4 CORRELATION STREET

"It is a truth universally acknowledged,

that a man in possession of a good calculator must be in want of a sum"

A student throws something, another throws it back. How do you tackle this? I have been know to quote Gandhi's famous truism to the second of the pair, "An eye for an eye will turn the whole world blind." I ran into unexpected trouble over this with Terry once. "Aw, quotes are for losers," he said disgustedly. (I naturally noted this down for use on a future occasion.)

Actually, quotes can be for winners, even in maths classrooms. Have you ever played the Let's Quote Maths Game, where one takes a popular quotation and mathematises it as best one can. For example, "If mathematics did not exist, it would be necessary to invent it." My current favourite: "To be or not to be, that is the Law of the Excluded Middle." When considering binary, one can take the digits 0 and 1, and say, "Never has so much been owed by so many numbers to so few." Of course, this relies on a little general knowledge on the part of your students: if they equate Churchill with a nodding dog, then you are likely to appear a little eccentric.

Sometimes these mongrel efforts can provide helpful insight, maybe even more than the original. Another Gandhi quotation I like is this: "Everyone in the world would be a Christian if only it wasn't for the Christians." This naturally mathematises to, "Everyone in the world would be a mathematician if only it wasn't for the mathematicians," which has a horribly true ring to it. Does this sentence tell us that we are justified in trying to spread the gospel of mathematics, but the gospel we attempt to spread may be a parody of the real thing?

Many years ago, I sat open-mouthed at the feet of John Conway as he improvised his way effortlessly through lecture after lecture on virtually any area of pure maths you care to name. "You know, I often wonder what mathematics the Martians would have created", he mused once. I often wonder myself. Would they take as blindingly obvious things of which we have never even conceived? Would their mathematics emphasize things we take as trivial? And above all, would this mathematics be easier for our students to learn? Would it be in any sense closer to 'true' mathematics?

I reckon our maths is still incredibly Greek. We still take Euclid's view of the world as the natural way to view the world, although it might not be so to the Martians. It would not have taken much to tweak our vision in a different direction. Suppose that instead of drawing lines on the sand,

Euclid had spent his time looking at shadows on a wall. Our geometry textbooks would not be the same.

So maybe we should encourage our students to carry on asking those difficult questions. Maybe they are groping their way towards Martian mathematics, and maybe one day one of their number will actually discover it. As Kipling once (almost) said:

"And then - which is more - you'll be a mathematician, my son!"

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