

The Fox Trot and its Variations
By Lee Ziegler, revised 1997

If you have watched the old film made by Dr. Bradley and then gone to a recent Fox Trotter show, you may have noticed that the gait "everyone" does when called on for a fox trot is not quite the same as that used by horses in the show ring over 20 years ago. The "modern" gait is faster, appears to bounce the riders up and down, and just doesn't seem to have a lot in common with the gait done by Rebel Lad or that of Pride of Princess, let alone that of Danney Joe W. What is going on here? Is the gait "evolving", or are any horses these days doing a "true" fox trot gait?

The fox trot, like any other gait, is defined by its footfall sequence, support sequence, timing, and the way weight is shifted from foot to foot, both front to back and between transverse pairs of legs (right front to left front). Since much of this mechanical part of the gait is hard to see, we have been given vague definitions such as "walking in the front, trotting in back" and the old, perhaps outmoded, "caps his tracks" to go by when looking at the fox trot. Often the "frosting" on the gait — head nod, tail bob, reach, stride, speed — is used to define it, despite the fact that all of these things can be seen in other gaits. In addition, the definition of the gait approved by the Association and worked out by Dr. Rooney from film of show Fox Trotters sets the definition of a gait that is a far cry from what the old timers had in mind when they said the fox trot was "easy on the horse and easy on the man."

So what is a true fox trot? If you look at the footfall, support, timing, and weight shift used in several versions of the gait you can see how the gait has changed over the last few years, and perhaps decide for yourself which version of the gait is best.

FOOTFALL SEQUENCE:

The footfall sequence of the fox trot is the same as that of the walk. Starting with the set down of the right hind, it is: right hind, right front, left hind, left front. This sequence has not changed with the evolution of the gait.

SUPPORT SEQUENCE:

Old style fox trot: The support of the older style fox trot, that done at speeds from 6 to 8 mph is similar to that of the walk. It is, starting with the moment the right hind hits the ground and completing the sequence when that foot came off the ground, a continuing series of 9 support phases:

1. right hind on ground, left front on ground, left hind rising, touching ground with toe;
2. right hind on ground, left front on ground, left hind rising clear of ground;
3. right hind, left front on ground, right front touching toe;
4. right hind, both front solidly on ground;
5. right hind, right front on ground, left front rising;
6. right hind, right front on ground, left front clear of ground, left hind touching with toe;
7. right hind, left hind, right front on ground.
8. right hind rising from ground, toe touching, left hind on ground, right front on ground
9. left hind on ground, right front on ground.

This is the same weight-bearing sequence as the walk: two hind, one front on the ground; two diagonal; two front one hind on the ground; two lateral. Keep in mind that concussion at the set down of each hoof is reduced when there are already other hooves in contact with the ground bearing weight. Less concussion makes for a smoother ride This version of the fox trot is quite smooth to ride.

Older show fox trot: The support of the type of fox trot shown in Dr. Bradley's tape as a show gait

changes with speed from that of the "walked" type gait. It is supported in a continuing series of 5 support phases, again starting with the set down of the right hind.

1. right hind on ground, left front on ground, left hind rising, toe touching.
2. right hind, left front on ground.
3. right hind, right front on ground, left front only touching with toe
4. right hind, right front on ground
5. right front, left hind on ground, right hind rising, toe touching.

This gait differs from the old style fox trot since there is no longer a point when both front legs bear weight, although there is still a point in which both hind are weight bearing. The shift of weight between the front legs changes from the "walking" motion of the old style gait, to a more "running" type, with each hoof lifting as the other sets down. This gait gives similar support to that of the walk, with just a slight bit more concussion in each step. It is not as smooth to ride as the old fashioned gait, but it does not bounce the rider very much. Top speed is about 14 mph, but most horses will travel up to about 12 mph in this gait.

"Modern" versions: With more speed in the gait, the support of the fox trot changes again, until there is a point in which both front feet are clear of the ground and all weight is carried by one hind leg, followed by the set down of the front foot on the same side as the weight-bearing hind. It is supported: Right hind on ground, both front off ground, left hind off ground, followed by the set down of the right front, then left hind. This motion in front is accompanied by a short period when both hind feet are in contact with the ground, one touching only with the toe. This type of gait increases concussion for each hoof by reducing the number of hooves in contact with the ground at any one time. The motion in the front has changed from "running", where each hoof comes down as the other lifts with a brief period of simultaneous contact with the ground, to a "hopped" or "leaped" motion, both transverse hooves in the air for a significant period before one hits the ground.

With more speed, the gait changes again, so that not only is there a period when both front feet are clear of the ground, but also one in which both hind are airborne simultaneously. In this variation, all weight is supported by one front leg before the set down of the diagonal hind. It is supported: Right front on ground, both hind off ground, followed by right front on ground, left hind on ground. This is again a "hopped" or "leaped" gait, this time in both front and hind. Top speed in this gait is comparable to a rack, which it closely resembles. It can probably be done over 20 mph.

TIMING:

The timing of the fox trot is supposed to be an uneven four beat, with the two beats closest together in time coming from the diagonal hooves. The sound is 1-2--3-4, with the front striking the ground slightly before its diagonal hind. At times in the past, the interval between the diagonal beats of the gait in some horses got a bit longer, making the gait almost "square" (an even 1-2-3-4) and very close to the running walk. The current trend is for the diagonal beats to fall almost simultaneously, bringing the gait closer to the two beat trot. In many show horses these days it is impossible to see the disassociation of the diagonal legs with the naked eye.

WEIGHT SHIFT:

Lateral: In each stride (complete support cycle) of the fox trot there are two weight transfers between the lateral pairs of legs, from hind to front. These are supported: right front, left hind on the ground, left front setting down — left front, right hind on the ground, right front setting down. At slow speeds, these transfers are cushioned by the opposite or transverse front on the ground bearing weight. [For example, as the left front sets down, the right front is already on the ground, bearing weight.] As speed increases and the gait "evolves" away from the walking

support sequence, the transverse front bears less weight and the movement of weight from hind to front increases the concussion in the landing front hoof. That type of gait is supported: right front lifting, left hind on ground, left front landing. With more speed, when both front feet are clear of the ground as the weight transfer begins, the concussion is significant in the landing front foot as weight transfers from the lateral hind.

Diagonal: Concussion from the shift of weight from a diagonal front to a hind are not significant in most fox trots because there are usually two hind feet in contact with the ground when they occur. There is a front to back rocking motion with this weight shift, but not a significant bounce. However, in the "evolved" gait in which both hind leave the ground for a period during the stride, the concussion to the hind foot that follows the diagonal front is increased, and an increased bounce is noticeable in the saddle.

Transverse: In the old style fox trot, weight shifts between transverse pairs of legs with a stepping or walking motion in front, and with a slight springing or running motion in back. Any length of step in front comes from reach between the front legs. [This is part of what makes the horse appear to be walking in front and trotting in back.] As speed increases and there is no longer a point in which both front hooves are flat on the ground, the weight transfer between them comes as a running motion. This allows the horse to cover more ground in a front step without stretching any farther between his front legs. In the still faster version of the gait, in which both front hooves are clear of the ground as the weight shift occurs, the motion becomes a leap or hop forward between the front legs, in a racing step. This allows the horse to cover even more ground in a step than he could if he simply reached forward with a front leg and set it down in a running motion. With each increase in speed and in ground covered by a front step, concussion increases for the horse and the rider as the type of step changes from the simple walked step to the leaped or hopped motion.

In the hindquarters, even in a slower type fox trot, there is a running motion as weight shifts, one hoof setting down as the other rises. This type of step transfers weight with some cushion from the hoof already in contact with the ground, and keeps concussion to the horse's legs and the rider to a minimum. However, when the speed increases so much that the horse has both hind hooves off the ground for a period in each stride, while the length of the step increases, concussion also increases.

WHAT MAKES THE FOX TROT DIFFERENT

The fox trot is the only "easy gait" that has a diagonal support for a significant period during each stride. This provides better balance for the horse than the more lateral gaits because the center of mass of the horse does not shift from side to side during periods of diagonal support. In the older style fox trot, this diagonal balance is coupled with low concussion in each step, since at all points in a stride either two or three legs are weight bearing. These benefits of balance and low concussion make this type of fox trot unique and well suited to cattle or mountain work. This gait is not unique to the Missouri Fox Trotter, and has been used for centuries for this type of work by many breeds and types of horses. Paso Fino horses have their "trocha, gallope" type, Icelandic's do a "trab tolt" after sheep, Saddlebreds, back when most of them were "using horses" were once called upon to fox trot as their "slow gait" while Tennessee Walkers were often ridden in the fox trot in rough country. Even the original Quarter Horses were often ridden in a fox trot for long trips after cattle. People chose the gait and the horses that could do it because of its comfort (lack of concussion) for the rider and horse, and its good balance.

HOW MUCH CAN YOU CHANGE?

With speed and show ring considerations driving the change, the fox trot, as done by Fox Trotters, has evolved into something quite different from the low concussion, balanced gait it

started out to be. If the gait retains low concussion, good balance, and solid 1-2--3-4 rhythm (timing) it can vary quite a bit in speed, stride or step length, over-reach, head nod, etc. and still be recognizable as a fox trot. If it takes slow motion video to tell that the diagonals are not hitting at the exact same moment, if riders bounce harder in the saddle than those on hard trotting horses do, and if horses are routinely clocked in a "fox trot" at 20 mph. there may be something wrong in the way the fox trot is "evolving." Think about it.