Three articles in the December 2010 issue of the online journal ‘Horses For Life’ provide yet more evidence of the need to reform the reality of FEI dressage, a reality that is diametrically opposed to that required by the rules.

First, in an illustrated editorial, Nadja King documents the outrageous hyperflexion of a horse by a dressage competitor at the World Equestrian Games. Such a practice has been widely condemned in the warm-up arena, and for good reason. But to see it practiced in the ring at such a prestigious event indicates the depths to which dressage has fallen. Hyperflexion is expressly outlawed by FEI rules and yet here was an example of the rule being brazenly flouted and condoned by judges (Fig.1).

Secondly, a *cri de coeur* from an author who, in ‘Reflections World Equestrian Games,’ expresses her profound disappointment that the dressage was a ‘hyperflexion heaven’ and decides not to renew her membership of a horse sport.
world that rewards the use of force and domination. “It is becoming increasingly apparent” she writes, “that another equestrian venue is required to accommodate the wishes of a worldwide audience.”

Thirdly, the editor provides a digest of a research article published in the online journal, Public Library of Science. The research on stereotypical behavior in the horse was carried out by a team of behaviorists in the Department of Human and Animal Ethology at the University of Rennes, France (Hausberger et al. 2009). Their research has comparative value as it relates to stress at work in both man and horse. I had not previously considered the possibility that behavioral disorders in the horse and psychological disorders in man might both be triggered by the work each does. Hausberger’s team points out a possible connection. In their summary they write, “To our knowledge, this is the first evidence of potential effects of work stressors on the emergence of abnormal behaviours in an animal species. It raises an important line of thought on the chronic impact of the work situation on the daily life of individuals.”

Their research documents a connection between the increased frequency of stress-induced stereotypical behavior in the dressage horse (compared with other disciplines) caused by the conjunction of stabling for 23 hours out of 24 and dressage. It is not well known that dressage horses exhibit a higher frequency of cribbing, wind-sucking and head nodding in the stable than horses used for other disciplines.

I believe it is no coincidence that the region of anatomy especially involved and common to all the stereotypical behaviors encountered in this study of 76 horses at the Ecole Nationale d’Equitation, Saumur is - the mouth. Furthermore, all the behaviours are characterised by symptoms consistent with being caused by bit-induced trigeminal neuralgia, i.e., the severe and stabbing nerve pain in the face which, in human medicine, is known as tic douloureux; one of the most painful conditions known to man. On first glance, the definition of stereotypical behavior quoted by King seems reasonable - “abnormal repetitive behaviors which serve no useful function.” Nevertheless, I suggest that such behaviour may serve a sort of function, albeit a not very effective one. All these stereotypical behaviors could temporarily lessen the distress (hypersensitivity, 'pins and needles' or intense pain) caused by trigeminal neuralgia (Fig.2).
For example, cribbing or wind-sucking, by placing pressure on the upper incisor teeth could be a way to counter, if only momentarily, referred pain in the maxillary branch of the Trigeminal nerve. Head nodding or head shaking in the stable and at work is a common response to neuralgia in one or more branches of the Trigeminal (Cook 1999, 2003, Cook and Strasser 2003). Similarly, 'tongue play,' biting, and repetitive licking are consistent with these behaviours providing some relief from Trigeminal neuralgia by stimulating alternative neural pathways that momentarily 'block' pain transmission. The relief can only be transient but this very fact now neatly explains why these disorders are repetitive.

Other workers have correlated stereotypic behavior in the horse with poor welfare (Mason & Latham 2004, Mason & Rushen 2007, and Mason et al 2006), and have suggested that such behavior is a way for animals to cope with a stressful environment (Cooper and Mason 1998, Mason 1991). If my explanation is correct, the temporary relief obtained by damping pain signals with a different sensory stimulus, suggests a mechanism whereby stereotypical behavior enables such damaged horses to manage their infliction.
The only behavioral disorder in the group of 76 horses that did not at first seem to fit this explanation was the relatively infrequent occurrence of ‘weaving.’ However, it now occurs to me that even weaving could be similarly explained. Just as head shaking (movement in a vertical axis) may provide some relief from trigeminal neuralgia, so too may lateral movement of the head in ‘weaving.’ In other words, ‘weaving’ could be just another category of head shaking.

In sum, the management practice of caging a horse 23/24 hours a day causes stress. A zoo zebra has more freedom. The mandated use of one or more bits also causes stress. The currently condoned method of ‘dressing’ a horse by hyperflexing the head (Rollkur) undoubtedly increases the stress and the risk of them developing bit-induced trigeminal neuralgia and, in turn, the stereotypical behaviors of crib-biting, wind-sucking, head nodding, weaving, ‘tongue play,’ biting and licking.

In the last decade it has been repeatedly demonstrated that all horses can be trained (‘dressed’) without mouth irons. Yet the FEI and national federations continue to mandate two mouth irons and a curb chain for dressage (Fig.3). This prompts the question can such a sport be ethically justified? At the very least, dressage competitors should have the option of participating without being obliged to inflict pain and stress on their horses.

![X-ray of the mandated mouth irons](Fig.3)

*Fig.3  X-ray of the mandated mouth irons  You wouldn’t do it to a dog!*

The use of force on horses will stop when judges use the force of Article 401 on riders. Until such time as they do, I propose that we reserve the word ‘dressage’ for an ethical sport and use the word ‘stressage’ for the unsporting FEI version.
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