Understanding the Horse's Mind: A Conversation with Dr Andrew McLean

We speak to globally recognised ethical training expert and member of the FEI's Equine Welfare Advisory Group, **DR ANDREW McLEAN**.

When we talk about horsemanship today, it's impossible not to hear the name Dr Andrew McLean. A lifelong rider, zoologist, researcher, international coach and the man behind many of the foundations of equitation science, Andrew has spent decades helping everyday riders and elite trainers alike understand the horse's mind with greater clarity, compassion and precision.

What makes his work so compelling is not just the science, but the way he links it back to the real world—loading a horse onto a float, handling a nervous youngster, teaching transitions, or even working with elephants. Speaking with him is like being given a clear map of a landscape you've travelled all your life but never fully understood.

The Science Behind an Ancient Art

If you're new to the concept, "equitation science" may sound intimidating. Andrew is quick to wave away the formality. "It's really just understanding what happens in horse training from a scientific perspective," he explains. "Horsemanship has thousands of years of tradition, but much of it has been passed along through trial and error. Science lets us see what actually works, why it works, and how to make it clearer for the horse."

The "old masters," as Andrew affectionately calls them, were often geniuses of feel. But feel alone can't always be taught. By pairing classical principles with modern learning theory, riders gain a language for what they're already trying to achieve - lightness, responsiveness, confidence and calmness.

How Horses Learn: A Trigger-Based World

One of the most fascinating insights Andrew shares is that horses learn in ways that are both beautifully simple and endlessly intricate.

While humans rely on reasoning and storytelling, horses operate through associations. A rein aid, a shift of balance, a tone of voice - every cue becomes meaningful because it is linked to something the horse has previously experienced. "They have an extraordinary memory," Andrew says. "But it's much more trigger-based than ours. A horse will forget the narrative of an event, but the moment he sees the whip, or the person, or the environment associated with it, the memory returns instantly."

This is why even small changes can influence their behaviour. A dressage arena looking slightly different from the day before, a bucket moved a metre to the left - these details matter to the horse.

Their world is rich with subtle signals. And because they are so sensitive, they learn quickly - both the things we intend to teach, and the things we teach by accident.

The Power of Clarity in Everyday Training

Much of Andrew's work focuses on how horses learn from pressure and release. Contrary to common belief, it isn't the pressure that teaches - it's the moment the pressure disappears. "That release is the reward," he says. "But riders often think the pressure is what makes the horse respond."

This is why "light aids" alone can't hold their meaning forever. Even in beautifully trained horses, Andrew notes there is still a tiny rein action in downward transitions, and a subtle leg action in upward ones - a reinforcement that keeps the cue alive.

Problems begin when the signals become blurred. A rein and leg given at the same time, an aid delivered with different posture, or asking for something the horse cannot physically do creates confusion. And confusion is a deeply uncomfortable state for a horse.

LEFT: Dr Andrew McLean is an advocate for the ethical training of horses. ABOVE: Although more trigger based than our own, horses have an extraordinary memory (Images courtesy Equitation Science International).

When the cues clash, horses move into conflict behaviours - tension, rushing, rearing, bucking or trying to escape the situation altogether. What follows is a surge of adrenaline, and if the rider continues, a longer-lasting release of cortisol. In these moments, patience and simplicity - not stronger aids - become the key to restoring calm.

Helping a Horse Reset

Many of Andrew's techniques for helping a stressed horse are both surprisingly simple and extremely effective.

Lowering the horse's head below the wither immediately begins to slow the heart rate. Scratching the base of the withers - mimicking a natural grooming behaviour- can create instant reassurance. Lengthening the stride rather than quickening it reduces tension. Even riding the slowest possible trot, a technique Andrew has used with countless eventers before their dressage tests, can loosen the back and settle the mind.

Most powerful of all is the idea of keeping the horse focused by quietly asking small, simple questions - walk and halt, slow and faster, a few measured transitions. These moments bring the horse back into the conversation, back to the handler, and out of the spiral of stress.

Handling, Vets and Farriers: The Invisible Safety Net

One of the areas where Andrew's work has had enormous impact is in improving the safety of horse professionals. Many of the problems seen by vets and farriers, he explains, stem from a lack of basic in-hand training.

"Horses that push through the handler, horses that can't stop lightly, horses that run forward during injections—these are all signs that the horse's arousal level is already high," he says. "A horse that is light to stop, light to step back, and good with basic cues is a safer horse for everyone."

He believes equitation science should be part of every owner's responsibility, not just something riders think about under saddle. Small, consistent exercises - like checking how lightly the

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"This course has been so brilliant, and I am grateful to have had the opportunity to learn through this course. It has deepened my understanding and opened my eyes to a whole new way of training and interacting with horses. The content was engaging and interesting and I thoroughly enjoyed the regular zoom meetings which allowed for meaningful discussion regarding current topics I was studying and how to change/improve/facilitate better learning. I was extremely impressed with the prompt responses from the trainers whenever I had a query, it was greatly appreciated, and I could tell from your responses that you were genuinely interested in what I had to say or any queries I may have had. I walk away with a wealth of knowledge and a greater understanding of equitation science and I cannot wait to continue my journey and put what I have learnt into practice. Thank you for your great support throughout this journey, it's been truly appreciated." - ESI Graduate, A Evans

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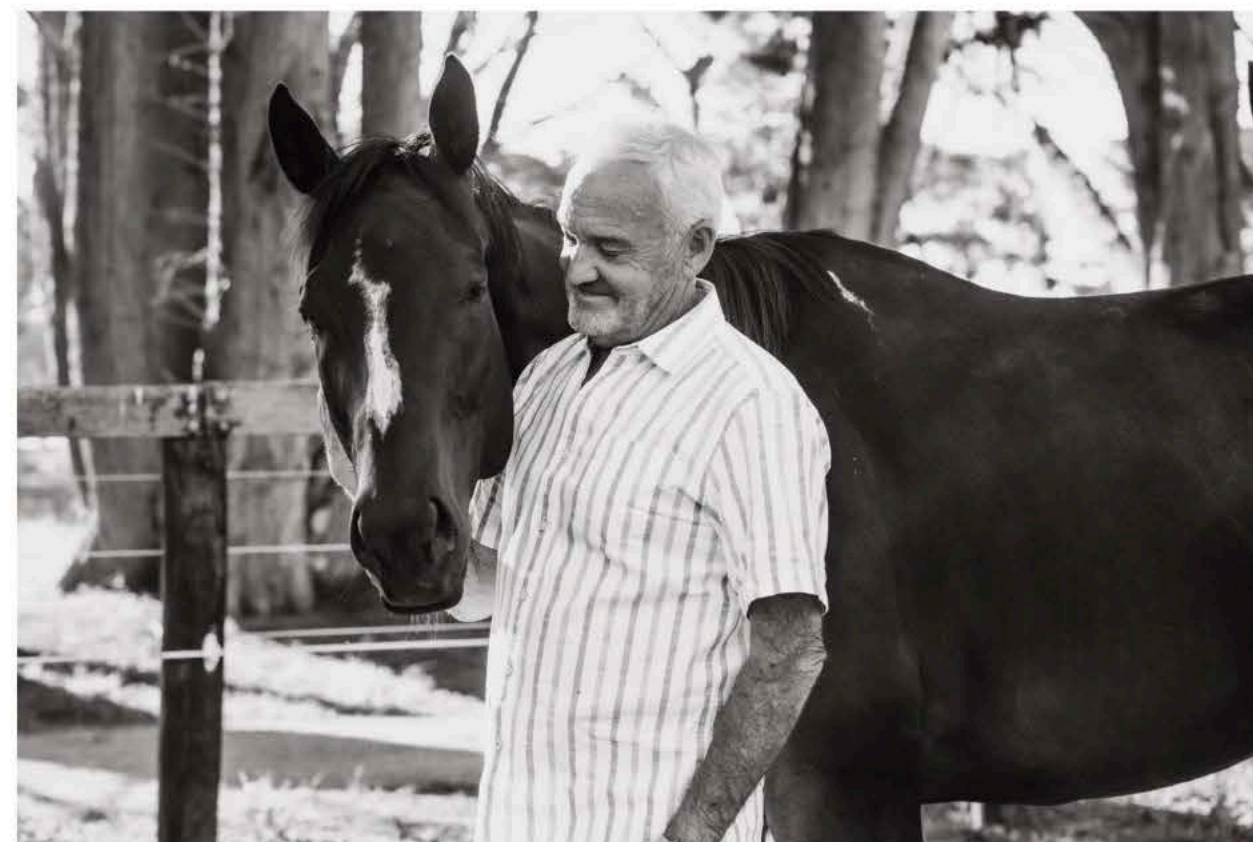
horse halts, steps back, or leads - can make a dramatic difference to safety and wellbeing.

Even behaviours like kicking during hoof handling are often linked, he says, to poor stopping responses. Retraining the basics can transform these moments from dangerous to manageable.

Myths and Misunderstandings
There is a perception, Andrew says, that learning theory makes horsemanship cold or mechanical. He disagrees completely. "The aim isn't to turn people into machines who push buttons," he says. "It's to give them a deeper appreciation of how the horse experiences the world."

Science is finally catching up to the emotional lives of horse - how they feel, how they bond with humans, and how they express stress or pain. But there are still mysteries Andrew believes may never be fully explained, such as the uniquely personal connection between a person and their horse. "And maybe

we shouldn't explain it," he says with a smile. "Some things are allowed to remain magic."

The Future of Equitation and Equestrian Sport
Andrew sees equitation science not as a method, but as a framework - a set of principles that any training system should satisfy, regardless of discipline. These principles are already being incorporated into FEI welfare guidelines, and many of the world's top trainers have embraced them.

At a recent FEI Sport Horse Forum, several Olympians approached Andrew to say his work allowed them to articulate what they had always felt instinctively. This is what he hopes for: not a revolution, but a refinement—where riders can pair feel with understanding to train more clearly, more kindly and more effectively.

"If you understand how horses learn, you can teach them anything they are physically able to do," he says. "And

most of the behaviours that get horses labelled as difficult would disappear."

A Kinder, Clearer Way Forward
What emerges from Andrew McLean's work is a vision of horsemanship where communication is clearer, the horse feels more secure, and riders are equipped not just with instinct but with understanding.

It's a way of training that allows horses to be partners rather than puzzles.

A way of riding that preserves the artistry while strengthening the welfare underneath it.

A way of being with horses that honours both their nature and their heart.

For Andrew, equitation science is simply a means of helping humans become the handlers horses always hoped we would be - calm, consistent, kind and clear.

Dr. McLean offers a variety of two excellent courses through Equitation Science International.