

# THOMAS HERDING TECHNIQUE: PATTERNS OF MOTION ANALYSIS

WITH KERRY THOMAS AND PETE DENK



## Graded Derby Selections

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Danza	Tapiture
California Chrome	Chitu
Hoppertunity	Wildcat Red
Wicked Strong	General a Rod
Dance With Fate	Vicar's In Trouble
Ride On Curlin	Vinceremos
Commanding Curve	Uncle Sigh
Medal Count	We Miss Artie
Candy Boy	Harry's Holiday
Intense Holiday	AE-Pablo del Monte
Samraat	

Thank you for purchasing this year's THT Derby Report, I hope you will enjoy these profiles of the contenders as much as we enjoyed the investigation of them. This year we have expanded the THT Glossary as you will see, in addition is a new paper I recently wrote about the *equine sensory system*.

Though not a horseplayer myself, I can't help but feel the pieces of the puzzle we work to showcase here are important to add to your mix. Even a freight train needs a conductor. We're not intimately involved in any of these horses so a personal inspection of them isn't done, even so, their performance profiles are a field of clues to *who* they are over their body of work. On any given day every horse can have an underachieving or overachieving performance, profiling their patterns of motion strengths and weaknesses offers a view of these *psychologies in motion*. As a student of the horse, my goal is the same now as it always has been, to discover, question, endeavor, that I might see a little further into the mind of the horse.

Emotional conformation is a key element to understanding the horse, they are not machines running off an assembly line; knowing *who* they are is just as important as knowing *what* they are. There is only so much science that can be applied to the horse, the rest can be found in their *artistry*.

Of the more interesting things I have come to realize is the fact that the herd hierarchy is not so different than class levels in terms of structure. The higher the class level, the higher the herd dynamics and emotional conformation of the successful athlete. Horses largely experience a circular world, so the snap-shot we see at the finish line may be vastly different than the actual psychological hierarchy; but it is my hope the snap shot we provide in this report, is both useful and enjoyable for you and I thank you for your interest and support.

I would be grossly negligent if I did not here express my true thanks and appreciation for Pete Denk, a man whose integrity and character I count on for so much through the ups and downs of this *journey of the horse*.

### Footnotes & Thoughts

A smooth sequence between the sensory system; identification, interpretation and the resulting physical action, is the precursor to optimum performance.

The higher the class the more authoritative the horse needs to be to affect other horses and command their environment.

GHD (Group Herd Dynamic) is the sensory balance and platform, IHD (Individual Herd Dynamic) is the authority and hammer.

Where there are gaps between stimulus identification and interpretation, emotional pressure and stress will build within the horse.

Emotional Conformation operates the clutch between the sensory system and the physical gears of motion.

Enjoy!

Kerry M Thomas Founder of THT



## DANZA

After being blown away by the quality of **Danza's** Arkansas Derby (G1) win, we went back and examined his first three races for clues and patterns. Where did that come from?

In his debut race at Belmont Park going 5 ½ furlongs, Danza was ridden like a speed horse. The rider was urging him a lot early. Danza minded the jockey but trusted himself. He showed speed, but he was in control. It was his first start and he was fighting for the lead, but he never looked frantic. In fact, he was conserving energy – mentally platforming.

The runner-up Permanent Campaign tried very hard to intimidate Danza in the stretch, drifting out at him. Danza rebroke and gamely got the win by ¾ of a length. This was a very promising debut from the standpoint of herd dynamics and better than it looks on paper.

Danza ran in the Saratoga Special (G2) in his second start, a 6 ½-furlong race. Again the rider was asking Danza to run (early & often) as the leaders scorched a fast pace. Danza fell back to 6th place, 5 lengths back. He was outrun, but he was setting his own pace in a controlled manner.

He showed versatility here, mentally handling being in the back of the pack extremely well. The jock went to the whip as the field turned for home, and Danza responded instantly. Coming up the inside, he went through his reads fluidly, with a building, forward momentum. There was little or no space between Danza's identification and interpretation of stimulus.

He took control of the chasing pack, then re-targeted the space on the rail, inside the two lead horses. Danza ran out of ground, but he went by the leaders a jump past the wire. The record says 3rd, but it was a herd dynamic win. Danza assumed ownership of that forward space, a behavior we love to see. The whole effort was done at a controlled pace, and he was getting stronger than his competition the longer the time in motion. This was a high-level Group Herd Dynamic performance, a profile that often improves with distance.

Danza ran into a fast group of fairly high-level sprinters in his three-year-old debut at Gulfstream Park going 7 furlongs. If Danza is a group dynamic horse (a horse who would like to settle and do his best work late), it again looks like the jockey was asking him to run at all the wrong times. Danza put in a wide run and looked physically tired turning for home, but he re-kicked late and ran down a horse for third. He showed good mental fortitude there. He was nowhere near the leaders, but he finished that race very competitively from a mental standpoint.

In his early sprint races, Danza looked like a potential elite talent with a time-in-motion profile that could benefit from longer distance. He made a huge breakthrough in his first two-turn race. He is lightly raced, but the overall pattern seems to fit. It looks like Danza is for real.

In the Arkansas Derby, he showed an Individual Herd Dynamic/High-end Group Herd Dynamic settle at the start. He had the forward energy and pace of an IHD horse, but the efficiency and control of a GHD horse.

He settled on the rail, behind horses, at a relatively fast clip. His body control was excellent, as was his group awareness. He fed off the emotional energy of the other horses. Danza took the rail turning for home very strongly and efficiently. He attacked that space without hesitation, while showing good body control. He assumed ownership of that forward space (a useful trait for a crowded race like the Derby).



In early stretch he affirmed herd leadership, then let go of the pacesetter Bayern, changing leads (physically and mentally) and re-kicking. Danza was still extending his stride and margin of victory at the wire. He finished the Arkansas Derby very powerfully.

Danza's energy and ear articulation on the gallop-out looked great. He knew what he just did. He's blossoming. This is a manly horse, still on the way up the herd dynamic ladder. The extra distance is unlikely to be a problem, and he should be extremely confident heading into the Kentucky Derby.

His jockey from the Arkansas Derby, Joe Bravo, was the first rider who rode him to fit what we think is his most natural pattern of motion. In that regard, we like to see that Bravo stays on board.

Although the read is based on a limited body of work, Danza has the best herd dynamic profile in this year's Kentucky Derby.



## CALIFORNIA CHROME

**California Chrome** has the pattern of motion of an older horse. His running style really has not changed at all since his debut last April at Hollywood Park, but it has become much more powerful.

He breaks from the gate, seeks to get into the clear toward the front of the pack, platforms at a high cruising speed, then re-breaks. California Chrome is fairly heavily slanted toward the Individual Herd Dynamic, and he is very strong in this area as long as he is in control of his motion – running in the relative clear.

vCalifornia Chrome is a horse at the apex of his development. He has learned his game and honed his tactics. He is much farther down the road in the development of his pattern of motion than most three-year-olds at this time of year. In 10 career races, he has a series of layered experiences that have created learned behaviors and a defined running style.

In terms of his herd dynamic development, California Chrome's career can be divided into three parts: his first four races when he was learning to race, a pair of troubled 6th-place finishes where they learned what to avoid, and his current 4-race win streak, where a very powerful but determinate pattern of motion has emerged.

California Chrome is not a highly efficient horse when his forward motion is being impeded. If traffic slows him down by 5 lengths early, he won't necessarily get those 5 lengths back later. In the Del Mar Futurity (G1) and Golden State Juvenile, where he finished sixth, California Chrome was unable to move horses with presence. He didn't have the "part the seas" move that we have seen from some other Derby winners (Animal Kingdom, for example). He was just another frustrated driver caught in traffic.

California Chrome has a fairly good sense of feel, but he displays some signs of being an eye-primary horse. He would prefer to look at another horse for his interpretations. Blinkers can eliminate or magnify this tendency. California Chrome sometimes can be seen turning his head to look at another competitor when he is in traffic and/or confused. That hurts his forward efficiency.

The blinkers haven't helped him learn how to deal with traffic, but they have sharpened his forward drive. They have made him better at getting the trip he wants – near the front in the clear – and imposing his will on a race.

California Chrome knows exactly who he is and doesn't seek to divert. His transitions are a tad inefficient coming out of the gate, but even when he broke a beat slow in the Santa Anita Derby, he immediately corrected the situation and assumed the position he covets.

California Chrome is a machine, and his last four races – all 5+-length victories – are a picture of a horse making the absolute most of who he is. There was not a horse out West that could deal with his ability to platform at a high cruising speed and unleash a sustained IHD pace.

California Chrome had an air of assurance in the post parade for the Santa Anita Derby. He walked proudly, independent of his pony. Interaction with the pony serves as stress relief. A lot of horses suck right up next to the pony, sometimes as an act of agitation, other times as a safety blanket. California Chrome wasn't feeling any stress that day. He likes to run, and as a high-level horse, he is not herd dependent. California Chrome enters the Derby an extremely confident horse.

Time in motion up to nine furlongs did not wear California Chrome down. He has the emotional conformation to handle the Derby distance, but the ride could be very important. This is a luxury sports car that needs proper steering.

California Chrome appears to be the dominant IHD, on-the-pace horse in this field. If he gets his preferred trip, he is going to be a tough opponent. The amount of energy he expends attaining position and defeating the other speed horses will determine his vulnerability in the late stages.

If he gets held up early, we will find out if he has grown in the group dynamic. He hasn't been put in that scenario since last fall, and he didn't handle it well then.



## HOPPERTUNITY

**Hoppertunity** doesn't have the flashiness of California Chrome, who finished far ahead of him in the Santa Anita Derby (G1), but he has a strong emotional conformation that makes a legitimate contender to win this Derby.

Hoppertunity broke slowly in his first race, which amounted to a learning experience. He was too far back to compete for the win, but he got a feel for herd motion.

In race 2, he exhibited a shift toward IHD right out of the gate, then a high-end GHD settle. Every once in a while Hoppertunity jumped into IHD mode, but the rider did a good job pulling him back, teaching him to wait.

He took the rail nicely turning for home. Day of Fury was overwhelmed by Hoppertunity's presence. Hoppertunity showed good command there, and a very strong burst and release. This was an educational race, and he could have run faster.

Hoppertunity broke a little slowly in the Risen Star (G2). Racing in a big field for the first time, he was less fluid here. He ran in spots and his transitions weren't clean. He wound up behind horses for part of the stretch run after diving inside. Mentally he didn't know exactly what to do at some points in this race. There were some tools evident, but he didn't know how to fully use them yet. He moves well in traffic and has a lot of positive herd dynamic traits.

Hoppertunity showed much smoother transitions in the Rebel. They asked him to run a little out of the gate, and that is probably a good idea. He has enough emotional energy to use some at the start to get position, and he has been most efficient when he is in the upper half of the field.

We absolutely love how Hoppertunity handled the roughly run stretch drive of the Rebel. He exhibited very limited body language despite being in a fierce battle for herd leadership. Tapiture was hooked to him in IHD, pushing hard on his space physically and

mentally. Tapiture crowded him in early stretch and then bumped him hard, but Hoppertunity showed no fear. His connection between mental focus and physical movement was very tight. He got physically slammed, but it was like a tiny bump in the road.

Hoppertunity was not worried about losing his space. He maintained controlled motion and showed excellent mental fortitude here. His mental distance aptitude was very strong here. He can run longer.

Hoppertunity's run in the Santa Anita Derby was a good, solid performance. He had to wait behind horses briefly, and California Chrome, a dominant IHD presence and very fast physical athlete, got the jump on him and ran away. But Hoppertunity was well within himself as he finished second. He was not pushed to catch California Chrome.

Distance should not be a problem here mentally. We think Hoppertunity is going to like 10 furlongs. He scores herd dynamic points for his very quiet body language, subdued strength, control and grit.

The break could be very important for Hoppertunity. His GHD skills weren't up to the task when he got pushed to the back of the pack in Louisiana. If he can get a clean trip early and find decent position in the upper half of this field, he should be a major threat in the lane.



## WICKED STRONG

**Wicked Strong** is probably going to love the Kentucky Derby distance, but he may not like the chaos.

He won his maiden race impressively in his second lifetime start, showing a good ability to conserve energy and release it later. He was still green in spots. He displayed extra body language and head movement -- physical reactions to herd chaos and jockey instructions -- but he finished very strongly.

We love how he looked in the stretch of his maiden win. He was vulnerable to challenges from behind on both sides, but he seized control of the herd. That's a powerful move. He was very fresh with a lot of energy in reserve. That was a big-time growth race, very powerful in terms of a learned experience. Thinking types, GHD horses, sometimes take longer to mature, because they have a bigger glass to fill.

In the Remsen Stakes (G2), he was checked back early but he recovered and showed a long GHD settle. Wicked Strong shows the ability to build energy while travelling with high-dynamic horses and release it later.

He was all over the track in late stretch of the Remsen when he launched into IHD mode. He was still learning to wield it. Due to his lack of control, he wound up behind horses, then had to come out and re-kick. He was gaining on high-dynamic horses Honor Code and Cairo Prince at the wire. He might have won if he had been better seasoned or if the race was longer.

His races in Florida were subpar. He never looked very comfortable in the Holy Bull (G2). Making matters worse, he was put to a drive early on the backstretch. That took him out of his natural pattern of motion and contributed to the overall poor showing. It's a mistake to try to force Wicked Strong to run to a spot early. He needs to let things sort out while he builds energy in GHD mode. Let everyone else scramble for a seat at the front table.

In the Gulfstream allowance race, his rider asked him to run early, then snatched him up. That's the opposite of what he should do. Letting him settle early creates a platform for him to operate at his highest efficiency. He is not a start and stop horse. He is a gradual build.

In the Wood Memorial, Wicked Strong showed off his GHD settle and long, stretched-out IHD move. Whereas many horses have an on-off switch for IHD mode, Wicked Strong has a dial that gradually increases. He has gears to his stretch move and must be given time in motion to work through them. The head-on replays of the Wood show all sorts of lateral motion. He has power, but his IHD is still developing. He drifts in and out when he is digging deep.

Wicked Strong looks like one of the main horses who can win this race, especially if the speed types fight it out hard on the front. However, he is not yet a fine-tuned machine. He is not off-the-charts efficient mentally. He is an eye primary horse. That leads to extra head movement during his races and a less-than-stellar sense of feel in traffic. Those traits have led to an inconsistent record thus far.

Wicked Strong's finishing energy was excellent in his most recent start, and he is probably going to love the increase to 10 furlongs. He is improving, but he is not yet a polished mover within herd chaos. The ride will be critical for his chances in the Derby.



## DANCE WITH FATE

**Dance With Fate** runs with an abnormally high energy for a horse with such a good group herd dynamic. He might have the biggest range of possible outcomes in this Derby. We could definitely see him winning this race. We also could see him finishing near last. We wouldn't say that about any of the other horses in our top five.

Dance With Fate showed a big GHD while on the lead in his maiden victory. He was running stress free and in control. That was a GHD win on the front end. It was the first glimpse of what this horse is. He showed a lot of poise in that race. He was asked to press the fractions while cycling through GHD reads. He platformed and rebroke, an excellent herd dynamic trait.

In the Del Mar Futurity (G1), he broke flatfooted, veered outward and was bumped hard. He ran quite well to get second despite traffic trouble.

In the Frontrunner Stakes (G1), his first dirt race and first around two turns, he broke poorly and kicked in too early. He expended an enormous amount of energy in this race, more than most horses have in them. He was second under the finish line, but he was tops on emotional conformation.

Dance With Fate broke sideways in the Breeders' Cup Juvenile (G1) and lost positioning at the start. That's a really tough place for a horse like him that burns so much energy in everything he does. He tried very hard, making a sustained run from way back. He burnt himself out, but the effort was better than it looks on paper.

Dance with Fate made his three-year-old debut in an allowance race on turf. Again, he didn't break smoothly. High-energy horses like him often have inefficient moments as the gate opens, when the adrenalin is pumping. There is too much bottled up energy for that first stride to contain, and it has to go somewhere.

One of the great things about Dance With Fate is that he has an acute sensory system that allows him to pick up on his environment at high velocity. He operates efficiently while kicking in IHD mode. He looked wonderful going a mile on the turf. We wouldn't be surprised if this turns out to be his distance and surface sweet spot. Turf races often bunch up, forcing horses to wait. That works well for Dance With Fate, because when his body gets a chance to slow down, he conserves energy and his burst is even stronger.



In the El Camino Real Derby (G3) he ran well but he burnt himself out too quickly for a 9f race and was vulnerable to a GHD sustained run from Tamarando. He never stopped fighting though. He'll run until he's exhausted. He uses every ounce of energy he's got. He does not save anything. This is a fierce competitor.

In the Blue Grass Stakes (G1), herd circumstances forced him to slow his physical pace. He again showed he is a powerful horse when he conserves energy for the finish. Dance With Fate won the 9f Blue Grass rather easily.

It will be absolutely critical for his rider not to push the button too early in the Derby. If he can break well but remain patient and get Dance With Fate to buddy up with a horse while covered up in mid-pack, that would work in his favor. Dance With Fate probably burns too much gas to operate as a deep closer in a race like the Derby, and that is how he lost a couple of his races. It can be hard to get a horse like this to shut off because he's operating on all emotional cylinders at all times. This might be the first Derby horse we have profiled who seems to burn in GHD and IHD simultaneously.

Ten furlongs is probably not going to be an advantage for Dance With Fate, but if he gets the right trip, it could be within his efficiency zone. We think he has a wide-ranging distance aptitude. We like Dance With Fate best on turf, but we think he is fine on dirt.

Dance With Fate runs with fabulous energy. He is 100% athlete -- physically and mentally. He gets fired up to fight it out in a herd. We don't think he'll be afraid of anybody in this field. He is one to watch pre-race, as it is likely he'll be fighting for herd placement before they even get in the gate.



## RIDE ON CURLIN

When we analyze **Ride on Curlin** from the standpoint of herd dynamics and emotional conformation, we see a promising horse whose growth pattern has not gone smoothly.

This is a horse that gives his all and takes his lessons to heart. His most recent layered experience is usually very apparent in his next one, and through training, riding and race circumstance, Ride On Curlin has received inconsistent direction.

If you like Ride on Curlin in this Derby, here's the good news. His most recent run was a step in the right direction mentally, and there are indications we haven't seen the best of him yet.

Retracing his career, Ride On Curlin was encouraged to run as an IHD speed horse following his slow break and rally for 2nd in the debut. We don't think that's his best pattern of motion. We much prefer him conserving energy early.

The Champagne Stakes (G1) was a good re-training race. At this point in his development, he was burning too bright to be that far back, but it was a good lesson that started a re-layering process. Ride On Curlin launched an ok GHD rally, at first pushed from behind by the high-dynamic GHD horse Honor Code, and then overtaken by that one. But it's not the finishing position we are too concerned about here, it is the basic pattern of motion.

In his next start in the Street Sense Stakes, Ride On Curlin showed improved GHD settle and a good forward focus in traffic. When asked to steer out from behind horses and go into IHD mode, the gear change was not smooth. He eventually transitioned, targeted, and put a horse away. Watching the head-on, we see he held a straight line in open space, a positive herd dynamic trait. Ride On Curlin does not have to rely on other horses for his line. His sense of feel and his transitions should improve the more he repeats this pattern of motion. This was a good training race and a nice way to end his two-year-old season.

Ride on Curlin returned to racing as a three-year-old with zest. Breaking with a strong energy from a wide post, he showed good control and ran with authority vs allowance horses. His sensory transitions were very strong in this performance. He showed his competitive vigor. He enjoyed this win.



In the Southwest Stakes (G3) he broke poorly and was asked to keep up early. That resulted in a prolonged early energy burn while covering a ton of extra ground. He tired and finished a distant 3rd.

In the Rebel Stakes (G2), he found himself on the lead largely as a result of physical pace, but he managed himself well in this race. He settled beautifully and his Group Herd Dynamic was functioning.

He hooked up in an IHD battle with Strong Mandate on the turn, defeated that one but didn't have enough to hold off Hoppertunity and Tapiture late. Still, he ran through the wire ok and was only beaten by a length. From a positional standpoint, this race didn't develop ideally, but it was a step forward.

In the Arkansas Derby (G1) Ride on Curlin bumped at the start but recovered in space well. The bump did not set Ride On Curlin off, and the jockey made a very good decision to conserve him. With every stride in GHD settle mode, Ride On Curlin held a little more energy back.

He got spun out very wide turning for home but he stayed efficient and forwardly focused to rally for second, far back of Danza. This was a good performance from the standpoint of herd dynamics. Ride on Curlin showed maturity in the Arkansas Derby.

Ride On Curlin has flashed some herd dynamic traits that we like to see in a Derby horse. He has a good Group Herd Dynamic, he is game, he targets well, moves well through space, and does not rely on other horses to keep momentum or direction. We think he has a good chance to handle the distance if the upward growth pattern continues. He is one of the more interesting profiles in our second tier of contenders.



## COMMANDING CURVE

If this Kentucky Derby was held a year from now and they allowed four-year-olds in the race, perhaps **Commanding Curve** would be ranked with our win contenders. But it feels like the 2014 Derby is coming up a bit too soon for this colt who finished a commendable third in the Louisiana Derby (G2).

Commanding Curve is learning. He has a good stride, a good Group Herd Dynamic, and he is improving with seasoning. He is the type of horse that gradually gets better with experience and will peak with age if he stays mentally and physically sound.

But from the standpoint of herd dynamics, he's not on the level of the elite members of this class, yet.

It took Commanding Curve four tries to break his maiden, three of them route races at Churchill Downs in which he made some mistakes, but slowly progressed.

He definitely showed us that his Individual Herd Dynamic needs some work. He got pushed by other horses at times – sideways, even forward. His reactions in advanced herd situations were a bit tardy. He was more reactive to the other horses than we like to see. He didn't run into space with tremendous authority.

Commanding Curve looked more mature in his three-year-old debut in the Risen Star Stakes (G2). His forward focus was better, and he was less reactive to herd chaos. Gold Hawk drifted out and bumped him very hard near the wire, probably costing him 5th, but at least he executed his pattern of motion reasonably well while jumping way up in class. That is a key for forward growth.

In his next start in the Louisiana Derby (G2), Commanding Curve executed another GHD rallying effort, taking another step forward in his second start at age three. His IHD launch still isn't powerful, but it is improving. He put in a sustained rally and had to split horses in the stretch, then re-kick into new space. He didn't do it with power or seamlessly, but he did it.

We have seen horses grow from races like this. Commanding Curve had a couple herd dynamic positives in that performance where he was presented with a more difficult test than he has faced previously, and he passed.

More ground could help him; this is a positive time-in-motion profile going to 10 furlongs. His energy distribution is good, and he doesn't try to do too much. With another step forward, we could see Commanding Curve passing horses late, perhaps landing in the money.



## MEDAL COUNT

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**Medal Count** moves with authority at a moment's notice, especially when he can charge his batteries long enough.

He delivered a pair of good runs at the 2014 Keeneland meeting, winning the Transylvania Stakes (G3) with a nice double move up the inside and later finishing second to Dance With Fate in the Blue Grass Stakes (G1).

The Transylvania did not contain any Derby-type competition. It was originally carded for the turf and moved to Polytrack, but he still scored major style points in this performance. Checked backward and in last on the inside, Medal Count made a big move on the backstretch, waited in traffic, then burst again in the stretch. That was great practice. The two separate advances Medal Count made there can sometimes translate into one sustained, Derby-type move if he catches a different trip. Being held up by herd traffic is not a bad thing for this horse.

In the Blue Grass, Medal Count caught a wide trip from post 13, and he made his move with about three furlongs left in the 9-furlong race. That is not an easy trip. Medal Count advanced nicely, but Dance With Fate, who had been tracking just to his inside, tipped out and followed him with a superior turn of foot. He went by Medal Count with a furlong still to go. Medal Count was clearly beaten, but he showed resolve and kept coming for second.

Focusing on Medal Count's dirt races, he appears to move ok on the surface, especially in his debut at Ellis Park. But in two subsequent dirt tries he was 11th in the Breeders' Cup Juvenile (G1) and 5th in the Fountain of Youth Stakes (G2).

In the Breeders' Cup, Medal Count didn't look comfortable from the start and burnt out early. He wasn't ready for that challenge.

He ran better in the Fountain of Youth, but he was put in the clear very early on the backstretch. Sitting a distant third, he was chasing the leaders Wildcat Red and General a Rod. That's not his best game. He made a decent move but levelled off and couldn't hold off Top Billing and East Hall. No one caught the frontrunners. It is difficult to say how much surface played a role in that performance, but his energy burn was too hot, too early.

Medal Count's best performances have come on Polytrack, and he looks best to us when he is covered up, then given daylight inside the final three furlongs. He has been asked to make a few big sustained runs in open space, and that takes a lot of horsepower. Medal Count has struggled on dirt vs. top competition, but his most recent races indicate improvement.



## CANDY BOY

**Candy Boy** delivers flashes of brilliance, such as in his 8-length maiden win or his smooth ½-length victory in the Robert B. Lewis Stakes (G2). But when things don't go perfectly right for him, cracks appear.

Candy Boy has received a couple rides that did not play to his strengths, but there also appear to be underlying weaknesses in his profile. Candy Boy runs a bit emotionally heavy. He shows slight stickiness in mental transitions and release points. He seems to have a finite IHD burst. He wins on momentum, not mental toughness or herd dynamic. Once he physically tires, there doesn't seem to be a ton of grit underneath. That can be ok in most races, but not in the Derby.

Some Group Herd Dynamic horses lose most of their efficiency when wearing blinkers, and he is one of them. His first two races were throw-outs. Blinkers came off in his third start, and that's where his mental development took a step forward. He showed a good GHD settle and launch. His release points were slightly delayed as he finished a distant second behind Tap It Rich.

Candy Boy took another step forward in a big maiden win vs. a short field at Hollywood. He showed no anxiety in the gate. He settled then launched a sustained rally. He showed some good control of his egg and moved confidently through open space. He learned to be a successful racehorse there.

In the Cashcall Futurity (G1), Candy Boy moved too early. He was in his top emotional gear before the winner Shared Belief had even started to move. Candy Boy did not settle long enough there and the move was terribly timed. Also, once he hits the lead he shows his stickiness. He loses some of his forward efficiency.

His three-year-old debut in the Lewis Stakes set up perfectly for him. He got to sit behind battling leaders, tip out in the lane and make a well-timed run. He has never looked better.

In the Santa Anita Derby, he was out wide pressing on the leaders early, tracking California Chrome, and that is not the place for a GHD horse. Psychologically, a horse like Candy Boy will not hold up matching strides with elite IHD horses early on. He faded badly but was able to save a distant third.

Candy Boy needs to settle in the Derby, and that is probably the trip his rider will want to give him, but there is little margin for error. His IHD burn is finite and a bit inefficient. Candy Boy can handle some herd chaos, but he is clunky in his transitions and doesn't always run free. We could see him getting bogged down in this field.

We think Candy Boy is not as good as he looked in the Lewis, but better than he showed in the Santa Anita Derby. His best race with the right trip could hit the money here, but this is not a horse we think can take charge of this herd and stay on top.





## SAMRAAT

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**Samraat** is a nice Individual Herd Dynamic horse. He doesn't waste energy, he is forwardly efficient, and he has shown some good herd dynamic traits. Of the speed horses, he is one of the more likely ones to still have it together in the final furlong of the Derby.

Following three extremely dominant wins vs. New York-breds, Samraat faced his first close-space IHD battle vs. Uncle Sigh in the Withers Stakes (G3). He passed that test, grinding Uncle Sigh down with a methodical, unblinking pressure and minimal body language.

Samraat passed another test when stepping up to the Gotham Stakes (G2). He overcame a wide post and extra weight to score another grinding IHD victory. Samraat didn't show any significant head motion or body language that would indicate Uncle Sigh and In Trouble were strong enough on herd dynamics to push back at him. He was controlling that three-way battle.

Samraat's campaign has been nicely spaced, with gradually more difficult tests. That is a good way to develop a horse.

In the Wood Memorial Stakes (G1), Samraat showed he doesn't mind being behind or between horses. He broke alertly, but backed off the leaders when he and his rider decided they didn't want to go as fast as Schivarelli and Social Inclusion.

Stalking the leaders in traffic, Samraat retained good forward focus and controlled, efficient motion. He made a grinding move on the leaders in the lane, but he was passed by Wicked Strong around the sixteenth pole. Samraat couldn't match strides with the winner, but he persevered and was all out to steal second from the pacesetter Social Inclusion on the wire.

This was Samraat's first defeat, from a record standpoint and on herd dynamics. He sucked in behind Social Inclusion mid-stretch and then he felt the pull of Wicked Strong, who blew all the frontrunners' doors off. Samraat found himself in a position he has never been in, but he never gave up.

Samraat has a nice emotional conformation. He can hook into a long, intense IHD battle while showing hardly any signs of outward stress. He can probably get 10 furlongs physically and mentally, but 8.5 or 9 furlongs is probably more in his wheelhouse.

This is a solid minded horse with a good herd dynamic profile, but we think he is between a rock and a hard place in this field. The IHD battle up front looks daunting, and there are several strong GHD types who figure to be coming in the lane.



## INTENSE HOLIDAY

**Intense Holiday** is good at everything he does, but not great at anything.

The part of his profile we like the most is that he negotiates herd chaos well. Intense Holiday has a solid group dynamic, and he is able to bottle energy and release it in a burst. Those are all good attributes for the Derby.

But we don't view him as a herd leader facing elite horses going 10 furlongs.

Intense Holiday is primarily a group dynamic horse. He was placed a little too forwardly in the Louisiana Derby (G2) and was checked on the turn, but he still had clear sailing at the leader Vicar's In Trouble in the stretch. As both horses switched to IHD mode, Intense Holiday couldn't match strides and fell apart mentally, getting sloppy in his physical motion and almost crashing into the rail.

We generally don't like what we see from Intense Holiday when he faces top horses.

In the Foxwood Champagne Stakes (G1), he had to do so much just to stay in striking range, he ran though his gears too fast. That's a classic sign of a horse that would benefit from a class drop.

Intense Holiday encountered some traffic trouble in the Nashua Stakes (G2) and showed some good GHD when in a pocket turning for home. He's efficient and forward in traffic. He dove inside and came through on the rail for 4th. He wasn't in the winner's class (Cairo Prince), but it was a decent run.

In the Remsen, he fought a nice space battle vs. Wicked Strong and lost. He battled as long as he could. Give him credit for being a fighter. He does little wrong and tries his heart out.

In the Holy Bull Stakes (G2) he had a terrible post. He ran a solid, rallying GHD race and fought really hard to get 3rd behind Cairo Prince and Conquest Titan. He was reaching his limit at the wire of that 1 1/16-mile race.

We think additional distance and tougher class opponents pose difficult challenges for Intense Holiday. He needs to improve considerably to compete for the win in this Derby.



## CHITU

**Chitu** is a high-level Individual Herd Dynamic horse. He likes to fight, has an efficient energy burn, and he is purposeful in his motion. But he is vulnerable in a longer race like the Kentucky Derby.

Although physically he looks like a sprinter, Chitu has been successful at distances up to nine furlongs because he has a functioning Group Herd Dynamic and he doesn't do anything in too much of a hurry. He operates with a tremendous amount of control for a horse that loves to fight.

This is a rugged and durable horse. In his second start he stumbled badly at the start. But he recovered great and won a couple of herd dynamic battles to win the race. He's powerful in the IHD zone, and he maintains control of his body while running with a fairly high intensity. He must have a good bank of emotional energy to draw upon.

Chitu has a good sense of feel, good enough to interpret things around him and not show any behavioral overcompensations despite the blinkers. There is some natural Group Herd Dynamic here, more than you'll see in a typical front-running horse.

Chitu also stumbled at the start of the Robert B. Lewis Stakes (G2). He has so much power at the start of the race, almost too much. Chitu anticipates the fight; he craves it. He wants nothing more than to get into it with another horse. He has no problem with close space. There was a point where he was between horses in the Lewis, a bad spot for a frontrunner in the latter stages of a race. He kicked forward and won that battle, but he could not resist Candy Boy in late stretch going 1 1/16 miles.

Chitu was dead game winning the Sunland Derby (G3). He nudged Midnight Hawk away, physically taking his space and breaking that one's will. Midnight Hawk looked like he had all the momentum, then Chitu gave him that little love tap to let him know who was in charge. Midnight Hawk acquiesced. This was a clear herd dynamic win. There was no sustained pace, GHD horse to challenge Chitu late, and he coasted home in front.

Chitu is a very nice horse that is going to add to the intensity of the battle up front in this Derby. We think he'll make his presence felt.





## TAPITURE

A viewing of the Rebel Stakes (G2), which featured one of the roughest stretch runs of the year, will tell you a lot about **Tapiture**. This colt is a fighter, with no fear of tight spaces.

Close space battles bring out the best in Tapiture. They put his mind and body in the same spot. He was so focused on Hoppertunity to his outside during that stretch run, the other horses didn't even exist.

Tapiture likes to try to influence other horses physically. He tends to rely on brawn more than brain. He tried to take Hoppertunity's space by bumping him out of the way, but Hoppertunity's calm, strong presence won out. He hardly reacted at all to Tapiture's aggression. In the world of herd dynamics, the horse that shows the least body language is usually the winner.

Tapiture is a good physical athlete of course, but he shows inefficiencies that bring him down in our eyes. Part of Tapiture's inconsistent record – he inexplicably finished third in a maiden race in between a good run in the Iroquois Stakes (G3) and a breakout win in the Kentucky Jockey Club Stakes (G2) – is tied to his mental inefficiencies.

Tapiture is not a great multi-tasker, and he sometimes struggles in open space. He should have ran away from the maiden field he faced last October 27, but instead he got psychologically stuck between inferior horses in the stretch, his focus bouncing back and forth between them, compromising his forward efficiency.

He sometimes shows emotional stress when asked to change leads in the stretch or to run into open space. Even in the Southwest Stakes (G3), a race he won by 4 ¼ lengths, Tapiture's transitions were not smooth. First he looked to his left for competition, then he drifted out badly through the wire. His body was moving forward but his head showed some herky jerkiness that tells us there is a disconnect between what his legs are doing and his mind is thinking.

Tapiture is responsive to tight space battles and singular stimuli. Bumping with another horse lights his fire, and that will probably happen at some point in the Derby. We would expect Tapiture to make his presence felt, but this is not the type of equine mind we like going 1 1/4 miles the first Saturday in May.



## WILDCAT RED

The only time **Wildcat Red** is unhappy in motion is when another horse gets in front of him. That makes him a great competitor. It also makes him one-dimensional.

Watch his second and third starts when he had some trouble at the break. Wildcat Red can get a little pissed off when he has to sit behind horses. He expresses that discomfort in his tail and head. He is happier and more relaxed accelerating into a hot pace duel than he is sitting off a horse through slow fractions.

Wildcat Red loves to lead the pack. In the Fountain of Youth Stakes (G2) he was out there dueling with General a Rod, just enjoying running. Time flies when you're having fun, and Wildcat Red is having fun when he is running free. He can compete and match strides with another horse without taking too much out of him emotionally. Those traits help him stretch his distance aptitude to its limit.

In the Besilu Florida Derby (G1) Wildcat Red put away his favorite rival General a Rod, and then had to re-kick when Constitution came up on his inside. Wildcat Red fought so hard, but wore down a little late against what would have been one of the top horses in this Derby field. He probably finally reached his distance ceiling there at nine furlongs.

Wildcat Red is a great gate horse. He moves strongly into space and doesn't care if he is inside or outside. He runs with great straight-forward energy and has so much fight in him. Wildcat Red doesn't know how to quit, and he will do everything he can to stay on the lead.

Wildcat Red is likely to have an effect on this race. If the pace isn't too fierce, he might be able to hang around til the stretch run, but they are asking a ton of him here. His desire to lead at all costs puts him at the mercy of pace dynamics. Beyond nine furlongs seems too far for him against elite horses.



## GENERAL A ROD

With four victories and three seconds in seven lifetime starts, General a Rod is a very good equine athlete. But almost every year we bestow at least one of the Derby horses with the dreaded “buddy up” label. General a Rod is one of those horses.

General a Rod is a very gradual, methodical mover who runs in a mentally searching way. We only got to see him run without blinkers once, but the evidence was there from the start.

When the gate opened for his debut at Keeneland last October, General a Rod paused for just a split second and watched what the other horses did. He executed a pretty good Group Herd Dynamic pattern of motion, but when he took the lead in the stretch, his ears went out sideways as he felt for the herd behind him. His head and neck recoiled just slightly and he drifted in badly. He did not embrace the leadership position his physical skills had won him. A mental disconnect between his body’s skills and his mind’s goals was apparent.

The rider probably had something to say to the trainer about that behavior, as General a Rod was outfitted with blinkers in his very next race.

General a Rod came out of the gate with a lot more energy in the IHD zone wearing blinkers. He won the battle up front, but was decidedly second best to Conquest Titan in an allowance race at Churchill. General a Rod was sucked into Conquest Titan’s egg in the stretch, then tried to run with him. He runs like an adjunct horse. He has elite physical tools, but he likes to run on the hip of another horse.

In the Gulfstream Park Derby, General a Rod looked like a dog running next to its human master in the stretch. He wasn’t trying to take Wildcat Red out. He was just happy to run with him. He happened to get a head bob to win the race, but that was not his primary goal.

The blinkers have pushed General a Rod forward and enhanced his speed, but he’s still prone to running with horses. He doesn’t run with a lot of forward drive or passion. He runs to stay with other horses, not to dominate or control space. He runs like an adjunct colt. His psychology does not drive his body forward. He can run to another horse’s space, but he doesn’t try to push them away or run through them. If you watch some of his stretch battles, at times he is running with his head high, not stretched out forward.

In the stretch of the Besilu Florida Derby (G1), there was a point where Wildcat Red broke his focus from General a Rod and transferred it to the looming challenge on the rail from Constitution. Those two colts hooked up in a fierce space battle. General a Rod had an opportunity there to advance on a pair of horses locked in battle. Instead of going forward, General a Rod drifted laterally. This is not a natural leader.

General a Rod’s energy burn is low, and that helps him distance-wise, but in order to win the Derby he will need to develop a killer instinct that he has not yet shown. There will be plenty of high-dynamic horses for him to attach to in this field. We think he is going to be looking for a buddy in the Derby, and that is rarely the path to the winner’s circle.





## VICAR'S IN TROUBLE

Thanks to his forward drive and emotional intensity, **Vicar's In Trouble** gets the most out of his body. He's got the mind of a champion fighter and the body of a Chihuahua. There is no quit in this gritty little bundle of energy.

He's got two gears – running fast and running as fast as he can. And he's not afraid of bigger horses. He'll get in their grill and compete.

It is rare to see a horse that runs with this kind of intensity win going 9 furlongs. He just skips across the ground. His legs look like they are moving twice as fast as the other horses' legs. He burns hot, but he is a very focused and efficient forward mover.

His emotional conformation is so focused it allows him to settle into cruise control at a very fast pace. He wastes energy on almost nothing but forward motion. He has a boatload of competitive drive and confidence.

Vicar's In Trouble checks back with his ears periodically looking for a challenge. His recognition of stimulus is efficient, but it's very driven by his competitive spirit. His world is very close to him.

Vicar's in Trouble isn't sticky or herd dependent. He releases cleanly and isn't afraid to run into space, away from the herd. He also targets well in front of him. He's best in the clear, so there are questions about how he will handle Derby traffic if he gets in a tough spot. He is very slanted to the Individual Herd Dynamic.

Vicar's In Trouble has a plateau/relaunch ability, but once he fires that second burst, that's probably going to be it. He doesn't have a series of gears. He'll go for it when his rider pushes the button in the Derby, but it will have to be an awfully well-timed move.

This is a great little horse that is going to face a very difficult scenario. There are a lot of high-level IHD profiles in this race, and Vicar's In Trouble can't help himself but compete. He wears his heart on his sleeve from start to finish. He'll run as far and as fast as he can, but we'll be surprised if the battle doesn't sap him.



## UNCLE SIGH

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**Uncle Sigh** is reportedly going Blinkers On in this year's Kentucky Derby. Before we discuss the likely effects of that move, here is what we see in his un-blinkered profile.

Uncle Sigh's only victory came vs. New York-bred maidens, but he has made three solid runs at the graded stakes level in New York, finishing behind Derby starter Samraat every time.

Examining those races, we see a pretty solid mind, but we can't see anything from the perspective of herd dynamics that makes us think Uncle Sigh can reverse that hierarchy. Uncle Sigh shows more body language than Samraat when they hook up, and he always is behind him at the wire.

Uncle Sigh has an adequate Group Herd Dynamic for an IHD primary horse. That helps his versatility and allows him to perform ok even if he doesn't have the lead. He can function forwardly and efficiently in limited stimuli environments (such as stalking position).

Uncle Sigh shows no problems with close space battle. He was stuck between In Trouble and Samraat in the Gotham Stakes (G3) and ran very well, without panic. This is a solid mind.

Against high-level horses we see a possible adjunct personality type developing. Uncle Sigh is not authoritative in his space control. He often checks in with his rider or the other horses to gauge their emotions and to see where they are at on herd dynamics.

Although he keeps losing at this class level, he doesn't seem beaten down by it. He may not see it as losing. He loves to run and is ok just being with the top flight. He's the horse in the herd who is always there.

Uncle Sigh has a little bit of 'ask' in his psychology. On the positive side, that makes him responsive to his jockey. He focuses on his target and runs hard when instructed.

After breaking poorly in the Wood Memorial Stakes (G1), Uncle Sigh tried to run a GHD rallying race, but he doesn't have the herd dynamic traits to do that in top company. Just behind Wicked Strong, he wasn't going to beat that one at his own game.

We liken the decision to put blinkers on Uncle Sigh to a hail mary pass from 80 yards out. It is very unlikely to work, but the connections probably know they aren't going to win if they don't try something different.

Blinkers can partially block natural herd dynamics, allowing weaker minded horses to get more out of their physical bodies while lessening communication with the other horses. It could benefit Uncle Sigh to shift things more to the physical realm, but there is a big 'if.'

Blinkers almost always push forward-minded, IHD horses even more forward. Sometimes they cause a horse to burn far too fast (see Palace Malice in last year's Derby). If Uncle Sigh burns even a little too hot in this race, the blinkers are going to accelerate his defeat.

Overall, Uncle Sigh is a pretty sound minded horse, but he doesn't figure to benefit from added time in motion beyond 8.5 or 9 furlongs. Adding blinkers is an understandable gamble. It increases his possible upside, but it also could flop. We like to see that he has been wearing them in practice. We don't fault this play, but we think it is unlikely to work.

# VINCEREMOS



**Vinceremos** has a most unusual profile. Twice in his career, he has taken the lead in the stretch only to pull himself up, wait on horses, and re-kick to win tight photos.

His second and third starts are worth watching. In his maiden win at Gulfstream, Vinceremos was bumped hard at the start but recovered well. In fact he does many things well. He holds his space in traffic, has forward focus (as long as he isn't on the lead), has a competitor's mind, and has a very good sense of feel for herd motion despite wearing blinkers.

In his maiden win, he found his way through a tight opening, took control of the herd, started to draw off, then slowed himself down physically while veering inside and trying to look back. After another horse caught up and put his head in front, Vinceremos got game. He barely had time to re-rally at the wire but galloped out strongly in front.

Vinceremos stepped up in class to the Sam F. Davis Stakes (G3) next, and again he hit a psychological pothole after seeming to take charge in mid-stretch. When he lost sight of the herd, he tried to look back. This created a gap in the sequence between his sensory system and his physical motion. He waited for horses to get back into his vision, re-fired again and posted a narrow win. We think he was much the best in both of those fields.

Vinceremos is very interested in eye-to-eye battles, and the blinkers are not breaking him of that habit. In fact, restricting his vision may be making things worse. He might still do this without blinkers, but broader sightlines could lessen the impact. We'd love to see him train and race without blinkers.

Next up was the Tampa Bay Derby (G2), and Vinceremos didn't get the lead in the stretch, and his issue did not pop up. He finished the race fairly strongly, shifting gears late (mentally and physically) with good forward focus on the runaway leader Ring Weekend. Vinceremos looked like a horse who can handle more ground than 1 1/16 miles.

When he has a target to run into, he runs straight. This was his best stretch run, and Vinceremos could have been very interesting to us in the Derby if his final prep had been another step forward. However, he delivered a complete non-effort in the Blue Grass Stakes (G1). It is possible he hated the Polytrack, but this was not the final prep he needed for his development, and he lacks a top placing against any of the high dynamic horses in this crop.

Based on the overall profile, Vinceremos might be good at 10 furlongs. Vinceremos exhibits some strength, but with a poor final prep and a probably unresolved behavioral issue, he is a complete wildcard.





## WE MISS ARTIE

**We Miss Artie** is a mid-level herd mind with fairly high-level physical ability.

He is what we call a “Pressure Up” horse, for short. When he is in a situation that makes him uncomfortable – and there are a lot of those – We Miss Artie’s head pops up high, inhibiting his stimulus interpretations and forward efficiency. He is trying to release pressure through this behavioral overcompensation.

We Miss Artie actually ran well for 75% of the Breeders’ Cup Juvenile (G1). He was in good position to win that race, but he was very hesitant in the stretch run. He withdrew mentally instead of joining the battle. Something caused him to stop running late. Was it no Lasix? The presence of high dynamic horses?

Emotionally, he was not interested in fighting those horses for space. He was a little overwhelmed there. There was a disconnect between mind and body. His head telescoped up and he lost his forward efficiency. He was not reaching for ground. He also showed some sideways body language, an indicator of not believing he belonged. He did not impress himself on that environment, he was impressed upon.

The Kitten’s Joy Stakes also exposes his issues perfectly (even on turf, a surface he has run well on). His pressure release valve cost him this win. He should have put Storming Inti away in the stretch, but his pressure-up loss of forward efficiency left the door open for a re-rally from a game opponent. His mentality creates a hole in his armor.

You can see his upward pressure release at the start of many of his races and anytime he has to fight for space. In the Fountain of Youth Stakes (G2), We Miss Artie was fine until Medal Count applied some pressure to him. He was done turning for home.

Because of his emotional conformation, We Miss Artie does not get the most out of his body. We don’t like him in the Derby at all. This is the ultimate stimuli/space battle race. He’ll need to avoid space battles and try to run by tired horses.



## HARRY'S HOLIDAY

**Harry's Holiday** was a great claim for \$30,000 in his career debut. He is an athletic, game horse, but he does not look like a serious contender here.

He qualified for the Derby by finishing second in the Horseshoe Casino Cincinnati Spiral Stakes (G2) at Turfway Park. We don't rate highly any of the horses he beat that day, or the one that outfinished him, We Miss Artie, but it was an admirable effort.

Harry's Holiday took charge of the Spiral herd more than three furlongs out, looked beaten in mid-stretch, then outgamed Coastline only to get passed by We Miss Artie very late.

Coastline tried to go by Harry's Holiday with a weak dynamic. Harry kept him honest! This horse has a lot of heart. Harry's Holiday tries hard even when he is physically tired. He ran his eyeballs out and made the competition earn everything they got. He was done at the end of nine furlongs, drifting all over the track.

Harry's Holiday is a proven performer on Polytrack, but he got a very tough trip in the Blue Grass Stakes (G1). He was slammed at start and caught behind horses. That's not what he wants to do. He burned up with a wall of horses in front of him.

We liked some of the things Harry's Holiday did early in his career, and it would have been nice to see him get a chance to go long without wearing blinkers. He has some group herd dynamic traits, but he can't fully utilize them now. The blinkers also put a cap on his distance aptitude.

The break will be critical, but even with a perfect trip, he's unlikely to last 10 furlongs facing better horses than he has ever faced.



## Also Eligible List

# PABLO DEL MONTE

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**Pablo Del Monte** has an odd herd dynamic profile. We don't recall ever seeing a Group Dynamic horse that is better on the lead, yet lacks Individual Herd Dynamic power.

Pablo Del Monte started his career off very well with a pair of big wins spaced six months apart sprinting on the Keeneland Polytrack. He vaulted out of the gate in his debut, as many of trainer Wesley Ward's trainees do, and showed a very good group dynamic feel backward with his ears. It took him a little bit to release the horses behind, but he was moving with good forward pace.

The front-end placement and backward ear articulation was there again in his second start. This is a great example of a speed horse with a group dynamic feel. He has very good command of his sensory system.

For his third start, Pablo shipped West for the Generous Stakes (G3) going a mile on turf. He didn't break on top, and although he was in a good spot in 3rd on the outside, he looked confused in the stretch run when surrounded by horses unleashing IHD power. He did not retain his forward focus. Despite ok tactical position, he looked a little lost when the real running began.

They took the blinkers off of him in the Gulfstream Park Derby, and Pablo showed his good GHD again and a better distance potential. The IHD switch was still just ok. We see some signs he might not be a real high herd dynamic horse. East Hall won his space for third, with General a Rod and Wildcat Red much the best.

Pablo delivered a very nice GHD performance in the Hutcheson Stakes (G3) going 7 furlongs, handling a traffic trip and moving up between horses. But he did not close the deal in IHD late. C Zee, a stakes level sprinter, defeated him for the runner-up spot.

Stretching out to 9 furlongs in the Blue Grass Stakes (G1), Pablo was back on the lead. Again he showed excellent backward GHD feel with good forward physical focus. Dance With Fate and Medal Count, two very good horses, went by him, but he ran well for third. This was his best run.

Pablo is not a big herd dynamic horse, but he has some decent sensory skills, and he is improving. Pressure from behind pushes him forward, but regardless of placement, we think he'll get swallowed up by the big herd dynamics in this field if he draws in.

**About the authors:** Kerry M. Thomas is a pioneering researcher of equine athletic psychology. His work began with the study of wild horse social structures and communication, and how those areas affect patterns of herd motion. He is the founder of the Thomas Herding Technique (THT) and author of *Horse Profiling: The Secret to Motivating Equine Athletes*. For more information, visit [www.thomasherdingtechnique.com](http://www.thomasherdingtechnique.com) or follow Kerry on Twitter @thomasherding.

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## GLOSSARY

**Behavioral overcompensation:** Occurs when one sensory avenue either by physical limitation or psychological aberration overcompensates, resulting in body language eruption and/or loss of mental and physical efficiency.

**Buddying-Up:** Occurs when a mid-level herd horse seeks the comfort of movement with another horse. Buddy-up horses are dependent on another horse for safety, direction and rhythm of motion.

**Emotional conformation:** the mental and emotional psychology of a horse, that makes up who they are. It includes the way they communicate, interpret stimulus, and almost everything they do, including compete on the on the racetrack.

**Group herd dynamic (GHD):** a horse's awareness of the group around them. It goes hand in hand with the ability to interpret multiple stimuli. A horse with a good group dynamic can see/feel the big picture and where the horse itself fits into that picture. A healthy group dynamic is integral for a horse to run well through traffic or from far back in a race. Many horses with big group herd dynamics will prefer to be near the back of the field early in a race in order to read the other members of the groups' intentions. They are in fact sizing up the field and determining where they want to go. The U.S. champion mare Zenyatta is the classic example of a horse with a big group dynamic (she also had a big individual dynamic, which she could turn on when needing to fight for space and pass horses).

**Herd dynamic:** a general term we use to describe a horse's overall herd level (its group and individual herd dynamics combined).

**Individual herd dynamic (IHD):** the dynamic that involves just the self and a singular target. Example: a horse engages in a pace duel with one other horse, not thinking about the rest of the field, the length of the race, or anything else but that one-on-one struggle. Horses that rely too much on individual herd dynamic will get lost if they have too much stimuli to interpret. Front-running horses that only run their best races when they are near the front of the herd, where there are limited stimuli, are usually very high on individual herd dynamic. A high individual herd dynamic is integral to being a good racehorse, but the best horses are strong in both dynamics. When you're only operating on one dynamic, it's easier to have the rug pulled out from under you. And when things don't go their way, individual dynamic horses tend to fall apart.

**Space infraction:** When one horse infringes upon another horse's space.

**Anticipatory Response:** A response that comes from anticipation, based on environmental circumstances. An anticipatory response precedes the actual stimulus. It is a learned response that becomes a habit. The anticipatory response mechanism can be used for learning and growth. However, an improperly functioning sequence can create aberrations and inefficiency.

**Egg:** The horse's egg is the space around the horse, varying in actual foot-distance by the individual that is its personal space and area of influence. Shaped much like an egg is shaped, it is the area where stimuli are efficiently interpreted. It is directly related to the herd dynamic of the horse; that area around the horse that it manages.

**Emotional Conformation Profiling (ECP):** The study of a horse's Mental/Emotional Intelligence & Ability in three key areas; Trainability, Herd Dynamics, and Behavioral Genetic Traits.

**Mental Efficiency Zone (MEZ):** Mental distance aptitude, expressed in race distance. The amount of time/distance a horse is able to efficiently operate from a mental standpoint.

**Pattern Of Motion (POM):** A naturally occurring or learned response to the stimulus of a horse race. A pattern of motion develops every time a horse engages in a workout or a race.



**Controlled Response:** a controlled reaction to stimulus, equating to controlled movement.

**Reactionary Response:** a frantic response to stimulus equating to uncontrolled, inefficient movement.

**Sensory Lead Change:** The act and ability of identifying stimulus within each sensory field (eyes, ears, feel) and efficiently sharing that information between the senses.

**Sensory Lead Change Efficient Transition:** The ability to continue with a focused physical movement without compromising efficient movement, while identifying and properly interpreting stimuli that are being processed by various senses: eyes, ears, rear feel.

**Sensory Lead Change Sticky Transition:** An inability to properly and efficiently transfer stimuli from one sensory avenue to another with efficient interpretation; thus disrupting efficiency of physical motion.

**Primary Sensory Interpretation:** This indicates what sensory avenue that is used as the default interpretation avenue; eye, ear, feel etc., which one of the senses is relied on the most for interpretation of environmental stimulus. Horses have natural inclinations from a sensory basis.

**Sensory Dependency:** The use of one sensory avenue over another to interpret stimulus even when such stimuli could be more efficiently processed by another sensory avenue. This dependency often precipitates reactionary and sticky transitions and inefficient physical motion.

**Purposeful Motion:** Efficient, willful movement, including reactions and non-reactions to stimuli, based on proper interpretations by the sensory system. High-level herd dynamic horses move with purpose in response to situational chaos, never losing control of their reactions to the environmental stimuli of herd motion and chaos. Thus, physical speed and movement is purposely controlled to fit the circumstance, as a naturally occurring act of self-preservation.

# THE EQUINE SENSORY SYSTEM

## Position Paper by Kerry M Thomas

There are four main senses the horse uses to interpret and manage itself in its environment: sight, sound, feel and smell. The equine sensory system is designed to work *independently together* as a form of checks and balances; this being the fundamental base strategy for self-preservation and sustainability of the species and herd in variable and changing environments. In detail, this then is the foundation upon which the principles of adaptability are founded and allows Mother Nature to conceal her leadership in plain sight; vital for a species designed to live in the open country amidst predators.

The efficiency which each independent sensory system communicates, or as I often like to say *transitions* or *hands-off* stimuli like a baton, has a great impact on many things, including physical output, comfort zones/running styles, patterns of motion and herd dynamics. These things are pieces of the puzzle that are both the fabric of herd life and of the individual Emotional Conformation Profile (ECP). This overall efficiency or lack of impacts the individual's ability to interpret and react to the environment, thus defining them as individuals within the herd itself; different levels of communication allow for a chain of command in the social structure.

To offer an example of how you may envision a stimuli *transitioning* through the sequence of the senses, which is of great importance to a Thoroughbred Race Horse that needs to move and manage situational chaos while the body is moving with great energy, I ask you to think of a slinky and a staircase.

The slinky represents the stimulus (which needs to be both identified and interpreted quickly, so as not to impede an efficient physical motion); the steps representing the senses. As the slinky comes into contact with the step it is hitting, that sense requiring identification, which is the recognition of its presence on contact, and then its interpretation, which allows for it to be efficiently *handed-off* to the next sense as needed, if needed.

A smooth transition through the sequence allows for a smooth physical pattern of motion. However, if the horse is sticky in any one of the sensory areas, we will see an impact on the physical motion of the horse. The slinky, once triggering a sensory avenue, is *identified* and there it will stay until *interpreted*. If however, the horse is experiencing any deficiency in that particular sense, be it from a physical issue or impediment or psychological *learned experience*, one end of the slinky will stick to that sense even while it is stretching to transition, to land upon the next step, until it hits the step the horse depends on for its primary form of interpretation. As the slinky then becomes identified it is finally released and snaps back into shape, if you will, causing a ripple effect in the body, that sudden knee-jerk reaction to stimuli we often see in horses for *no apparent reason*.

The sensory system's influence on the efficiency of physical distance for the race horse is also of great importance. There are two different horses that have to be considered; one is the physical horse and the other the emotional horse. The physical horse shows you muscle structure, correctness and the way a horse moves through itself, hits the ground and so on; body-type and functionality being vital players to overall performance, speed, stamina and distance of ground.

The emotional horse responsive to the information highway of the senses is the pilot of your physical airplane and responsible for efficiency of pace and mental stamina (grit) based upon both real and learned interpretations. From a psychological, *sensory* standpoint, 'distance' mentally is measured in the amount of time the horse is efficiently interpreting its world without it affecting physical motion; thus we have Time In Motion, as the true factor in distance aptitude. There is a big difference between running a great distance and running a great distance efficiently.

An easy example is to think about something as simple as walking a horse with halter and lead when suddenly your horse *spooks* in an eruption of body language or slows to ID something or altogether stops without your urging and/or despite it. If not from physical pain, then this alteration of movement comes from the emotional horse, the senses. Now imagine the impact this can have on the athlete in herd chaos in elevated stress and physical speed situations where a split second of hesitation can cost you a race.

It pays to know your entire horse which is why we profile them and monitor them. If the emotional horse had zero impact on the physical horse, *spooking* would never be in horse-lingo.

These idiosyncrasies of character, of Emotional Conformation, come in many layers and many forms, some an impediment to physical performance for the race horse, or any horse for that matter, and some not much of an impediment at all. A detailed understanding of the whole horse tells us a great deal about the comfort zones for the horse, offering up clues to their natural Pattern Of Motion and Mental Efficiency Zone. Using that knowledge, we can design coaching programs to help the equine athlete become the best he or she can become at their physical talent level. After all, we must nurture the horse before we develop the athlete.

With the sensory system controlling movement with such alacrity, a study of this system should rightly be considered if not prior to a physical inspection, at least in collaboration with it. You're not investing in an automobile; you're investing in a complex system of mental and physical traits. For any equine athlete to fulfill their physical ability and talent, they must first have the Emotional Conformation to allow them to.

Kerry M Thomas/Founder of THT