

Scott H Young Book Club

*Zen and the
Art of Motorcycle Maintenance*

June 2017

Zen and the Art of Motorcycle Maintenance

Welcome to the inaugural month of the book club. This is June 2017 and the book is Zen & the Art of Motorcycle Maintenance. I will briefly summarize the book and then I'm going to have a long discussion with Kalid Azad of www.betterexplained.com where we share what we thought about the book, some of the ideas, and maybe some connections that you might not have thought about.

So the book has two parts: a narrative or sort of fictional part to it and a non-narrative or philosophical n/ non fiction component. The narrative part is a motorcycle trip across the United States where the narrator and Chris his eleven year old son are accompanied through much of the trip with another couple, John and Sylvia Sutherland.

The non-narrative part is what the narrator calls a Chautauqua and this is the part sermon, part philosophical rumination on the ideas of philosophy on what these things mean. One of the first bits we get of this philosophical discussion or Chautauqua is about how John (his traveling companion) is not interested in maintaining his motorcycle. He doesn't like to go in there and do anything which is quite different from the narrator, who as you can tell by the title, is quite interested in motorcycle maintenance.

He feels that this is not a small difference. This actually isn't a small dislike of technology, this actually represent a schism in the narrator's mind between two world views: this is the Classic world view and the Romantic mode of thinking.

The Classic views (references the ancient Greeks who formalized logic) is about the nuts and bolts; the parts of the machine, and how they relate and how they form abstract categories.

And you have the Romantic thinking is about the surface. It's about the impressions, intuitions, and emotions. It also a matter of what things look like and what they are rather than what they mean.

We're also introduced to a character who the narrator calls a ghost. This is of course is Phaedrus. We will later learn that he is actually who the narrator used to be. He went insane and had a break with reality (there was electro shock therapy) and he had a sort of personally schism who is a different person who happens to inhabit the same body.

It's alluded to that his break with reality came because he was a great thinker who had a powerful analytical knife that when we turned that knife on philosophy it ended up cutting him apart until he had to go through this electro-shock therapy.

So with that ominous turn we continue along the winding path. We're treated with digressions into the history of Western philosophy such as Hume and Kant. We meet various locations, camping, and we encounter meeting some of Phaedrus' old friends which is disturbing because he doesn't remember them, he only knows about them through research but they of course recognize him as someone they used to know.

Later on we get to the thrust of the book: this is the idea of capital "Q" quality. It starts out as a way of explaining a phenomenon that Phaedrus, when he was a rhetoric teacher, that when he tries to teach the rules of how to do good writing it actually ends up in worse writing. As a result he declares to himself that there are no rules of good writing. We can all recognize good writing and bad writing and that it's not something that can be analyzed.

This of course is a problem for philosophy. A lot of the thrust of philosophy is that if you are not able to cut something apart than it is essentially mysticism.

So how does he deal with this?

First, he deals with this first informally by saying that quality with a capital "Q" can't be defined but we can all see what it is. It is not formalizeable. And that doesn't really appeal to his rigorous colleagues so he decides to make a rigorous meta-physics about it.

And meta-physics for those of you who don't know, is the kind of "above science". It is: the ultimate nature of reality is like "X". So lots of meta-physics could be Materialism that everything is made out of matter and energy.

There's Idealism: that everything is ultimately made of ideas and thoughts. There's "Dualism" that is has both of those properties, and so on. So he starts off with how do I deal with meta-physics. How do I deal with this?

So the first thing that puts to him is what he calls the horns of this big bull of this dilemma and it is subjectivity or objectivity. Is quality with a capital "Q" subjective? He doesn't like that because he feels that quality is more than what you think it is. It has an independent existence and it's not just your opinion. But the other horn of the dilemma (is quality objective) is equally troubling because if it is objective than presumably science should be able to find it. Because we haven't found anything that corresponds to this quality, why not? That's also a hard thing to get around.

Eventually he comes to an idea that quality is the source that creates both the subject and the object. It creates the subjective experience and the objective world. This is quite a revolution.

He relates to the Copernican Revolution of realizing that the earth orbits around the sun instead of the sun around the earth. And he likens this to a train that our experience of life is a train going down the track of quality. The front of the train, the bleeding edge, is the romantic appreciation of things. It is the immediate sensory understanding of what is going on. Then things go down the train and they are analyzed and put into their individual seats and departments and cars of the train. That is the classical part of the mind where we carve up our past experience because we can't carve up things in the moment but things we've experienced a second ago or even longer.

There's a little digression in one part of the book that I thought was interesting where we compare quality with a capital "Q" with the Tao which is this Chinese concept of a universal ineffable life essence. He feels this is a favorable comparison; that these are maybe the same concept.

While this is occurring, we're looking into Phaedrus' past, and it becomes clear that the narrator might be losing out to Phaedrus and that Phaedrus might be coming back. This is of course worrying because his break with sanity led to his downfall and he's particularly worried because he is on this motorcycle trip with his son.

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We then start looking at another Chautauqua on the practical implications of capital "Q" quality in this case in the idea called Gumption Traps. This is one of the great concepts of the book; probably worth reading just to get to this point.

It is essentially saying that when you are trying to solve a problem it is the relationship of your attitude, enthusiasm, and appreciation of quality with the object that you are trying to work on that is important and not merely the object itself.

He uses lots of examples of what he calls traps or "stuckness" where you can't go forward in the realm of motorcycle maintenance. But there is a really deep concept here in thinking about these kinds of set backs and hang ups in many other areas of life.

At once point he talks about the Japanese concept of Mu which is not zero or one, it's not nothing or something, it is emptiness, it is a null answer. He feels that this concept is missing from philosophy. It is not yes or not to the question, it is a rejection of the question itself.

As we reach the climax of the book, Phaedrus (this is in the past) is doing academic battle with his university chair called the Chairman who is this character putting forth the defense of Plato and Aristotle and this formal, classical reasoning. Phaedrus finds it insulting because Aristotle puts rhetoric in a small box, quite far away from what the actual idea is. Phaedrus feels that this is the main thing that goes beyond everything.

In that discussion we see Phaedrus trying to champion the enemies of Plato who were his rhetorical opponents and trying to say they represent false ideology. Ultimately he tries to revive this Greek idea of virtue or excellent of things being good or, capital "Q" quality.

We see that after he wins intellectually he ultimately becomes further disconnected from reality and the real world. Phaedrus goes in a little bit of a mental break. He is institutionalized and given electroshock therapy. Then we have the narrator as we know him.

Shortly after this, Phaedrus reasserts himself inside the narrator and the book ends with him riding off into the sunset with Chris. We're left with an odd feeling because Phaedrus was this bad guy and the crazy person the whole book and now he's in control again.

If you read the 25th anniversary edition it has a nice intro where the author discusses why he feels that this was misleading and confused a lot of people because the narrator is perhaps the bad guy of the book. He is the one who is intellectually dishonest, he's the one who is overly conformist, he overly cares what people think. He isn't true to himself whereas Phaedrus is the real hero of the book. He's been unfortunately subdued by the system and the world around him and at the end of the book he represents that triumph of capital "Q" quality and this intellectual maverick over the timid and boring narrator.

Nonetheless I think this is a very good book. It's something that I had a hard time trying to summarize with any level of brevity because it is so deep. There are so ideas here.

There's a lot to read for yourself and my summary doesn't really do it justice. Now we'll transition and have a conversation with Kalid Azad where we'll talk about these ideas in more depth.

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Scott: Welcome. This month's book is *Zen & The Art of Motorcycle Maintenance*. I have Kalid Azad who runs a great website, www.betterexplained.com

So I thought he would be a good person to inaugurate our discussion this month. So welcome to our first book club discussion.

Kalid: Thanks very much! This is a book I've read a long time ago and it was a great incentive to give it a re-read.

Scott: The idea of this isn't to evaluate the book, this is a classic novel. One of the things I really liked was that the ideas in the book match the form of the book. I think there should be a genre of books where the essential thesis or idea of the book matches the rhetorical style.

The essential idea of the book is that there is a Classical / Romantic distinction in the underlying mechanism or parts of reality. You've got these philosophical ruminations but you're also on this motorcycle journey across the US.

Kalid: The book has a lot of elements that mirror the message of the book. I hear that the author even said he had some ideas but he didn't want to write them in a way that came across as a "lecture from God" which is what a lot of philosophy or education books do. He wanted it to be more of a conversation style.

Scott: I think a good starting point for the book discussion. What in your opinion is this Classic / Romantic distinction that he makes?

Kalid: There are some people who see the surface impressions. So in the case of the book, you have John who likes to ride his bike but doesn't want to know all the parts of it or how it works.

Then you have the author who wants to know the details and is less concerned with the aesthetics. An example would be when a part of the motorcycle is broken. You can look at it as a hunk of metal that you can take apart and put back together. There's a functional component versus the form.

Scott: I think a recurring theme in the book is peoples' reaction to technology. This has a lot of implications. In the time period where this book is set, it's written in a wake of counter-cultural revolution of the 1960's.

It was a turbulent time where a lot of old ways were seeming outdated. It was almost a "post-modernist" time where the so called "square" attitudes of the parents of the Baby Boomers who went to war and saw the aftermath of this; they wanted something different.

So in some ways it's ambivalence, in some ways it's outright hostility to technology and modernity and the systems of the world. Whether those are the lower case systems in a motorcycle or the capital "S" systems of Capitalism, Communism, and so on, that were typical of the time.

Maybe it's from not understanding technology or being averse to trying to understand how the motorcycle works. There's a moment earlier on in the book when the shopkeepers are

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doing a repair and they are not engaged in it, which the narrator is repulsed by. This is a book that really touches on that nerve.

Kalid: It's a good point: there's tension between the art and the technical elements of things (as you mentioned in the case of the shopkeeper who is technical but not artistic). You can also have artists who aren't that technical. It's really about trying to get the synthesis. Either end of that stream is not a positive place to be. The author is trying to reconcile that, I think.

Scott: Well I know some of my readers are familiar with your work (www.betterexplained.com) it's a website for providing intuitive explanations for math. I thought you'd be a great guest this month for this particular book.

A lot of people have an aversion to technology and math is technology in its purest form. What I find so interesting is that although *Zen & the Art of Mathematics* I think that's really what you've been trying to do in a lot of your work. So reading this book, did you feel as though there were some ideas in your own sense of how this applies to the work you're doing.

Kalid: Yes, it's funny, people talk about aversion to technology, and I was reading it and thinking about people's aversions to math. You can hold people down and say "math is useful!" but they're not happy to learn it or happy about the role it plays.

I felt a similar tension in my own education. I wanted to unify the technical details that I was learning with the aesthetic appreciation that I thought learning should have. To me, it's crazy to learn something and not enjoy it.

Scott: The author talks about the ideas in this book in an attitudinal perspective; that these are different attitudes one can have. It's presumed in the idea that there's a classical view and a romantic view and that these are, to a certain extent, choices or that they are created in a cultural environment.

Some believe that Albert Einstein had a very well developed part of the brain that is involved in spatial relationships and visualizations. I wonder how much of your brain architecture and your neurology allows you to see things more systematically. He (Albert Einstein) was so great at developing intuitions about physics.

When I think of the narrator going through the motorcycle and about how the parts work, I wonder how that comes into play. I wonder if some people have an easier time visualizing the abstract nature of an object and the systematic relationship between cause and effect. Especially in a system that has moving parts or is particularly complicated. I do wonder if this is innately easier for some people.

Kalid: I am sure when some people see something they are naturally systematic where others aren't. Personally I look for the overall analogy. It might be that most of us are satisfied with the first impression that we stumble upon.

For example, if someone is artistic it might work for you to stop at the artistic impression of something and you'll just stop there. Other people slice things different ways; functionally, by relationships, and so on.

Scott: When we were doing the Facebook discussion group one of the early “aha” moments from a reader was about when the narrator was talking about ghosts and the law of gravity.

In the book, the narrator is talking about the superstitious belief in ghosts. He makes the point that if you look philosophically at the laws of physics, it resembles what previous cultures would refer to as the unexplainable, for example, ghosts. This led to an interesting debate on Facebook.

We have this idea collectively about the law of gravity. Now that might correspond to a physical principle that observes a pattern. But this “law” before Newton formalized it, didn't really exist. There might have been a relationship out there in nature but this idea wasn't present in our consciousness. There's something interesting there that while you can say that our abstract concepts relate to physical things in the world, there is a sense that the abstract concepts themselves have an independent existence which itself is just an idea to describe a pattern. What do you think about this?

Kalid: It's really interesting. When I was reading this (book) I was trying to re-explain it to myself in my own words. Essentially, the law of gravity is a useful mental model to carry around: we say things fall because of this thing called gravity. Newton formalized this idea and put in equations so we have a specific model.

Then of course a few hundred years later, Einstein said it's space and time bending. So our perception that gravity might not exist as we know it changes things greatly. It's really the mental model that shifts. Even if nothing in the physical world changes, the mental model is so persistent in the mind.

Think about Copernicus. In the beginning we thought that the sun goes around the earth but with the Copernican Revolution we realized it's actually the earth going around the sun. Nothing physical has changed but the “ghost” of the sun going around the earth has died.

Scott: Our July book is going to be *Sapiens* by Yuval Noah Harari which covers this in great detail and I'm sure we'll be talking about it there. But you and I both have some programming background and one idea you learn in computer science is the concept of a pointer where you can have a piece of data and what that data does is refer to other data.

There is a certain sense that if you lack the level of thinking that pointers can exist (that you can have an idea that refers to another idea) it makes it harder to understand abstract concepts. So that's what's happening here.

The law of gravity is referencing some kind of object level phenomena in the universe and the narrator's idea of a ghost is self-referencing this concept. This can be somewhat of a revelation for people. There are a lot of non-existent things that we're basing our decisions of reality on.

I want to move on to an idea that you've previously mentioned: the idea of an analytical knife. It's the idea that how we conceptualize the world is like a knife cutting up the world at the joints.

I think it's often discussed in a destructive process or a negative light whereas I thought that

the book handled this with aplomb and showed how it's useful. But it also showed that by cutting something you are destroying it to a certain extent. What are your thoughts on this dual nature of the analytical knife?

Kalid: The author mentioned that when you cut something you are basically creating something and destroying something. So when you separate things into components you're taking a different view that's more microscopic and you might miss the big picture. So you might see more detail but you're missing the Gestalt overall experience. I thought it was interesting.

So if we're talking about Geometry for example do you ever allow those two parallel lines to meet? It will change your view of the universe. The meta lesson that I'm getting from it is that essentially choice in life is quite important and we're actually not aware of it. But we need to look at why we chose that knife.

Scott: I think there's a powerful analogy there about why the analytical knife might function the way that it does. People tend to think in binaries: even this book is taking the Classic / Romantic split as binary. It's harder for people to look at it as a gradient or on a spectrum. It's cognitively harder for us to understand. We like to lump things into categories.

I wonder if our own way of conceptualizing things is useful but does it always miss a certain character because we're always cutting things up. I wonder if this is actually a deeper feature of how our brains work. Is it us imposing our own mental machinery because the human brain is a splicing machine and when we apply it to reality we are forced to do this?

I wonder if there are a lot of situations that are of this gradient nature. We have a hard time imagining intuitively because our brain wants to cut things into pieces.

Kalid: Yes if you think about the dual particle, wave nature of light. It seems like it's firm or a wave, or both. And our brains struggle with this and have been struggling for the last one hundred years. Clearly we have proof that it exists but our brains can't articulate it.

Our brains are radical simplification machines. There is so much information out there and our brain has to narrow information to process it all. So we naturally gravitate to a system that allows us to understand it more easily.

Scott: There is a great quote about physics that I will paraphrase: the universe might not only be queerer than we suppose but perhaps also queerer than we can suppose. In other words, the universe might have features that are stranger than we think right now but it also might violate our ability as cognitive machines to even have that intuition about it.

In the book, there's an idea about the failure of the knife itself as well as the failure of science. From a beginner perspective, they are not bad choices to include the failures of systematic reasoning in the book but from my own experience there's a far more convincing and powerful attack on that standpoint. Some believe there are innumerable hypotheses to any given event but then you can work around that and still have valid science.

I think about Kurt Godel's Incompleteness Theorem which was in the early part of last century (there are some great documentaries online) but essentially at the end of the 19th century,

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David Hilbert and other people were very confident about the ability of mathematics to formalize itself and come up with the exact right number of theories that would allow you to do all of mathematics.

I believe it was Bertrand Russell who spent a lot of time developing Set Theory which is a book about 300 pages where he puts math through a rigorous process to formalize math. Then Kurt Godel comes along and creates a statement that says essentially "this statement cannot be proven". What he's saying is that there are true things that can't be known. This reasserts the fundamental limitation of systematic reasoning.

Kalid: Most people don't like math from an academic perspective but we end up referring to it as the closest thing that we humans have to truth. If I say there's mathematical proof that something can be known, even those of us who don't like math can agree with that logic.

Scott: This book really has two layers you can read it on: one is philosophical and one is very down to the earth and practical. The author talks about these gumption traps. What did you think of this?

Kalid: To me, the underlying thesis is that behind art and technology are ways of viewing the world to achieve a deeper truth. Gumption Traps are ways that our brains can drain our enthusiasm. The author gives the description of a train. The front part that's looking out is art, the engine is technology and you're going along this track.

From a practical perspective, Gumption Traps are things that can get us away from quality. If you're bored or anxious or frustrated you're not seeing the capital Q "Quality" or the value of what you're doing.

Think about the example given of a writing exercise where students are writing about a town. They first think about the town, then they think about a building, then the very first brick of that building. A student starts with that one that brick and from there the writing flowed.

Scott: Right. Think about "stuckness". When you're stuck in what you're doing you're caught up in something that's preventing you from perceiving the quality of what you're doing.

This is the most powerful lesson in the book: when you're doing your work, are you feeling that kind of quality of it? Are you engaging in that quality? Or are you in a trap where you're stuck?

The author gives a lot of practical advice from the idea of motorcycle repair in terms of having the right tools and having everything in front of you and making sure you're all set up. There's nothing new about that but I think there's one part earlier on in the book where he (the author) is joking about Japanese manufacturing which in the 1970's was not the paragon of excellence that it is today, and he was joking about a Japanese technical manual where the first step was to achieve peace of mind.

The author joked that it was a cultural misunderstanding; a technical guide isn't supposed to say achieve peace of mind but in his mind it was so perfect because that's the first thing that you should do when you're going to do some kind of work on a machine, really, is to

achieve peace of mind.

Kalid: Yes agreed, as you said, I could give you tips such as “look at things with fresh eyes” but the reason people have trouble is that there is an underlying mental model.

And the same way the Copernican Revolution changed our role of what we do in the universe even though the details of the stars are the same, we need to understand why we need to look at things with fresh eyes.

If I am getting stuck or bored or frustrated I need to ask myself if I’m coming at it with the same mental model.

That underlying principle of quality gives us a strategy so there are tactical reasons for doing this. One of the ideas I really liked was called the Monkey Trap where if you want to catch a monkey you have a box, cut a hole, and put some rice in it.

The monkey comes along, grabs for the rice, makes a fist, and gets his hand stuck. You can tell the monkey “don’t do that” but the author asks okay, what general advice would you give? From a general philosophical perspective, what do you tell the monkey?

Examine your situation and reevaluate your values. That’s really all you can say. Look at where you are and evaluate your choices. How many times do we get stuck and effectively bang against a box? We need to ask if this is a high quality scenario.

Scott: Let’s touch on the meta-physics. What is the big idea of this book? For me, the book has so many little insights and discussions. It’s so well written in so many ways, I feel as though, even if you went through and it didn’t like the meta-physical lessons, it’s still such a valuable ride.

But you mentioned one of the main ideas and I would like to reiterate it: there’s a capital Q idea of “Quality” and it is the cutting edge of reality. All of our classical intuitions are the baggage of the train. They are happening in the past. They are analyzing, cutting up and slicing our immediate impressions. The romantic view of reality is the front of the train: it’s the edge of what’s bleeding into our consciousness at that very moment.

The author says the idea that the perception of value (something being good or bad) is a more fundamental reality than what truth is. This is why Phaedrus is so against Plato and the idea that the first thing you must ask is, is it good?

Aristotle is shuffling that to the back corner into a small department of rhetoric in this sub-category whereas in the hierarchical system of the world it isn’t like that at all. Do you buy this idea of meta-physical lining up of things?

Kalid: I am a pragmatist on these types of things. I go through it thinking, does this worldview help or hurt me? Does it make me live a life more consistent with the values I actually care about? And I think it does.

For me personally, when learning math, I had the sense that it wasn’t high quality math when it was categorizing things. From that perspective I think it’s a really good metaphor to keep a

high standard for yourself.

Scott: You really touch on a good point. The pragmatic attitude towards this kind of physics. The main thrust of the practical manifestation of this is the idea that you should intuitively sense what is good and bad.

It doesn't require layers of reasoning. You should be able to directly perceive it, both in the classical and romantic sense. This has a lot of applications because a lot of people would prefer to formalize things and rigorously define what is good.

The author rejects the possibility of that. You can't write down a set of rules that will allow you to decide what's good or bad.

However, on the meta-physical end I do have two opinions on that. My first opinion is that I have a general doubt about meta-physics in general. My favorite quote comes from Tyler Cohen (renowned economist) he was asked about why he is agnostic.

His opinion of this is when you come across a watch in the desert, you can form some analogies about it such as its design, who created it, etc. because you have other experiences not having to do with the watch. However, we never come across the universe because we are embedded in it. Therefore our analogies are a bit naive because we are implying reasoning about the part from within the whole. There is something to be said for that.

Where I do disagree, theoretically with this idea, personally, is that I do feel perceptions of value are emergent phenomena in the universe. The fundamental "things" are probably not values but field theories or something like that. Value comes at a level of complexity at a level much higher up on the chain.

So the idea that meta-physics is more true science, I do disagree with that. I think that's probably false. But if we're using meta-physics as an attitude with which to approach things, I think this book is probably pretty close. It deals with the "over-philosophicising" that we see when someone is trying to write the rules for how something works.

Kalid: Yes especially in our modern world where we A/B test everything, you can walk yourself down a crazy corner and you need that artistic license to say wait a minute let's look at the road we're going down. You need to step back and see if you're actually accomplishing things.

Scott: This is particularly prevalent in business (such as marketing) where data becomes fetishistic because it's sexier than opinions because it's verifiable. It's a valuable tool but the thing I've found when I see people go too far is that the thing you actually want is the thing you can't measure. Yes you can do X and Y but you'll destroy the thing you're trying to achieve.

In a lot of cases there's an approach to quality where we can use our analytical knives to cut things up but it must be balanced with a more romantic appreciation of things because it is an encapsulation of some sort of intuitive appreciation.

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Kalid: Exactly. This book is fifty years old but it doesn't read like it except for a few references. It reads like a fairly modern day road trip. I haven't seen many modern books that strike that balance.

Scott: So I will say to everyone here in the book club in our inaugural month, Zen & the Art of Motorcycle Maintenance, excellent book! Wouldn't you say?

Kalid: Absolutely!