

## Etyrminology

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Since you, esteemed reader, seem to be as addicted to words as I am, here is a tip. I have recently subscribed to 'Word of the Day', a free service offered by the Merriam-Webster company which you can reach on the Web either at: <http://www.merriam-webster.com/service/subinst.htm>, or by joining the list via e-mail, for which you must send a blank e-mail to: [mw-wod-subscribe-request@listserv.webster.m-w.com](mailto:mw-wod-subscribe-request@listserv.webster.m-w.com).

Every day a new word arrives in my mailbox, with accompanying notes that give everything from its definition, usage and etymology. By now you will be familiar with etymologies - that is, word histories. The etymology of 'etymology' is itself quite straightforward: 'etymon' means 'literal meaning of a word according to its origin'. Greek 'etymon' in turn comes from 'etymos', which means true. I have already confused you with my 'etyrminology' chimera and will confuse you even further: the similar sounding 'entomology' has nothing to do with language, rather with bugs - 'entomon' means insect in Greek, and 'entomology' is the study of insects. The Greek 'temnein' means to cut (as in anatomy), as the Latin 'secare' (like in insect), and insects indeed have a tripartite body that looks as if it is sectioned into three parts. In German there is an infrequently used word for insects, 'Kerbtier', which literally means 'animal with a notch'. Nice, isn't it? I admit that this has only marginal relevance to the veterinary sciences, except for parasitologists.

I had a request from Jerry Masty (Associate Professor Veterinary Anatomy, Ohio State University Columbus, USA), who wrote: 'Read your column about etymology on the website and found it very interesting. It reminded me of a question from a student that I cannot answer. Is there an appropriate Latin/Greek based root or term to describe 'head tilt'?

In answering this question, I very much appreciate the help of Professor Wim Weijs, an anatomist in the veterinary faculty at the University of Utrecht, whose ponderings resulted in the following reaction:

'Definitions of anatomical terms for movement stem mostly from human anatomy. There, spinal rotation is defined as rotation about a longitudinal axis through the spine. For the cervical spine, this leads to saying 'no' by head shaking, making the ears face obliquely forward/backward. One can also move one's head from left to right, making the ears face upward/downward. I would define this as a human head tilt. The movement axis is now perpendicular to the cervical vertebral column and is directed forward/backward (antero-posterior). Anatomists usually call this movement laterodeviation. The third possible axis of rotation, of no consequence for tilt, is the transverse one (latero-medial); it produces flexion/extension of the neck and head (nodding 'yes') and the movement is the same in all animals. The problem is that dogs carry their head on an obliquely positioned cervical spine. To investigate the consequences, we can first look at a snake, carrying its little venomous head in front of a (usually) horizontal spine. Now the situation is reversed when compared to

humans: spinal rotation (about a horizontal, longitudinal axis) leads to head tilting, while laterodeviation (about a now vertical antero-posterior axis) makes the head move from left to right, but without a tilt, e.g. both ears remain orientated horizontally.

A dog has an obliquely oriented cervical spine. As a consequence, the movements of the head as a result of rotation and laterodeviation, respectively defined on the basis of the orientation of the spine, cause displacements of the head intermediate between snake and human. After a cervical rotation bringing the head to the left, the left ear faces backward, but also upward. After a laterodeviation of the cervical spine to the left, the left ear faces backward, but also downward. I suggest a simulation experiment with a matchbox (head) and pencil (spine).