

# 15 CORRELATION STREET

"If music be the food of mathematics, play on..."

My wife whispers into my ear: "He's about to start writing on windows..."

Mrs Correlation and I are sitting in the cinema watching *Proof*, a film providing yet one more take on the theme of unstable mathematical genius. The movie, which is turning out to be excellent, goes one better than most in having two of these maverick characters, with Anthony Hopkins (Robert, the father) and Gwynneth Paltrow (Katherine, the daughter) vying for the accolade of most convincing algebraic oddball.

Katherine is talking to her supervisor. She has wandered off the point in her differential equations assignment and has started to improvise, putting down original maths that really means something to her. Her teacher Professor Bhandari (Roshan Seth) leafs through her work with disdain before pronouncing: "Mathematics is not jazz!" (His remark draws an appreciative chuckle from my better half.)

The comment makes me think of both my mathematical education and my musical one. At school, I was introduced to music classically, a whirl of choirs and orchestras and manuscript paper. Music was something platonic, technique was everything, and mistakes were ugly and to be regretted. I learnt to associate a dot on a page with a physical action to

produce a sound, effectively bypassing my ears in the process. Progress meant tackling an ever-ascending series of exams, with the implicit message that your version of a classic piece would never be worth much of a listen when compared with that of a virtuoso. I grew up loving classical music, but fearing it too.

Mrs C snuggles up, taking my arm while chewing mechanically on an Opal fruit. It appears Katherine has come up with some maths that really does break new ground, but it is obvious from her muffled snort that that Mrs C remains to be impressed.

Then one day, I heard the strains of Dave Brubeck's *Take Five* for the first time. I was hooked. I devoured all the jazz albums my local library had to offer. I changed the way I played the violin, towards improvising on different themes in ways that reflected my personality, where any 'wrong' note was not shunned, but repeated with pleasure until it turned into a 'right' one. I formed a jazz quartet where we really listened to each other, responding to our mutual promptings in ways that added a vital immediacy to what we were doing. No performance was just like any other, and every performance we gave could only have been ours.

"I still love classical music," I reflect. "And classical technique is useful to me whatever I am playing. But I don't want to teach maths classically, at least, not most of the time. I want my students to be able to improvise on

a mathematical theme, to enjoy their mathematical uniqueness, and not to fear mistakes but to be thankful for them.”

Mrs C shifts a little in her seat. Her prediction about windows has proved to be correct (almost) – I watch Robert covering the pages of his notebook with mad mathematical nonsense. “What are you thinking, love?” she whispers.

“I’m just thinking that real maths is jazz, actually...”

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