

## A rant against jargon and neologisms

Simon N. Young, PhD

Co-editor-in-chief, *Journal of Psychiatry & Neuroscience*, and Department of Psychiatry, McGill University, Montréal, Que.

Shortly before he retired, Richard Smith, the editor for many years of *BMJ*, started an editorial with the statement "Today I'm in old fart mode."<sup>1</sup> I am grateful to him for having set the precedent, because today I am definitely in old fart mode. As befits such a state, I am going to rant about modern trends. Today the topic is language and, in particular, jargon and neologisms. My particular prejudice is that many new terms are problematic in that they do not facilitate communication (and are often inelegant). Whereas God prevented the building of the Tower of Babel by imposing different languages on humanity, scientists from different subdisciplines impose jargon and neologisms on themselves, and this does not help in the building of knowledge. Before I start, I should make 2 things clear. First, what I am going to say is not *JPN* policy. Articles containing all the terms I criticize will be welcome at *JPN* and will be assessed without consideration for my particular idiosyncrasies and dislikes. Second, I realize that I am revealing my ignorance. However, if you have the urge to email me and point out how one of the terms I am criticizing has a clear, specific and useful meaning, please don't. Over the years, several of my colleagues have attempted to educate me, but without success. Only my students are up to the task.

It all started with genomics. Whereas the first entry I could find for genomic in MEDLINE was in 1964, genomics did not follow until 1988. Nearly another decade passed before the appearance of proteomics in 1997, to be followed by transcriptomics in 1999 and metabolomics (or it is metabolonomics or metabonomics — they all produce hits on PubMed) in 2000. After that came a proliferation of -omics, including variations such as nutrigenomics and metagenomics and other neologisms including, but hardly limited to, glycomics, chronomics and phenomics. All these terms and probably many more get hits on PubMed. And, by the way, phenomics is apparently used for mapping fluxomes,<sup>2</sup> whatever that means. There is even a journal titled *Omic*.<sup>3</sup> The proliferation of -omics is different from the earlier proliferation of the suffix -ology (as in psych-, pharmac-, physi-) in a number of respects. First, there is the larger number of -omics. Second, there is the ugliness of terms such as transcriptomics and metabolomics. (Why can't the life sciences

be like physics and produce terms that are simple and almost poetic as in the subatomic particle the charm quark?) Third, and this possibly helps to account for the fact that ignoramuses such as myself are not able to define all these terms, whereas the -ologies were conceptually based, the -omics are methodologically based. This may reflect a subtle change in how science progresses.

Life scientists and, in particular, neuroscientists are just as bad with prefixes as with suffixes. Neuro- can be put in front of anything so, for example, we have neurophilosophers considering neuromental parameters in relation to neuroscientific hypotheses.<sup>4</sup> Presumably the term neuromental helps to distinguish those mental processes that involve neural activity from those that involve no neural activity. Neuro- words proliferate rapidly. How about neuroethics, neuroeconomics, neuroethology and neuroecology, all of which produce hits on PubMed? Are these terms really needed? Does, for example, neuroethics imply something that ethics does not? For some reason the prefix psycho- is not as popular as neuro-. While psychoeconomics produces a single hit on PubMed, psychoethics and psychoethology produce hits on Google but not on PubMed. At one time I used to tell people that my research was in psychonutrition but had to stop using that term when I found out that some researchers were using it seriously. Thankfully, combining neuro- and psycho- caught on in only a limited way as in neuropsychopharmacology. The constant use of that term has not diminished my dislike of it. I am thankful that this journal managed to grab the title *Journal of Psychiatry & Neuroscience* before any other journal did, thereby helping to avoid having neuropsychopharmacology in the title. I find it interesting that all journals with it in the title publish papers not involving drugs and, therefore, outside the scope of the journal title. Why use such a cumbersome word if you ignore its precise meaning? However, I have found one good use for neuropsychopharmacology. If I want to get rid of a bore at a (nonresearch) party, telling him I am a neuropsychopharmacologist usually does the trick.

Using surprising juxtapositions of different terms is always popular. For example, astrobiology is now an established discipline. I sometimes wonder which strange combinations of

Correspondence to: Dr. Simon N. Young, Department of Psychiatry, McGill University, 1033 Pine Ave. W, Montréal QC H3A 1A1; fax 514 398-4370; simon.young@mcgill.ca

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terms will come to exist in the future. Medical geology already exists,<sup>5</sup> and neurotheology produces a hit on PubMed. I am waiting for psychobotany and quantum synaptology to emerge.

I do not know if my dislike of new terminology is shared by others, but webometrics<sup>6</sup> (not to be confused with the related discipline of journalology<sup>6</sup>) should let me know if anyone reads this editorial. This editorial will probably be appreciated only by those who share my characteristic of sometimes being a mumpsimus. For those of you who do not have a copy of the Shorter Oxford English Dictionary handy, mumpsimus is an ancient term that should have persisted in common usage but unfortunately did not. The word describes someone who sticks obstinately to an opinion even when shown to be wrong.

In a more serious vein, I have to admit that whether we like it or not, language is not static, and new terms will always be coined. The danger of new terms is that they are used initially only by a subgroup interested in a particular area of research. If the precise meaning of new terms does not become known to a larger group, the result is that the isolation of the subgroup is accentuated by their jargon. This is seen, for example, in the lack of understanding of qualitative research by quantitative researchers. If you doubt what I am saying ask any quantitative researcher to describe the differences between hermeneutics and narratology (and I certainly

could not tell you). Even within disciplines, the exact meaning of new words will not necessarily spread beyond a select few. I asked various researchers whom I respect for their breadth of knowledge to tell me the difference between allostatic load and stress, and between allostasis and adaptation to stress. None were able to do so. This does not mean that these terms are not useful. However, as with all new terms, they will help to promote knowledge and ideas only if their precise meaning becomes known to a broad range of researchers. Only time will tell what will become a useful scientific term and what will remain the jargon of a subgroup of researchers.

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