

Exercises – Their Purpose and Correct Execution – Part 1  
*by Paul Kathen © 2005*

Very often after a series of collecting exercises I will ask my students to just trot along the rail and enjoy the collected trot followed by a few steps of a freer trot for the benefit of the horse. By doing this I am trying to give them a sense of what we are intending to accomplish with our work. All dressage organizations from the FEI down state in their rules what these goals of riding Dressage are. I do not know the rules of all the organizations but I would bet that not one of them mentions the riding of Piaffe or Passage as their goal. The purpose of all that hard work of schooling is to create a horse that is supple, obedient, rhythmic in its gaits, and in spite of its powerful and expressive movement, comfortable to ride. You will also see these goals reflected in the collective remarks of your test.

Exercises like Piaffe and Passage have no purpose of their own, but are tools of the trainer to achieve the goals stated above. Yet watch trainers at work and you will often see an endless string of exercises ridden without ever checking the gaits to see whether the exercises had the desired effect. We can not blame the trainer too much since she is pulled to this kind of work by the need to ride for instance the Renvers correctly, in order to make it effective as a collecting exercise. The horse must be taught and trained to be able to execute an exercise and therefore we often see such drilling in workouts. It is counter productive however, since it will sour the horse and sow the seed of evasions and loss of motivation. As a trainer I must balance the need for the training of the horse in the exercises and the need for a horse enjoying its work

Trainers may also be tempted to drill exercises because of the tests at horse shows. The scores seem to be based mostly on the execution of exercises, rather than on the quality of the movement. That should not be the case. The collective remarks have a coefficient of two, which makes them important marks. However, in most cases when a new exercise is introduced to the next level it receives the same coefficient. That then puts it on par with the collective remarks. We should never forget that the gaits must remain pure, and that the need for harmony between horse and rider by far outweigh the need for precision. If the exercises were trees and harmony and expressiveness of movement were the forest, we could say that such a view of dressage would mean the inability to see the forest for the trees.

On the surface this truly appears to be quite a dilemma. Exercises, in order to be effective, must be ridden correctly, yet the repeated practicing of such exercises may cause the horse to lose interest. In my experience the best way to avoid drilling is to first clearly assess the horse's ability and devise a plan to strengthen the horse in the area that needs improvement before we challenge him with hard work involving this weakness. Second, horses have one side which they prefer and where the work seems much easier for them. This is the side that I use to teach them new skills. As soon as they understand the exercise, I move to their weaker side and spend the majority of time on that side to gradually make the horse equally skilled for this exercise on both hands. So I take advantage of their strength to teach a particular workout and then ride this exercise on

their weaker side to strengthen it. Third, I keep a very close eye on the demands of the training scale at all times so as to not lose what I have worked so hard to gain up to this point. In other words the rhythm, suppleness, connection, and the desire to move forward must stay at an acceptable level while riding an exercise or I must stop and restore these conditions before returning to the exercise.

This in my opinion is important enough to take a closer look at what it means exactly. It takes us back to the forest and trees situation. The conditions set forth by the training scale take priority over the exactness of the exercise. If, for instance, I am to ride a Shoulder-in from K to E it is more important that my horse stay through and move with impulsion than it is for me to start exactly at K and end precisely at E. Even an insufficient degree of bend by a horse that stays supple and active is better than a sufficient bend that is the result of a pulling inside rein. The main reason why I feel this way is that the tests at the shows are designed to show the result of training be it correct, poor or even unacceptable. They also give credit to the talent of the horse. In the case of the supple and active horse it may not have advanced enough yet, but its training is correct. In the case of the stiff horse the training is poor. The former horse with continued work by that rider will soon show a sufficient or better Shoulder-in. The latter horse will not improve its suppleness under the same training. In most such cases the gaits will soon deteriorate, the horse will find additional ways to evade the demands and the stiffness will eventually become permanent. Never ever must we allow the purity of the gaits to suffer from our training!

Here is the solution to this dilemma. When we run afoul of the training scale we can always return to an easier exercise without losing a great deal of training effect. Let me continue with the example of the Shoulder-in and explain what I mean by that. I am riding a Shoulder-in on the long side and feel that my horse is dropping his back, raising the neck, and pulling on the inside rein. A couple of half-halts and a softening inside rein do not correct the problem and so in order to avoid making a bad situation worse I decide to turn onto a circle of about fifteen meters, ride forward and with a sponging inside rein ask him to soften onto the bit and bring his back up again. If it works I continue first with a Shoulder-fore gradually increasing the bend to a Shoulder-in again. If my efforts on the fifteen meter circle did not succeed to return him unto the bit, I increase the circle to twenty meters and if necessary rise in the trot and allow him to stretch for a few steps and ask him to allow my aids to come through again. In most cases this will bring my horse and me back into harmony. Now I test this result with a fifteen meter circle followed by a Shoulder-fore. Out of the second corner of the next short side I ask for a ten meter circle followed by a Shoulder-in. If my horse will carry this Shoulder-in for about half the length of the arena our earlier problem was most likely rider error. Should I lose the throughness again my horse needs further improvement in either suppleness, strength or both. It is also possible that he just simply does not understand the exercise. In any case circles, spirals, and Shoulder-fore will help prepare him for the demands of the Shoulder-in.

This system of schooling a horse has worked very well for me. I ask for an exercise, feel how my horse responds, analyze what I feel, if necessary correct, feel to make sure that the correction has had the desired effect. If not, analyze and correct again. If my corrections do not improve my horse's performance I must change them. At times all I have to do is to apply the correction a bit stronger. Sometimes I react as I described in the example of the Shoulder-in by ending the exercise and prepare my horse anew.

By dealing with problems in this way I have avoided two major pit falls. First, by avoiding tension, I have maintained the purity of the gaits, and second, by staying within the limits of my horse's current ability and knowledge I have preserved his motivation to work and to please. In other words, by my momentary retreat to avoid a battle, I have improved my chances to win the war and gain harmony. As trainers we often are tempted by this knee jerk reaction of "I must not let him get away with this." If you feel this way, stop, cool off and repeat your demand. This allows the two of you to work as a team, and when he obeys, he did not get away with anything anyway.

The other part of riding an exercise correctly is in the actual execution. The old masters used great care to describe the movements precisely because they were well aware that horses would be quick to find ways to evade the difficult parts of such an exercise and if the rider did not insist on correctness the exercise might lose its value.

In this article I do not want to limit myself to exercises per se, but I would also like to explore exercises that are the result of transitions combined with ordinary movements. It is because of their combined effect that they improve a horse towards the goals of dressage. I am sure you, for instance, are aware of the benefit in collecting a horse when you ride a few walk-canter transitions. For the purpose of simplicity I will call such combinations exercises also.

A good way to explain the exercises and their purpose is to divide them into three categories: Suppling exercises, exercises to develop impulsion and collecting exercises. As you can see, this also follows the line of the training scale. I will describe the exercises more or less in the order in which they are ridden in the training of the horse and in which some of them also appear in the progression of the tests at the shows.

#### A) Suppling exercises:

- Large circles, shallow loops along the long side, serpentines, riding corners, figures of eight, spirals in and out
- Cavaletti work
- Riding up and down hills, jumping small obstacles
- Stretching forward downward
- Half turns around the forehand
- Leg yields
- Transitions (especially trot-canter with a horse that shows a tight back)
- Lunging

As you can see there are no fancy moves here, but that does not mean that they shouldn't be executed correctly. Quite the contrary, great care must be taken because you are dealing with horses fresh out of the stall. They are often stiff and still uncoordinated and therefore more likely to injure themselves.

Many of these exercises deal with bent lines. The rule for correctness on these lines is that the back of the horse must be evenly bent according to the line it travels. At times it seems that students have more trouble with the even bend of the circle line itself. The operative word in the last sentence is evenly. That means that the spine of the horse has the same bend from poll to tail and the hind legs follow in the tracks of the front legs. The same rules apply for corners, serpentines, loops, figures of eight and spirals. The figure of eight poses an additional problem in that it takes an already somewhat supple horse to execute the change of bend without tension. So the rider must at first allow for a few steps on a straight line to flex and bend the horse in the new direction before starting the next circle. This does indicate that in training horses there are degrees of demands, and in this way one exercise prepares the horse for the next more difficult one. A twenty meter circle for instance starts the process of making the horse supple enough so that it is able to execute a fifteen meter circle without tension. This then continues the suppling process to where the ten meter circle is no longer difficult for the horse.

The cavaletti require a horse with some experience. While teaching your horse to school over cavaletti start with one cavaletti and walk over it, then try it at the trot, next add a second one at the correct distance for that particular horse. I think it is a good idea to check your horse's stride by measuring it at a working trot in your arena. You want to avoid his stepping on a cavaletti, because that could cause him to pull a muscle or other soft tissue. Round poles placed on the ground are particularly dangerous, because they might roll as he steps on them and could cause such a pull to be even more severe. I suggest not putting more than four cavaletti in a line. It is important that your horse stay relaxed as he approaches such a line and is allowed to stretch forward downward as he crosses it. Under no circumstances should you interfere with your horse while in the line. As he stretches down he must stay connected and maintain his self carriage. Since mistakes made in cavaletti work can be costly it is of utmost importance to keep your horse relaxed yet attentive.

I am a firm believer in taking horses out of the arena and onto the trails. It relaxes them, desensitizes them to strange objects and sounds, increases their self confidence and motivates them to work harder when in the ring. Hopefully there will be a hill on the way and you can use it to teach your horse to shift its weight according to the incline of the hill and in this way stay in balance. It is important to observe here to approach the hill up or down in a direct line and perpendicular. Working in this manner will also strengthen your horse's back. On the trail you may also encounter a small obstacle that would be much easier to jump than to ride around. This too has a beneficial effect on the back of your horse since he has to stretch it to bascule (round his back) over the jump.

So far you have stretched the muscles along your horse's back by bending him laterally and by asking him to stretch over the top of his back working the cavaletti and jumping

small jumps. Most horses just naturally want to drop their head down because it is how Mother Nature intended for them to travel. It is also natural for them to move on the forehand, and that we must change through our schooling to a more balanced distribution of their weight. Frequently you will encounter a horse that does not stretch when given the opportunity to do so. Since a back willing and able to stretch is a condition without which the horse can not work correctly, you must find a way to convince him to let go in the muscles of his back. Sadly, I must say that there are many horses that have worked with their backs tight for so long that they are conditioned to work in that way, some even successfully. One can only speculate how well these horses could have performed had they been trained correctly. There is, however, no need to guess at the fact that having to work with their back in a knot was highly uncomfortable all the time.

There are many reasons why some horses tighten their back under saddle. The terms we use to describe these horses are “cold backed” or “sore backed”. They may also be sensitive mares or horses with conformation problems. Now you are to work such a horse and must correct this problem. I would start by taking this horse on a trail and quietly walk it on a long rein. Let nature take its course and the horse’s natural curiosity will make it look left and right (stretch one side or the other) it may even want to smell something on the ground or grab some grass. You can easily see how this will stretch the horse’s back and hope that these momentary stretches will convince the horse that it is ok to drop the neck all together. In tough cases it may not work, some horse’s temperaments may not lend themselves for such rides, or you may not have the opportunity to ride the trails. In some cases careful and skillful lunging may convince the horse of the benefits of working with a relaxed back.

Let us just say none of these possibilities would be available to you and you must work in the arena. You still can take fifteen minutes to just walk your horse. He needs it in order to warm up his muscles and joints to be ready for the more strenuous work. Give him ten minutes on a loose rein, urge him forward in a brisk walk and see whether that will convince him to drop his neck. If not, take up the reins, establish a firm contact, and continue to drive him into the bit. It is not just the long back muscle that is tight, the broad back muscle (connecting back and forearm) and the gluteus muscle (connecting the long back muscle to hind quarter) are also affected. This explains the short and choppy strides of such a horse.

If you have any questions regarding the biomechanics of the horse, this is a good time to read the article, “Why God Wants Us to Ride Horses,” in the August and September issues of the HDS newsletter or go to the Tex-Over Farms website, [www.tex-overfarms.com](http://www.tex-overfarms.com), and check under Articles.

Your horse showed no tension when you led him out of the barn. He behaved well during grooming and tacking up yet now he is stiff and unwilling to move forward. The difference is that now you are sitting on him. In spite of your long walk on a loose rein he is still tight. The neck and back ligament is pulling his head up and the hind legs can not reach far forward for the same reason, plus the contracted croup muscles add stiffness to the hind leg. All of this is the result of the back being defensive about your weight or,

heaven forbid, just the prospect of being ridden. You must first create some suppleness in this system of locomotion before you can start the trot. It is the tightness in the back and croup that shorten the stride behind, and it is mainly the contracted broad back muscle that binds the front leg. A horse moving like that, even in the walk, is on the forehand. Following is the scenario if you were to start the trot now. The joints in the hind leg do not bend and thus the weight is lifted over that leg and then pushed down onto the forehand. The stiff hind legs act like a catapult. The front legs are striding short as it is and now they have to step even shorter because they have to brace the weight thrown at them by the hind leg.

While he is still walking, try to stretch one side of the horse by maneuvering him onto a large circle. You will find that an opening inside rein will serve best for this purpose. If frustration tempts you to just pull his head around remember that it is his defensiveness that caused this trouble to begin with. You want to correct a problem and not get even with a horse that gives you trouble. I will tell you now that you will be able to feel your horse's relief once he has relaxed. He does not like this way of going any better than you do. So while you walk him on a circle use your inside leg to start a bit of a bend. Do not force it but start to convince him. Do this on both hands. Soon you will feel him begin to give and along with the increased bend in the ribs you will find that his neck begins to drop down also. If he pushes his nose out as his neck moves down he is offering you a compromise. He will relax the back muscles but not bring his back up. Take the compromise and reward him for that.

Your new situation now is a relaxed back that is not working. Exercises at the trot must help you to start him involving his back in his movement. As usual you begin with the simplest exercises and as you succeed you move to the more difficult ones. Shorten your reins and start the trot. He will probably resist the shorter rein, because giving to the rein now means to stretch his back up which requires actively working muscles. Set your hands and ask him to move forward. Again at first he will be more willing to give on bent lines. It is almost as though you have only half of the horse able to resist. Balance also requires that the inside hind leg work harder and move farther under the body. At the same time gently sponge on the inside rein in order to ask for the turn, encourage a flexion at the poll and help your inside leg create a bend. Again, be patient and be satisfied with a little at first. If you want to soften something you work it both ways and not just to one side, do the same here. As you feel more energy coming from the hindquarter and a softening at the poll, reward him, then shorten the reins some more and continue the work on bent and straight lines. You continue with this exercise until you feel he has reached his limit then let him take the reins and stretch his neck.

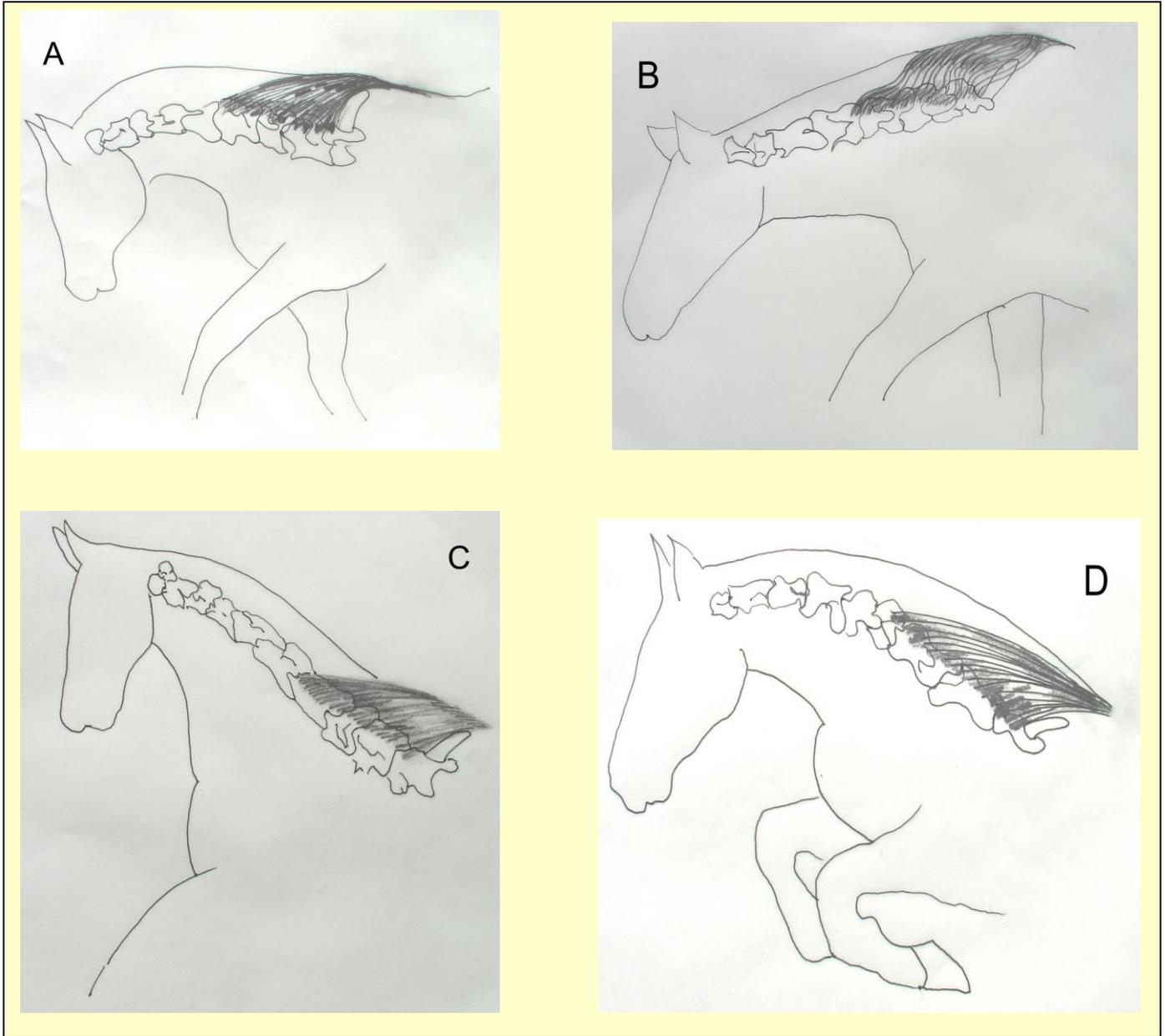
Just as a reminder do not bore your horse with endless circles. Change direction often and add diagonals and long lines to your schooling. Also, horses will forgive you for asking for the entire arm when they give you a finger, but they will argue when you ask for more than they can comfortably give at that time.

When we stretch an object, we pull on its ends to either straighten it or make it longer. If you have done your work correctly, your horse will drop the neck as far as your reins

allow him to. He should maintain the same contact he had when you were working him. If you take a close look at him now there is a good chance that you will find his nose slightly behind the vertical. In my opinion that is no reason for alarm. If you were to give him more rein, the nose will come out in front of the vertical. Remember, I said if you did school him correctly, that means he is not actively dropping behind the bit. Instead he is actively stretching the top of his neck while staying connected. We must draw a clear distinction between stretching and resting the neck. The horse rests on a loose rein and stretches on a long rein. He accomplishes the pull for the stretch by pushing the forehead forward. This again is the result of the neck carrying muscles lifting the bottom four vertebrae of the neck and giving it a slight upward curve (see side bar). This way it becomes longer and exerts a pull on the nuchal (neck) ligament forward at the poll. This pull is felt at the top of the withers and back along the top of the spine, raising the back. This action of the neck is supported by the also active hind leg that causes a pull backward on the same ligament. The effect is also a raising of the middle of the back as the leg moves forward. That is one of the reasons why the back swings up and down as the legs move backward and forward. When the horse just drops the neck down it also becomes longer, however that is not the result of active muscles but the position of the neck. The vertebrae of the neck now form a straight line. With his neck in this position the horse now moves the way he would at liberty. He uses the weight of his head and neck to carry his barrel and its contents as well as you.

Any athlete will tell you about the value of stretching. It creates the condition necessary to work under stress without injury. It also allows for greater range of motion in the joints and easier development of strength, both of these mean a better performance. In the case of the horse this also enables him to be obedient because he now possesses the strength and suppleness to do as asked. The fact that we have achieved the suppleness and the connection with our horse does not, however, guarantee that we will maintain it without fail. On the contrary, they are very fragile and must be guarded to insure a proper execution of the exercises. In order to avoid unnecessary repetition let us state that it is essential for all riding to preserve rhythm and suppleness in the horse and a connection with the horse. As you move up the scale and school exercises to straighten the horse impulsion must also be sustained. In case of collecting exercises, straightness is added as a necessary ingredient for success.

Next month we will examine the exact execution of exercises and the most common mistakes riders allow their horses to make.



Drawing A shows the vertebrae and the neck carrying muscles at a stretch. The muscles are actively working. B shows a horse while resting the neck. The muscles are relaxed. C indicates the muscles at maximum contraction raising the neck as far as relative elevation

will allow. The maximum stretch of the same muscles while actively working is demonstrated in the boscule over a jump in drawing D.

Special thanks to artists, Lisa Ludwig and Joseph Havel for their talented and necessary assistance in illustrating this article.