

#### "YO ADRIAN!" – LESSONS FROM ROCKY

### **RESILIENCE, PART I**

## *re·sil·ience* (noun)

- 1. the power or ability to return to the original form, position, etc., after being bent, compressed, or stretched; elasticity.
- **2.** ability to recover readily from illness, depression, adversity, or the like; buoyancy.

### **SUMMARY:**

In this issue, we begin to examine the theme of resilience. How come?

While helpful studies abound regarding the design and maintenance of robust systems (of all sorts), there is much less understood about the ability of those systems to bounce back once they've been damaged. Events that seem disastrous might have little discernable long-term impact, while in other cases even a small shakeup can be devastating, and permanent. Interestingly, initial health and stability do not always have a big predictive value for the consequences: a fragile beginning does not necessarily correlate to less ability to recover. So, resilience is an important puzzle that has not yet been solved.

This is clearly a big topic, so we thought it might be best to start on a smaller, more personal scale, discussing individual resilience, in the hopes that this will illuminate themes that are also relevant to larger-scale institutional or systemic resilience. Then we'll dive into the more complex systems – financial systems, ecosystems, organizations - in our next issue.

### **QUOTES OF THE MONTH:**

The market is gloriously inefficient and wanders far from fair price but eventually, after breaking your heart and your patience), it will go back to fair value. Your task is to survive until that happens.

- Jeremy Grantham, in his February 2012 letter (a must-read!)

It's not what you look at that matters, it's what you see.

- Thoreau, as quoted in the BRK annual letter

Housing is getting better – there, I said it. – Jamie Dimon in JP Morgan's 2011 Annual Report

We should not let our fears hold us back from pursuing our hopes.

Success is survival.

Billy Corgan of the Smashing Pumpkins, at SXSW 2012

What we call dialogue is often two monologues juxtaposed.

- Dean Wm. Graham of Harvard Divinity School, March 2012

There is only one quality worse than hardness of heart and that is softness of head.

- Teddy Roosevelt

Never retire.

- Advice on longevity from EO Wilson at the Long Now Institute, *April* 2012

### **BOUNCING BACK:**

We've written a lot here at Honeybee about risk and robustness – how to consider different ways in which systems (or people) can be fragile, and how to help design better, stronger, foundations. How to put more (and better) legs on the stool, so to speak.

We've also examined different sorts of shock and trauma, how they come about, and the impacts they can have. That is, what happens when we fall off the stool.

What's less often discussed, but perhaps most vital of all, is resilience – the rebound. What happens to a system or an organization or a person once they've fallen? Why do some pop right back up again like Weebles, while others can never recover, regardless of how strong they were to begin with?

In addition to exploring this topic at Divinity School, we've recently attended several seminars related to resilience, including the inaugural Symposia for Contemplative Studies (a curious mixture of neuroscientists and contemplatives from all sorts of spiritual traditions), plus a weekend seminar on happiness from the Omega Institute. All of these served to inform our views on this important topic, as referenced below.

But first, let's move from the realm of theory to a more tangible setting.

Who am I kiddin'? I ain't even in the guy's league...It don't matter, 'cause I was nobody before...I was nobody. That don't matter either, ya know... 'Cause all I wanna do is go the distance. Nobody's ever gone the distance with Creed. And if I can go that distance, ya see, and that bell rings, ya know, and I'm still standin', I'm gonna know for the first time in my life, ya see, that I weren't just another bum from the neighborhood.

- Rocky Balboa, in the original Rocky

Let me tell you something you already know. The world ain't all sunshine and rainbows. It is a very mean and nasty place and it will beat you to your knees and keep you there permanently if you let it. You, me, or nobody is gonna hit as hard as life. But it ain't how hard you hit; it's about how hard you can get hit, and keep moving forward. How much you can take, and keep moving forward. That's how winning is done. Now, if you know what you're worth, then go out and get what you're worth. But you gotta be willing to take the hit, and not pointing fingers saying you ain't where you are because of him, or her, or anybody. Cowards do that and that ain't you. You're better than that!

- Rocky Balboa, speaking to his son in Rocky Balboa (otherwise known as Rocky VI)

Sometimes a tangible example is helpful, and if you grew up in Eastern Pennsylvania, there is nothing more tangible than Rocky Balboa (especially my particular favorites, the Rockies II and IV). Why – and how - did he get up on the count of 10 when Apollo had almost killed him? How did he beat that 'roided-up Russian? Yes, he had trained very hard for both matches, pulling logs up snowy mountains, chasing chickens around the yard, doing thousands of upside-down crunches hanging from the rafters of his Siberian hovel... so of course there is an element of **physical resilience** at play, a big one. But there's also a layer of spirit, of **inner resilience** (some would say stubbornness), that pushes past the limits of the physical. And then, perhaps, there is something even beyond inner, individual resilience, something borne of connection to a larger community or larger purpose – I'll call this **extended resilience**. When Rocky takes the mike after his win in Moscow, having realized that Russians are people too, he tells the crowd, "if I can change, and you can change, we can all chaaaaannnnngee!!!!" He does not say, "suck it, Drago, I crushed you!" – he says, "we can change". When he talks about what motivates him, he does not talk about destroying others – he talks about not being a bum. This is the genius of the SSA, the Stallone Script Approach: Man versus Man, Man versus Nature, Man versus Society, Man versus Himself. With Rocky you get it all – and each conflict reveals a different potential source of resilience (or lack thereof).

Resilience is a squirrely notion: it is not optimism, not strength, not robustness – though these elements often play a part. Perhaps it is best approached obliquely, by describing what surrounds it, what enables it, and what amplifies it. So, from all of the explorations noted above, I have pulled three sets of concepts that are related to personal resilience, with disparate teachers for each one. Taken together, they provide some framework for considering our ability to recover, a vital part of any endeavor that involves risk – investing, business management, sports, love.... You know, life.

## My executive summary for cultivating resilience is as follows:

- 1. Get to know your fears they are real, but often not true.
- 2. Write your own story you are the author; you get to choose.
- 3. Move beyond yourself practice gratitude. Practice compassion. Really practice thinking alone doesn't count.

# CONSIDERATION #1: FEAR, SHAME, & VULNERABILITY BRENE BROWN AND TSOKYNI RINPOCHE

Mickey: You're a bum, Rock. You're a bum. Rocky: I ain't no bum, Mick. I ain't no bum.

Rocky I

Our fears are often real, but not true.

- Tsoknyi Rinpoche, in Open Heart, Open Mind

You is kind.

You is smart.

You is important.

- Abileen to Mae Mobley in <u>The Help</u>

As noted above, I recently attended the Omega Institute's seminar on happiness, to see if there were some gems that might relate to resilience. My conclusions were thus:

- 1. If you want to <u>learn</u> about happiness, a happiness seminar is a good idea.
- 2. If you want to actually <u>be</u> happy, I'm not sure a seminar is the way to go. Turns out there are a lot of deeply unhappy people at happiness seminars.

- 3. For me, the concepts of flourishing, well-being, and prosperity are more intriguing than happiness. Happiness seems fleeting, and quite possibly unattainable as a steady state. But I'm pretty sure I can flourish, even amidst occasionally unhappy conditions.
- 4. Brene Brown rocks.

Perhaps it says something about me that my favorite session by far at the happiness seminar was the one focused on fear, shame, and vulnerability. But a lot of advice seems focused on distracting ourselves from core challenges (or blaming others for them), in the hopes that the good stuff can eventually paper over the bad stuff (this is true for organizational advice as well as personal advice). It's not the worst approach, because you can't wallow in fear and shame for too long without feeling icky and helpless. However, to acknowledge their existence and importance seems like a healthier starting point than sweeping the creepy stuff under the rug.

Enter Brene Brown (PhD and research professor at the University of Houston), who will be recognizable to loyal Honeybees as one of my top 10 TED speakers from this year. This was the mega-version of her TED talk: Brown's premise is that you can't talk about joy or prosperity or flourishing without talking about what gets in the way of all those wonderful things.

Brown's research shows some surprising and perhaps uncomfortable factors at play when considering joy and resilience: most importantly, people who feel connection, whole-heartedness, and joy are those who believe they are worthy of it. Seriously? That's it? Well, it's harder to come by than you'd think. Here are some active choices made by resilient people:

- cultivating self-compassion (see consideration #3 below)
- cultivating play and rest letting go of "exhaustion as a status symbol"
- · embracing vulnerability, thereby eliminating numbing activity
- practicing gratitude as an action, not a feeling

Brown's work has made me reconsider my own habits in some simple but important ways. Here are a couple of practical ways I've taken her advice to heart:

- 1. I have changed my goal-setting process.
  - Whenever I'm setting goals (especially at the New Year), I start by going back and listing all of the things I'm glad to have done in the past – business progress, fitness objectives, you name it. What pops up on that list is a happy surprise – sure, big things like graduation and marathons are on there, but so are lots of everyday things, like small dinners with friends and family or interesting novels I've read.
  - Then I make sure that my big goals also sweep up lots of little ones in their wake – for example, I am hiking to Machu Picchu later this year, so

- I know my summer will automatically be filled with lots of outdoor time on hillsides and mountaintops.
- Starting with gratitude for the past puts my future goals in a joyful, anticipatory light this is a million times better than my old practice, starting with the un-done things from the prior period and feeling like a big loser as I copied those tired old goals onto a new list.
- 2. I have changed some of my media consumption habits (though there is a long way to go).
  - For example, I have quite reluctantly cancelled my subscription to Us magazine. Us and the Economist usually arrived on the same day, and while my US consumption was close to 100%, my Economist consumption was consistently far less. This is not an admirable data set.
  - Also, I do not watch graphic TV shows where people are chopped into bits anymore. Particularly if the bits in question formerly belonged to a single woman living in the city.

I have lived a long life and had many troubles, most of which never happened.

- Mark Twain

Speaking of fear, a complementary view on the subject is presented by Tsoknyi Rinpoche, whose new book contains a helpful categorization: **"REAL BUT NOT TRUE"**. Many fears, notes Rinpoche, fall into this category. This is not just clever wordsmithing – it gives us a helpful way to approach our fears. Instead of trying to brush fears aside or feeling helpless because they are irrational, we can acknowledge that they are indeed real, and then move on to recognizing that they are ALSO not true. Rinpoche gives a memorable example of standing on the edge of a glass walkway, paralyzed with fear. All around him people are walking across, perfectly safe: his fear was real (he could not move), but not true (conditions were safe). This distinction helps to approach fears with more calmness and compassion (see point #3 below), clearing the way for less fear and more joy.

Here are links to Brown's TED talks:

http://www.ted.com/talks/brene\_brown\_listening\_to\_shame.html
http://www.ted.com/talks/brene\_brown\_on\_vulnerability.html

And here is a link to Tsoknyi Rinpoche's new book: <a href="http://www.amazon.com/Open-Heart-Mind-Awakening-Essence/dp/0307888207/ref=sr\_1\_sc\_1?ie=UTF8&qid=1336054140&sr=8-1-spell">http://www.amazon.com/Open-Heart-Mind-Awakening-Essence/dp/0307888207/ref=sr\_1\_sc\_1?ie=UTF8&qid=1336054140&sr=8-1-spell</a>

# **CONSIDERATION #2:** CONTEMPLATION, CONNECTION, AND STORYTELLING DIANA CHAPMAN WALSH AND LUONG UNG

Rocky Balboa: Hey yo, Mick, what do I got to chase a chicken for? Mickey: First, because I said so. And second, is because chicken-chasing is how we used to train back in the old days. If you can catch this thing, you can catch greased lighting.

Rocky: I feel like a Kentucky Fried idiot.

Rocky II

We tell ourselves stories in order to live.

Ioan Didion

Think about your own kick-ass-ness.

Luong Ung

Anyone who has had an affiliation to Wellesley College in recent years is familiar with Diana Chapman Walsh, President of the College from 1993 to 2007. Diana is a shining example of multi-faceted expertise: she was Professor at the Harvard School of Public Health before becoming college President, is currently Chair of the board of the Broad Institute and a member of the corporation at MIT, and has a deep affinity for and expertise in poetry and contemplative spiritual practice. To me, her time at Wellesley was a wonderful illustration of servant leadership, inspired by a clear and strong sense of mission and purpose (both for the College and for herself).

At the Contemplative Studies conference, Diana noted the benefits of contemplation for leaders, explaining that it has "subversive power". Since we are so all so much more comfortable with debate and presentation than with listening and reflection, no one is quite sure what to make of quiet time, or of leadership that does not consist of shouting. Our law schools and business schools are chock full of courses on negotiation, but even the few that do focus on contemplation rarely dare to label themselves as such.

Walsh emphasized, "trustworthy leadership starts from within", noting that an inner compass is especially vital when guarding against the "dehumanizing effects of others' projections". A leader is often objectified by those around her (sometimes as hero, sometimes as villain), and the natural inclination is to create distance and separation. The challenge is to stay connected, to be resilient against such pressures rather than building barriers to avoid them.

Both Walsh and a speaker at the Omega conference, Luong Ung, also noted the importance of storytelling. This has also been one of the strongest themes criscrossing my anthropological and philosophical studies in recent years, and for a long time I did not like it, not one bit. As a fact-oriented investor, I had a lot of resistance to the very word storytelling – like happiness, it sounds fluffy to me, inherently divorced from a more mixed-up (and better) reality. But eventually I came to realize that **storytelling does not mean fiction**; it means taking charge, creating a narrative that is compelling and sense-making. A 60-second investment case for a stock is storytelling. A job interview is storytelling. A wedding toast is storytelling. A mission statement is storytelling.

A moving example of storytelling on an individual level is found in the work of Luong Ung, activist, entrepreneur, and author of several autobiographical books. Luong grew up during the Cambodian genocide, and she speaks eloquently about the lost, guilty, bad-person feeling that accompanied her survival. Through her writing, over the course of many years, she has explicitly embraced storytelling as a form of resilience, introducing herself and her work by saying, "imagine a woman who authors her own life". She does not deny the awful past, nor cover it up, but she chooses to frame it in a way that allows for her own ultimate flourishing. She explains, "I cannot let those soldiers cross over time and space to rule my mind." Luong encourages others to "own what is yours – not what is not yours", and to "think about your own kick-ass-ness."

Unlike many other speakers, Luong did not talk about happiness or resilience in the abstract. She did not give five handy tips for overcoming obstacles. She just, well, told her story. And that was more compelling than all the Power Points in the world.

The webcast of Diana Chapman Walsh's talk can be found here: <a href="http://events.powerstream.net/008/00189/2012\_ISCS/FridayPage.html">http://events.powerstream.net/008/00189/2012\_ISCS/FridayPage.html</a>

And Luong Ung's books can be found here:
<a href="http://www.amazon.com/Loung-">http://www.amazon.com/Loung-</a>
<a href="Ung/e/B001ITYRFG/ref=sr">Ung/e/B001ITYRFG/ref=sr</a> ntt srch lnk 1?qid=1336046105&sr=1-1

# CONSIDERATION #3: EMPATHY VERSUS COMPASSION TANIA SINGER, MATTHIEU RICARD, AND BROTHER DAVID STEINDL-RAST

Get up you son of a bitch! 'Cause Mickey loves you!

Mickey to Rocky, in Rocky V

A human being is a part of a whole, called by us 'universe', a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest... a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.

Albert Finstein

The most remarkable discussion at the neuro-contemplative conference was one that combined both elements effectively: first, Tania Singer from the Max Planck Institute summarized brain imaging work related to contagion, empathy, and compassion. Some of the most notable Planck experiments have involved Matthieu Ricard, the French Buddhist monk who has been dubbed "the happiest person on earth", because his brain measures are so much more amplified than those of regular subjects (Ricard also has a PhD in molecular genetics, and is a noted photographer. How 'bout them apples?).

The heart of the panel discussion was focused on empathy, and its difference from compassion. Empathy is, guite literally, the Clinton-esque ability to "feel others' pain" – and functional MRI studies from the Planck Institute shows show this. When we witness others' suffering, the pain centers in our own brains are activated.

But here is an amazing example of language contradicting functional reality. We often use "empathy" and "compassion" as near-synonyms, but in your brain they are totally different! Different – and additional – pathways in the brain are activated when subjects switch their focus from merely feeling empathy (shared emotion) to feeling compassion (an outward-focused, generous intention – often translated as "loving kindness"). Subjects still showed the distress and shared pain associated with empathy, but a whole different, more positive network was also activated, so that the overall effect was warm and positive rather than distressing.

Christian contemplatives come at compassion in a slightly different way – for many, the starting point is prayer and gratefulness, which naturally roots the pray-er in a mindset of connection, just a hop skip and jump away from compassion. The language used by different groups can hide this particular similarity: for one thing, the Self in Christian tradition (the universal Self, a sense of connection to each other through God) is pretty close to the Non-Self in Buddhist tradition (the essential unity of the world). But the parallels are there nonetheless.

Okay, brain scans and linguistics are neat, but why is this important?

Everyone has heard of "compassion fatigue" – the exhaustion often felt by caregivers of all sorts (nurses, parents, police, even corporate managers!). But, as the panel noted, a better name for this is "empathy fatigue".

When I became the leader of a large team at work, more than one person advised me, "don't care too much" - which, of course, was both unappealing and impossible. Why would I want to work so hard – how could I work so hard? without caring? But the advice was well-intentioned, and relevant: that role was the most personally draining one I'd ever held. Not because of the hours, not because of the intellectual challenge, but because people are a lot harder than stocks. When a stock has a bad day, you can buy it, sell it, or hold it – there are emotions, but they are mainly your own (plus those aggregated in the impersonal "Mr. Market"). However, when someone on your team hits a rough patch, and you empathize, you soak up all that emotion like a big sponge. If it's a large team, plus a stressful environment, you get waterlogged pretty quickly. And as I'm well aware, my situation was laughably easy compared to those who are facing life and death at the core of their vocation, every single day. **Empathy is exhausting.** 

**But compassion is not exhausting: it is invigorating!** If you're stuck in a state of empathy, you are soaking up all of that pain and frustration, with nowhere to put it. But if you are able to cultivate compassion, you have a sense of purpose, of action, of helpfulness – even in the most dire situations. Though the pain is still there, the overall effect is positive. It's an effect rooted in love, in active helpfulness.

Compassion – not empathy - is what moves us from suffering to resilience – and this works when directed towards ourselves as well as towards others.

Here is the webcast page for the Contemplative Studies conference: http://events.powerstream.net/008/00189/2012 ISCS/SaturdayPage.html

And here is a link to Ricard's TED talk, which also references the brain-based compassion measurements noted above:

http://www.ted.com/talks/matthieu\_ricard\_on\_the\_habits\_of\_happiness.ht ml

### SITES OF THE MONTH:

### CAN MONEY BUY HAPPINESS?

Yes, it can! If you spend it on OTHER PEOPLE ... no matter how much, no matter on what. Here is a cool TEDxCambridge talk by Michael Norton that explains the experiments underlying these conclusions.

http://www.ted.com/talks/michael\_norton\_how\_to\_buy\_happiness.html?ut m\_source=newsletter\_weekly\_2012-04-24&utm\_campaign=newsletter\_weekly&utm\_medium=email

#### IN OUR BACKYARD – IOBY.COM

This is a neat new(ish) crowdfunding platform for local environmental projects – started in Brooklyn, but now expanding by leaps and bounds. Check it out! www.iobv.org

#### **BRAIN PICKINGS**

You may know Maria Popova from her writing in Wired, The Atlantic, and elsewhere – this site is a glorious mish-mash of interesting and inspiring ideas. The book list alone makes it worthwhile! This is what Honeybee aspires to be, except we aim for a cool investment-centric vibe and this one is, well, just a cool vibe altogether.

http://www.brainpickings.org/

Thanks to Honeybee Stephanie S. for connecting us to the 2 sites above.

#### **BOOKS OF THE MONTH:**

# **QUIET,** by Susan Cain

We mentioned this book in our TED review, and have found it helpful on a number of levels. Though it is hard to avoid generalizations that are overly conclusive ("introverts are good at..."), Cain's work contains some important insights, such as the distinction between shyness (when social interaction can be painful) and introversion (when a person thrives with less social stimulation versus more). She had me thinking of how little we consider these differences when designing workspaces, for example. Once my team moved to new offices where the doors were all see-through, and within two days several colleagues had papered theirs over. The feeling of being constantly open to any and all interactions was unbearable for some! I love that Cain makes the case for contributions and leadership that are not so centered on being loud and gregarious.

http://www.thepowerofintroverts.com/

http://www.amazon.com/Quiet-Power-Introverts-World-Talking/dp/0307352145

#### **BROTHER DAVID STEINDL-RAST**

Speaking of guiet, please allow me to introduce you to Brother David, a Benedictine monk with close ties to Paul Tillich and Thomas Merton. I recently heard him speak, and he is both a brilliant philosopher (in the most intellectually rigorous sense) and a brilliant spiritual leader (in the most genuine and inspiring sense). His central concept is gratefulness – not in a glitter and unicorns way (though there's nothing wrong with that), but in a deeply rooted, action-oriented way. Steindl-Rast makes the case for gratefulness as an active approach to life, directly connected to the concepts of compassion discussed above. I am starting my reading with his "Essential Writings", but he has many excellent publications, which can be found through the links below.

http://www.gratefulness.org/

http://www.amazon.com/David-Steindl-Rast/e/B000APICWI/ref=ntt athr dp pel 1

## **1Q84**, by Haruki Murakami

This book has consumed a shocking proportion of my reading time over the past month or so – it is crazy-long, as well as just plain crazy. If you like the wacked-out-ness of modern Japanese literature, you will love this book: you've got parallel universes, mysterious little people who port themselves from one world to another, an immaculate conception.... Something for everyone. And both the hardcover version and the paperback boxed set (yes, it's that long!) have super-cool covers by Chip Kidd. However, if you like your stories to be linear, or rooted in the world that is most familiar to you, or readable on one short plane ride, you'd best skip this one.

http://www.amazon.com/1Q84-Volume-Boxed-Vintage-International/dp/0345802934/ref=sr\_1\_1?ie=UTF8&gid=1336068127&sr=8 -1

# **THE NIGHT CIRCUS,** by Erin Morgenstern

Did you see "The Illusionist" a dozen times? Do you love the idea that there are all sorts of powers just beyond our everyday reach, but that the drama of being human trumps them all? Do you like settings that are a little bit magical but not quite as crazy as Murakami? Then you will LOVE this book.

http://www.amazon.com/The-Night-Circus-Erin-Morgenstern/dp/0385534639/ref=tmm hrd title 0

# **BOSSYPANTS,** by Tina Fey **IS EVERYONE HANGING OUT WITHOUT ME?** By Mindy Kaling

These are the anti-Murakami's in terms of length and lightness. Both are very quick reads -perfect for upcoming hammock season. Both are (mainly) lighthearted, both are written by smart, witty, interesting women. Both manage to make important points about the challenges of being women in the entertainment world with grace and humor and perspective and dignity. But they are not substitutes for one another, just because there happen to be TWO funny women with books out – each author leaves you with some sense of who they are as a person too, beyond the amusing stories. Also, if I had a teenage daughter, I would be sure she had some Kaling-esque inputs on body image, dating, and female friendships – her healthy views might help to counterbalance some of the junk that surrounds us all the time.

http://www.amazon.com/Bossypants-Tina-Fey/dp/0316056863/ref=sr\_1\_1?ie=UTF8&gid=1336068564&sr=8-1

http://www.amazon.com/Everyone-Hanging-Without-Other-Concerns/dp/0307886263/ref=sr 1 1?s=books&ie=UTF8&aid=133606878 5&sr=1-1

# **INSITUTIONAL LONGEVITY**

As a backdrop for our follow-on discussion about resilience and robustness in larger systems, consider this list of 100<sup>th</sup> anniversaries, all taking place this year:

- The Oreo
- The Rockefeller Foundation (check out their website....)
- The Titanic (or more accurately, the story of the Titanic)
- Steelcase
- L.L. Bean
- and, we saved the best for last..... FENWAY PARK!!!

## **COMING UP NEXT:**

As noted above, out next issue will extend this examination of resilience to more complex organizations, informed by upcoming seminars by the Santa Fe Institute on the financial crisis and by the Biomimicry Institute on, duh, biomimicry. Plus, now that there are no more gigantic Murakami novels on our reading list, we'll be zipping right through lots of amazing books!

## **FINALE:**

We conclude with another excerpt from Jeremy Grantham's thoughtful and provocative shareholder letter from February 2012 (full text at http://www.GMO.com – you need to establish a login id to access, but it's worth it). Any growth investor who is not thinking beyond the limits of physical growth is not worth her salt.

Of all the technical weaknesses in capitalism, though, probably the most immediately dangerous is its absolute inability to process the finiteness of resources and the mathematical impossibility of maintaining rapid growth in physical output. You can have steady increases in the quality of goods and services and, I hope, the quality of life, but you can't have sustainable growth in physical output. You can have "growth" – for now – or you can have "sustainable" forever, but not both.

This reprieve (availability of natural gas) does not make the finite magically infinite, but the 250 years of the hydrocarbon intermission can feel like forever.

Capitalism, by ignoring the finite nature of resources and by neglecting the long-term well-being of the planet and its potentially crucial biodiversity, threatens our existence. Fifty and one-hundred-year horizons are important despite the "tyranny of the discount rate," and grandchildren do have value. My conclusion is that capitalism does admittedly do a thousand things better than other systems: it only currently fails in two or three. Unfortunately for us all, even a single one of these failings may bring capitalism down and us with it.

This is why we are focusing on resilience – the risks all around us are clear, and the odds of stumbling are high. When we fall, we want to be able to get back up.