

## Etyrminology

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'Etyrminology', a neologism of my own, is about words, about language. Vetscite's author Linda McPhee said it concisely: '...science is a writing profession', but few budding scientists take this statement seriously. Ideas are conveyed mostly through the written word; therefore, a scientist who takes great pains to calibrate, for example, a FACS system to obtain reliable data, should also fine-tune language and style, in order to convey properly, perhaps even beautifully, these data to the reader.

In this column, I attempt to analyse the etymological background of terms (i.e. their derivation from mostly Latin and Greek words) used in the veterinary and biomedical sciences. Because Latin and Greek are no longer widely taught at high schools, and certainly are no longer a precondition for the pursuit of a biomedical course of study, learning the vocabulary may be time well spent. After all, one may more or less guess what a term means, if one can identify its roots.

Scientific terminology is alive and evolving, and many scientists have exhausted themselves in fighting 'wrong' usage of words. Having served for years on the International Committee on Taxonomy of Viruses (ICTV) for the Virology Division of the International Union of Microbiological Societies (IUMS), I have witnessed many a nomenclature battle. There is some metaphysical element involved in assigning a name in science, a sense of satisfaction in having christened an unnamed, heathen phenomenon and then observing how the term catches on. To many a scientist's regret, persons' names are no longer *en vogue*, and eponyms (see below) arise in the vernacular rather than by design.

So, what is perceived as 'wrong' in scientific terminology? I am reminded of an experiment I learned about as a student. A group of persons was led into a pitch-dark room and seated. After some time everybody had noticed a weak light, and the group was asked by the experimenter to determine the length of the path the light source oscillated. Some discussion ensued, and finally the verdict was issued: 'about 30 cm' (roughly ten inches, for non-CGS readers). When the lights were switched on, everybody saw a torch lying on the lectern. The movement of the light source was only virtual, a consequence of the nystactic motion of the eyes. But agreement about its magnitude had been a democratic process based on consensus, a collective 'truth'-finding operation; switching on the light was scientific discovery. Terminology belongs to the first category, it is the result of a consensual process; its usage is what eventually gives it authority and 'rightness'. Misusage of words therefore can only be defined as presently unaccepted or unacceptable usage.

Walking along the alphabet, we arrived at the letter P (pathogenic) in the first issue of *Veterinary Sciences Tomorrow*. Let us look at some more terms:

**palliative** = a treatment intended to cure the symptoms but not the cause of a disease; from *L. pallium*, coat, a mantle worn by the ancient Greeks and Romans; *L. palliare*

means to cover. The pallium is the part of the brain stem covered by gray matter and forming the cerebral cortex. Another garment, the *toga*, was worn in public in Roman antiquity, and is still an academic costume in many European universities. It has lent its name to the togaviruses, small RNA viruses with a lipoprotein envelope.

**Q-Fever** = a zoonotic infection caused by *Coxiella burnetii*, a rickettsia; the letter 'q' comes from 'query', because of its unknown etiology at the time. Incidentally, the organism is sometimes referred to as *Coxiella burneti* (ending with one 'i'), which is incorrect. In the binomial scientific terminology the second 'i' indicates the *casus genitivus* (the second case) of Burnetius, the latinised form of Burnet's name.

**radical** = designed to remove the cause of a disease or all diseased tissue; also a group of atoms bonded together that is considered an entity in various reactions. From *L. radix*, root (compare with 'eradication', discussed in Etyrminology (Part 1). Also in 'horseradish' - a source of peroxidase - the root is present in the second part of the word. Its first part has quite a convoluted history: in German, the plant is called "Meerrettich" (literally: sea radish) probably derived from *L. radix amara*, the bitter root. The German 'meer' is pronounced like the English 'mare', and 'mareradish' eventually became known as horseradish.

**symposium** = a meeting or conference for discussion of a topic, especially one in which the participants form an audience and make presentations; from *G. syn-*, *sym-*, together, and *G. potein*, to drink - a convivial meeting for drinking, music and intellectual discussion. The pre-congress cocktails (the 'mixer') may be a relic from these times.

**transudate** = oedema fluid that contains very little protein (specific gravity < 1.015) and usually only a few cells. From *L. trans-*, across and *L. sudare*, to sweat. Transudates usually suggest a non-inflammatory source of the fluid; the inflammatory counterpart is the exudate, an oedema fluid with a high protein concentration (specific gravity at least >1.015) that often contains leukocytes or fibrin. The composite term should actually be written as 'transsudate', and still is in German.

In the next Etyrminology column I shall trace biomedical eponyms, of which there are many, from Abortus Bang (Brucellosis - is another one!) to *Zebrina* (a genus of terrestrial snails, the intermediate host of *Dicrocoelium dendriticum*). If you have an interesting veterinary example, please [drop me a line](#).

By the way, what is an eponym? An etymological analysis shows the term to be a composite of *Greek epi* (at, near) and *onoma* (name). In antiquity, there have been three classes of eponyms: gods that lend their names to a city (like Athens, from the goddess of wisdom, Athena. *Minerva* is another name of hers), heroes to a county (like Heraklion - now Iraklion - from *Herakles*), and magistrates to a time period (the years of Solon). In modern medical usage, an eponym is a name of a drug, structure, or disease and is based on, or derived from, the name of a person. Since in my example given above, a zebra is no person, *zebrina* would not fulfil the requirements for an eponym.

If you have a term and want to know its roots, [drop us a line](#).