

Relationships, luck and inclusiveness

Research institutes and universities should be bastions of our society, where people feel safe and are encouraged to be themselves, to openly debate opinions. Why is there a growing reluctance or inability amongst scientists to be themselves, to speak publicly and voice their opinions in these organisations whose main purpose is to transfer and advance knowledge? We are working in process-heavy science organisations, not only tackling complex knowledge, but ever more complex societal constructs. In times like this it is all the more important to take time to build relationships, to get to know each other, instead of jumping straight into business.

I am a 'glass half full' person, which I attribute to my East German upbringing. One of my sisters left East Germany in 1984 for West Germany, which closed the door for me to go to high school, as education was only open to those whose entire families conformed to the party line. As luck would have it, in 1989 the Wall came down at just the right time for me to unexpectedly attend high school. From there I went on to University to study Engineering, and I continued studying at institutes around the world, completed my PhD in Auckland, and am now an academic there. It's hard not to be optimistic and positive when I consider my own life's path – from a restrictive communist beginning to my current role teaching at a University that is highly regarded internationally. I have lived, worked, and travelled in many parts of the world, but have settled at a place aptly referred to as Godzone. I'm fortunate to call a little piece of land my own, that I share with my Kiwi partner of 15 years and our lovable dog.

All this I would never have dreamt about as a kid, growing up behind the Iron Curtain, in a society where social values trumped individual needs. Don't get me wrong, I had a great childhood in East Germany – lots of play, spending time outdoors and exploring the local neighbourhood. The values I hold strongly stem from my upbringing on our socialised farm; determination, kindness, and hard work are high on my value list. My bias is to support underdogs, as so many of us are. I come from a family where we worked the land to support ourselves, and academic lifestyles were (and often still are) looked down on.

I'm very comfortable doing my work away from the limelight. Stepping up to be Co-President of the Association will draw attention to me, and the subsequent visibility will have some of you looking to categorise or label me. In New Zealand I am often asked why I, as an Engineer, am engaged in the Association of Scientists, assuming Science is exclusive rather than inclusive. But, what's in a name? I am an Engineer who represents Scientists. In German, we use the word 'Wissenschaft' for Science. Science, from the Latin word *Scientia* (knowledge) is the systematic pursuit of knowledge. We try to categorise science disciplines, most broadly as: natural sciences, social sciences, formal sciences, and applied sciences. In my native language we call my choice of Science 'Ingenieurwissenschaft'. In Germany, engineers are seen as highly respected scientists, and often are key participants in decision-making environments, together with representatives from the other disciplines. Engineering is the merger of natural sciences and formal sciences in the application of knowledge, resulting in applied sciences. The product of natural, formal and applied science is technology, which is shaped by, and in turn shapes,

social sciences. With this in mind, I don't categorise myself as 'just' an engineer by the English definition but embrace the German definition – an Engineer in Science.

How can I build a relationship with readers of this column whom I might never meet? Traditionally, as humans we have been concerned with our immediate environment. Nowadays, though, it's easier to observe and share our opinion on what happens halfway around the world and put people into categories, than to actively engage with and serve our local environment. In this age of information overload ('infobesity'), it is moral values that guide our path, and moral values are the foundation of strong relationships, morality being a *form of common sense: the sense we have in common of what we all owe to each other*¹.

A couple of summers ago I read the epic *War and Peace*, and the following quote resonated with me: *If we admit that human life can be ruled by reason, then all possibility of life is destroyed*. As scientists we have to remember that, ultimately, we serve the people. Complexities, as observed in the operation of large organisations, technologies and social networks, *lead people to inflate or misconstrue suspicions into mistrust when it's unwarranted*². With science and technology becoming ever more prominent in the life of everybody we need to make science transparent, showing the good, the bad and the ugly. In our quest to reduce fear of science and build trust in science systems, we need to be inclusive, build relationships and communicate with the public – to question categorisations. We need to remember, *ethics is rooted much more in feeling than in thinking, but there is good reason for this. The fundamental impulse to treat others well derives from a kind of empathy, not obedience to authority or a rational principle. Citizens trust the person of generosity and good heart more than the professor of abstract intelligence*¹.

It is an exciting time to be a scientist. I invite you all to see the glass as half full. There is a need to continue to advocate for diversity in science, providing opportunities for career development of emerging researchers and enabling transparent and inclusive science systems; and to communicate science to citizens, fostering engagement. This is needed to transform fearful science environments into supportive and constructive research units. Thank you to members, Council and Co-President Craig Stevens for your engagement and support. I'm looking forward to serving you and the New Zealand science community during my term as Co-President. We have our 2018 annual conference in Auckland on 15 November. With the new government in place and upcoming change in the Office of the Prime Minister's Chief Science Advisor, the conference is developed around a theme of the connections between science and policy. We are looking forward to seeing you there.

Heide Friedrich
Co-President

1. <https://www.theguardian.com/commentisfree/2016/apr/08/people-trust-you-common-sense-morality>

2. <https://www.gsb.stanford.edu/insights/roderick-kramer-how-avoid-paranoia-workplace>