

# TO BIT OR NOT TO BIT

## Responses of young horses to bitted and bitless bridles during foundation training

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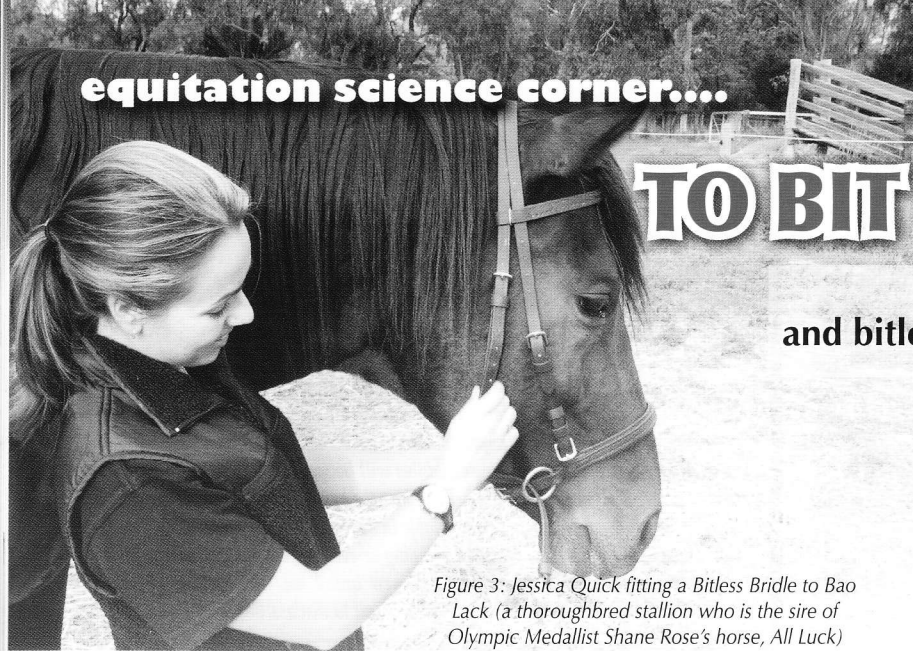
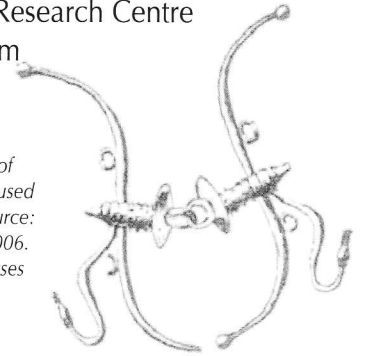


Figure 3: Jessica Quick fitting a Bitless Bridle to Bao Lack (a thoroughbred stallion who is the sire of Olympic Medallist Shane Rose's horse, All Luck)

Figure 2: The humaneness of the types of bits that were used is not readily apparent. Source: Leslie Smith Dow (Ed.). 2006. *A Bit of History. Bitless Horses International.*



Having a bit in the horse's mouth to give you control when riding it is generally considered to be normal. Historical reports of the human-horse relationship almost always depict a bit of some description in the horse's mouth (Figure 1) and often the humaneness of such devices is not readily apparent (Figure 2). Recently however, there seems to be a bit of a shift towards finding more ethical ways of horse control. One such approach is thought to be the use of a bitless bridle (Figure 3).

For clarification, the type of bitless bridles referred to in this article are those that are literally bridles that do not have bits in the horses mouths and does not include those such as hackamores and bosals.

While I had heard many comments about using bitless bridles, for some very unjustified reason, I was always a little wary about the use of such equipment and also about the situations in which they were used. After all, you never saw them in competition rings or on 'serious' competition horses. However, I admit that I think that my unfounded suspicions of bitless bridles was probably because the majority of my horsey life had been, as is the case with most horsey people, based on tradition and anecdotal wisdom.

It was not until, in my position as an academic, that a student (Jessica Quick, see Figure 3) approached me and asked if we could use one of these bitless bridles in classes. While my initial thought was "oh no, we do not know enough about how these things work!", what I actually said was something like "sure, that's a great idea!" and then of course I had to do some very fast fact-finding to find out all I could about bitless bridles. It was during this time that I became aware that there was not one scientific journal paper investigating the effectiveness of bitless bridles; not a single report to be found! Of course if I searched the lay literature there were countless comments to be found, unfortunately all of them seemed fairly unreliable, but then again, anecdotal wisdom tends to be far more prevalent than scientific fact.

I do not remember the exact specifics of the next brainwave that came, but the decision was made for us to set about conducting at least a preliminary investigation on the use of bitless bridles. What this actually meant was that I was not only giving permission for students to use bitless bridles, but that I was encouraging them to do so on 'un-broken' horses and that I wanted to measure every little thing that happened whilst they were doing so!

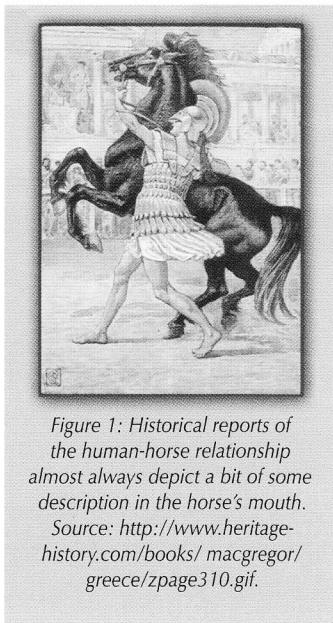


Figure 1: Historical reports of the human-horse relationship almost always depict a bit of some description in the horse's mouth. Source: <http://www.heritage-history.com/books/macgregor/greece/zpage310.gif>.

For those of you who have experience in the use of bitless bridles, please remember that when I made this decision and suffered this wave of "oh no, what have I done?!?!", I had never used one previously. Naturally I made immediate attempts to change this and I then rode a few of my own horses in a bitless bridle, including an ex-racehorse (Jewels) that shows extreme distress at the sound of a bit (even a plain snaffle) from a few meters away (Figure 4). With a lot of my 'good' ideas and hunger for knowledge, I jumped straight on these horses without any specific training for being ridden in a bitless bridle. When putting the bitless bridles on and just looking at how they worked, I kept thinking that they seem to function similarly to a headcollar. Fortunately for me, all horses went really well and Jewels went like a normal horse with no obvious signs of distress, and she actually moved so well that it was not until I rode her in the bitless bridle that I discovered that she actually does have a trot!

Now I know I have digressed to a one-horse anecdotal report, but I had to have some idea about what I was going to be instructing students to be doing, so back to the point of finding out about bitless bridles in a scientific way. Briefly, the methodology involved getting horses that had not much handling previously and had not been ridden before, giving them to students to take through the process of foundation training, with half of them (the horses that is) being educated using a bitted bridle and the rest educated using a bitless bridle. The training program lasted approximately seven weeks and consisted of three main components that were used as measuring points. These were:

1. Bridling: which looked at how the horses responded to having the bridles put on
2. Long-reining: which assessed the responses of the horses as they first learnt the rein signals (Figure 5)
3. Riding: where the horses were backed and ridden for the first time (Figure 6).

We deliberately included long reining in the study because long-reining is considered normal in foundation training. I have to add that I never do it, and my research has shown that no matter how

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good the operator, the aids given with long reins will never be as light and accurate as when riding.

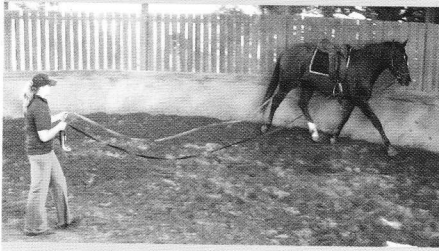


Figure 5: A horse being long-reined (by student Kerry Newton) to get it accustomed to stimuli from the reins.

As with any research, measuring the responses of the horses to this training was an essential part. As a measure of stress, the horses' heart rates were recorded during training. The results showed that there was no difference in heart rate between the groups of horses during bridling or riding which tells us that the levels of stress of the horses during these phases was the same regardless of whether they had on a bitted bridle or a bitless bridle. However, during long-reining, the heart rate was higher for the horses that were being trained in a bitted bridle than those wearing a bitless bridle. This implies that the horses that were wearing the bitted bridle were in the most pain and experienced more stress when first encountering stimuli from the reins. This actually makes sense because other research I have done showed that the rein tension required for horses to perform the same responses are greater for long-reining than riding. This also highlights the care that must be taken when long-reining horses, especially youngsters, to try to use the lightest possible stimuli to preserve the sensitivity of horses' mouths.

The other measurements recorded were all behavioural and included responses such as opening of the mouth, chewing, head lowering, head raising, head shaking, pawing the ground and tail swishing. Not surprisingly, the horses that were trained in the bitted bridle opened their mouths and showed more chewing than those that were trained in a bitless bridle. This was most likely because there was something in their mouth i.e. the bit. The frequency of these responses decreased as training progressed which shows that the horses did habituate to having the bit in their mouths. An interesting note about horses opening their mouth and chewing during training comes about because according to the FEI Rules (Fédération Equestre Internationale, 2005), 'satisfactory activity' of the mouth is permitted, although nowhere could I find exactly what is meant by 'satisfactory activity'. Likewise, chewing has been regarded as an indicator of a horse being 'relaxed in the bridle'. Whether or not satisfactory activity in the mouth is the same as chewing, or if judges see the two responses as the same or not is unclear. It would be helpful if a body such as the FEI would clarify the difference between 'satisfactory activity of the mouth' and 'chewing the bit', especially as in some equestrian disciplines, one is acceptable and one is not.

Head-lowering was shown more by the horses being trained in the bitless bridle and this was mostly during long-reining. Head-lowering is generally reported to be a sign of the horse being relaxed or stretching, both of which are good signs in training. Whether the horses were more relaxed or felt more like stretching is unclear, but it appears that they are more likely to feel this way when wearing a bitless bridle rather than a bitted bridle.

In most activities that we do with horses, having them perform with a steady head carriage seems to be a desirable criterion. During this foundation training, all horses



Figure 6: Research has shown that horses that undergo foundation training in a bitless bridle can perform just as well as, if not better than, those in a bitted bridle.

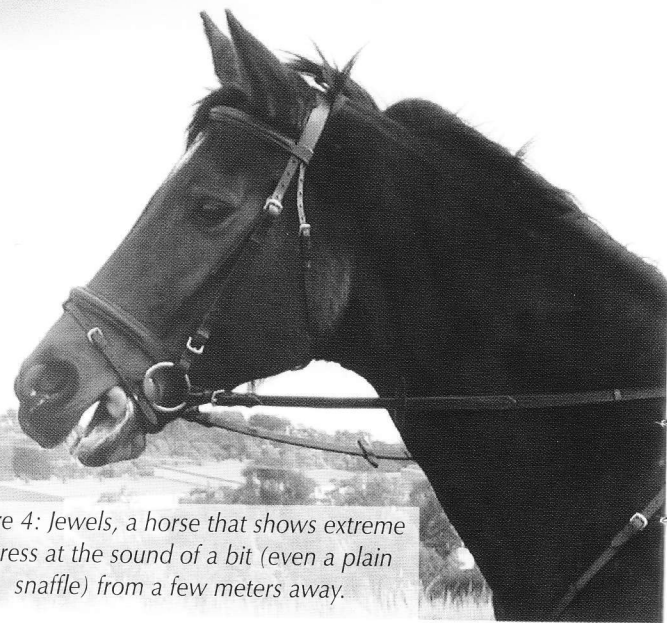


Figure 4: Jewels, a horse that shows extreme distress at the sound of a bit (even a plain snaffle) from a few meters away.

showed some degree of putting their head up or shaking their head, regardless of the type of bridle that they were wearing. This indicates that all horses would have preferred to have not had a bridle put on and that it did not make a difference whether or not that bridle had a bit on it or not. Given that a big part of this training involved the horses having a bridle on for the first time, it is not surprising that they showed some discomfort with this. Encouragingly though, all horses reduced the amount of head movements as training progressed.

Behavioural responses such as pawing the ground and swishing of the tail would usually be regarded as signs of conflict or frustration. The horses that were being trained in the bitted bridle were most likely to show these responses compared with those being trained in the bitless bridle. This suggests that the use of a bitted bridle incites more conflict and frustration in horses undergoing foundation training. If we wanted to avoid, or at least reduce the likelihood of these responses being performed when horses are going through the initial stages of their training, then we should probably use a bitless bridle. However, it would be interesting to measure the amount of pawing the ground and tail swishing that normally occurred during this early education if we were to take it extra slowly, by spending much more time just letting the horse become accustomed to having a bit in their mouths.

In at least two countries now there is support from their national federations for the use of bitless bridles in competition, although this is not the case in Australia – yet. While this article only gives a brief account of horses' responses to different bridles when undergoing their early education, the results clearly indicate that horses wearing bitless bridles performed at least as well as, if not better than, those in bitted bridles. So after being sceptical about the use of bitless bridles at first, I had to confess that I was surprised by the results

and that, if the use of bitted bridles does cause discomfort to horses as suggested by some, then the use of bitless bridles should at least be allowed if not actively encouraged.

I have to add a disclaimer here because any equipment, including a bitless bridle, no matter how nice/soft/kind/whatever, can be used to inflict pain if used with that intent. It all comes down to how it is used and how the horse is trained.

Full report is published as:

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