

Thomas L. Vincent: a game theorist for all seasons

To us, Thomas L. Vincent is special, very special. Of course, we are biased. One of us calls him ‘Dad’, the other calls him ‘Mentor’. This volume in honour of Tom drew such an overwhelming response of fine manuscripts from friends and colleagues that they fill two issues (look for the upcoming May issue). What makes this man so special? He has not won the Nobel Prize, he does not advise Presidents on matters of import, his professional curriculum vitae, at first glance, is excellent and laudable, but comparable to others who have worked as hard and had as long a career. Yet Tom Vincent merits special accolades.

Tom has always been a gentle, accessible, and compassionate human being. As scientist, he is open-minded, fearless, careful, and humble, which is an unusual combination of strategies. In his work, Tom cultivates teams and collegiality. Many are the meetings that he has organized and hosted; the participants spanning diverse disciplines, career levels, and backgrounds. Tom, unable to accept an invitation to a game theory workshop, suggested that a grad student mentee of his would make an excellent substitute. The experience proved extremely beneficial and important to this mentee. This sort of sharing, networking, and scientific selflessness is Tom’s hallmark. Many of the authors in this volume have shared sessions at conferences, seminar visits, scientific exchanges, and travels. (Yossi, will you ever forget that memorable drive along the Western Australian coastline from the Dog Rock motel back to Perth?)

Tom has the mind of an engineer: careful, inquisitive, organized, curious, and eager to solve problems. Under this precise veneer is also an idealist that hopes for a better world (his banks of photo-voltaic cells that power his Tucson home are quite a marvel). And, Tom is a naturalist, a lover of nature who thrives on outdoor activities. He approaches camping, sailing, skiing (he just returned from a recent trip to Park City), and hiking with vigour and wonderment. It was natural for him to apply control theory to diverse aspects of engineering and then see many of the same applications when he first took up questions in ecology. His very first peer-reviewed publication in 1961 goes by ‘Satellite life duration’. By 1974, both aerospace and ecology inspired his work, with papers such as ‘Some aspects of collision avoidance’ and ‘Optimal control of a predator–prey system’. Ron Pulliam, Ben San Goh, George Leitmann, and others shared in a series of good ideas and applications. From the 1980s onwards, Tom devoted much of his energy to expanding, refining, and understanding evolutionary games. And most recently, in collaboration with Robert Gatenby and others, Tom has devoted his expertise in game theory to placing cancer within an evolutionary ecology framework. As if anticipating the need to apply his talents to this scourge, Tom wrote a paper in 1977 entitled: ‘Optimal control analysis in the chemotherapy of IgG multiple myeloma’.

Tom’s open-mindedness and fearlessness has not only allowed him to cross disciplines in search of solutions to interesting problems. (Who knew aerospace engineering and biology had so much in common?) It has also allowed him to cross cultures as well. From the ‘Iron Curtain’ to the ‘Bamboo Curtain’, the Middle East to the Australian west to the African south, his quest for people with stimulating ideas is never stopped by cultural differences,

distance or even FBI ‘debriefings’. His daughter recalls the regularity with which he brought home to dinner colleagues from far off, exotic places as well as the frequency of his many travels abroad. He also has no fear when it comes to making somewhat obscure jokes and you may find a few if you read his books.

However, Tom is also very careful, a good trait if you aim to combine open-mindedness with being a good mathematician. He has been careful to keep not only his own work ‘honest’ with careful proofs, but also that of his collaborators, some of whom are prone to jumping to wild, amazing conclusions and need to be told to sit down and carefully work out the math (you know who you are, present company included).

Finally, Tom is also humble, which brings us to the primary reason for this dedicated issue of *Evolutionary Ecology Research*. Tom collaborates successfully with all manner of personality. Most of his professional publications have been collaborations, and not with just a few people. His collaborators number some 40 people. Most of whom became close friends. Many continue collaborations with him. (Unfortunately, the fictional M.V. Van has not been heard from since 1996 when he collaborated with both Tom and Bean San Goh. He catapulted their paper to nationwide attention in *USA Today*.)

Tom’s special mix of strategies has brought him a great deal of renown, respect, and regard among those who know him. It is not surprising that when we learned last summer of his diagnosed pancreatic cancer, we wanted to show him just how much we appreciate the extent to which *his* collaborations benefited us all. To that end, like an offering to a beneficent god, we dedicate the articles in this issue to you, Tom. Enjoy!

It has been gratifying and remarkable to see the outpouring of sentiments and fine manuscripts from Tom’s colleagues, friends, and collaborators. We thank you all. The managing and reviewing of manuscripts would not have been possible without the energy and expertise of Michael Doebeli, Éva Kisdi, and Christopher Whelan – thank you for working tirelessly not only on your own manuscripts but on the quality of others’ contributions. We truly appreciate Michael Rosenzweig’s advice, generosity, and support in permitting these issues of *Evolutionary Ecology Research* to showcase the game theory that Tom so loves and has devoted his life to.

Tania Vincent and Joel Brown

Guest editors

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