

**THE GERMAN TRAINING SCALE**  
IMPLICATIONS FOR THE RIDER

**5. Straightness**

This month RICHARD WEIS continues his series with a look at staying straight. Dressage is the art of putting one crooked body on top of another crooked body and making them both straight, which is one tricky business!

If we are going to tackle this vexed issue of straightness, we'd better have a closer look at the swing of the horse's back. There are important implications for the rider, because when a horse is straight, the oscillations – that is, the wave-like movements of the back that organise and coordinate the limbs – find a definite symmetry.

Rhythm is symmetry. Oscillations distort if the horse is not loose. They flow along a lengthening spine, especially when the energy produced encourages the back legs to swing actively forward. When undertaking the job of straightening the horse, we often need to check back through the first four features of the German Training Scale.

## Always straight

That straightening is the fifth in the sequence of priorities can be confusing. It does not mean that no straightening is necessary earlier. Often stiffness causes crookedness and making the horse loose and supple through the back means unlocking one side of the body or the other. The straightness we are addressing now is the whole spine, laterally and longitudinally.

Number four on the German Training Scale, impulsion, drives the back legs forward, which encourages the horse to start to lift his back and eventually his withers. When the back of the horse comes up it is straightened on the longitudinal plane, especially when the horse starts to carry more weight on its back legs which is sixth feature of the scale, collection. Collection is the ultimate aim of all training and will be discussed in great detail in the next article. Right now, think about bringing symmetry into the oscillations of the back on the lateral plane.

## Biomechanics versus riding

I must admit to some confusion on the capability of a horse's spine, according to biomechanics. I am not alone – most dressage riders who have an intimate relationship with the spine from sitting on it and shaping it find it hard to understand the biomechanical view that the vertebrae move very little. The biomechanical view is that the forces/impulses on the spine are so great that the spine's greatest challenge is in maintaining stability. Practical riders don't actually need to get to the bottom of this. We simply need to know the feel when the back is working well, and how to correct it when it is not.

So . . . we have a sitting bone and a leg on one side of the horse, and a sitting bone and a leg on the other side. The sitting bone stands the torso weight down through the legs so they feel like walls to the horse. We'll take the sitting trot as our example now, because trot has the

advantage of being a symmetrical two-time pace, and because sitting on it allows us to become intimate with the oscillations flowing through the horse.

The ribs and the undercarriage of the horse hang from the spine. Swing is the action required to co-ordinate the limbs. This is why we can sit in the middle and still influence any leg, because the legs themselves swing in a harmonious relationship with the oscillation of the middle section of the horse.

Not only do the legs swing from the horse's torso, but also the torso makes way for them to travel forward. A hind leg is free to swing forward when it is relieved of weight. So the horse swings its belly to the outside when the inside hind leg is coming forward and visa versa. Of course, the outside hind leg is in contact with the ground and is thrusting backwards, so this leg is in a position where it can carry the weight of the belly over it.

## Organising the horse

A rider sitting on top of all this does very well to study the timing and direction of these relatively subtle movements. We shape them to organise the horse.

When the belly of the horse swings to the outside, a space is made under the rider's inside sitting bone and leg, allowing the sitting bone and leg to sink deeper towards the ground on that side. Next, the oscillation swings back like a pendulum and lifts the sitting bone and leg. There is an up beat and a downbeat inside the general bounce of the trot movement. The rider's pelvis and leg pedal up, down, up, down, alternately.

This movement follows the guidelines that say that forces should be concentrated vertically in the rider's body. A subtle nuance is added, still in the up/down plane, so that when we stand behind the rider we will see a very subtle swing of the hips. One sitting bone and one heel sink a little bit deeper. Then the whole body goes up and down, now a bit deeper on the opposite sitting bone.

All joints express a rhythm and all joints participate in spring. The movement is simply slightly exaggerated on alternate beats because of what a horse has to do with its back, in order to coordinate diagonal pairs of legs.

# Juggling white balls

I've often gone to the trouble, for the benefit of my students, of lunging a horse in trot with white balls strapped to the saddle where the sitting bones and calves normally sit. Slow-motion film footage shows exactly what the rider needs to do to be able to go with the horse without interfering. All four balls bascule. That is, they go up, forward and down as if they are rolling over a speed bump. That is why the rider needs to spring in order to establish those arcs in sitting bone and calf movement. From behind, they can be seen to rock in relation to each other, one side down, then the other. Unevenness and crookedness can be picked up by close observations of the way the balls travel.

## All in the timing

The most important practical information arising from this observation relates to the timing and application of the aids. Note it well: bending or straightening aids are generally given alternatively and in the timing of the exaggerated downbeats!

This is a tremendously efficient revelation on three counts.

First, the seat aid and the leg aid mostly tend to work together because they are trying to affect the same rib cage to swing in the same direction and with the same magnitude at the same time. The seat bone operates from the top and the calf operates from the side.

Second, the aid is applied downward and is achieved through dropping weight as opposed to squeezing. Weight and the momentum to drop through the seat bone and calf are freely available, while a squeeze needs to be manufactured through unnecessary effort.

Third and most basic – the rider undertakes the job of shifting the weight of the belly off the hind leg so it can swing forward unencumbered. Aids to shape the swing of the horse are only given in the timing when the hind leg is leaving the ground and coming forward. The opportunity to influence a leg is lost once it meets the ground, because in that moment it is committed to supporting body weight and completing the thrust. It is as if we pedal through the pelvis and legs in order to shape the swing through the horse. We pick each foot up and put it down wherever we want it, within reason.

Once we can feel these oscillations, we can start to influence them. If we notice that the horse does not allow one seat bone and heel to sink as deep as the other does, we know that the leg

on that side is sluggish and doesn't want to swing forward. We give the belly a bit of an extra nudge by bringing a bit of dynamism and weight to that side and, if necessary, the whip.

## Crooked plus crooked equals straight

Now, remember that dressage is the art of putting one crooked body on another crooked body and making them both straight. Often the rider is just as crooked as the horse. One sitting bone sinks easily and the other doesn't. It is held up. From experience, the light one is often the left. If we look higher, the muscles of the left side of the torso pull the shoulder down and the hip up.

Circle work normally highlights this. On a circle we say the horse is straight, that is, conforming to a curved line, when it swings its belly more to the outside than to the inside. A rider with a collapsed hip leans in. Weight tends to slide to the outside, breaking the first rule for bend. To bend the horse, the rider needs more weight on the inside in order to give that extra little nudge that encourages the inherent swing bias toward the outside.

Without the right distribution of weight to the inside, most riders compensate. The inside rein gets desperate and hangs on to an exaggerated inside neck bend in the belief that something needs to be done.

Extra weight on the inside as part of the bend aid is consistent in all movements where bend is re-gear'd for balance. This weight is torso weight, and to give it clear differentiation from one side to the other, it is useful to think of it coming from the length of torso to the armpit. The inside of the rider needs to grow up, drawing weight from the outside and dropping it down right through the inside heel.

This extra weight strengthens and stabilises the inside of the rider, creating a post-like quality. The outside of the rider and the outside of the horse revolve to face the circle around this post. In my opinion, outside aids need the post of the inside aids to swing off. But that is another story. In circle work, the post-like inside line stabilises the rider against the influences of the centrifugal force.

## Stay vertical!

I get more consistent results in teaching when I stop talking about bend, and start directing the rider to pay more attention to keeping the horse absolutely vertical on the arena. Vertical

– that is, not leaning in or out – aligns the ears, shoulder blades and pelvis of the horse so they sit horizontal and level, like a tabletop.

Riding the horse so that it stays vertical needs wall-like aids to stand the body of the horse up over its feet. True bend results from this, because the forehead of the horse turns to face the circle and so do the shoulders and the pelvis, in order to achieve the turn. A post-like line, from the armpit to the foot, springs out against the ribs of the horse in a line towards its opposite shoulder, when the horse leans in. In order to negotiate a circle without leaning in any direction, the horse organises the appropriate swing of its ribs, that is, more towards the outside than the inside. It has no choice but to bend.

## Horse will find a way

This all sounds a bit dramatic, but usually the rider simply takes the postural attitude in his own body that represents the movement asked and sticks to it stubbornly until the horse finds his way inside it. The horse is shaped in the corridor of the aids from the bit back. Legs act like walls. The seat pedals the horse between their confines. Energy is encouraged in the back end and is channelled forward in the corridor of the rider's influence.

In situations where the back legs do not follow the front legs – and I am not talking about specific lateral exercises here, just your common garden variety crookedness – it is far more appropriate to bring the forehand in front of the hindquarters, rather than the other way around. After all, our training concentrates on lightening the forehand and making it more manoeuvrable. All exercises are consistent with this intention, with the possible exception of a turn on the forehand, which I've never been able to make much sense of in training.

The timing of the aids to place a front leg is also when that front leg is in the air and coming forward. The front of the rider's body from the pubic arch to the throat revolves around the back of the body to create a momentum, which deflects the travelling leg into the required position. Most commonly, the right hind leg of the horse steps in a bit and pushes the left shoulder and foreleg out. It is the left shoulder and left leg we must pop back into line. The left rein becomes heavy or dead. The rider takes a solid contact, enough to bring the horse's head back in front of its chest, and keeping this connection swings the front of his body to face the right.

These influences do not require a great magnitude to be effective. The possible magnitude is seriously limited. You can't move far and still keep a little bit of extra weight anchored to the inside. Luckily, when the timing is right, the forefoot is not on the ground so it can't brace

against the rider. Subtle movements with enough momentum to get the job done are all that is needed. In fact, they are fairly automatic once the rider concentrates on keeping the horse as close as possible to vertical at all times.

Lightening the forehand so that it takes smaller and smaller aids to shift is the subject of the next and last article. The sixth element in the German Training scale, collection is the object of our training efforts and once again we'll be looking to study the kangaroo for a few clues.