

# What Do Good Scientists ...

... and good journalists have in common? Apparently, quite a lot. Both are not usually driven by the smell of money but rather by the passion for a cause. Both work tirelessly whilst carrying out thorough investigations in an attempt to obtain reliable information (well, at least in an ideal world). Both their businesses are highly competitive and, of course, notoriously underpaid relative to the quality of work accomplished. And, last but not least, both are always in danger of being scooped or plagiarized.

However, there's another, perhaps more subtle, analogy between good scientists and journalists: both frequently accumulate a wealth of information, of which only a small fraction will be filtered into the final product – the paper or article. Subsequently, time and again, interesting material glinting alluringly in the shadows has to be left untouched because, for whatever reason, you are bound to follow your original path. And later, having reached the end of the white line in the middle of the main road, you very rarely find the time, brain power and resources to go back and take a closer look at what it actually was that sporadically caught your attention at some of those darker junctions.

The fundamental problem is receiving more input and creating more ideas than you can actually follow because you are too busy with your current projects. The consequence being that you have to choose, which paths to go down and which to leave for others (if any). Well, you might think that this dilemma is a very obvious one for scientists, perhaps also for writers and artists – but for journalists?

Let's take an example from this new *Lab Times* issue. As always, our Chief Editor has had to master a regular but, nevertheless, quite demanding task – compiling the most recent “publication analysis”. This time, it is about basic neuroscience and the first thing he had to do was collect the publication and citation data. Usually, it takes him about three or four (rather boring) days, trawling through the databases until he can be really sure about the final rankings of nations, papers and authors.

However, this wasn't the end of the story, by a long shot. After all, he still had to write the accompanying text – not only in order to explain the ranking results but also to reflect on basic neuroscience in general.

Among other things, that meant our Chief Ed had to go back to finding and reading new material about neuroscience in order to get an accurate picture of the field. Whilst dispassionately following a couple of links, he suddenly came across the headline “Marvin Minsky bashes neuroscience”. Wow! Of course, his interest rekindled, he immediately started reading. In fact, it was a blog essay about certain concepts of artificial intelligence (AI) research, which started with the following quote from a 2007 interview of the *Discover* magazine, with AI pioneer Marvin Minsky from the MIT in Boston.

*Discover: Neuroscientists' quest to understand consciousness is a hot topic right now, yet you often pose things via psychology, which seems to be taken less seriously. Are you behind the curve?*

*Minsky: I don't see neuroscience as serious. What they have are nutty little theories, and they do elaborate experiments to confirm them and don't know what to do if they don't work. This book presents a very elaborate theory of consciousness. Consciousness is a word that confuses possibly 16 different processes. Most neurologists think everything is either conscious or not. But even Freud had several grades of consciousness. When you talk to neuroscientists, they seem so unsophisticated; they major in biology and know about potassium and calcium channels, but they don't have sophisticated psychological ideas. Neuroscientists should be asking: What phenomenon should I try to explain? Can I make a theory of it? Then, can I design an experiment to see if one of those theories is better than the others? If you don't have two theories, then you can't do an experiment. And they usually don't even have one.*

Ouch! How about confronting a couple of neuroscientists with this “bashing”. Would they be able to counter Minsky and actually deliver one or more convincing theories? “No!” the Chief Ed pulled himself together, “I have to do this ranking text and nothing else. Keep focussed!”

But not half an hour later, a 2009 correspondence letter in *Science* next attracted his attention. It was written by neuroscientist Martha J. Farah and theologian, Nancey Murphy, both from the US, and was titled, “Neuroscience and the Soul”. The central passage went:

*However, as neuroscience begins to reveal the mechanisms underlying personality, love, morality, and spirituality, the idea of a ghost in the machine becomes strained. Brain imaging indicates that all of these traits have physical correlates in brain function. Furthermore, pharmacologic influences on these traits, as well as the effects of localized stimulation or damage, demonstrate that the brain processes in question are not mere correlates but are the physical bases of these central aspects of our personhood. If these aspects of the person are all features of the machine, why have a ghost at all?*

*By raising questions like this, it seems likely that neuroscience will pose a far more fundamental challenge than evolutionary biology to many religions.*

Wow, again! But before daring to elaborate any further on this subject, the Chief Ed had already forced himself to click on, in order to collect *usable* information for his neuroscience ranking text. You can read the final result on pages 32-35.

The Chief Ed, however, is left with one poignant question: Are scientists sometimes, for whatever reason, also compelled to continue down a rather similar mundane road, despite being acutely aware that some really exciting and intriguing paths are being blatantly shunned in favour of the immediate scientific goal?



Keep focussed!

