

# The Emotions of Motion

*Part Four: Why we breed for trot. Why we judge the trot. Why we train the trot.*

By Stephen Kinney

When I was a riding student my instructor described the term contact, comparing the arm through the rein to the bit to one long elastic band. It stretched and contracted as needed to maintain a flexible and constant communication. That description painted a picture for me that lasted throughout my lifetime in the saddle.

Denny Emerson, a horseman on our recent cover, described a certain bloodline of Morgans as having “slinky” trotting motion. That is a highly descriptive adjective.

I once remarked to someone who writes from time to time for this magazine that he is an amazing writer. His career was in a senior position in the military and he responded to me, “I learned that men’s lives could depend on the words I chose” (I wish every high school English student could hear that).

My point here is that vocabulary can bring to life what horses (or artists or basketball players) do in practice. It’s not just about getting the right words, it’s about getting the words right.

In this article I thought we’d discuss some of those words we use in defining our sport, our breed, and how it functions.

This article is part of a series, the purpose of which is to dissect the topic of trotting action. Before going forward let’s review some terminology from earlier articles in this series that will have application to this discussion.

In previous articles, we have argued that horses whose vocation involves trotting (Standardbred race horses, coaching breeds, saddle seat horses) tend to bend their knees at the trot, that being the most efficient usage. Flight of hoof might be described as circular (tossing

the toes or hitting the heels, for instance, being aberrant). Athleticism we defined as equal utilization of joints and musculature. Cited in an earlier article was Spanish riding school master Alois Podhajsky

suggesting that the “...trot played the most important role...” in the training of the horse. And, we also made up the “Elvis Stojko rule,” named after the Canadian figure skater who was the first to land a quadruple jump, that, in athleticism, “more is more.”

So, let’s progress to how we might understand terms that describe the most desirable qualities of athleticism in our trotting breed and in our show horses.

## BALANCE-VS-SYMMETRY

*Balance* is probably an overused term—I confess I often use it myself in show writeups when, in fact, I mean something else. We commonly invoke it when we see a horse whose trotting action front and back is pretty much equal, such as: A park horse that bends its knees and flexes its hocks, not having less or more on one end than

the other; Or a high level dressage horse that is equally animated on both ends in its passage and piaffe. It is not unusual to describe that horse as being balanced—we are talking about the look of four synchronized pistons or a horse being four cornered. But what we are really describing is symmetry. And, saying symmetry is a good thing has a big, fat “if” attached to the statement. Symmetry of action, front to back and side to side, is desirable when there are no other faults in movement. For example, a park horse that hits its heels to its elbows and has huge vertical flexion to its hock joint may look impressive as it showers bystanders with dirt. But, it may also be doing something highly unnatural, likely man made and



Among the airs above the ground preserved to this day is the levade, in which the horse places all its weight on the hind legs while lifting its body into the air. The movement has only one purpose: to show that the horse is in self-carriage, proving balance has been attained through the lifelong pursuit of collection (Photo by Dalibor Gregor via pferdialog.de).



**LEFT:** Does this photo isolating hock action illustrate impulsion? Or is it wasted motion? It is a fine line, but an important one; **RIGHT:** Collection, balance, impulsion are terms that apply across the disciplines and are not the sole property of any one form of equine performance. We expect the Western horse's jog to be low and slow, but also buoyant. It won't win a prize dragging its feet. Here Western Pleasure World Champion and signature horse of Cowboy Dressage, Santa Fe Renegade, with Eitan Beth Halachmy up, strides well up under his belly, assuring the hind end performs its weight bearing role.

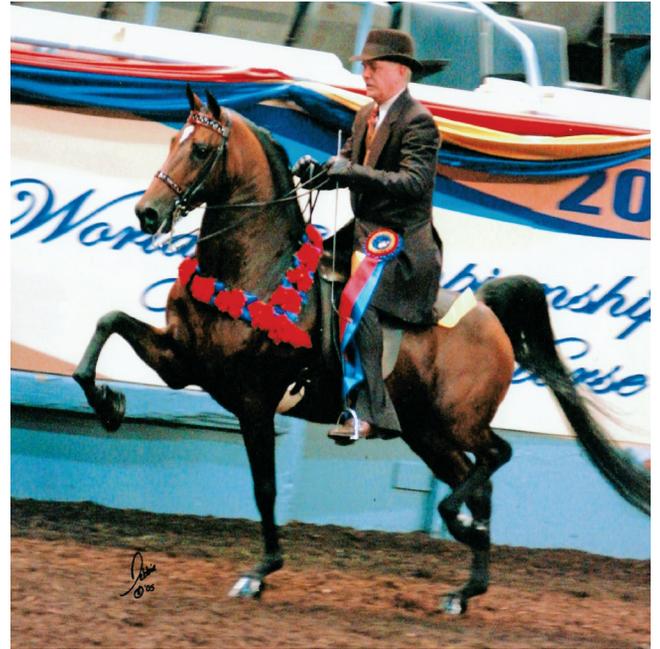
showing nothing related to ground covering efficiency. It has what is sometimes referred to as “wasted motion” and does not comply with the definition of athleticism noted above, namely equal use of muscles and joints. So, symmetry is something we should look for and value. Obviously, we do not want horses that have all upfront motion and little behind, we want horses who have symmetrical motion. But, this is true only if symmetry exists in the presence of all the other qualifiers we are putting in place here.

*Balance*, in its strictest meaning, is something other than symmetry. And it should be easy to think about. The dictionary meaning of the word balance is “weight in a state of equilibrium.” Want a simpler way to think about it? It means you are not falling down. A tightrope walker has balance when he or she doesn't fall. If he or she did fall, we would not describe the performance as being balanced and it would no doubt be a short lived career in the athlete's chosen endeavor (and we could argue the same about a horse that is out of balance). The principle of balance is the object of training, especially of a saddle horse, from the first day you get on its back until the final time you pull the shoes. There are a few reasons for this, but the most important is also the most obvious. The horse is a creature born not in balance. While it has a post at each corner of its body, the head and neck add greater weight to the front end. (This is especially true of the galloping breeds who “lean in” to their work; the trotting breeds tend, as a group, to have their necks set back over their shoulders). We make the picture even more out of balance when we place the weight of a rider and a

saddle on the horse's back closer to the wither than it is to the rump.

In order to establish balance in a saddle horse, the singular goal of training is collection. I take this to be truth regardless of discipline, whether Western pleasure, reining, dressage, jumping or park. Collection is an all-consuming aspect of training. A horse in collection has established self-carriage—the ability to move independently, especially without support from the rider's hands. Self-carriage and collection can both be described as the result of the horse moving its center of balance away from the front end and placing it toward the hind legs. A dictionary meaning of center of balance (also known as center of gravity) is “the point in a thing around which its weight is evenly distributed.” So, the purpose of advancing any horse's training is the constant relocation of the center of balance further and further back in the animal's physiology—the success of our endeavors being proven by a dressage horse being able to execute piaffe (trot on the spot), the reining horse's sliding stop, the park horse's lofty trot.

At the Spanish Riding School where the so-called airs above the ground are preserved, there is a movement known as levade. In it the horse settles all its weight down on its hind end in a crouching position and lifts its front way off the ground. To the untrained eye the horse is rearing. All of the airs above the ground were originally defensive moves designed for battle. Except the levade. Its only purpose is to prove that the horse has transferred its weight to the hind end, proving collection has been attained and that the training throughout has been correct.



**LEFT:** This photo shows the epoch-defining dressage champion Moorlands Totilas at passage. Note the support leg is vertical, which in classical terms assumes the leg in the air has reached height of motion (Photo © Associated Press); **RIGHT:** In this picture of CN The Master's Flyte and Mike Goebig, we see the support leg starting to lean forward. The leg in flight, however, has not begun its descent, but increases height and starts to unfold. When this happens we employ the word suspension, that look of hesitation when the leg stays in the air a fraction longer than seems physically possible (Photo © Debbie Uecker-Keough).

### IMPULSION-VS-HOCK ACTION

I Googled “Impulsion in horses” and got a few variations. But this one summarizes the bunch: “Impulsion is the powerful thrust from the hind legs that propels the horse forward.”

Another term about which we might be a little more careful is “hock action.” Again, as in the discussion about symmetry versus balance, there are some rights and wrongs. For instance: A high action horse may impress with leg-waving motion, when in fact it is making an exaggerated attempt to get its front foot on the ground because its muscle memory knows a weak hind end is not going to catch him; Similarly, exaggerated flexion of the hock does not in every instance prove athletic superiority. What it can show, many argue, is wasted motion that does little to add to equilibrium; Or there is the horse who “skates” behind, moving the hind leg stiffly, more like a gondolier’s pole drives its vessel forward. Sometimes these aberrations are the result of genetics, they are pre-coded in an animal’s structure and they are things breeders strive to improve over generations. Sometimes they are the result of short cuts in training, in achieving action that is not purely sustained by collection, that is not balanced.

Let’s go back to the classical definition of equine athleticism: the equal use of muscles and joints. Hind end motion must help carry the weight of the horse and rider over the ground efficiently. Otherwise, we have a machine that is pulling itself along by the use of front legs alone. When the hind foot drives off the ground the horse is propelled. When it lands far under the horse’s belly, it

is carrying weight. Both functions need to be in harmony or, not to over stretch a point, in balance. So, the reach of the hind foot toward the center of the horse’s belly is of equal importance to height of flexion.

It is not an exaggeration to say this element is central to self-carriage or the ability of the horse to move without being supported by the bridle. And the opposite is true: the horse that lacks impulsion is out of balance and is being supported in one fashion or another by the rider through its reins.

### SUSPENSION

Suspension is a glorious thing. It is evidenced when a horse has that hesitation at the top of its motion that seems to defy gravity. Its leg seems airborne for what seems like moments more than nature alone might have intended. Some elite equine athletes are built to suspend at the trot. Certainly, they can only do so with the muscle conditioning that facilitates it. And it is in every instance the proof of collection realized to a high degree—only a horse in balance could suspend its trotting motion.

It was drilled into me by a dressage instructor that the height of trotting action (when the leg off the ground is raised to its highest) occurs when the support leg (the leg that is on the ground) is vertical. When the support leg starts to move past vertical, the theory goes, then the hoof in flight has begun its descent back to earth.

With suspension, horse and horseman (sorry for the pun)

suspend this arrangement. Suspension occurs when the horse's support leg starts to move forward, past the vertical, but the leg in flight does not begin its descent.

Instead it miraculously moves higher and starts to open up and unfold without lowering. I have heard some say that this is facilitated by the rider using the bridle to produce a touch more action. But, my own observation over the years has been that horses capable of suspension at the trot do so with observable lightness in the reins, the virtual release that is the very definition of self-carriage. Personally, I think it is the greatest proof that the horse and rider are in oneness. I believe the athletic feat is aided by the lifting power of the rider's legs, use of weight, and posting mechanisms to influence timing and that it is less dependent on the action of the bridle, not more.

Suspension—something most noticeable in the action of the front legs—can only be attained if within the horse's muscles is the memory that the hind leg is not only propelling the motion, but will be well under the horse to catch it in its descent. So that rare quality known as suspension is the result of balance, collection, impulsion and is, in fact, impossible without these things.

A final word about why a discussion such as this seems worthwhile. In some equine sports there is an objective standard—in racing it's who gets over the finish line first or in jumping it's who goes clean. In the performance disciplines being discussed here assessment might be termed subjective, like it is in figure skating or gymnastics. We hear over and over again that judging is one person's opinion. But that does not mean we lack standards.

I'll go out on a limb and say this. If you follow the suggestion of this series of articles you have acknowledged that the Morgan is a trotting (as opposed to galloping) breed. While this discussion of trotting norms therefore applies to the breed in general, it has to be clear I am secondarily making comments that apply to the saddle seat disciplines. I have long felt there is too little written down in the way of explanation or advocacy of this brand of horsemanship and that, as a result, it is sometimes misunderstood and mischaracterized. I hope the thoughts expressed in these essays contribute something to that discussion. ■



This photo of Joan Lurie riding the much admired Tug Hill Whamunion shows a high action horse moving in self-carriage, becoming free of support from the bridle. This is a response to a complex combination of the rider's use of weight, legs and posting motion along with the horse's pre-disposition to elite athletic prowess (Photo © Howard Schatzberg).

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