In Search of a Statistical Culture

Radu V Craiu, Department of Statistics, University of Toronto, considers whether statisticians need a new image:

We keep hearing stories about insomniac surgeons, smug lawyers who all happen to be very well-dressed, overall-clad artists who are sleeping on their friends' sofas until they make it big. While partially rejecting these maddening generalizations (that are, by the way, very statistical in nature), we realize that such stereotypes help us slowly build an image of a profession's culture. In this International Year of Statistics, one may be tempted to pause and ponder about our own professional culture.

As statisticians, we have had more than our share of irritating stereotypes. The problem is that most of them are generally false, being dreamed up by people who do not have the slightest idea what it means to be a modern statistician. We have all winced on hearing the usual definitional traps: casino gamblers and sports punters, failed mathematicians, or even worse, archivists that happen to be the only number crunchers in Nerdville. Is it not ironic that of all professions, the one which helped debunk so many urban legends and old wives tales is the one who is still plagued by such misunderstanding and tomfoolery? Be that as it may, the question remains: if we were to shed these, what should we put in their place?

I have a few suggestions that make for a beginner's list, one that is in dire need of additional contributions, some stylistic polish and massive verbal dissemination.

- Often we are shadow researchers, toiling in the background and shying away from fame and glory. Sometimes we are party crashers that dispel countless chances for false positives, thus killing many fake Nobel dreams in the process. For all these reasons, the term "**science ninjas**" seems particularly fitting.
- As Professor Xiao-Li Meng (see the XL Files in the previous *IMS Bulletin*) likes to say, we are often and warmly invited to play in other scientists "front yards". No discipline can cross scientific boundaries like Statistics does these days, so the sobriquet "**universal scientists**" seems well deserved.
- We are trained to wear theoretical and applied hats, frequentist and Bayesian cloaks, and maybe even parametric and nonparametric boots and bootstraps. Until all these outfits are made into a single rainbow-coloured one, we could be known as the "**science chameleons**".
- Sometimes we share methods with other fields (especially computer science and physics). This often works against us as CS people are perceived to have a "can do" attitude, and the physics people have Einstein. We manage to avoid redundancy by bringing to the table our theoretical tools, an intuition that is lodged at the intersection of math and art, and a hard-earned skepticism meant to dissolve quickly any so-called "general solution". I am afraid to suggest a nickname under this rubric because anything less than "**can-do Einsteins**" will be a letdown.

We have an interesting and complex relationship with mathematics (and mathematicians) defined by important differences and striking similarities. Instead of unearthing immutable truths to be cryogenized into crystalline theorems, we are facing the task of understanding the ever-evolving dynamism of a life filled with randomness. In the ivory towers of academe we are among the ground floor dwellers.

We still refer to our degrees of separation using the Erdős number. Maybe it is time to switch to a Tukey number. And while we're at it, hang a picture of Nate Silver in our offices too.

After all this, it becomes apparent that our profession is truly multi-faceted. No single epithet or overreaching generalization will do justice to our complex and vibrant community. I really hope that this International Year of Statistics will see us become more visible in the public eye and more proud about what we do. I see plenty of reasons for both.

George Casella: 1951–2012

a check made out to Purdue Foundation with a memo saying "the George Casella Fund" to Rebecca Doerge, Department of Statistics, Purdue University, West Lafayette, IN 47907. Online donations can be made by going to: https://donate.purdue.edu/DesignateGift.aspx; Select a Designation Area: College of Science; Select a Fund: Department of Statistics; Other Instructions (box): The George Casella Fund.

Ed George and Christian Robert

This obituary is also printed in the March 2013 issue of *Amstat News*: http://magazine.amstat.org