Religion and Math

by Clark M. Thomas

Religion and math have historically been joined at the hip. These conjoined twins have each tried to minimize their cozy relationship, but they have long been as one at their extremes. This odd union is not from intellectual laziness, but from errors in vision. Reward systems within institutional religion and science continue to distort systems of thought.

I chose to write this brief meditation after some have falsely accused my writings as being like religious treatises. I refuse to clutter essay pages with the cloud-castle algebras some require, thereby alienating all but the most math-hungry readers. I do reference and describe those maths as needed. If our human maths could confront transcendental questions without tricks like renormalization in quantum physics – then medieval monks would have been justified spending their time calculating how many angels can stand on the head of a pin.

Interestingly, there is a "solution" to the angels puzzle: That question reappeared with Hawking's 2016 *zero-sum* explanation for theorized retention of all captured information on hairs at event horizons of black holes. Both "solutions" work from the simple math of – given a fixed available surface space – the necessity of reducing the size of angels/hairs toward zero, as the amount of incoming organized data increases toward infinity.

Kurt Gödel in the early 20th century proved that no math system is complete unto itself. Furthermore, each math and belief system is supported by unprovable *a priori* assumptions. When we combine Gödel's genius with the limitations of finitude trying to experimentally capture infinitude – all such results

become increasingly iffy toward both the very large and very small dimensions (i.e., approaching infinity, or zero) beyond what is knowable. Toward the edges of what is verifiably knowable the precision of tidy math proofs becomes absurd. Religion escapes to slippery "mystery," but maths are too proud to admit their cloud castles.

The most we can honestly achieve is to combine rigorous logic with our best experimental data to produce incremental progress within measurable dimensions. The closer to human instrumental dimensions, the more likely our experiments will be reproducible. We equate our human-dimensional laboratory experiments with the scientific method. Nevertheless, even the finest scientific experimental models risk becoming at their dimensional extremes like a rudderless ship in a sea of possibilities. Large astronomical datasets cannot save flawed ontology at cosmological dimensions. Data quantity ≠ ontological quality.

In some famous cases apparent profundity becomes triviality: The recent triple-site LIGO detection of two merging neutron stars yielded two different and simultaneous cosmic measuring sticks, improving over single cosmic measuring sticks such as Type Ia supernovae. Triple-site Doppler measurements of two merging neutron stars help to better frame expansion rates within our visible universe associated with hypothesized dark energy. That's it… Billions of dollars spent for nifty breakthrough science giving a higher-fidelity, dark-energy expansion rate.

Consider that *dark energy as currently hypothesized does not even exist.* Several of my theses have clearly explained why, and offered a superior explanation for accelerating expansion within the outer regions of our visible universe. Therefore, LIGO's measurements of expansion rates equally support my multiverse push/shadow gravitational paradigm. Correlation ≠ causation.

Institutional religions try to transform unknowns into human terms that could even be expressed as axiomatic math. Human parables tell us to be comfortable with mystery that leads to

axiomatic divinity, the presumed ultimate solution for every equation in life. For most of us, that package of spiritual comfort food is enough to satisfy our curiosity and psychological needs.

Problem is, organized religions have presented cultures with many sacred stories, some leading to jealous gods. Millions of humans have been slaughtered in the name of tribal religions, as jealous gods are always ready to join each side. The side that wins is more holy; so the more you slaughter, the holier you are.

It was the wisest ancient Greeks who started to separate logic from religion, creating philosophy. Religion, being theology with social forms, was still a force in ancient Greece. Even the likes of Socrates mentioned the Olympian gods, but it is doubtful that he thought of them as anything more than a metaphor. Among the finest Athenians science, beauty, logic, and philosophy were one.

Only many centuries later did technological science try to set itself above logic and philosophy. Francis Bacon in the early 17th century stands out with his empiricism. That idea peaked in the early 20th century as Logical Positivism, a discredited theory that still infects science today when the values of meaningful and meaningless are discussed.

Carefully crafted language can express elegant ideas as well or better than algebra, as they both share a logical foundation. Math is thus another way of speaking, another human dialect. Either way, we are limited by our being able to experimentally detect and measure only a tiny portion of reality, even though it seems like a big slice of pie up close. We like to deduce, then induce, but what we call probabilities are really just possibilities. Math is another universal language, as is English, among the educated. Math seems to be the preferred language for proving the unprovable, and defining the undefinable.

There is high data precision, and there is false precision, both bordering on hubris. Both religion and symbolical mathematics are loaded with hubris – and that is why we know so much, but

understand and appreciate so little. Quantitative knowledge cannot fully replace dialectical wisdom ruled by logic rather than superstition. We know a lot about photon Relativity – and very little about what is relatively critical for our human journey.

Nevertheless, for limited experiments we are best to measure mathematically, and then to frame our findings and hypotheses accordingly – typically with a parallel prose narrative. In other words, there is room for both clear language and clear math in real experimental science.

As for those who would naively accuse my various theses as being nothing more than religious noise – I would say they really need to read *and* understand my intellectual ecosystem explained among several recent essays. Footnoted links within essays are also not for decoration.

As for my methodological intentions, consider that before I wrote my first social philosophy book in 1974, I seriously devoted one year trying to *disprove* what inspired me to write that book. I had previously discovered common flaws in most social and philosophical arguments. I thus perused over 250 targeted books and articles, only some of which are referenced. I was trying to *disprove* my original ideas, but that year of deep research verified my initial understanding. That research also found its way into additional books in 1995 and 2005.

I approach everything I write today with the same ferocity and fidelity to seeking truth – and now I have the Internet as another great resource. Nothing less than a pure and selfless attitude toward honest inquiry is required if we humans are to proceed safely to the end of this century and beyond. This is not religion; this is science.