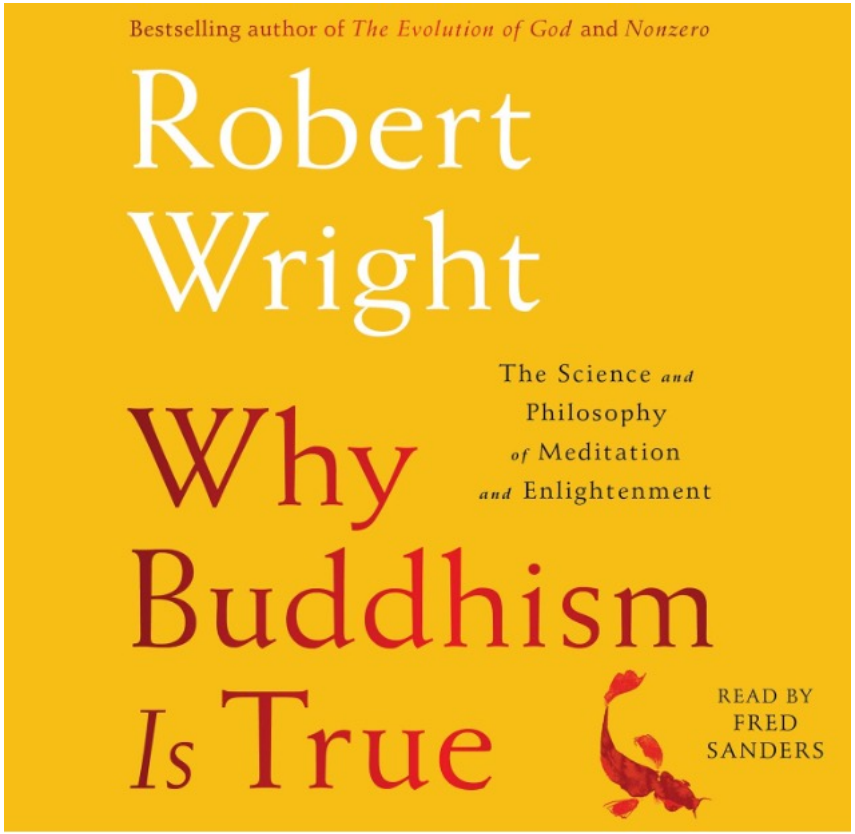
Why Buddhism is True up to a Point

This series of presentations draws connections between religion and frontier science. More specifically, we want to connect the humanist religious tradition with the new science of emergence. But it is also the case that many of the followers in this religious tradition are also deeply steeped in the Buddhist teachings. For that reason, let us talk for a moment about Buddhism.

There are many excellent books about Buddhism for the western reader. I will recommend Robert Wright's book partly because I stole the idea for the title of my presentation from the title of his book which is "Why Buddhism is True". Also, I found the book's writing clear and the author's thoughts very compelling. In a way, Wright anticipates what we are doing in this series. Robert Wright relates the explanations of Buddhism to the contemporary established sciences of psychology and neurology. That makes for interesting reading. In this series however we stretch our knowledge in order to connect Buddhism with the nascent sciences of emergence and complexity theory.



However, the immediate stimulus for this presentation arose while I considered a different book called “Losing Ourselves” by Jay Garfield.

That book, while dense – and I don’t follow all of it – it was after all very affirmative and confident in its teaching about the non-self.

Garfield’s confidence provided the kick in the rear I needed to formulate this presentation – which amounts to an assault on the mystery of Buddhist teachings and a vision of fusing past wisdom with new and unsettled Western Science.

One cautionary remark: What you read or hear here is not expert, well-informed instruction; rather, it is well-intentioned questioning and free-association of ideas from distinct fields of religion and science.

What's in it for Me?

Let's introduce the topic by discussing promises.

All religions offer their followers something. For Christians, the offer is forgiveness sweetened by an eternal life better than the one you just had. Buddhism offers Nirvana – a state of contentment and freedom from suffering.

Nirvana is reached, it is said, by losing the self. Neat trick, don't you think? Being you without having a self. That is either deep or maybe it is just nonsense.

No wonder American Buddhist teaching downplays the teaching of non-self and emphasizes the emotional and psychological benefits from the Buddhist practice.

The pitch I often hear is: follow the Western interpretation of Buddha's teaching and you will feel better, feel calmer, feel more grounded.

However, what if – let me ask what if – Buddhism is true about losing the self and we just need to understand the truth of Buddhism?

Wisdom is not fixed and static. It is a quest.

The Buddhist teaching is in the two books just described and many others. The teaching is old, older than Christian teachings. But our contemporary writers do a good job reframing it for modern readers. Nevertheless, their teaching today draws on wise sages living in past millennia. Wisdom should not be fixed and static.

There are new thoughts to be found along the paths walked by current scientists. These paths explore the frontier of science. But scientists in general don't try to connect their work with religion. That is the quest behind this series of presentations.

So let's turn now to Buddhism. Buddhism highlights three principles: suffering, non-self, and impermanence. Let's start with suffering.

Buddhism blames suffering on attachments combined with greed/avarice and the general longing for what we picture for ourselves.

Jump to the 21st century and we can say now that science can explain how suffering is built into conscious life and essential to the existential situation of an intelligent animal.

Suffering is a badge of honor, an honorable distinction of our status in creation.

The necessary conditions for being human also make suffering inevitable – as the Budda explained long ago. At last, we can see some scientific basis.

In this presentation, I can tell you only a little about the science. However, here it is.

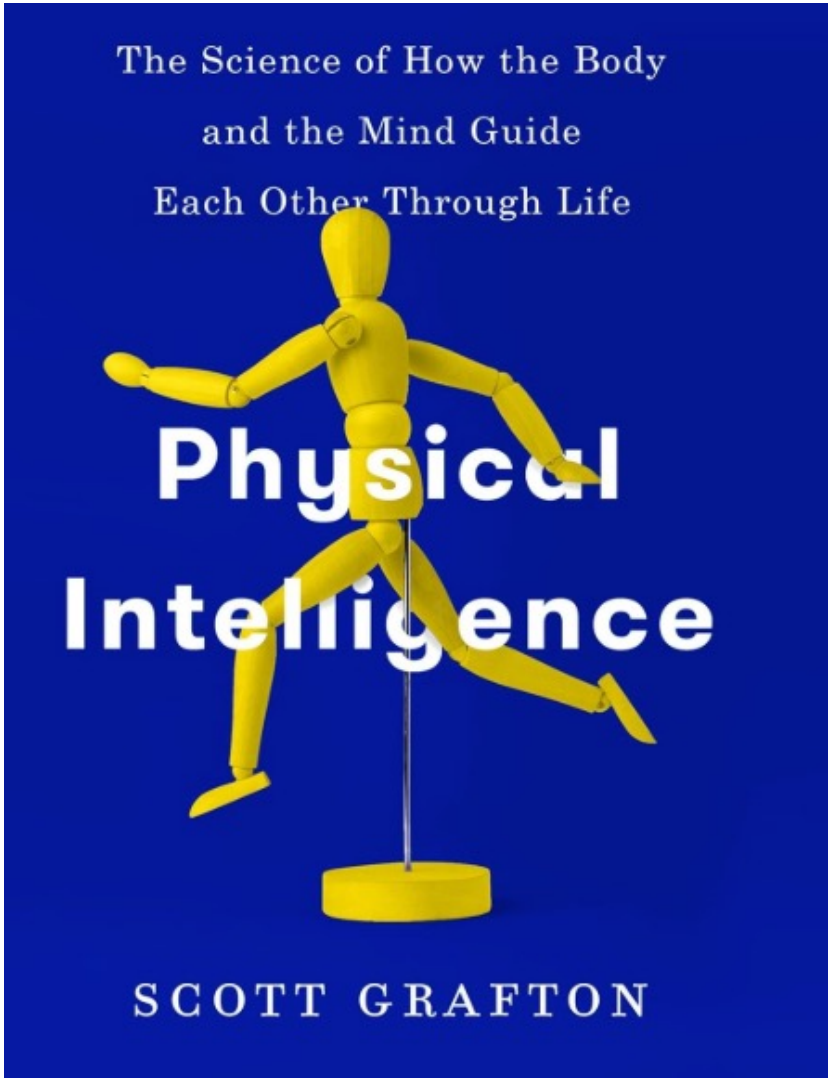
Modern science understands that the brain of baby builds the brain of the adult by creating and refining models of reality. These models are not just concepts proposed in a research paper. A tool called functional magnetic resonance imaging can actually show parts of a subject's brain light up with activity when the brain's models spring into action.

At the very least, a working brain needs to build models for the mechanical blueprint and nervous wiring diagram of the body in which that brain finds itself.

Consider the predator. If a tiger cannot predict where its claw goes in space as the tiger's brain tries to grasp a prey, then it will miss a meal, miss the nourishment it needs to survive.

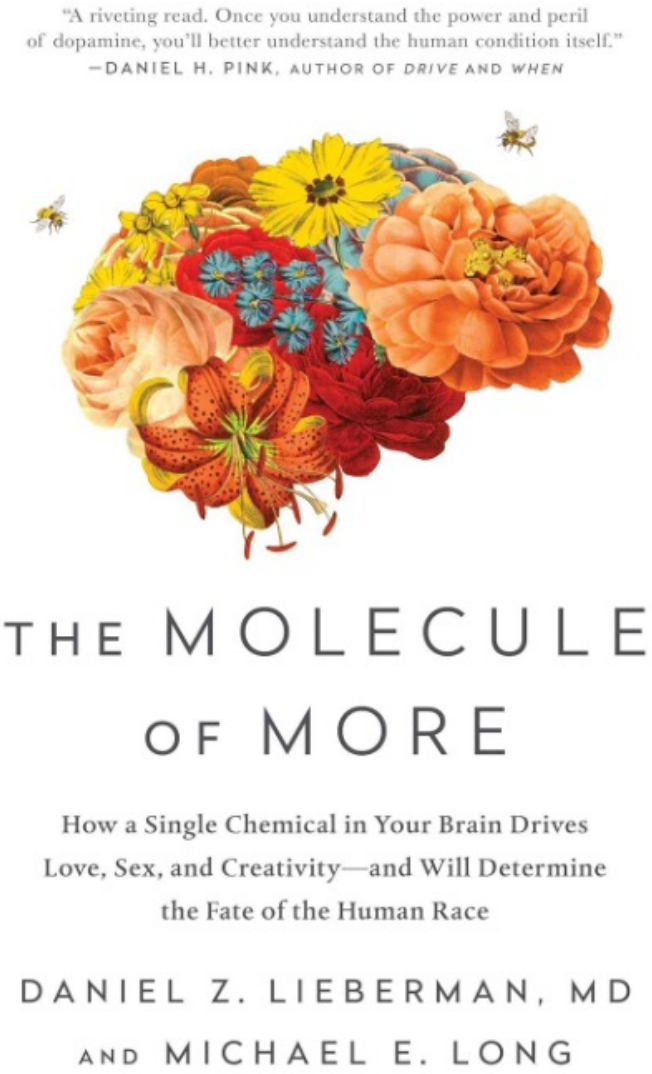
If you have struggle or conflict at your job, you must equip yourself with models revealing the strengths and limitations of your opposing colleagues. You need to be able to predict. We do prediction all the time without even noticing.

There is a really good book about the intimate relationship of brains and bodies that I highly recommend. It is Scott Grafton's "Physical Intelligence".



Now, to build and refine models, the developing brain uses a reward system. Part of the reward system uses a chemical called dopamine. As you live, your brain is predicting the results it will obtain by action. You predict and expect certain things. When you get them, you get an internal reward involving dopamine. That causes the model to strengthen its hold on us.

If you want to learn more about the dopamine reward system, then I can highly recommend a book by Dr. Daniel Lieberman and Michael Long titled "Dopamine, the Molecule of More".



Now we might possibly take this discussion in a more technical direction and claim that the brain is a computer and that the brain can analyze past events and predict future ones using algorithms that it has developed.

However, we can also go in another direction that is more relatable. That direction is to say that we humans constantly use and make up stories. Humans tell stories about themselves; we tell stories about what we expect; we tell stories about what will happen. Our stories can often be wrong just like computer models can be wrong.

I'm showing here a good book on the subject by Jonathan Gottschall that I again highly recommend.

I'm showing here the pictures of two famous communicators who spoke directly to the American people and told them stories about themselves and about their nation. Presidents Franklin Roosevelt and Ronald Reagan had an enormous impact both for who they were and for the stories they told. Their storytelling shaped how the future unfolded in their time. We may go back now and argue about how that worked out. But their stories shaped reality.

When stories don't work, they create disappointment and suffering. For example, the story that "hard work leads to success irrespective of circumstances".

Buddhism is true – we suffer

Our brain is always modelling and predicting the future. That's its job. Because we have a dopamine reward system we want certain futures – the ones we think will please us. Our minds strive for more – more success and more dopamine.

Or if we are pleased with the past, we wish that things never change. If we like the story unfolding – just keep it running.

We expect that what our brain has visualized should be what happens. But the future unfolds as the future will. Our brain imagines the results possible in the present moment – possible but not assured – and thus sets us up for disappointment.

Consequently, we must suffer. Suffering is part of the natural process that constructed the very effective brain given you by creation. Be grateful you are here now with your potential for life and your built-in inclination towards pain and suffering.

On this point, Buddhism is true.

Some Science Needed

Buddhism scores a point in round one.

To go further, I must tell you where a new area in the field of science is leading. New stuff comes out in hard-to-read papers and ambitious books that shoot at but don't necessarily find their target – the target being a comprehensible truth.

[Maybe we will never find comprehensible truth. You may have heard that a comprehensible explanation of quantum mechanics eludes the best minds even if quantum mechanics is essential to modern technology.]

We must carry on.

Our current science and lived experience must precede explanation for many important phenomena.

The new learning I am speaking about goes under two banners:

complexity theory and emergence.

A very good way to learn about the new science quickly is to use YouTube and listen to lectures. One of my favorites is a discussion by Sean Carroll with podcaster Lex Fridman. The YouTube Video is here.

It seems that new ideas bring new confusion. And so it is with the study of emergence.

When I reflect on the confusion, it seems our difficulty stems from not really knowing – but simply assuming – what makes a thing a thing. We live in a world of things but rarely question: What is an object or a thing?

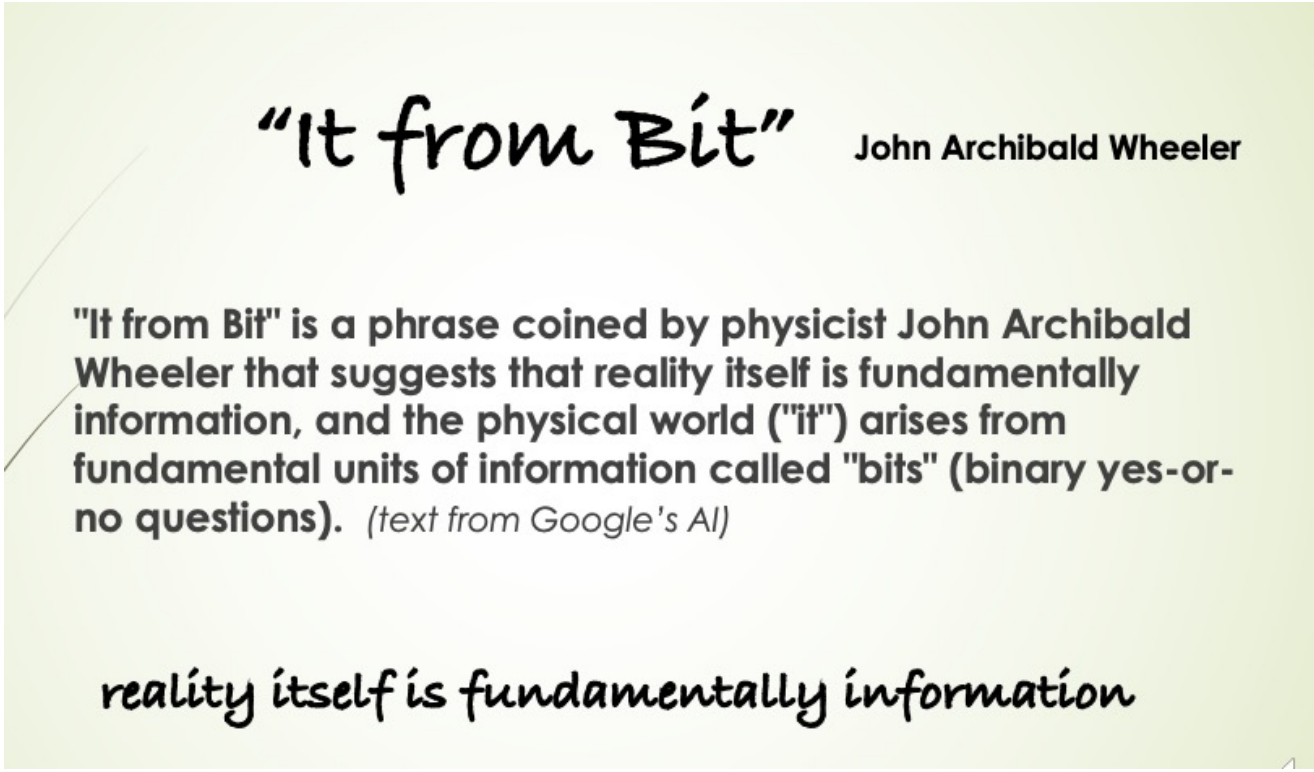
How complexity emerges from simplicity

Sean Carroll and Lex Fridman

In keeping with the tenor of this presentation, I will only suggest where the research leads investigators.

To put the answer in the most direct words, a thing is a package of information describing a network of relationships.

“Thingness” resides in connections imposed on the material world. A pattern of connections is information.



I have no hope of explaining the ideas here in the time and scope of this presentation.

Needless to say, such a short answer needs a longer justification.

I've got another YouTube video on the subject that I recommend – of course. Its title is "Thingness, Mrs. Dalloway, and Creation".

You can view it on YouTube here.

Information specifies a network of relationships. In a simple, mechanical, reductionist sense, information specifies the relationship of the parts that compose the entire thing. Concurrently, and more relevant to this discussion, information specifies relationships between one thing and countless others.

Living things have a biological existence within an ecology of supporting lifeforms. Moreover, conscious things exist in constant dialog with other conscious things.

In the terminology of Buddhist monk Thich Nhat Hahn, our world is a world of interbeing – individual beings mingled by inseparable bonds. What the aware Buddhist feels can, in western terms, be formulated as information – specific information about what is here and now.

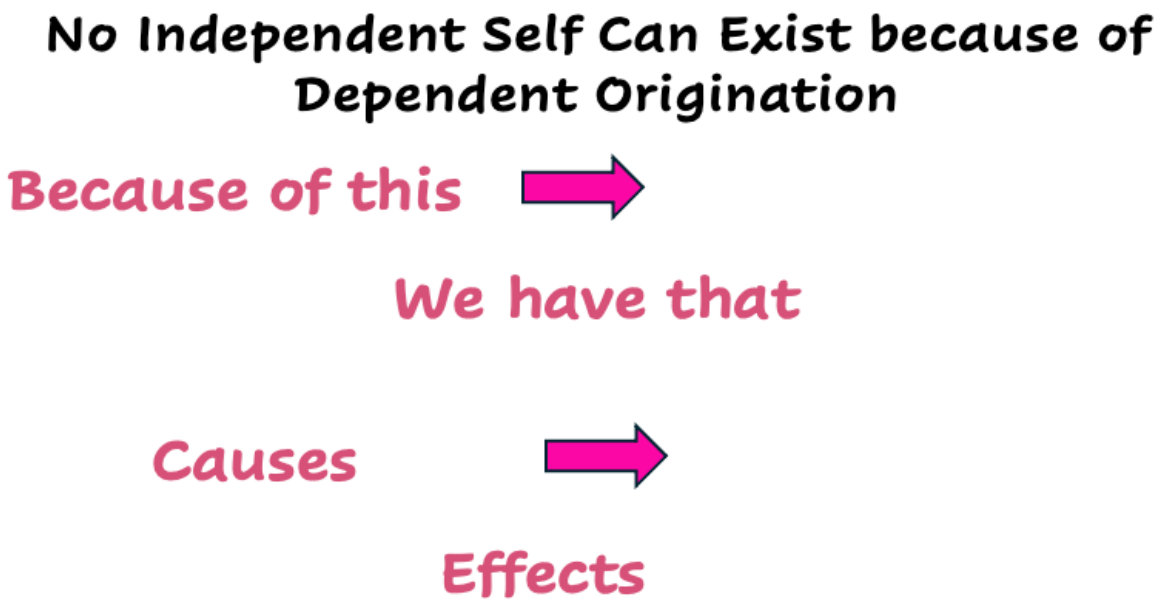
Moreover, conscious human things have generated external things like books, Internet archives, artwork, and scripture. These external information products are part of the mix of things called reality.

Click for picture source and more on Interbeing

So things are connected to each other. Moreover - and this is very important – they are connected to things in the past – ancestors for example.

Very long ago, the Buddha had this realization and formulated a doctrine called "dependent origination". Nothing is alone. Things exist side by side in relationships. Moreover, all things are the effects of causes.

The Buddha says because of this, that happens. Science says much the same.



Modern science has elaborated the Buddhist idea of dependent origination with equations. That is not a small jump of course. The rigor of mathematics and engineering give contemporary people power in their physical world that the Buddha never imagined.

Me – a Name I Call Myself

Now some essential ambiguity appears to be unavoidable. If everything is just information – information about internal connections and external relationships – where can we place the boundary of the thing when the thing is all about connections, relations, and information?

The easy answer – although not a sufficient answer – is that we just name things. Think about it. You name everything. Without any thought, the name and the thing coalesce and become the same. Names are easily used and comprise a verbal inventory of reality. I have a name. Because I have a name, I must be a real thing – a self.

(sung)

Do, a deer, a female deer

Re, a drop of golden sun

Mi, a name I call myself

Fa, a long, long way to run

The Buddha must be wrong about non-self. The self must be real because it can name itself.

Yet, you are nothing without connections to your world, to your ancestors, and to history and culture.

Your condition can justifiably be called interbeing in the terminology of Buddhist teacher Thich Nhat Hahn.

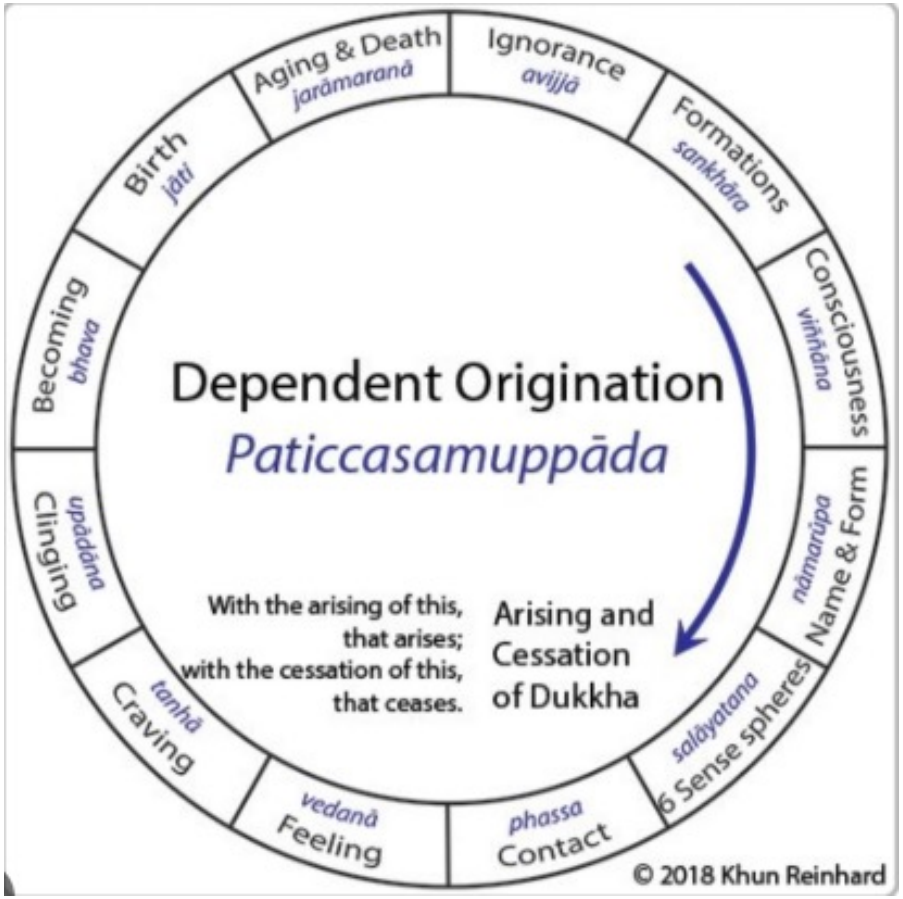
Your dependence on how you originated and how you live mean that you are defined by more than yourself. The distinction of self and not-self is blurred.

If you train your mind to see this, you can experience the non-self. And that was another true teaching of the Buddha.

But the last thing I would recommend is diving into the voluminous writing about dependent origination and similar topics.

The Buddha was never content with a good idea. He had to break it down into 12 categories and expound on each.

Skip that.



You could more easily understand General Relativity. All you need is the training to parse concepts like the Ricci tensor.

For our purposes, you can skip that too.

Science and Buddhism alike require a lot of study. Yet, with just a bit of attention and imagination you can glean insight into where the world is evolving and – I believe – getting smarter and better.

Ricci Tensor

$$R_{ij} = \underbrace{\partial_k \Gamma^k_{ij}}_{\text{Derivatives of Christoffel symbols}} - \underbrace{\partial_j \Gamma^k_{ik}}_{\text{Derivatives of Christoffel symbols}} + \underbrace{\Gamma^k_{ij}\Gamma^m_{km}}_{\text{"Squares" of Christoffel symbols}} - \underbrace{\Gamma^k_{im}\Gamma^m_{jk}}_{\text{"Squares" of Christoffel symbols}}$$

Me – a Story I Tell

Before we leave the subject of self and non self, let me step out of the flow and say that I know many of you are reading this and many of you doubt what I'm saying. I doubt myself too. With difficult ideas, it helps to reach out to others. I will share something now a friend commented on the subject.

Think of the self as a production of the ego. Think of the non self as your true personality – the picture others in the world see here, now, and through their eyes. The non-self is not so obscure – it is really us. We just don't know ourselves.

Our non-self is constantly changing because of our immutable interrelationships to others and to the world. Thus, the non-self is a quality of our lived life while the self is a consistent, feel-good story we constructed and tell about ourselves. Here is the way my friend put it:

Me – a Story My Ego Tells

"My sense of it is: Self is ego. (non-self or) Person is the momentary being you are, dependent on past and present events, and related to the complex web of life. Add all the other human beings with whom you interact differently. Everchanging and dependent on so much else. Does that make sense?"

Renee Dunham (personal communication)

Yes, it does Renee. I tell the story my ego spun out of carefully selected facts. I actually am the person that is the non-self – a complex, interconnected, impermanent, living thing.

Because the non-self is comprised of relationships and connections, it is susceptible to the intertwined phenomena of emergence and impermanence. We consider these next.

Buddhism teaches the principles of suffering and non-self. Those principles find support and explanation in the modern sciences of neurology, psychology, biology, complexity and emergence.

But what of the final principle – impermanence? Here, the tone of the discussion takes a major turn. It would seem natural to equate Buddhist impermanence with the changes driven by the scientific process of emergence.

In the biological world, all things must live and then die – suffering as they drift through life. It is equally the case that biology is a lively arena in which the species and life forms compete and change relationships while entirely new forms emerge.

All well and good – we can see that things are born and die. So taught the Buddha. But the wisdom handed down from 500 BCE falls well short of the truth.

Yes, you heard me right. Buddhism falls short of the truth about impermanence. Buddhism is true only up to a point.

The Buddhist teaching concerning impermanence is true but overlooks the most important point. Nature as we experience it now was created. Moreover, that creation continues unchecked and perhaps even accelerated– until perhaps the sixth mass extinction event.

Or as Shelley put it:

Man's yesterday may ne'er be like his morrow;
Nought may endure but mutability!

Because creation must replace the old with the new, everything we see now must be impermanent. If this were not true, the Earth would never have made room in the past for the appearance of people, cars and recently artificial intelligence.

Buddhism recognizes the impermanence caused by the cycle of life and death. However, rooted in one time, a time when creation seemed an accomplished fact, the Buddha did not sense that "the times are a-changing". Today, we can see that aspect of impermanence from our knowledge of deep historical time.

This presentation doesn't have space to review the deep history of the world nor to explain emergence. Moreover, I don't have the learning but I can make a good argument that the scientific flâneur visits more cafés than the focused specialists and thus can assemble a provocative tale from many disparate pieces.

Earlier, I recommended you take a look at a discussion by Sean Carroll with podcaster Lex Fridman. The YouTube Video is here.

In addition, Sabine Hossenfelder has a number of useful instructional videos. Here is a typical video entitled: "This New Idea Could Explain Complexity".

Let me paraphrase a few Hossenfelder insights.

This New Idea Could Explain Complexity

Sabine Hossenfelder

New Word: **Emergence**.
The Idea: **Under Construction**

Sabine Hossenfelder describes it this way:

"The universe creates complexity out of simplicity by a process we call emergence."

Paraphrasing Hossenfelder:

- Loosely speaking, small simple things that follow well-known natural laws combine into larger things that then follow their own natural but surprisingly novel laws.
- Strictly speaking, we don't know what the hell we are talking about.

Yet the evidence in nature is clear, clear even if we can not yet understand the creative processes that create complex forms from preexisting simpler forms.

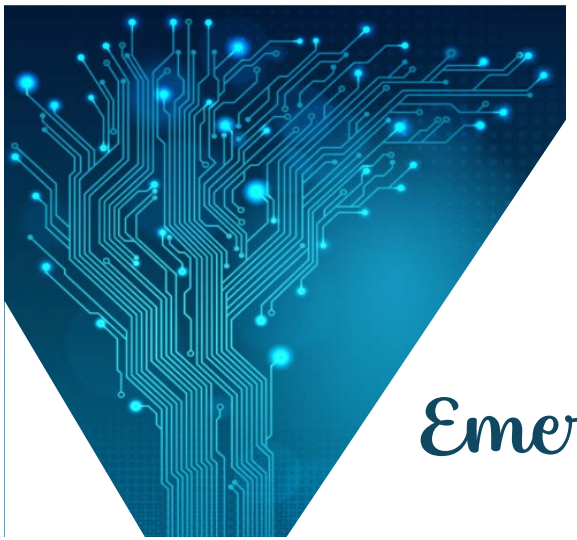
Even if, as Hossenfelder concedes:
"Strictly speaking, we don't know what the hell we are talking about" – even if we lack a full understanding

- we observe that new forms, new types have emerged through historical time by means of creative processes. Moreover,
- the new things that have been created follow rules and reproducible behaviors. There must be new underlying laws – laws that we don't know yet.

Bottom line: Buddhism is true where it has always been true; in places and cultures with a view of time so narrow that the cycle of life and death implies repetition. Roughly speaking, that domain of validity runs from the advent of agriculture to the advent of industry.

Inexorably, new conditions emerge. Buddhism was formulated to remain true for eternity. Buddhism is Eastern i.e., Asian. In the West, Plato similarly described eternity as fixed. Neither viewpoint accords with what has been learned now that modern culture, technology, and systems have emerged.

An accelerating creative process replaces eternal ideas with emergence.



Emergence

It's not the East Anymore but the Wild West

Buddhism expresses fundamental truths and its practice helps Buddhism's followers achieve more – achieve more happiness in this life for example. Buddhism is wedded however to concepts of repetition and underlying stability

My contention is that creative change is accelerating and building a future unlike any past moment. It is the Wild West now.

The creative change that we are living through surely involves rules and laws that apply to the actors on the stage today. But, we don't know the rules. The rules emerged with the actors. For example, what rules apply to the entity OpenAI?

You are one of the actors. You are a part of an emerging future.

That is where ethics and religion enter the discussion.

Eventually, this series of presentations will outline a perspective on new science and reasons for citizens to take a fresh look at behavior, ethics, customs and politics.

Moreover, many of you are religious and believe there is more than the physical universe. In that case, this effort applies doubly to you. Our investigation will explore how God's children shape the world given them.