Epsilon Theory

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Investing with Icarus

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The wind blows where it wishes, and you hear the sound of it, but cannot tell where it comes from and where it goes.

— *The Bible*, John 3:8

As Narrative abstractions — cartoons — become our short-hand for things that used to have meaning, our models become more and more untethered from the reality they seek to reproduce. When wind becomes the thing-that-makes-the-leaves-move, then wind becomes a bear rubbing his back on the bark.

He that breaks a thing to find out what it is has left the path of wisdom.

— *The Lord of the Rings*, J.R.R. Tolkien

Pursuing better returns by uncovering absolute truths about the companies and governments we invest in is not a serious enterprise in the face of markets rife with Narrative abstractions. It is a smiley-faced lie, a right-sounding idea that doesn't work, and which we know doesn't work. Selling the idea that it does to clients is the territory of the raccoon and the coyote. We can pursue it, or we can do the right things for ourselves and our clients. But not both.

Disneyland is presented as imaginary in order to make us believe that the rest is real, whereas all of Los Angeles and the America that surrounds it are no longer real but belong to the hyperreal order and to the order of simulation. It is no longer a question of a false representation of reality (ideology) but of concealing the fact that the real is no longer real...

— *Simulacra and Simulation*, Jean Baudrillard (1981)

How does Wall Street maintain the respectability of dishonest businesses? By declaring victory over straw men — active management is dead! Hedge funds lost the Buffett bet, beta won! Risk parity / vol-targeting / AI funds / quant funds are to blame! If you must sell that L.A. is real, you must create Disneyland.

"All right," said Susan. "I'm not stupid. You're saying humans need... *fantasies* to make life bearable."

REALLY? AS IF IT WAS SOME KIND OF PINK PILL? NO. HUMANS NEED FANTASY TO BE HUMAN. TO BE THE PLACE WHERE THE FALLING ANGELS MEETS THE RISING APE.

"Tooth fairies? Hogfathers? Little—"

YES. AS PRACTICE.YOU HAVE TO START OUT LEARNING TO BELIEVE THE *LITTLE* LIES.

"So we can believe the big ones?"

YES. JUSTICE. MERCY. DUTY. THAT SORT OF THING.

"They're not the same at all!"

YOU THINK SO? THEN TAKE THE UNIVERSE AND GRIND IT DOWN TO THE FINEST POWDER AND SIEVE IT THROUGH THE FINEST SIEVE AND THEN *SHOW* ME ONE ATOM OF JUSTICE, ONE MOLECULE OF MERCY. AND YET — Death waved a hand. AND YET YOU ACT AS IF THERE IS SOME IDEAL ORDER IN THE WORLD, AS IF THERE IS SOME...SOME *RIGHTNESS* IN THE UNIVERSE BY WHICH IT MAY BE JUDGED.

"Yes, but people have got to believe that, or what's the point—"

MY POINT EXACTLY.

— *Hogfather*, Terry Pratchett (1997)

So long as the government requires financial markets to act as a utility, and so long as it makes more sense for big tech companies to hire evangelists than CEOs — until the farmer comes out with his gun - we have only a few choices:

1. **We can be raccoons:** We can recognize the overwhelming influence of abstractions and continue to sell products and ideas that don't.
2. **We can be coyotes:** We can recognize the overwhelming influence of abstractions and DESIGN new products and ideas that don't.
3. **We can be victims:** We can let the raccoons and coyotes run rampant over the farm.
4. **We can insulate:** We can push back from the table and try to do the things that aren't abstractions. Real things. Physical things. Things that put spendable currency in our accounts.
5. **We can engage:** We can do our best to think about how to change our investment strategies and processes to respond to abstraction-driven markets.

These aren't mutually exclusive, although only two are worthwhile. Ben's DNA is long vol, so he wrote about how to insulate. My DNA is short vol. This note is first in a series on how to engage.

Speaking of DNA, there are few fields of study I find as thrilling as the intersection of anthropology and genetic geneaology. What I mean by that is how people lived, died and moved, and how their cultures and lineages moved with them. Yes, if kicking off notes with the old King James didn't give you enough of a hint, I'm a big hit at parties.

Some of the appeal of genetic anthropology comes from the simple pleasures it offers, like the satisfaction of watching white supremacist idiots discover that they are mutts just like the rest of us.

The second appeal is the grand scale of ancestry and human movement, even over cosmologically infintestimal periods of time. This appeal is timeless. For example, in a legend common to three of the world's great religions, God promises to multiply Abraham's descendants as the stars of the heaven and as the sand on the seashore. It's a pretty attractive promise, but temper your excitement — it was a reward for being a hair's breadth away from murdering his son. The promises are poetic, of course, but the scope of the two is surprisingly different.

There are somewhere around 100 billion to one trillion stars in the Milky Way, an estimate which would vary based on how you estimated the galaxy's total mass through the gravity it exerted and based on what you assumed was the average type of star. We've discovered a Wolf-Rayet star in the Magellanic Cloud with mass perhaps 300 times that of our sun, for example. It is so much larger than our sun that its surface would reach almost a third of the current distance to Mercury. Icarus wouldn't stand a chance. On the other hand, we've discovered a red dwarf only 19 light-years away with less than 10% of the mass of the sun. But the 100 billion to one trillion range is a fair estimate. Earth has already seen 100 billion human lives. It will (hopefully) see its trillionth at some point between the year 2500 and 3000, if y'all could stop killing each other. Still, if you're willing to ignore that we can see stars from other galaxies, too, I think we can prematurely give this one to Abraham.

As for the sand, there are about seven or eight quintillion grains on the earth. There's just no way, even if Elon manages to get us off this planet before the next mass extinction event.

Interestingly, if you look backward, that isn't quite true. When it comes to lineage, exponential math doesn't always work going forward. One couple dies without any offspring, while another has a dozen children. But it always works going backward. Everyone has two parents and four grandparents. Based on most of those traditions holding that Abraham lived around 2,000 BC, we can estimate that the average living person has about 1.5 quindecillion ancestors from that time. Given that there were only about 72 million people alive at the time, that means that each of those individuals, on average, shows up in your family tree about 20 duodecillion times. That's a 20 with 39 zeros. Congratulations! Math is amazing, and you are inbred.

The third appeal is that the really interesting findings are new. Very new. Anthropologists, of course, have theorized about the propagation and spread of cultures through comparative review of ancient art, tools, jewelry, burial sites and artifacts for centuries. Linguists can lean on anthropological techniques, but can also compare similar or derived grammar, vocabulary, and the like to identify how languages originated and spread. Maybe even some sense of where they came from. DNA has been used to develop and cultivate theories about human migrations and the spread of cultures for a shorter time, but in earnest starting in the late 1990s into the early 2000s. These studies have principally relied on the DNA of living individuals. Scientists examine current populations and theorize how ancient populations would have had to migrate to create the current distribution of various genetic admixtures — archetypes of varying compositions that can be generalized, like "Near Eastern Farmers."

But in the last five years, the real excitement has been in the enrichment and analysis of **ancient DNA**. That means that, instead of just looking at modern populations and developing models to predict how they may have gotten there, we instead may look at the actual DNA of people who lived and died in some place in the distant past. We don't have to guess how people moved and where they came from based on second-hand sources, like the DNA of people living in the same place thousands of years later, or on the pottery that they left behind.

We can know the truth.

Desperate for Wind

The allure of a fundamental truth is powerful. It's the draw of science, and it's a good thing. Understanding the true physical properties of materials and substances, for example, is the foundation of just about every good thing in our world. I mean, except for justice, mercy, duty, that sort of thing. We have the food we eat because those who went before discovered human chemical and enzymatic processes for digestion, and learned the mineral, chemical, water and solar needs for the plants that would be digestible. We have the devices we carry in our pockets because many thousands of researchers, designers and other scientists discovered the electrical conductivity of copper, the thermal conductivity of aluminum, the fracture toughness of various types of glass and a million other things.

I grew up around this kind of thinking. My dad worked for the Dow Chemical Company for some 40 years. Most of that time he spent as a maintenance engineer, an expert in predicting and accounting for the potential failure of devices and equipment used in the production (mostly) of polyethylene. His professional life's work was perfecting the process of root-cause analysis. There may not be anyone in the world who knows more about how and why a furnace in a light hydrocarbons facility might fail. It may sound hyperspecialized, but that kind of laser-focused search for truth is something I took and take a lot of pride in.

Investors are hungry for that kind of clarity about markets. But it doesn't exist. In **The Myth of Market In-Itself**, I wrote about investors' vain obsession with finding root causes in media, economic news and Ks and Qs. Ben recently **wrote about it pseudo-pseudonymously** as Neb Tnuh, mourning the conversion of Real Things into cartoons, crude abstractions that investors are forced to treat like the authentic article:

> *Do I invest on the basis of reality, meaning the fact that wage inflation is, in fact, picking up in a remarkably steady fashion in the real economy? Or do I invest on the basis of Narrative abstractions that I can anticipate being presented and represented to markets at regularly scheduled moments of theater? Because the investment strategy for the one is almost diametrically opposed to the investment strategy for the other.*

Like many *Epsilon Theory* readers, I am Neb Tnuh. Like Neb, I **want** to evaluate businesses and governments again. I **want** to understand their business models, evaluate their prospects against their competitors and subtitutes, quantify the return I can expect and the return I ought to demand for the risk, and seek out investment opportunities where the former exceeds the latter. I **want** this. But like everything else in life, wanting something to be possible doesn't make it so.

It also doesn't make it noble. Arch-raccoon James Altucher fancies himself Neb Tnuh, too:

> "But business is just a vehicle for transforming the ideas in your head into something real, something tangible, that actually improves the lives of others. To create something unique and beautiful and valuable is very hard. It's very special to do. It doesn't happen fast."
> **— James Altucher**

And sure, there are ways to pull away from the table. There are ways to be short abstractions, like Neb recommends. Before he wrote The Icarus Moment, he wrote **Hobson's Choice**, which described some of the few ways that all the Neb Tnuhs out there can reject the false choice between investing on the basis of a reality that is decoupled from risk and return, or not investing at all. These are strategies to insulate against Narrative abstractions, and I think they should be larger parts of almost every investor's portfolio. Am I being explicit and actionable enough here? I'm talking about more real assets.

But a strategy which only insulates isn't practical. It's not practical for asset owners with boards, or actuarial returns, or a need to hit traditional benchmarks. It's not practical for individuals who may not have the luxury, wealth or flexibility to, oh, I don't know, buy an airport or 3,000 acres of northern red oak forests in Georgia. It probably isn't desirable either. First, that level of underdiversification **implies an extreme difference in return expectation**, and I'm not going to leave that free lunch on the table. Neither should you. Second, the raison d'etre of turning the market into a utility, of propagating central bank missionaries and evangelist CEOs is the belief that those behaviors are at least somewhat predictable. If we're not applying that in some measure to the rest of our portfolios, we've probably left something else on the table.

And so, unless we would be victims of the coyotes and raccoons who would sell us their own panaceas to this investing environment, we must engage with Narrative-driven markets. But it is hard. It is hard because the nature of abstractions is to require far more information — which usually means more time, too — to change their state. Think about when you're explaining some complicated analogy to someone and they get confused (did you like my meta joke?). How much longer does it take you to get your conversation back on track? Think about the **Keynsian Newspaper Beauty Contest**. When you're playing at the third or fourth level, how much more difficult is it to hold the pattern of what you're evaluating in your mind, and how much more difficult is it to change that pattern to respond to new information once you've approximated it with some other thing, some heuristic or placeholder?

When an asset's price, volatility behavior or direction is being driven by agreed-upon abstractions, so too is the required information to change its state far greater than usual. Missionaries explain away bad news, or create a new pro forma metric. Media members promote the new spin on the story. Supplicants call on confirmation bias to interpret it based on their existing thesis. And the contrarians who could move the price have all gone to the Hamptons for the decade. Notice how volatility spikes briefly and then disappears?

The question on whether to engage, or to try your luck with strategies that presume a strong, efficient link between economic facts and asset prices, is a question of timing. Unless your investment horizon — by which I mean the horizon over which your trade can go profoundly against you without your getting fired (if you're a professional) or changing your mind (whether or not you're a professional) — is more than 10 years, I simply don't think you can have any confidence that your fundamental analysis has anything more than even odds. Sorry. And in case you were wondering, the answer is no. I don't care who you are. You do **not** have a 10+ year horizon to survive being told by Mr. Market you were wrong without being fired or putting yourself under extreme pressure to change your mind.

Investing in a Time of Icarus

But we have already written about a lot of this. You know that Ben and I have said that many of these strategies just aren't going to work the way that they used to, or when we're looking for low-hanging fruit, that they haven't worked the way that we all expected them to. You know that we think this is largely the result of markets and economies becoming utilities, Narrative replacing economic sensibility, and governments and oligarchs stepping into their own as missionaries for that utility and the Narratives that support it.

But what do we do? What do we do differently?

I've written about part of the answer fairly plainly in the Things that Matter and the Things that Don't Matter series from 2017. There is a finite, definable list of investment principles which matter all the time, even in an Icarus Moment. Ben has written about the second element, which is to insulate.

For those who want to engage and continue the search for alpha, the answer depends.

First, it depends on the definition of alpha. When I say alpha, I mean any asset class-level decision that causes a portfolio to deviate from either the most diversified possible portfolio or a market cap-weighted portfolio of all global financial assets. I also mean any security-level decision that causes a portfolio to deviate from the broadest possible market-cap weighted benchmark for that asset class. It's a simple definition that doesn't get pedantic about whether a systematic active strategy is really a kind of "beta." Sure it is. Or no, it's not. It's a stupid debate. I don't care.

Second, it depends on the type of investment strategy you are using. It also depends on your methodology for implementing that strategy. Incorporating both of these requires some kind of framework to discuss.

Here's what we'll do: the dimensions I will use for the framework will be different from style boxes, and they'll be different from categories used by many hedge fund index providers or asset allocators. I will define the categories instead by how I think they interact with an **Icarus Moment,** or a **Three-Body Market** — with a market in which asset price movements are heavily influenced by Narratives over an extended period of time.

The first dimension of those categories is what basis on which the strategy seeks to predict future asset prices (by which I include *relative* future asset prices). I roughly split strategy types into three categories: Economic Models, Behavioral Models and Idiosyncratic Models. Economic Models, in my definition, seek to predict future asset prices principally on the basis of actual and projected economic data about an economy, a financial market or an issuer, whether it's a company or a government. Behavioral Models may incorporate some elements of Economic Models, but are principally driven by suppositions and beliefs about the behaviors of other market participants rather than the underlying companies. Idiosyncratic Models include various strategies which may even seek to exert direct influence on the future price of an asset.

For the second dimension of the framework, I think it is useful to separate investment strategies which are Systematic from those which are Discretionary. By Systematic Strategies, I refer to alpha-seeking strategies that reflect more-or-less static, if potentially emergent, beliefs about how prices are determined by certain characteristics or states, and whether those characteristics or states are directly related to economic data or more clearly influenced by observable investor behaviors. The second category, Discretionary Strategies, refers to those in which there may be a process associated with similar beliefs, but in which the decision is made based on the judgment of a human portfolio manager. There are frequently observer effects in any investment strategy (i.e. where the act of observing something *changes* it), but particularly so in Narrative-driven markets. The systematic/discretionary dimension is important to understanding how this can manifest.

Those two dimensions give us six broad categories, which I have filled in with general descriptions of strategies that I think fall into each. There are things I haven't captured here, but not many. Of active traditional and non-traditional investment strategies in public markets, I'm comfortable that this captures more than 80%. Close enough for government work.

	Economic Models	**Behavioral Models**	**Idiosyncratic Models**
Systematic	Security Screening Econometric GTAA	Trend-Following Momentum Value Factor Investing Mean-Reversion Statistical Arbitrage	High Frequency
Discretionary	DCF / DDM / Price Target Quality-Based Credit Work Growth Equity Relative Value Asset Value	Sentiment Value + Catalyst Discretionary Macro Other Trading Strategies	Activism Distress

Over the next few months, I will write a piece covering each of these six categories. My aim with this exercise is three-fold. For those who elect to both insulate and engage:

- I want to tell you the strategies that I don't think will work.
- I want to tell allocators / asset owners how I think the evaluation of the strategies that *may* work should change.
- I want to tell asset managers how I think they should consider adapting their strategies so that they *still* work in this environment.

If you think that I have bad news for the strategies on the left third of the table, thank you for paying attention. If you're looking for a prize at the bottom, **there is none**.

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