The German Training Scale
implications for the rider

4. Impulsion

The past three articles with RICHARD WEIS have shown how the German Training Scale provides a logical progression for the gymnastic development of both horse and rider.

Rhythm brings about economy of effort and eliminates tension that shortens, stiffens and limits movement potential. The body lengthens, concentrates its directional forces and brings about an inherent springiness – which brings us to impulsion.

Here's a perspective from the land of the kangaroo. Kangaroos make quite a study. I see mobs of thirty or more gambolling around at my place. They are masters of impulsion. Watch a baby kangaroo on his third attempt to clear a sheep fence. Two rebounds off the top wire and all energy is concentrated on the next go. He moves back about three metres and hops on the spot a few times as if looking over the top at his mates up the paddock. These initial hops tone the coiled springs of the back legs and he's up and over with considerable ease to join the mob.

Kangaroos are masters of impulsion. Even the movement of their diaphragm is synchronised with the rhythm of the bounce. Its rising and falling is integral with the spring-like power of the joints of the back legs.

Diaphragm is a piston

In horses, impulsion is more directly linked with forward movement. At a certain stage when a canter turns to a gallop, the horse's diaphragm is also linked to the rhythm of the movement. Unlike the kangaroo, the diaphragm of the horse moves forward and back. It moves like a piston inside the cylinder that is the torso, adding to forward propulsive power.

Once the body of the horse is capable of balancing under the rider, and can manage without running or stiffening, impulsion can be added so that the horse learns to express an abundance of energy in a controlled way. Rhythm is established in supple, loose oscillations along a lengthening spine and so, increased demands have a solid basis. Energy has somewhere familiar to go. The horse's natural paces have been encouraged to date. Now we will look at how to add energy with the aim of improving them.

Energy, added to a tense horse, results in more tension. Often a well-bred dressage horse will show extravagant movement, despite being tense and stiff. This fools many riders, because they fail to see that the horse must allow himself to be pushed, and it is only through the driving aids that movement truly improves.

Influencing the horse

This is a problem about which the German National Equestrian Federation is very concerned. Horses are bred with natural balance and naturally extravagant movement. The Rider Test was introduced some six to seven years ago to ensure that riding does not suffer. In the Rider Test, horses are not judged on the extravagance of their movement. Judging is based on how much the rider can usefully influence the horse.

I have worked with some very successful German competition riders. Surprisingly, some have not even gone close to being able to improve the natural paces of the horse, because the horse is successful with its own talent. These riders would get a shock if they were not privileged to sit on exceptional, purpose-bred horses. They haven't got the driving aids sorted out. So in this article, we will look at the driving aids and how they relate to the requirements of the horse, with respect to the German Training Scale.

Through the course of these articles, some of you will have been drawing your own conclusions. You'll realise the rider needs to 'do in his own body what he would like the horse to do'. You wouldn't be too far off, and nowhere is this clearer than in the case of producing impulsion.

Chicken and egg

Spring-like forces concentrate in the rider's body in the up and down plane. They flow rhythmically through the whole body. The required efforts are distributed throughout. This is one of those curious chicken and egg cycles. If muscular effort is not evenly distributed the spine cannot lengthen, and it is the capacity of the spine to lengthen that distributes effort.

The horse is ready to be pushed, so we need to see what implications the extra impulsion may have for the rider.

Impulsion could be described as energy, but that wouldn't be the end of it. A polo horse may have exceptional amounts of energy, but we wouldn't describe it as going with impulsion, unless it was governed by a rhythm, and was swinging easily through a lengthened back. The back legs would swing energetically forward, providing nothing but propulsive power. In this scenario the power would be available to the rider to control and direct.

Energy on tap

Producing, controlling, and directing energy is the responsibility of the rider. Energy must flow like water from a tap available at any moment to be turned up, or turned down, at the rider's will. Through bounce mechanics, the rider indicates not only how much energy is required, but also where it is to be directed. This means more than steering. The rider might direct energy to be used up and down to bring about collection, or he may use it to cover more

ground with forward driving. Energy is encouraged in the back end of the horse and is channelled and directed through the front end.

In the case of forward driving aids, we will not distinguish, at this stage, between seat and leg aids. The closing of the leg is, in any case, associated more with impulses travelling down than from squeezing. The whole body springs, and the whole body is the most basic of aids. This term impulsion is not normally used to describe the requirements in walk, because walk lacks a moment of suspension. In both trot and canter the horse lifts up off the ground. Impulsion magnifies the lift. We call the lift cadence, and to add cadence we rebound the horse more vigorously. Forces are increased and it is important that they continue to flow concentrated through a soft, lengthened, swinging back. To ensure this, we will tend to lengthen the stride to avoid the initial pitfalls in collecting it.

Impulsion in the rider is the energy required to go in his own body where he would like the horse to go. Think now of a straight line accelerating buoyantly into a few strides of medium trot. The head of the rider must reach up as far as the back of the horse does. His body must aim for the next spot on the arena where he wants the horse to take him.

German kangaroos!

This is a description of forward driving aids. If we spring forward as if to lead the horse, we are keeping our sitting bones advancing. A few years ago I did a series of lecture/demonstrations around Germany for the German National Equestrian Federation – quite a thrill for an Aussie. You should have seen 850 ‘representatives of the best dressage nation in the world’ bouncing around like kangaroos in the new hall of the German Olympic Training Centre.

As I said, we have one of the best examples of impulsion right here. It is a great exercise to explore just how much postural energy is required to spring from one spot to another like a kangaroo. Of course this is an exaggeration of the requirements when riding because the horse does a lot of the work. However a rider ‘carrying himself’ is a far easier load for the horse than one who wedges his seat in the back of the saddle and leaves it up to the horse to drag him along.

Leaning back is out

Many riders keep their sitting bones advancing by leaning back, but this is a very bad fault on many counts. First, a vertical orientation allows the torso to land over the top of the legs. The legs engage, that is the joints bend under the weight. They act like shock absorbers, softening the jarring both on the horse's back, and on the rider's back. It is very difficult to keep the legs underneath while leaning back.

Second, leaning back creates relentless horizontal forces, which exaggerate the downbeat. The torso has limited support below it, so it tends to be jarring down into the horse.

Third, leaning back tends to lock the pelvis, making it impossible to use it to guide the swing of the horse's back. Of course, if the horse is unused to lengthening his stride with more impulsion, he may well panic a bit and stiffen. We need to sensitively encourage him to find a way through swinging. Vertical posture makes the required dexterity through the pelvis possible.

Vertical is the go, and a very slight tucking under of the pelvis to encourage the forward lengthening of the stride. Most horses make the same mistake. They feel the horizontal nature of the driving aids and respond by flattening and running. It is very important, for future progress, that the rider suggests that the strides become longer and higher at the same time. The up beat must not be sacrificed for the horizontal driving aids, and the horse must not continue on after he has missed that point. Half halts and down transitions punctuate each short attempt. (There will be a lot more about the rider's responsibilities in half halts later. At the moment they will entail a lessening of the tucked-under driving aids and a non-allowing hand, coupled with the spring aiming for shorter and slightly higher steps.)

No holiday for the horse!

There is nothing more tragic to watch than a rider springing along with blind enthusiasm while the horse has a holiday. The spring of the rider must take the horse with him. The whip may well be required to show the horse how serious you are that he comes along. The most common fault is to fail to make gradual changes in intensity, particularly in the early stages of training. If the rider's seat describes a pattern, which the horse can't even imagine making with his back, it will probably get confused and stiffen. The hardest part in training is to keep the horse willing to try for us. The transitions inside the pace must be explained through gradual short bursts, reinforced when necessary with the whip or spur.

The springing to where you would like the horse to go, in a leading attitude, ensures that the rider stays to the front of the saddle. In this way the weight is distributed over the whole saddle and the horse can comfortably swing his back underneath it.

There is no doubt that more tone is needed throughout the rider's body when the horse is asked to go with more impulsion. Energy is explosive stuff and it takes a bit of directing and containing. Most of the energy required is to maintain the postural integrity. To stay vertical, to stay as a spring in one piece, to stay straight and aligned to the track in good rhythm, all takes a bit of doing. In order to give the horse the impression that he is contained between your body and the ground, engaged legs are essential. The rider's legs provide a wall-like direction, on either side of the horse, rather than a vice-like grip. A considerable postural strength is required. It is an elastic type of strength characterised by rhythm, suppleness and lengthening.

The impulsive forward-driving stage concentrates on encouraging the hind legs to swing forward from a swinging back. Impulses of energy travel all the way to the poll and ultimately to the bit. All the pieces connect and co-operate, propelling the horse along. The straightening influence, of forward riding, explains why straightness comes next in the German Training Scale. Through the demands of the driving aids, the whole horse becomes straight. The horse moves as one piece, or maybe he doesn't! If you pull a crooked piece of wire from both ends it will tend to straighten. It may, however need a bit more tinkering about the crooked bits until it is absolutely straight. That is the subject for next time.