Banquet Speech in Honour of Charles E. M. Pearce's 70th Birthday

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I am delighted to provide this record of the banquet speech, which took place on the 8th of December 2009, at the Adelaide Museum, as part of the EMAC conference held 6–9 December 2009 in honour of Charles E. M. Pearce's forthcoming 70th birthday. As is befitting of this *festschrift* I have appended a short biography about Charles.

This speech is to mark Charles Pearce's forthcoming 70th birthday—it is not a summary of his achievements, but rather a personal perspective of the man himself in order to toast and especially roast him.

Before I first met Charles in person I spent many years walking past his office, on the way to mine, without knowing who he was. I started at the University of Adelaide in 1987, as a casual research engineer, and eventually began a PhD as Level A Lecturer full time. As a PhD student, I often walked past Charles' office that was stuck away in a corner. The door was always ominously shut and it had his name on the door in spooky oversized black bold letters. I wondered who this faceless guy was with the somewhat obtrusive lack of economy in his middle initials. The door sign somehow

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struck the fear of God into me, and little did I know that this snotty-nosed PhD student would one day co-author a book and over 20 papers with the faceless person behind that shuttered door.

Eventually our paths crossed when I was referred to Charles for help with a mathematical problem. Often, when consulting with a math department colleague about a tricky problem, it didn't matter who it was I saw, or even which branch of maths it concerned, the reply was always along the lines of "hmmm that's too hard for me, you'd better see Charles." However, Charles was a hard person to find in the country, so I would often ask for the next best person to Charles. This would always be met with a blank stare as if I had asked the impossible. Even today, if Charles is overseas and I need urgent help, I will say in exasperation "surely there must be someone else here other than Charles who is familiar with this problem?" And I'll get a silent nod in the negative.

When I first met Charles, I found he didn't bite as I had feared, but he was rather welcoming and genial. Over the years we had many enjoyable mathematical conversations and sweated over many deep questions together.

Before I met Charles, when I was promoted to Level B, I was moved into a new office that had been vacated by someone who sat on promotion panels. I deduced this from the wads of CVs that were left behind in the filing cabinet that I inherited. On top of the pile was a CV marked "Pearce," and the penny hadn't even dropped at that stage that this was the same guy with the spooky door signage. I flicked through the CV and remember thinking to myself, "my God, the publication list goes on for pages—this guy looks incredible." As a fresh Level B, I only had a paltry handful of publications in comparison. Then my eye caught some handwritten notes justifying why Pearce as a Senior Lecturer was knocked back from a Level D promotion; it pompously read, "His publication rate has slowed down in the last year." I remember thinking to myself that they were really scraping the barrel if that is the most dirt they could dig up on a person, and I began to wonder how on earth anyone can get promoted in academia. It seemed such a harsh

judgement—didn't these people understand that every variable in life has natural fluctuations?

Talking of promotions, both Charles and I struggled with them and would congratulate and commiserate each other as the occasion arose, eagerly swapping tips and advice. As a colleague he has been very generous with his time. He's been a great shoulder to cry on whenever there was some ridiculous grant outcome decision or university bureaucratic shortcoming to rant about. Thank God our Associate Dean, Tony Roberts, isn't here tonight to shoot me for such a verboten admission. Often, Charles and I would chat till late hours plotting how to make the world a better place.

You know when a colleague such as Charles is a good one, because he goes beyond seeing you as an academic and shows concern for you as a person. He's always been terribly concerned that I'm unmarried and has been known to attempt to marry me off to whichever latest rising female mathematical starlet he happens to know at the time. Alas nothing has come of it yet. Maybe he just hasn't tried hard enough!

We both got promoted to professor around the same time, even though I am a tad more junior than Charles. I always put this down to pure talent on his part, and lack of a wife on mine, which of course is entirely his fault.

Charles is wonderfully erudite and is virtually unbeatable at finding the most obscure references to cite in papers. I once asked him if he could find a highly obscure paper for me that described the origin of the word *martingale* as being from the French *martegal*, meaning those from the village of Martigues. The villagers from Martigues, in Provence, were known to be eccentrics and they wore their trousers backwards. It was a certain gambling game they played that was originally used to illustrate the concept of what we now call a martingale. About six years went by and Charles could not unearth this rare reference. Then I found it myself and triumphantly slapped a copy of it on his desk. That was the only time I ever beat Charles at anything.

In the spirit of both toasting and roasting a good colleague, there has been

FIGURE 1: This is the village of Martigues in Provence from where it is thought we derive the term *martingale*.

a time I wanted to totally wring his neck. I once submitted a paper to a journal where he was chief editor, and Charles took five years to process the paper much to my chagrin. It felt interminable back then, but enough time has passed that I have forgiven him for this shortcoming in his superhuman powers.

Finally to finish up with a bit humour: A hobby of mine is to invent new twisted definitions of things in the style of Ambrose Bierce. I happen to know that Charles is very fond of such things with twists in them. So in Charles' honour, I've made a twisted definition of what a mathematical proof is. Here is a small offering of a few definitions I created to give you the idea how they work and to warm you up before hitting you with the *coup de grace*.

Excuse *n.* is a perfectly good reason that has been rejected by those in authority.

Polygamy *n.* an act of supreme sacrifice where a man risks his life to more than one mother-in-law.

Election *n.* a democratic ritual carried out in order to check if the polls were right.

Human *n.* a minor bipedal life form extant on a squalid little planet named Earth, in a backwater little-known galaxy; also known as 'Earthling'. Humans are those that are characterized by an exaggerated sense of self-entitlement, display a collective form of narcissistic personality disorder, and are generally regarded as the rednecks of the universe. Their problems appear to stem from a disingenuous form of business transaction they call 'land ownership.'

Present *n.* an illusory state between immediate past and immediate future.

Feminism: *n.* is complaining about the male representation of God, whilst overlooking the male representation of the devil. This selectivity extends to altering moot words such as 'chairman' and 'mankind', whilst rather cunningly retaining 'henchman' and 'manslaughter'.

Expert *n.* a person sufficiently jaded with all the facts that he declares when something cannot be done.

Cynicism *n.* is the fine art of expressing the truth without its pants on.

Doubt *n.* is an absolute certainty in the belief that nothing is black and white.

Faith *n.* is our normal mode of operation, until we punctuate it with odd moments of reason.

Gym *n.* is a sacred modern temple of self-flagellation that extends one's lifespan for more of the same.

Happiness *n.* is a form of self-denial about the future, due to an exaggerated sense of satisfaction about the present.

War *n.* a device for maintaining peace between nations, which is at least as sustainable as beating one's wife into maintaining a cordial bedroom relationship.

Illegal immigrant *n.* is a hapless foreigner who peacefully enters a country with the noble purpose of propping up its economy, by performing all the jobs that local inhabitants refuse to do, thereby sacrificing himself for the greater good.

Loser *n.* is a highly successfully person who impeccably lives up to standards not sanctioned by the majority.

Emissions trading *n.* a pollution control scheme that is rather like allowing a criminal to buy his way out of jail based on finding one honest person in the world to apparently reduce the overall crime footprint.

Bureaucracy *n.* an ingenious scheme by benevolent governments for graciously providing unlimited mass employment.

Optimist *n.* is one who doesn't have the patience to worry.

Nuclear weapon *n.* a means of bringing about ultimate peace—the cherished peace of silence that total annihilation thankfully brings.

Sustainable growth *n.* is a cheeky little oxymoron suggesting the idea of economic growth that is sustainable over vast ecological time scales; where in practice this is often the time period required to just make it through to the next election.

Agnostic *n.* one whose extreme skepticism even keeps them from being an atheist.

Atheist *n.* one with blind faith in a mistaken belief that the absence of evidence against a null hypothesis confirms it.

And finally I dedicate this one to Charles....

Mathematical proof *n.* is the demonstration that a proposition is correct with a level of certainty that at least two mathematicians somewhere in the world understand it.

Before we rise to toast Charles, I'd like you to all join me in thanking Andrew Metcalfe who has worked tirelessly in putting this splendid conference together this year. Also I'd like to mention that Charles has just received one of the most precious birthday presents, as it was just announced yesterday that the examiner's passed Andrew Allison's PhD thesis—this is Charles' 27th PhD student. Being jointly supervised by Charles and myself, Andrew has a splendid academic genealogy. Through both Charles and myself Andrew can be traced back to Galileo and Tartaglia. And through Charles' lineage he also traces back to Chebyshev and Markov.

Biography

Charles Edward Miller Pearce was born in Wellington, NZ, 29th March 1940, and is the Elder Professor of Applied Mathematics at the University of Adelaide.

He is descended from Alexander Gray, one of just five Scots who settled in New Zealand as part of the original and largely unsuccessful New Zealand Company settlement of 1826. The marriage in 1830 of his full Maori ancestor Hinerangi to Alexander is the first entry in the marriage register in Paihia in the Bay of Islands. His ancestry connects back to the three waka (canoes) in the heke (migration): Aotea, Kurahaupo and Takatimu. His principal tribal connections are with the Nga Ruahine and Ngati Ruanui tribes of South Taranaki.

In his early years he was the dux of Hutt Valley High School in 1957. He obtained his BSc with a double major in Applied and Pure Mathematics and a further double major in Physics and Mathematical Physics in 1961. In 1962 he obtained an MSc with first class honours in Mathematics. Both the BSc and MSc were from the Victoria University of Wellington, which was the University of New Zealand at the time of the BSc.

In 1963 Pearce left New Zealand for doctoral study at the Australian National University (ANU) in Canberra, under the supervision of Pat Moran. Thereafter followed short stints (one to three years) as Lecturer in ANU; University of Queensland (visiting Professor); Université de Rennes 1, France; and University of Sheffield (1966–68). He was appointed to the University of Adelaide in 1968 and remained here for the ensuing years having been appointed Reader in 1982. He was promoted in 2003 to a personal chair in Applied Mathematics. While at ANU, he met and married Frances (née O'Connor), and they have brought up their family in Adelaide.

Pearce has published prolifically in the area of probabilistic and statistical modelling and analysis, with strong contributions being made in both the-

ory and practice. His applied interests include queuing theory, road traffic, telecommunications, and urban planning. With former student Bill Henderson, who followed him from Sheffield to Adelaide, he helped establish the successful Teletraffic Centre in the University of Adelaide. His publications are numerous and include two books, and about 40 book chapters, totalling some 300 publications.

With the formation of the Division of Applied Mathematics of the Australian Mathematical society, Pearce soon emerged as a key figure. The most enduring significant role is as Chief Editor of their *Applied Mathematics Journal*, now called *The ANZIAM Journal of Applied Mathematics*. The formation of ANZIAM in 1993 was close to Pearce's heart, as it encapsulated the union he espoused of joint activity in Applied Mathematics involving both Australia and New Zealand. He has been a strong worker for ANZIAM and it was fitting that this, along with his outstanding research work, was recognised by the award of the ANZIAM medal in 2001. He was awarded the Potts Medal of the Australian Society of operations research in 2007.

In 2003, Pearce was elected as a Fellow of the New Zealand Mathematical Society.

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