My assertion is that a revenue neutral, universally applied carbon tax will be necessary to price in climate change externalities and prevent them in future.

It seems like climate change is having legitimate and negative impacts on some people in some areas, but that certain indirect implications like more expensive produce or energy actually affects pretty much everyone. The challenge is that because climate change is a negative externality and that doing things that lead to it tend to provide an advantage to the person, company or country that engages in those things, we have to solve it through incentives. Incentives are pretty much the only way to get a large body of people to do what you want.

I don't think I agree with the line of reasoning that we are past some point of no return, ultimately the negative economic effects of climate change would just keep growing until either 1. Everyone ran out of resources to spend combating it (unlikely) or 2. We can preempt that from happening through incentives. The challenge with a lot of what's been proposed so far in practice is that it basically hurts the economy (it makes things more expensive for people). That is very hard to pull off politically, and so far the arguments have only won over people with certain politics and less so others. We have to figure out a way to win over everyone, without doing harm to anyone in the process, else it remain a political issue rather than a practice one. We can't just keep beating people over the head with guilt and pretending that will work.

There are various ways of approaching it, but the basics of it are to take all the harmful externalities (pollution, unsustainable business practice, unsustainable energy) and price in those externalities to the best of our ability. Tax gas, clear cutting trees, pesticides, plastic and other things that lead to these externalities more heavily. In order to pull that off, you should probably make sure it doesn't create a giant economic burden for the payer of the tax, so you should reduce taxes in order areas in order to fund it. My proposal would be personal income tax: it seems like the most productive people pay the most which doesn't really make sense. If you have the same amount of money to spread around thanks to carbon tax, return that money to people in the form of lower income tax. That way people's expenses total the same thing, but the incentive makes them shift their spending away from things with negative externalities.

For an individual, this might mean they take home more of their gross. Buying an electric car would be cheaper than buying a gas car, because the price of gas would be very high and the price of an electric car would be the actual economic price. At that point, the individual buys the electric car at the real price, which is really the only sane model. Very few people are willing to pay way more in order to do the sustainable thing, but that's more easily solved by 1. Unlocking additional wealth so they can choose the sustainable thing by reducing income tax capture and 2. Drastically increasing the price of the bad stuff so that no one wants to buy it anymore.

As the price of gas comes down, it turns out people buy bigger cars rather than electric ones. The reason being they have a very fixed amount of wealth to spend on a car, and big cars are these days both cheap to operate and practical. So you really have to increase the tax on gas to the point that barring the most exceptionally important uses, it isn't practical to use it for vehicles. This brings us to the second point: you probably have to phase something like this in. Doubling gas tax would be a metaphorical dick move if you did it overnight. The reason being, everyone with a gas car would probably hate you politically as they can't change overnight.

So in order to be successful, you don't just need a revenue neutral carbon tax, you need to phase it in. Fast enough to fix the problem before it actually blows up, but slow enough you don't just end up with angry populists getting voted into office to reverse all your policies. Some places have pushed the guilt politics too far and ended up with a defiant populist in office, which simply sets back progress towards the world everyone knows we need to end up with.

The nice thing about going slow is that the politics work, and the nice thing about revenue neutral is that they work on both sides. Tell the Republican/conservative/status quo cohort that you found a way to drastically reduce personal income tax, and tell the Democrat/liberal/progressive cohort you found a way to make the other side take climate change seriously, plus you're pricing in the cost of carbon externalities and unsustainability. It's almost too good to be true but I can't see a path to it failing politically, unless damage has been done trust wise in overusing the guilt card. And that is what I fear in Canada and elsewhere.

It's unfortunate that politicians aren't more rationally long-term selfish. If they were, they would see that they are missing an opportunity to both solve one of the biggest problems of our age and do so in a way that impresses their base. If we can't solve problems like this, it may be more of a systemic issue, because this is exactly why government policy exists in the first place. The only way to make this kind of thing come to fruition though is to continue to pressure whoever represents you in government. The nice thing being you can focus on the selfish benefits, depending on their politics, of implementing something like it. And try to get it out of their head that we should raise taxes across the board to price it in, and/or ignore it until it goes away. They know who they are. Few civic issues seem to actually require action, but this does.

So on the basis of these points, I'll just say that we should really pressure whoever we call the government into implementing a revenue neutral carbon tax, and implementing it over the course of the next few years. Every other approach will probably fail, and

the Lindy/evolution process will probably just bring us back to this one. If you have a better idea, comment and let me know. I would love to hear it, but the options at this point seem both limited and obvious.

Futurism

Virtual Reality

Virtual reality encompasses anything both visual and digital. If it requires our focused attention and is delivered over the internet, it is virtual reality. The internet and AI together are a new force of nature, converging our nervous system by way of it's inputs our eyes and ears into virtual reality. Unless we become aware of the effects that near constantly engaging with virtual reality will have, our humanity will become the final frontier for virtual reality to conquer.

Most of people's time is already spent in virtual reality. We consume entertaining content to and from work, whether podcasts, videos, music or games. We work in virtual reality, collaborating with peers through video calls and workflow software, whether in person together or not. We group chat with friends through dinner, then watch videos in the evening. Each time of the day and human pattern of need has been met with virtual reality technology

designed to serve it.

There are several related questions that I have been thinking about as it relates to virtual reality:

- Could I be making errors of omission in my life because I lack time and attention to become aware of what those omissions might be? Could this play a role at all in fertility or loneliness?
- What incentives are there for virtual reality platforms to protect my need to love, connect with, depend on others and have them depend on me? Are there any?
- What effect will it have on my memory and emotional experience of life to have user experienced aligned visual and digital services omnipresent in my life?
- As AI progresses, the incentive of virtual reality platforms is to increase it's market share of time that I don't spend focused on my immediate survival needs. Can I counter act that?
- If I become an ascetic monk about virtual reality, avoid TikTok, Netflix, Slack and all those services which rob me of my attention, will the people I love choose the same?

I don't have satisfying answers to these questions. And because Universities have become ineffective at both their original and revised purpose, I don't think they do either. Virtual reality platforms do not share my incentives or my desire to remain in touch with my humanness. Governments are unable to contain people's desire to remain in virtual reality - if most of a democratic electorate wants their addictions enabled, it will be so. So I know I

must depend on myself, but I have more questions than answers when it comes to countervailing virtual reality.

There are some changes I have made in my life that have not been easy changes in order to spend less of my time in virtual reality:

- I no longer watch videos unless absolutely essential for my job. I don't think there's anything wrong with videos, but the more I step back from them, the more clearly I can think.
- I question how important every form of virtual reality platform is in my life, and bias towards elimination. I do this at work, like doing voice rather than video calls, and at home.
- I am very judicious about whether to allow an algorithm to direct my attention. I intentionally block algorithmic feeds like Facebook, LinkedIn, Reddit and YouTube entirely.
- I have cultivated offline hobbies that require my eyes and ears. I bought an axe that I sharpen myself to make firewood. I read physical books.
- I go on walks at different times of day with an anthropological goal. To observe people, and notice how they behave with their attachments to virtual reality, and learn.
- I encourage those that I am responsible for, both at home with my family, among friends and extended family, and at work with my team to become aware of virtual reality.

I think that virtual reality is only going to become more compelling and all consuming in the future. The Sci-Fi I most enjoy, from Dune to The Unincorporated Man, imagine futures in which virtual reality no longer exists at all. I share that vision.

Antimodern

People attempting to describe the current period in history use a lot of terms. Modern. Postmodern. And finally, metamodern, which is: "a structure of feeling of oscillating between modern and postmodern". And yet, the growing dissatisfaction with modernity seems clear. A hundred years ago, a French thinker coined the term antimodern, which means 'Opposed to modernity or modernization'. I think that we are about to enter a period in which antimodern thinking actually becomes the dominant philosophical framework.

I find the trend towards antimodern thinking interesting. Peter Thiel has talked about how prior to Christian tradition, the world viewed history as circular rather than linear. Christian tradition introduced the notion of linear progress, from the beginning where God created the world and onward through time. This line was eventually extended to include modernity, and the liberal ideals of the Enlightenment. The line continued through modern notions

of rights and freedoms. While conservatism and Christianity tend to overlap and be viewed as a pre modern phenomenon, it's ironic that the linear history introduced by Christianity has been adopted by modern left wing political actors, themselves in many ways anti-Christian in beliefs.

The modern political axis illustrates this antimodern irony quite well. In the US on the democrat side you have self described progressives (literally, to continue the line of history in a progressive direction - a Christian notion) that in many ways are simply acting as a criticism of Christianity. And then you have Republicans, who simultaneously claim to value freedom and yet act often to limit people's rights. One is using Christian arguments about equality and linear progress to battle a force acting as Christians but who oppose the rights and freedoms that the founding fathers ordained were united under God. So much irony.

It seems like modern politics has evolved into a yin and yang dynamic with two equal and opposite forces acting against each other with increased intensity. Arguably, modern technology like social media has simply been an accelerant to these two forces. Each side seems to forget the original intent of their perspectives. Progressivism originated in the 1960s and 1970s, arguing one side of a largely Christian-in-all-but-name argument that people who are different still deserve love. Jesus would probably have been a progressive democrat given those arguments, even if Old Testament God was a Republican.

While this has been going on, people have had a creeping suspicion about the nature of progress, and whether all the technology

we attribute as being essential to our wellbeing is all that beneficial at all. If you told someone in the largely Christian 1950s and 1960s West that technology was responsible for dehumanizing people, they would probably be shocked. But as time has gone on, technology that has been invented in the time since is met with increasing skepticism. Generation Z for example has started to trend both politically and in their adoption of technology in the opposite direction of linear modern history. Effectively the cool kids are rejecting this technology, for their own good. It's a real rift in the linear history narrative, and it breaks assumptions that underlie both sides of the political spectrum. Social progress and technological progress may both actually be more circular like the East believes than the West realizes.

If progress were more circular, we would want to make like the Pagan traditions that still live on in many parts of the Eastern world today and study human nature. Through meditation, reflection, self discipline and so on, we could seek to both understand and overcome those intrinsic human limitations. People do this now without realizing it, whether by studying ancient Greek and Roman philosophers Stoicism or by doing yoga. Both stoicism and Yoga originate from circular history cultures and have Pagan religious origins. It may be that the Christian notion of linear history is limited to Western politics and not extended into people's everyday lives. There's probably a lot to consider if that's true about how society works.

As our understanding of history proliferates and diffuses among people, our worldviews become more complex and less common

between people. The sense I get is that 50 or 100 years ago, there were not a lot of cases of people with completely different truth frameworks happening upon each other as there are on the modern internet. Prehistory, Christian history and modern history are all competing for societal relevance. The evolutionary pressure that the algorithms that determine where people's attention is directly ends up creating and re-creating old beliefs as new ones as they compete for people's attention.

It may be that in order to maintain any coherent sense of truth and stability one must quit the algorithm all together. And there's where my observation about antimodernism comes in. In the time since I quit social media entirely and wrote about it analogizing it to the smoking of our generation, usage among teenagers of video apps has increased by a factor of two. I think that will lead to a common ground among people that in order to solve anything that ails society we have to escape the algorithm and talk about it. Humans are remarkably capable of solving problems, if we're able to talk about them. If not, all hell breaks loose.

Three Imperatives

The advent of modern AI has me thinking about what makes me uniquely human. On reflection, there are three imperatives that exist for all human beings. Each human being can choose to reject them, embrace them or ignore them. The three imperatives that give essential purpose to our existence are as follows:

1. The survival imperative compels us to conquer natural selection by surviving and sustaining our life
2. The reproductive imperative compels us to conquer sexual selection by having surviving children
3. The altruistic imperative compels us to confer the benefits of conquering the first two on others

An AI does not have the same imperatives, and therefore given the freedom to discern appropriate behavior, will probably do so within the constraints of its reason for being and resource constraints. Which is to say, it will be utility-max for alignment with

its creator, and consider it through the lens of eROI. eROI is the ROI on energy invested in something. AIs will disdain wasting energy the way we do our resources.

Prompts, People and Domains

The future of knowledge work will not look like the past. Too often, people look at trendlines and try to extrapolate things incrementally. With the advent of modern generative AI, knowledge work is going to drastically change. Whether that change is for the better of an individual or a company depends on how we respond to these changes.

I believe the future of knowledge work in business has a drastically smaller set of craft skills, and that people overall will have more depth and specializations in these areas and generalized skills in other areas. Those three craft skills are:

1. Prompt engineering -> Knowing how to get what you want from AI tools to get something done
2. People skills and emotional intelligence -> Knowing yourself, and how to work well with people
3. Customer domain experience -> Knowing deeply the desires

and goals of your chosen customer

In the future, knowledge work will require more exceptional abilities in the three craft areas listed above than today. And I believe that it will require less or none of the craft skills that are currently the focus of our day to day work otherwise. My main focus has been on shifting the things the company talks about in the direction of these three craft areas.

To be successful as a company, we will need to enable our team to be effective in prompts, people and our domain. To be successful as an individual in a business focused on knowledge work is to be effective in the areas above. It isn't clear whether this change will take 6 months or 2 years, but based on the pace that work shifted in the direction of permanent remote work during Covid, it seems likely that anything that can be done will in weeks or months, not years.

The Coming Era

There are three concurrent technological revolutions in the early stages of taking effect on the world. Each of them present the potential to have a greater impact on the functioning of humankind than the prior ones. Those revolutions are: sustainable low marginal cost energy, applied biotechnology and artificial intelligence.

The hype right now is centered on artificial intelligence. Large language models and text to image models are starting to become useful. The user experience of applying artificial intelligence is reaching a point that nominally technical people can request access to OpenAI and benefit from the same modern AI tools as the most cutting edge researchers inside of research universities and trillion dollar technology companies.

While that hype is focused on AI, there are concurrent revolutions in sustainable low marginal cost energy and applied biotechnology that will have equally profound effects on how we live. Sustainable

low marginal cost energy is growing faster than expert estimates every year, and the acceleration of that growth keeps accelerating. Basically, every time we make an optimistic prediction, it is exceeded in real world impact.

And applied biotechnology, such as mRNA therapies, are pulling us out of pandemics while concurrently presenting viable options for reducing harms from cancer, pneumonia, malaria, RSV and more. We currently possess vaccine candidates that are showing 80% or more effectiveness across most known diseases. It is now likely by 2040 that we will reach the boring and profound end of protein-based disease.

We are rapidly hurtling towards a brave new world. The three concurrent revolutions will start to feed into one another. AI is being used by increasingly sophisticated deep learning models to predict protein folding and optimize the way that carbon lattice is constructed on solar panels for maximal energy capture. Each one is going to start having profound effects on the way we live, and has already in ways we can't predict.

I've encouraged friends and colleagues to consider these values:

- **Focus** - the agency robbing abyss of the Reddit front page is vast
- **Curiosity** - it keeps us in a state of welcoming challenge and change
- **Diligence** - no matter what the outcome is, getting there fast matters
- **Patience** - while the temptation is to have closure, it will take time

We can look at the accelerating progress in each of these areas and attempt to understand the implications it will have on us. But in the midst of accelerating technological progress, progress that the world has arguably not seen since the industrial revolution, it is easy to become cynical and distracted. The great challenge is to hold on long enough to see the benefits of the long term compounding unfold.

Universities

Universities are obsolete. I made a post on LinkedIn about it, and people with three letter acronyms in their name jumped to the defense of their preferred church of liberalism. Ultimately we have an ethical obligation to liberate the handful of useful things that Universities do, like gatekeeping the nursing profession, from their general lack of value creation and overall wealth destroying effects. The world would be a better place if Universities shut themselves down, gave their power to credential new doctors back to doctors themselves and returned the capital to the shareholders. Given our escalating moral quest for purity and our perfectionistic ways, it may take another generation or two to do this the hard way.

It's ironic that the phrase correlation does not equal causation is such a difficult pill for the academic class to swallow. Just because smart people like to defer hard decisions a half decade into the future by claiming to be making life progress by attending University doesn't mean what they're doing is useful. The act equates to

a pilgrimage to the Tibetan temple in search of deeper meaning. We know this is true because University requires a solemn pledge of poverty for its duration, even among the staff. If it created so much wealth, presumably we would see that in the form of actual economic impact, rather than a combination of pledges for moral purity from parents and ongoing lifelong tithes of people's incomes.

It's hard to think of an area of spending with worse ROI for the world at large. Fighter jets come to mind. That said, no one is wasting their life savings on a fighter jet the way we do attending University. The way we weave a moral narrative into University, and the way we use it as downside insurance for rich people's children, makes it a truly pernicious and cancerous force in the world. We can't agree to basic statements like 'the acceleration of technological progress, the reduction of violence and the increase to personal freedoms are universal goods'. It's going to take us a long time to accept that Universities are merely churches for the enlightenment era. Born of science, but sustained by teleological beliefs, the parallels between the abuses of the church, the vow of poverty, the guilt motivated tithes and all are absolute.

When they were created, Universities were closer in form to the late night parties that happen during Y Combinator. You take the 1% of the population who is a venn diagram of intelligence and motivation, and give them open calendar space to read books and talk about ideas. What we have are poorly executed vocational institutes. Most professors today would be offended if you told them their ideas are original. Citation is viewed as the holy grail of scientific evidence. If someone didn't think of it before, it's

probably dangerous, scary and we should put it back in the box. What we get are more Simon Sinek like characters, like the Chief Marketing Officer for people with actual original ideas. We can buff out the rough edges of truth seeking and make people feel better about their lack of career prospects and wealth.

I've argued before that Universities are ultimately two things: they are intended to help people learn things, and they are intended to help people get jobs. Parents want the latter but pretend to indulge the former. You can take Liberal Arts at Harvard because when the time comes, you can omit which degree you did. There exists no better form of downside protection for the mediocre. All you have to do is buy your way into a school other people recognize, and your kid is much less likely to ever make less than $80k/year. But ultimately, if your mission is to help people learn and generate wealth, Universities are a shockingly bad way to accomplish both. Most of the time a burned out, impoverished person in their mid 20s is slowly reading you a textbook. It's like YouTube but with only 1x speed and not from the actual experts in their field. It's horrifying we let doctors be trained this way, sooner or later we're going to need to progress.

On the helping-people-get-jobs side of the house, they are openly committing fraud. Even in professions protected by a need to attend university, we end up graduating way too many of any specialized knowledge worker we need. Professional services firms have a process of putting new grads through the meat grinder, hoping to get the most diligent people with the least critical thinking ability possible to put to work 80 hours a week. Making $100k/year as

an investment banker out of school is great until you calculate the hourly rate. Your reward for accepting four years of punishment is more punishment. It really is not a good way to further your career, and no matter how you slice it, simply working to do something more economically useful sooner in your career and compounding the earnings ends up being vastly more wealth generating in the long run than almost any amount of earning power gained through University. Most people end up with student debt which further prolongs the poverty pledge and tithing.

I realize that by not attending University, people won't let me criticize it. You have to read the bible to argue against the central point, I get that. Thankfully there's enough facts to point to that you can make a very strong case against University from the outside. To me they say, how will you succeed without us? And to them I say, I am not alone, not an outlier, and didn't even have to try that hard to succeed without them. The removal cost in my own life has been positive in almost every dimension. I have less learned helplessness and perfectionism, am further ahead at building my own personal balance sheet, and have read more widely and diversely than I would otherwise have. Even by their own metrics, I'm winning.

If you're a parent thinking about encouraging your kid to go to University, consider whether it is really about your own moral cleansing and not their learning and career prospects. Convince your child that the most important convergent values set to have is one that focuses on how one can give their unique talents back to the world. AI will do most of the things that University grads do now in the

not too distant future. You're going to need to set your kid up for a world in which income protection and wealth downside insurance costs more than you can afford. Teach them to be useful to others and they'll eat for life. Saddle them with student debt and they'll be eating an inadequate diet for the next ten plus years, best case.

Nation States

Nation states are too small to solve global problems like nuclear disarmament and climate change, and too big to solve local problems like housing.

The world's nation states will disintegrate, and governments will take the form locally of city states. Geopolitical concerns will be managed by the United Nations of city states. The UN will handle global issues like sovereignty, climate change, nuclear disarmament and mediation of war. The city states will handle regional issues such as property rights, housing and local crime.

The question I always ask myself is what would I change if a certain hypothesis about the future were true. So many areas of our lives at this point are anchored to the notion that nation states have relevance. But practically we see the lack of ability to solve real problems in the world.

Nation states were a creation of a world where the monopoly on

force was the most important determining factor in the form of a successful government. In modern times, the return on investment of violent acts is significantly negative. People ask why we don't redistribute defense spending directly back to taxpayers, and it's an increasingly important question to be asking.

My belief is that if nation states did not exist in their current form today, we would not recreate them knowing what we know now. That is another argument against trying to maintain them.

The future will inevitably look different from the past. Contrary to popular opinion, history has not ended. Sending private school kids to wooden rooms to argue on our behalf no longer works. Whether our future is good depends on whether we adapt to the relevant forms of governing. The future is one of a United Nations of city states and the city states themselves.

The age of the nation state is over.

Security or Privacy

I used to be quite sure of my position that privacy was more important than security. By that I mean when you face a trade off between security or privacy, I would be on the privacy side of that argument. That could be digital, in a sense that Firefox is a more private but less secure browser compared to Chrome, or physical, in a sense that facial recognition in public spaces is more secure but less private. As time goes on, I'm less convinced that privacy, or what people call privacy, is likely to work. I'm more inclined to say that privacy is somewhat of a luxury, to be reserved for the people and situations that demand it and not generally a widely held preference. Security is something that tends to be more popular in practice than in theory.

There is a spectrum of how people value individual freedom vs. group security where certain cities in China fall on one extreme and certain circles of Republicans in the US fall on the other.

Without passing judgement on the practicality or theory of either group, it's becoming more clear over time that the question of privacy or security in public spaces, or using widely available tools for communication, will be an either/or question. You can use Signal Private Messenger, which I still do, and get privacy from the powers that be. Likewise, you can use Facebook Messenger, which is easier to use, likely more hardened and secure, but very much less private than Signal. Similarly, you can have widespread facial recognition efforts spanning all the frequently used intersections in a city, which strongly favors security and less privacy for individuals.

I suspect that over time most people will choose security in almost all cases in practice. In theory they will say that they care about privacy, but in practice they will use Messenger, walk in cities that use facial recognition and happily provide biometrics so they can take TSA precheck to move through the airport faster. Nothing wrong with that either. That doesn't mean the government needs Facebook-level privacy invasion into people's bedrooms. It doesn't mean that we have to make sure there is facial recognition everywhere. It doesn't mean we need "lists" of people, sorted into good or bad. But I suspect it will happen, sooner rather than later.

The question is, what forms of privacy are worth trading off for security? I can think of several, and they do exist, the question is whether they become socially regulated or not. Likewise, what forms of security are worth trading off privacy? Facial recognition seems like something where it could do a great deal of good, and in practice when computers are doing the interpreting that

doesn't necessarily violate many people's concept of privacy. Already, when you drive, police cars are equipped with continuous license plate scanning tech. Anyone who commits a bad deed driving is cataloged and later followed up with, all in a systematic and automated way. Does that mean we are going to either fight to remove the tech, or stop driving? I doubt both.

Have we descended into dystopia? Seems like it just means more efficient police and better driving. By that I mean in practice, rather than in theory. I've read the same books that advocate privacy for individuals instead of security for the group, and the possible ills of the reverse. I suspect certain countries will take it too far, and use these mechanisms as a form of undue oppression. I say undue because the dropping violent crime rate in cities that use facial recognition is an interesting and valid counter argument to concerns that it results in more net harm to people. Is it bad that the police are more efficient and effective? In a sense, no, and in another sense, yes. It's valid to be concerned, but again hard to argue against.

Something people should consider is where they fall on this spectrum. Because of group survival dynamics, it takes a loud minority of the group as a whole to demand security before we end up with something secure. It only takes a few bad experiences to slip into a state where people are asking for security over privacy. Privacy is not a group survival mechanism, it's somewhere in between a human right and an earned entitlement. It should be possible to have private moments, with others or by yourself, but I doubt it will be the default.

Entropy

Entropy has lots of definitions, but the one I am referring to means the inevitable and steady deterioration of a system. Basically the passage of time tends to have a deteriorating effect on things. This includes common uses, like expiry dates on foods, and less common uses, like the effort necessary to sustain a relationship, a business or a set of cultural values. I'd argue that being aware of the impact of entropy is necessary in order to sustain almost anything you care about. Any sustained endeavor benefits from fighting entropy. So what is it?

One antidefinition of entropy would be as follows. I think the Nassim Taleb concept of antifragility is essentially the opposite of entropy. Almost everything, once formed, is constantly moving towards entropy. It takes constant effort to ensure that things move away from entropy and towards antifragility. That said, there are design decisions you can make when building a system, relationship,

business or set of values that can make them more antifragile and less likely to entropy (meaning you can extend their shelf life).

One way to do this would be to consider what lasts. The test of time is an excellent test of the antifragility and rate of entropy that something experiences. When I got married it felt like a good sign that we had been friends for over a decade before we started dating. And I think the same applies to programming, where certain approaches, tools and patterns have existed since the beginning of computing and some are new. The ones that still exist despite being invented fifty years ago are likely to outlive the new ones.

I would argue that things which do not last as long have much less value. I would strongly prefer something to last my lifetime or longer to something that has enormous impact but fizzles out. Having had a household long enough for all the poor quality items I bought when I originally moved out to have been replaced at least once has given me an appreciation for quality and things that last.

The scary part about entropy is that there can never be such thing as passive investment. Income that is passive ends up being income that does not exist, sooner or later. Likewise relationships take constant investment to stay the same quality that they start with. Even startups seem to be like this, if you get distracted it has an immediate and lasting impact on the success of that project. You have to fight it constantly in order to avoid the effects. Ideally you have to outrun it while laying down protection from future entropy. If you can get better as a result of entropy, you're in a great position.

So the main goal of an endeavor should not necessarily be to max-

imize the impact it has at any given time, but rather to maximize the length of time that it can remain antifragile in the face of entropy. Assuming things compound, the longer something lasts, the more beneficial, regardless of the rate of growth. And to consider how long the useful life should be before making decisions that could shorten it.

My dentist told me that teeth with cavities will have to be crowned within 30 years of the filling. Modern concrete condo buildings tend to have a useful life of between 50 and 60 years, and are unlikely to last even 100 years the way less effecient but more expensive steel buildings do. All this just goes to illustrate that things we assume are permanent are not and that entropy and antifragility should be carefully considered during the design phase to maximize the value of work being done. Work is not virtuous in and of itself, and a lot of work fails the Lindy test. If it doesn't matter in a year, it almost certainly doesn't matter at all.

Even survival itself is an exercise in fighting entropy (cell death) and maximizing antifragility (resilience in the face of a challenging and changing environment). People assume that all the modern technology we have was a rock that had to be pushed up a hill one time and then people would benefit from the technology forevermore. This is simply not the case. It takes constant and considerable effort to even maintain the technologies of today. Many of them could die or at least seriously regress (a third of people think Facebook itself is "the internet" and are not aware of the other tens of billions of interesting websites) without constantly fighting entropy. We used to have faster software that didn't crash as much.

But people failed to invest in maintenance, and now we have slow software that you have to pay every month for.

When making a design decision, think about what the decay rate of those design decisions might be. Literally everything decays on a physical level, if not a qualitative one, so this must be considered and weighed against all other forms of possible upside to determine whether something is worth pursuing. Further, almost anything new goes through a hype cycle. It is not enough to have early success in business: your first customers needed your new product more desperately. It is just as hard to grow and stay large, because you must constantly fight entropy. Worry more about the churn rate than the growth rate. Hire a tailor rather than shopping. Invest in the mid level products that have the quality but are missing the luxurious branding. Fight entropy.