

The Paradigm Discourses “Journal”

And this too shall pass away.

Dogma keeps a journal?

Dogma was by himself. It was a conscious choice; he just didn't feel like participating tonight. He reached across his desk, pulled out his journal, and opened it to his last entry. He realized it had been quite some time since he had penned any additions.

Putting down the date, he thought for a moment, then let it all spill out.

Worldviews. Paradox, self-reference, and imaginary truthvalues. Spacelike causality. Uncertainty and Paradigm's damn ignoring conjecture. Destructive interference. Spooky-coins and magic-envelopes. Time travel.

My head is swimming; this is too much new stuff all at once, and I don't see how it connects.

He sat still for a while, but nothing else occurred to him. Finally, he got up, made some tea and returned. Thinking to himself, “When confused, start at the beginning; lay it all out, logically, completely, linearly.” He picked up his pen.

The realm is nonlocal, thank you John Bell. It has a cosmic speed limit, thank you Einstein. These two are incompatible, yet nature doesn't crack. Physics allows multiple ways of describing reality; in relativity it's the reference frame, an intricate weaving of space and time together, in quantum mechanics it's the bases, dividing 'action' up into two conjugate types of things. I find myself longing for the conceptual clarity of classical physics; I could envision what was going on there. Didn't that trap Einstein also?

And what am I going to do with Paradigm?

Focus!

He took a sip of tea, leaned back in his chair, crossed his fingers on his chest and examined the ceiling. Very plain, very pastel, no inspiration there. He focused on his breathing deliberately trying to quiet his mind. What was the correct way to think about the Realm? It is not a vast stage with action unfolding in time; that was the Newtonian view. Comfortable, useful, mathematical, but not, in the final analysis, *the way things are*. What is a law then, what is a *natural* law? Sitting up, he started to write again, haltingly, more questions than conclusions.

Are laws causes or constraints? Are they dynamic instigators or passive limiters? Both allow prediction, but while the former implies determinism the later implies statistical outcomes. Isn't that what we see? We assume natural laws define causality – have a force, expect motion. How

many kinds of laws are there? Have I ever constructed a taxonomy of laws, of causality itself? Nonlocality implies more than two types of causality. Is even causality now suspect? I can't believe that.

How is this team going to make progress under these conditions...

Then it hit him; these conditions are...wicked.

I forgot about 'wicked'. Classical physics is a 'kind' domain, relativity too, well mostly, but quantum mechanics is wicked. Don't even think about the intersection of relativity and QM, that is wicked on a whole new level. Specialists triumph in kind domains, generalists in wicked domains. I'm more comfortable with the specialists.

Now I know how to proceed. My place-scheme is sound. Structure is still important, evidence, statistics, pattern. The objective has not changed; establish a complete, stable place-scheme. But the hunt for it can be a bit messier, less structured, more subjective; hunches have a role in the hunt. Perhaps, before we can know if it is true, we have to tolerate it being ambiguous.

Involuntarily, he shuddered.

Range, it's called range. How could I have forgotten? Lots of research in the open literature. Those with range can tolerate ambiguity better – yep, that's Paradigm, but a well-functioning team can do range even better.

We have more range as a team, less as individuals.

That's what Faith was referring to, why we'll need everyone in the room. Capture the plan, write it down so you don't forget it. Use structure to test unstructured, process to strengthen ad hoc, calculation to confirm guesses, questions to challenge assumptions. But no more stonewalling. Ambiguity will yield. It must...or my life is...well, a lot messier. I want to know that it all hangs together.

I struggle with what Paradigm does naturally, but he's not very good at what I do either. Somehow, somehow, we have to work together. Hmmm, he can have his flights of fancy, I'll supply the string to the kite, keep him from flying completely off the planet. My job is to move him quickly from one idea to another, and hope (if that's the right word), that if he gets lucky, that I can substantiate it. He can be wrong a hundred times, all I have to do is not let the one time he's right slip away.

He folded up his journal; looked at it on his desk for a moment, then put it away. Suddenly it occurred to him; he checked his watch, yes if he hurried, he could still make the after-dinner conversation.