

THT BLOODSTOCK: PATTERNS OF MOTION ANALYSIS

WITH KERRY THOMAS AND PETE DENK



Herd Dynamic Rankings for Kentucky Derby 142

- | | |
|-----------------------|----------------------|
| 1. Nyquist | 12. Mohaymen |
| 2. Brody's Cause | 13. Whitmore |
| 3. Gun Runner | 14. Majesto |
| 4. Creator | 15. Danzing Candy |
| 5. Exaggerator | 16. Trojan Nation |
| 6. My Man Sam | 17. Shagaf |
| 7. Suddenbreakingnews | 18. Lani |
| 8. Mo Tom | 19. Tom's Ready |
| 9. Outwork | 20. Oscar Nominated |
| 10. Mor Spirit | 21. Laoban (AE) |
| 11. Destin | 22. Cherry Wine (AE) |

KENTUCKY DERBY 2016 HERD DYNAMIC ANALYSIS

Kentucky Derby 2016 Herd Dynamic Analysis

Hello and thank you for your purchase of this year's Kentucky Derby Herd Dynamics Analysis. On behalf of both Pete Denk and I we certainly appreciate your interest and support. It seems like many moons ago since our first Kentucky Derby analysis and since that time we have continued to push ourselves toward new innovations. The sense of discovery and mining for information in the trenches feeds my personal passion. I love horses, I love horse racing and I feel fortunate to be even a small part of it.

When I was a pup and my brother was playing baseball in the Atlanta Braves organization, I had been witness to two things; one was very talented physical athletes, and the other was its optimization, or not, from mental fortitude. I'll never forget one day I listened to a Brave's Coach talking about the difference between athletic talent with and without a supportive psychology.

When the physical talent level begins to even out, the difference between those who bubble to the top and those who remain in the middle, is more often than not between their ears; personality drives talent.

Personality drives talent; I never knew back then just how profound this in-passing statement was, and as I came to discover, not only for human athletes.

The 2016 Kentucky Derby presents an interesting set of challenges because of the uniquely different personality types represented. Every year we spend countless hours studying films to determine which herd dynamics and patterns in motion heading in to the Kentucky Derby provide the highest probability of success. We look for many clues; tracking and assessing psychological growth patterns, who is growing, who is peaking, and who perhaps has already peaked? And try to answer some key questions; what natural tendencies under stress are likely to fit well and manifest in the chaos of the race and certainly, what personality types are suitable for the emotional stresses of the process that is the Kentucky Derby.

Personality & Performance

Among the things that draw us to the horse, now and throughout history, is not just their raw power and graceful beauty, but the emotional connection we have with them and their uniquely individualistic personalities. Not to consider personality and its effects on every aspect of their lives including performance, is saying it doesn't exist, that they're machines.

Personality has a profound impact on every part of our lives, whether we realize it or not. Our ability to manage stress, work with others, manage relationships, deal with pressure, the way we express ourselves, all have their basis in my opinion, on the inflections of our personality. Whether you're scouting talent for Major League Baseball, the NFL or any professional sport, you would do well to be mindful of "whom" and not just "what"; for idiosyncratic tendencies shall play their part.

Tendencies under pressure can define performance ability and in athletics is quite often what either allows for the optimization of physical talent, or inhibits it. Therefore identifying how the horse manages itself in situational chaos and the stress of herd motion is vital. I have always felt, and built my vision for our business around this point of reference, that there are two aspects at hand; the physical and psychological, both requiring attention. Let's face it, *if* all that had influence on a horse's ability to compete and win consistently at the highest levels was their physical attributes the game would be simplified. Pedigree and physical would essentially be the only two requirements necessary to develop an incredible athlete. Indeed they are absolutely important pieces of the jigsaw puzzle, but they are not the only pieces in the athletic box.

Horses are not an assembly line of objects devoid of emotions and expressions; they are emotional athletes and very often a reflection of their environment. Regardless of how physically capable they may be as individuals they're still reliant on their operating systems, their herd dynamic. A highly talented athlete can still be a very inconsistent performer, and it's not always because of a training or physical issue, it can just as often be a sensory and psychological impediment. You can smash the ball in the batting cage, but it's what you do with bases loaded, down by two in the bottom of the ninth, that defines your performance ability.

Sensory Soundness

Commonly anytime we discuss *soundness* it is in reference to the horse's physical structure and health and rightfully so, it cannot be denied that this is a fundamental requirement especially in the sale environment. The efficiency with which a horse moves through any potential physical flaw is something to look for as a rule. Biomechanics, matter.

However, physical soundness only represents one part of the horse. Just as much focus, concern and attention should be given to the horse's sensory soundness. It is equally if not more important to evaluate how well a horse moves through their sensory transitions. In order to maximize physical ability in an emotional athlete like the horse, the psycho-sensory, the operating system, must be fluid. Sensory soundness also matters.

If the sensory system didn't have influence on things like stress and motion, if sensory soundness wasn't a thing, the use of equipment like blinkers and shadow rolls would never be necessary. I am mindful of sudden equipment changes because it makes me feel like there could be a sensory pothole of sorts and they're trying to block or bridge that gap. Equipments' influence on the sensory system can help free up and redirect otherwise wasted emotional energy, or it can make it heavier and sticky, like gum on the bottom of your shoe. In my opinion it's a case by case situation that should be monitored in order to determine how the change influences the pattern of motion; help or hinder. Like squeezing a balloon, you're shifting the air and thus placing more pressure and emphasis, on another part. It will put a slant one way or another on the interpretational process.

Personality also puts its slant on the interpretation of stimuli and this in turn impacts the reaction. The sensory system is the fabric that connects the physical world with the emotional world; physical soundness influences the physical aspect, personality traits influence the interpretational aspect. Patterns in behavior are subsequently translated to patterns in motion.

If you were to plot a simple sequence or equation of an efficient process it would look like this: Environmental surveillance, identification of environmental stimulus, interpretation of environmental stimulus followed by reaction (or non-reaction). In an inefficient process, horses tend to physically react while trying to interpret, an act indicative of the mid to lower level herd dynamic. These horses are more inclined to rely on other horses or something in the environment to help them. Because the sensory system must go through its process to clear the path, the tendency to *ask for help* when the process is interrupted, is instinctive and strong.

Inconsistencies in the sensory sequence, or aberrations from learned behaviors and associated stimuli, can have just as detrimental effect on athletic performance as anything physical. Many an underachieving athlete can find their flaws housed within their psyche, and many an overachieving athlete can find their determination housed in the same place.

As an example of how the sensory system manages physical pace & speed, imagine driving along and suddenly hitting an area of dense fog. Because you're having difficulties interpreting what is in front of you, you slow down. After all, you don't want to have an accident or get hurt. Because your sensory system cannot "see very far ahead" you slow your speed so that you have time to interpret the path before you; your senses are leading the way, clearing the path, and you need to keep at a safe distance behind your rate of sensory clearance. Keeping your physical self behind your sensory self, keeps you safer. Under this stressful condition taxing your senses, you may find you're filling in the gaps by using reference guides in the environment to complete your task and help manage your *pace*; looking for the line on the side of the road, or reflectors in the center or perhaps even "buddying up" with the car in front of you to stay at a safe pace. You are now leaning on the environment, and thus have become at least temporarily, environmentally dependent.

Things like dealing with unexpected chaos, changing lanes and speeds are all situational maneuvers dependent upon a versatile mind. The sensory system, that collaborator between mind and body, plays a key role in filtering and managing sudden changes, emotional stress and clearing a path through that environment.

Stress

We must consider stress on two fronts, physical and psychological. Physical forms of stress are by nature more evident and readily identifiable with careful physical soundness examinations, offset knees or upright pasterns for example. Any structural area of obvious or potential weakness is identified and considered in the process, and rightly so because you have to ask, *how likely will the horse handle the demands of training, racing; the physical demands of being an athlete?*

But this isn't where the examination and consideration of stress management should end.

Examining and evaluating for potential weak spots within the psyche, the overall herd dynamic, will help identify both strengths and weaknesses, or potential weaknesses, when dealing with emotional stress. Just like some physical aspects can strengthen or weaken as the horse grows and trains, the same can be said for the herd dynamic. What you want to understand is the degree of the issue if there is one, and how likely it is to impact the horse's life and your goals for the horse. The difference being that unlike the physical body which can stop or lessen physical impact and movement, the sensory system and psychology does not have an off switch.

Anxieties, worry, anticipation, pressure, are basic examples of emotions causing physical reactions. Left unfiltered they can elevate heart rate and burn up or bottle up energy in a sedentary body and contribute to injury by the sudden and stiff/nervous reactions they can cause. Ever hyperventilate right before giving a speech even though you've prepared for it; it might be a lot like standing in or even getting momentarily stuck in the starting gate?

There are times when a horse gets stuck during lead-changes and this can disrupt their motion, and there are times when a horse gets stuck during sensory lead-changes, which is equally if not more disruptive. When the mind is going one direction and the body another, the horse looks like they're floating, like a boat rudder coming dangerously close to being out of the water. Where the senses lead, the body is likely to follow.

The ability to absorb multiple stimuli in motion is important to athletic optimization. Some horses can absorb multiple stimuli and never get all fussed up, some horses can do it standing still but not so great when moving, and some just seem to think everything is a mountain lion. The difference between controlled and purposeful reactions and uncontrolled reacting built up from emotional stress can be found rooted in the reach and interpretational speed of the sensory system.

Whether we're profiling the Kentucky Derby contenders or evaluating yearlings, considering and evaluating how the horse is filtering emotional stress and what sensory tools they're relying on to do so, is a major puzzle piece. I want to know will this horse retain all of its emotional energy for the race, or will the environmental stresses leading up to the physical action have already started to chip away? Because you have to ask, *how likely will the horse be able to handle training, racing, and the emotional demands of being an athlete?*

Sensory Speed & Dependencies

In a typical high functioning herd dynamic horse that is also an elite athlete, the "speed" of the sensory system process remains ahead of their body regardless of the physical speed of movement. The herd dynamics of handicapping asks you to look at which horses are absorbing and controlling their space and other horses, and which horses are not. These small clues mined throughout the body of work help key you in on who can be trusted when push comes to shove to stay the course throughout the often chaotic process of herd motion.

When operating freely the high level herd dynamic horse is able to manage this process without the assistance of the environment and/or other horses, allowing for true optimization of physical ability in situational herd chaos and stress. This is the difference between an offensive mentality, (herd leader) and that of a defensive mentality, (herd companion) approach to the environment; for as we've pointed out, if there is a gap anywhere in the sensory sequence, as a herd animal, the horse is at risk to "buddy-up". Becoming dependent upon some outside environmental influence or other horses to fill in the pothole prior to the physical act/reaction is a follower-mentality. In this situation we now have outside sources and influences having an impact on actual physical ability, and like our earlier reference of using the reflectors on a foggy road, environmental dependencies are created in the name of survival. Sometimes they're situational and temporary, sometimes they're not.

Environmental and emotional dependencies are often antagonists to an individual's ability to achieve their true potential because control of self, is shared. Dependencies can become dangerous when they're grown too fond of, and they become "necessary". Sensory soundness, stress management, personality and tendencies are all pieces of the herd dynamic puzzle. This group of Kentucky Derby contenders has quite an array of puzzle pieces and we had to dig deep to mine for every esoteric clue. There are some extremely capable herd dynamics in this field, and the "top to bottom" herd dynamic list is in some places paper thin.

Our goal each year is to help provide you with an additional tool in your toolbox that will help you put together the handicapping puzzle that is the Kentucky Derby. We'd like to thank Brisnet for once again carrying our product this year and on a personal note I'd like to thank Pete Denk. Without Pete and his tireless efforts on behalf of THT Bloodstock the exciting year we had in 2015 and the excitement we share for the future would hardly be possible. I appreciate the opportunity to have made my passion my work, for the many unique experiences and being able to pursue my other passion, supporting organizations away from racing that help both children and horses such as Home Front Equestrians. And most certainly I appreciate you, for purchasing our product and supporting our efforts.

A very special thank you goes out to my mother and the memory of my late father, without whom I realize now, I would never have had the courage to take this course in my life, and take a chance on a dream.

Whether trouble-shooting an underachiever, panning for gold in upcoming sales, weanling evaluations, making breeding decisions or building a racing program, contact Pete for questions and scheduling at peterdenk@yahoo.com and you can also learn more about our work and how we can help by visiting us at www.thtbloodstock.com

"If you're not thinking forward, you're already behind"

Sincerely,

Kerry



NYQUIST

Uncle Mo – Seeking Gabrielle, by Forestry

As the undefeated two-year-old champion with a resume that includes Grade 1 wins in Southern California, Kentucky, and Florida, Nyquist indisputably has earned the role as the Kentucky Derby favorite.

After dissecting his seven career races on Herd Dynamics, we have news for the competition. If you want to win this race, you had better be prepared to take it away from Nyquist. Because this is a fearless, efficient, competitive-minded horse who will not beat himself.

One of the many things we like about Nyquist is that he is not environmentally dependent. He is a proven shipper who runs his race every time.

His sensory rhythms are always ahead of his physical body, and that is saying something because he is a fast, very aggressive, forward-minded horse.

The herd starts with Nyquist and extends from him outward. Most horses survey their surroundings and decide where they fit in. They react to circumstances and challenges. Nyquist assumes leadership and imposes his will. This is an example of a personality trait affecting performance. Nyquist is the center of his own universe and he carries that attitude into competition.

Nyquist has an incremental series of internal gears, and he is space competitive. Every once in a while when a horse challenges him, you will see him cock his head and let that horse know they are in for a fight. He is yet to lose one of those battles.

Nyquist had a fabulous two-year-old campaign, but we honestly did not see a Kentucky Derby winning profile in him until the Breeder's Cup Juvenile (G1). Breaking from the 12-post in a field of 14 horses, Nyquist was bumped very hard at the start by his juvenile campaign rival Swipe. But Nyquist recovered lightning fast to attain tactical position. He operates very efficiently in close space situations and is great at controlling the space around his body.

Nyquist took the first turn of the Breeders' Cup six-wide. He was in 8th place early, but just three lengths behind the leaders. Nyquist is heavily shifted toward the Individual Herd Dynamic. He is probably always going to want to be forwardly placed, and he has the physical ability to do so at any distance. But his Breeders' Cup trip was an eye opener. It proved Nyquist has a functional Group Herd Dynamic. Although he always breaks well and often grabs the lead early, there is a versatility here that is not normally associated with this kind of speed and Individual Herd Dynamic strength (competing mode, one-on-one fighting ability).

Not only did Nyquist have to sit behind horses, he was crowded several times, and it did not take him off his game. Nyquist is always moving with purposeful motion. He showed good patience in the Breeders' Cup. He doesn't give a whole lot of recognition to the other horses, and he was confident that he was going to do what he wanted to do (take control of the herd) when the time came.

Nyquist surged to the lead with a furlong remaining in the Juvenile. Looking for a challenge, he invited Swipe to come in and fight for space. The winning margin was a diminishing half length, but Nyquist still had plenty of fight left. He wasn't going to let Swipe by.

Nyquist did not get a winning trip in the Breeders' Cup Juvenile, but he found a way to win. If you didn't believe what your eyes saw, his three-year-old races should erase all doubt about his quality.

Nyquist returned in the San Vicente Stakes (G2) going 7 furlongs. He broke sharply from the rail, grabbed the lead and led through a half mile in :44-2. Exaggerator, who had been sitting three-wide stalking the pace, rolled up on Nyquist's flank, appearing to be full of run. Nyquist repelled him, shutting him down. Exaggerator, who has a big turn of foot, eventually deferred and stopped trying to advance.

For two colts to run together for a period of time, one must defer and assume the adjunct role. If not, one way or another, they will sort things out and separate. It is one of the laws of nature that carries over to racing. Exaggerator clearly was the adjunct horse, and Nyquist was the herd leader.

For his final Kentucky Derby prep, Nyquist shipped ambitiously across the country to Gulfstream Park for the Florida Derby (G1) in a showdown with Mohaymen, undefeated winner of the Holy Bull (G2) and Fountain of Youth Stakes (G2). Even before the race started, Nyquist had a look of supreme confidence. As soon as the gate opened, he surged forward and took control of that herd.

Nyquist had the exact same expression, exact same rhythm, and the same matter-of-fact purposeful motion he always does. As Mohayem approached Nyquist on the turn, Nyquist's rhythm did not change at all. In contrast, Mohaymen was under a lot of stress, ears pinned, trying to penetrate Nyquist's space. Mohaymen already knew he was in trouble. Nyquist easily repelled Mohaymen's challenge. That was a herd dynamic beatdown.

Alone in open space, Nyquist ducked out sharply late in the Fla Derby. That looked like a, "Where's everybody at?" moment to us. That was a sensory lead change expressed physically in a not very efficient way. He knew Mohaymen was done, and he probably had a sense Majesto was on his inside somewhere. He was trying to feel if another challenge was coming. Nyquist's Group Herd Dynamic feel is good for an IHD-slanted horse, but it appears it is not super wide or deep. This is a horse that feeds off close contact and engagement. He is probably better in a crowd than in open space.

Nyquist's forward focus was compromised there briefly, but he recovered and finished strongly from an energy perspective and against the clock (final furlong in a respectable :12-4). And regardless of the late drift, Nyquist was not a mentally tired horse at the end of the 1 1/8-mile Florida Derby. His mind was still ahead of his body at the finish.

Nyquist has great energy distribution for an IHD-slanted horse. He looks well equipped to handle 1 ¼ miles, although it will probably be near the top end of his efficiency range.

Nyquist is an extremely confident horse. We expect him to be forwardly placed in the Derby, and considering his elite IHD strength, it is hard for us to envision any of the other IHD speed horses taking him out and then having enough to hold off the GHD closers.

Nyquist is going to go toe to toe with whoever is willing to step up. He doesn't sit back and let other horses do the dirty work, nor does he try to run away from rear and oblique challenges -- he engages them. If he doesn't quite stay out the 10 furlongs, it will probably be that -- his competitive side getting the best of him.

And if he is going to get beat, we think it is most likely to be by a late rallying, GHD horse that stays out of the fray early and can overwhelm him with physical momentum in the final furlong. Whatever the result, we think the two-year-old champ will deliver a courageous effort in the Kentucky Derby.

BRODY'S CAUSE

Giant's Causeway – Sweet Breanna, by Sahn



Brody's Cause had a very solid two-year-old campaign that saw him break his maiden at Churchill Downs, win the Breeders' Futurity Stakes (G1) at Keeneland, and finish a closing 3rd in the Breeders' Cup Juvenile (G1).

After a forgettable debut on turf that we think was too bad to mean anything, Brody's Cause won a maiden race at Churchill Downs going a 1-turn mile. He rallied from 7th place at the quarter pole with a relentless stretch rally. His internal fractions of :24-2, :24-3, :24-3, :24-flat were very good. He is a stayer who can post multiple quarter miles in :24 and change and then actually accelerate late.

Although he was green in spots, he showed a lot of promise in his Group Herd Dynamic efficiency. And once set down in an Individual Herd Dynamic drive, he was learning to connect the dots between his sensory system and moving at top speed with other horses.

Brody's Cause stepped up to the Breeders' Futurity Stakes (G1) next and posted a really impressive victory.

Again we saw the Group Herd Dynamic, closing pattern of motion, but he executed it extremely sharply, especially considering the new track, class rise, and distance.

He did a good job finding his rhythm and sizing up the herd early in the Breeders' Futurity. He does not get caught up in situational chaos – he generally tries to avoid it, then take advantage of it. Brody's Cause launched 5-wide on the turn and ran down fellow Derby starter Exaggerator. It was a very impressive rally considering the short stretch run on that track configuration. We don't see many horses win from that position.

Brody's sensory field was way out in front of him, and he was interpreting everything very accurately. There were no surprises for him there despite being in a new, fluid situation. He also showed very good forward focus and engagement for a GHD closer. This is a natural pattern of motion for high-level colts in nature – methodical early, but relentless late in an effort to take control of a herd movement.

In our minds, that performance stamped Brody's Cause as the horse to beat in the Breeders' Cup Juvenile and a serious Kentucky Derby prospect. Thus, we were a little bit disappointed when he finished a non-threatening 3rd behind Nyquist in the Juvenile.

There were mitigating factors, but it was definitely not as strong a performance as the Breeders' Futurity (slightly puzzling considering both races were run at the exact same distance and track).

In the Breeders' Cup, Brody's Cause did encounter a little more traffic trouble and was forced to weave his way through a few spots. But it seemed to take him longer to figure out what was going on and work through his transitions.

We also noticed that although his efficient GHD helps him move within the herd, he doesn't seek a lot of contact or one-on-one engagement. His head is often cocked to the outside, away from the horses he is passing. That makes him highly efficient at not getting involved in space battles or wasting energy, and makes his release points cleaner. But we would have liked to have seen a little more urgency and aggression from him in the Breeders' Cup.

Brody's Cause made his first start as a three-year-old in the Tampa Bay Derby (G2). It was his first race in more than four months. He hopped and was sandwiched at the start. When he is on his game, Brody settles fairly quickly, but his rhythm looked a little off early, and he did not recover well from the physical contact.

Brody tried to put in a closing run, but he only finished 7th, beaten 12 ½ lengths. He was trying hard, but he was not making any ground on the top two Destin and Outwork.

The Tampa Derby raised a lot of questions, but Brody somewhat erased them in his final Derby prep when he won the Blue Grass Stakes (G1). This performance was on par or even better than his stellar win in the Breeders' Futurity last year.

In 11th place early, he handled the herd chaos of the 14-horse Blue Grass very well. New rider Luis Saez saw an opportunity on the turn, and when he pushed the button, he received a very nice response. Brody moved out, hit a seam, and passed nine horses between the 3/8 and 1/16 pole. He surged to the lead and won by 1 ¾ lengths, out-moving, then holding off fellow closers My Man Sam and Cherry Wine.

His gear changes and release points were sharp and concise. His finishing energy was relentless and determined. If you watch the closing yards (make sure to find an HD version on YouTube) you will see his ears checking in behind, scissoring, then releasing and focusing forward. Brody's Cause was still sharp at the end of the 9-furlong Blue Grass. From the behavioral/mental perspective, we like him going 10 furlongs.

Brody's Cause showed a growing command of his sensory system in the Blue Grass. We thought Saez gave him a more aggressive ride than he has received in the past, and that may also have helped turn a switch on. We think this is a true classic distance horse, but he is not a plodder. Brody is capable of a sub-24 second quarter in the middle or end of a race.

Brody's Cause has had some consistency issues, but we like his profile a lot for the Kentucky Derby. He appears to be back on track, on a growth pattern again, and that makes him a legitimate win contender in this Kentucky Derby.

GUN RUNNER

Candy Ride – Quiet Giant, by Giant’s Causeway



Although we don’t think the Louisiana circuit featured the toughest group of three-year-olds this year (California could arguably claim that title based on results so far), we think it would be a mistake to underestimate Gun Runner, the improving colt who won the Risen Star Stakes (G2) and Louisiana Derby (G2).

Lightly raced with just five career starts, Gun Runner has a very athletic psychology. As his body matures and becomes stronger, he has an almost ideal sensory system and set of behavioral traits to optimize physical ability.

One of the things that stands out in Gun Runner’s races is how comfortable he seems to be in tight spots. With a youthful, but strong eye, Gun Runner seems very casual with his environmental reads, even when interpreting challenging, competitive herd movement.

When he has a forward target, Gun Runner’s focus is unwavering. Even when he encounters traffic trouble, Gun Runner loses the absolute minimum amount of ground and momentum. He might have to slide back physically, but his mind stays forward, making his recoveries almost seamless.

Gun Runner’s space awareness is elite – he knows where he is at and he interprets the space around his body, including his opponents -- very accurately. At the same time, he is almost always thinking a good 3-4 lengths in front of his body, his sensory system clearing the path in front of him.

Gun Runner’s first two career victories – a maiden win going 1 mile at Churchill Downs, and an allowance victory going 1 1/16 miles at Keeneland – were accomplished with alarming ease.

He was a little green in the debut, but he had it all figured out by the latter stages. He ran his final quarter in :23-4, his fastest portion of the race and a great closing time for a tactical speed horse on dirt. He looked very comfortable and efficient crossing the wire.

In his allowance win at Keeneland, Gun Runner showed great interpretational reach as he was stalking the pacesetters. He was projecting beyond the lead horse, interpreting that ground even before he split horses and rolled to the win.

Gun Runner sustained his only career loss when he stepped up to Grade 2 company in the Kentucky Jockey Club Stakes last November 28 at Churchill Downs, but we were impressed by his effort in defeat.

He was in tight quarters with strong herd dynamic horses all around him early on, and he just took it in stride. He showed excellent environmental awareness to remain forward focused and not get squeezed too far back.

He finished 4th, but he tried very hard to win. He was in a fierce, protracted Individual Herd Dynamic battle in the stretch, in between strong competitors (Airoforce and Mor Spirit, plus Mo Tom coming up the rail). He briefly drifted outwards, then refocused and put up a good fight between horses. We liked his performance even more when we watched the head-on replay. He probably thought he was going to win until very late when he physically tired. But he never deferred to those horses.

Gun Runner got his nose bloodied in the Kentucky Jockey Club Stakes, and that should have been a wakeup call. A good duke-it out-fight in less than ideal conditions (rain, sloppy track, big class rise) after two relatively easy races was probably a good way to cap his two-year-old season. Even though he was going backwards a little at the wire, we don't think he hit a distance wall at 1 1/16 miles.

Gun Runner returned in the Risen Star Stakes (G2), and although he showed a little rust, his forward Herd Dynamic traits looked as strong as ever. Checked back early, then pocketed, Gun Runner stayed in touch with a fairly fast pace up front and found his way through the pack ,making a couple mini-moves, taking advantage of any opportunity to advance. It wasn't a dominant win, but it was a very good development race, as he subtly met all challenges while running faster fractions at all points of call than he ever did as a two-year-old. Gun Runner has a herd dynamic profile and sensory system that will maximize his physical development.

In the Louisiana Derby (G2), Gun Runner stood very relaxed in the gate at the start and broke efficiently (he is a fairly good gate horse). His naturally forward flowing rhythms are a great match for his physical skills and tactical running style.

He showed lightning fast reactions to the other horses in the Louisiana Derby. Tracking the pace of Candymyboy and hemmed in, Gun Runner took advantage of the slightest opening when he squeezed past Dazzling Gem on the turn.

Gun Runner uses his Group Herd Dynamic skills, particularly his space awareness, for a competitive edge, not just a stimulus absorption tool. There are a lot of horses that have those GHD interpretive skills but very few also have IHD firepower and forward efficiency.

He won by four lengths, but we still dinged Gun Runner's efficiency grade for failing to release during the stretch run of the Louisiana Derby. He was much the best in this race (notwithstanding Mo Tom's traffic trouble), but when he went down to the rail and switched back to his left lead, he was still attached to those horses he had vanquished. He was looking for a challenge that wasn't coming, creating a delayed release point. He cannot afford to do that in the Kentucky Derby if he finds himself in a similar scenario.

We noticed that in Gun Runner's impressive 6f workout at Churchill Downs on April 24, the rider gave him a tap after he put away his workmate. Gun Runner responded with a clean release and good forward efficiency through the gallop-out. Whether intentional or not, it was nice to see that addressed.

Gun Runner has excellent emotional energy distribution for such a competitive minded horse. We give him a good shot to handle 1 1/4 miles, and we love his skillset when it comes to working out a trip in Derby herd chaos.

CREATOR

Tapit – Morena (Per), by Privately Held



It took Creator a while to break his maiden, but there were some strong, hidden efforts and important development in those five consecutive losses to start his career.

Creator debuted in a 1 1/16-mile turf race at Churchill Downs on September 19. Wearing blinkers from day one, he was looking around early, showing poor forward efficiency. His first reaction to herd chaos was to slow down as he struggled with his interpretations. He fell 17 lengths behind by the first call!

Creator eventually settled and came with a big sustained run for 2nd place. He struggled with his space awareness a little bit, leaning out and shying from close contact with other horses, but he also showed a depth of emotional energy and multiple gears once set down into Individual Herd Dynamic drive. It was a promising debut that showed both strength and room for improvement.

Early on, his body was capable of moving faster than his sensory system could interpret. The result was inefficient motion. The growing pains Creator experienced are not unusual for progeny of Tapit, who passes on world class physical ability but often a quirky sensory system and behavioral traits.

Of those first five losses, our favorite performance was the second-place finish behind Candymyboy at Fair Grounds. Creator checked twice before coming through on the inside. He failed to run down the sharp, lone-speed winner, but he ran very well.

The big breakthrough finally came in Creator's sixth start, when he dusted a field of maidens at Oaklawn Park by 7 lengths. It started like many of his other races – a tad sloppy at the start, breaking inward, losing his hind end briefly and drifting back to last place.

But the late move he unleashed was really special. He was overflowing with energy as he glided past horses, five-wide around the turn. After running his first quarter in :25-2, Creator came with a sustained move that is the mark of a Derby horse (:24, :24-2, :31-3). He won going away, with emotional energy still in reserve.

Thus, that was no ordinary 6-race maiden winner who stepped up in the Rebel Stakes (G2). After using the rail early to limit stimulus and save emotional energy, Creator and jockey Ricardo Santana Jr. launched very early from last place on the backstretch in the Rebel.

He suffered a lot of ground loss, taking portions of the turn 6 or 7-wide. He got away with that against maidens, but against graded stakes horses it probably cost him the win. Still, Creator ran through the wire for a good 3rd-place finish. He executed his pattern of motion on the class rise – a key sign of Herd Dynamic development -- and proved his mettle in IHD battle. He didn't catch up with the top two, but he passed every horse he looked in the eye.

The Arkansas Derby (G1) was Creator's first try beyond 1 1/16 miles (a distance threshold in U.S. dirt racing) and he flourished. He followed his playbook perfectly -- dropping back early to avoid chaos, then launching an extended IHD assault.

We think Santana is an underrated rider, and he delivered a masterpiece in Arkansas. He started his move inside on the turn, slid out, intimidated Discreetness and Whitmore to gain a path at a key juncture and finished strongly for the win.

Thanks to the blinkers and the Tapit intensification trait Creator has inherited, he runs fearless, with near tunnel vision and excellent forward focus when he is in IHD drive. An aggressive, strong rider like Santana is a perfect fit for this horse, and Creator trusts his rider.

Despite the relatively late maiden win and bevy of places vs. wins (8: 2-4-1), we don't think Creator is a one-hit wonder. His human connections seem to have figured him out fairly early, equipping him with blinkers and giving him eight two-turn races to learn from – four at age two, four at age three. That is a great foundation.

Creator has been honing the same pattern of motion since day one. He relaxes and filters early and then essentially runs a race within the race. An ingrained, successful pattern of motion to fall back on is a huge asset in the Derby.

Although Creator has improved considerably since his debut, he still does not have elite space awareness or Group Herd Dynamic feel. That is why he drops back early, and has been unable (so far) to get tactical position.

How much he has improved in GHD could be a key to his Derby performance. Because if there is any race where a GHD inefficiency will show itself, it is the Derby. Traffic problems or significant ground loss are concerns with his profile.

And it's not just the race itself where a GHD inefficiency can hurt. There will be a lot of circumstantial chaos that could chip away at Creator before he even gets to the gate. GHD is what helps a horse manage environmental stress. This is one of the colts to keep a close eye on during the walkover and in the paddock. It will be important he does not sap his emotional energy reserves.

We think Creator has a great shot to handle the increase to 10 furlongs in the Kentucky Derby if he sticks with his learned pattern of motion. If they try something new and it leads to early energy burn or exposes his GHD efficiency, all bets are off. Creator's Herd Dynamic profile is imperfect, but we definitely see enough strength here to classify him as one of the win contenders.

EXAGGERATOR

Curlin – Dawn Raid, by Vindication



The question when evaluating Exaggerator's chances in this Kentucky Derby boils down to your read on one race – is he really as good as he looked in the Santa Anita Derby (G1)?

No one will know for sure until Saturday, but given his body of work, our answer is Probably Not.

Exaggerator reached a new performance peak in the Santa Anita Derby, but based on his entire body of work, we can't bank on him repeating that run in Kentucky.

The first reason he may not be as good as that race looked was track condition. Exaggerator has run twice on a sloppy or muddy sealed track – in the Delta Jackpot (G3) and the Santa Anita Derby. Both races resulted in victory.

What a horse feels (or doesn't feel) as its feet hit the ground can have a major effect on performance, and in both of those races Exaggerator was absolutely skipping over the sealed surface. In the Delta Jackpot, Exaggerator liked the surface so much that he inadvertently found himself on the lead early, unusual for his pattern of motion. A sealed track is the perfect surface for his sensory rhythms.

When a horse loves a surface, the environment becomes less of an antagonist. It minimizes the amount of mental/emotional energy it has to use on footing. That energy can then be put somewhere else, such as forward focus, and that is exactly what Exaggerator did at Santa Anita.

But it wasn't just the footing that was in his favor. He executed his (new) pattern of motion perfectly, and he got a perfect pace setup (blazing up front) for that pattern of motion. Everything lined up for him.

Physically, Exaggerator is an extremely versatile horse. He has won races by pressing the pace, and he has won by making a giant run from dead last. He was fast and precocious enough to sprint – he impressively overcame trouble and won the Saratoga Special (G2) going 6 ½ furlongs as an August 2yo – and now he has won going 1 1/8 miles in spring of his 3yo season.

Team Desormeaux (Keith trains, brother Kent rides) has been experimenting with different running styles. The one they have recently settled on is to encourage him to relax, back out of the fray early, then make a big sustained run.

We don't know if that was the plan going into the San Felipe Stakes (G2) or if it happened by chance after Exaggerator was bumped by Smokey Image at the start and fell way behind. But one thing that stands out in Exaggerator's profile is that when they get him to relax and limit environmental stimulus, he runs more powerfully. He is at his best when presented with clear and concise targets.

Kent slightly botched that first try when he asked Exaggerator for his run more than a half mile out from the wire! Kent is an aggressive jockey, and we have seen these early moves from him before. Exaggerator tired late and was passed for 2nd by Mor Spirit, whom he blew by earlier. That shouldn't happen.

But they got it right in the Santa Anita Derby. Exaggerator was 16 lengths back early, but showing a strong forward focus. He made a powerful, 4-wide move around the turn and was just devouring ground on the tiring leaders. He drew off by 6 ¼ lengths late. We see no problem for Exaggerator at the Derby distance of 10 furlongs.

But from a sensory soundness and Herd Dynamic standpoint, he is no lock to run his best race under Kentucky Derby conditions. Exaggerator has shown to be a little environmentally sensitive.

We would love to inspect him to confirm this, but he has the look of a horse who has been coached aggressively to overcome some little deficiencies here and there. There is a lot of internal energy inside this horse. He has some pop that wants to be expressed. It is unusual for a Group Herd Dynamic horse to be operating this high. Everything he does, he does it with gusto.

Exaggerator appears willing to run through a wall for his rider. It is tough to say whose reflection we are seeing, but we sense a touch of recklessness in this horse/ jockey combo.

Exaggerator has a good, functioning GHD, but we wouldn't say he has an elite sense of feel. He runs with raw power, and the jockey is responsible for Exaggerator's awareness in some ways. There appears to be a ton of physical ability and a deep reservoir of physical and emotional energy, but it still needs to be used efficiently.

To be clear, we do see Exaggerator as having an outside shot to upset this field. But our final reason for taking a bit of a stand against him in the #1 spot is his combined 0-for-5 record head-to-head against Brody's Cause and Nyquist.

And the loss to Nyquist in the San Vicente Stakes (G2) was recent and compelling. This race was another example of how versatile and fast Exaggerator is. He was just a length off a :44-2 half mile!

Exaggerator looked like he was full of run, with gears in reserve, as he approached Nyquist at the head of the lane. But the champ felt him coming and had an answer. Exaggerator deferred, then matched rhythm. Exaggerator and Kent knew they were defeated, with the rider standing up even before the wire.

MY MAN SAM

Trappe Shot – Lauren Byrd, by Arch



My Man Sam did not make his first start until December 19 on the inner track at Aqueduct. He finished 5th that day, beaten 8 $\frac{3}{4}$ lengths in a 6-furlong sprint. It was not a flashy debut, but it gave him a taste of what racing is about and hinted at promise for more distance.

Not a big horse, My Man Sam got hammered at the start, and it cost him a lot of ground. From that point he was running green, figuring things out. He showed some competitive instincts and was in the process of winning the second pack at the finish.

When My Man Sam stretched out to 1 $\frac{1}{16}$ miles in his second start, a talented racehorse with a classic distance profile emerged. After breaking from the far outside post in a field of nine, he made a big inside/out sustained move. A move like that requires sensory versatility. It was a classic “stair-climbing” rally. My Man Sam can target a horse, catch it, release it, and retarget forward for his next task very smoothly.

Sam did a lot of running just to reach second place, then he had to close another gap to catch the leader. His transitions were seamless and his Distance Target Focus – the ability to lock onto a forward target and run it down -- was excellent. As he drove into the lead, his release point was clean -- no drag or herd attachments whatsoever. He won by eight lengths, a rare margin for a Group Herd Dynamic closer.

With most horses, once they are asked for run you get a burst, but diminishing returns kick in rather quickly from the standpoints of physical pace, Group Herd Dynamic awareness, and emotional extension. My Man Sam has a sustained physical move buoyed by impressive mental/emotional stamina. His Group Herd Dynamic awareness & Individual Herd Dynamic fight work very well together.

When My Man Sam stepped up to face winners for the first time, he finished second to the loose-on-the-lead speedster Matt King Coal, but Sam scored a lot of Herd Dynamic points again.

My Man Sam relaxes into herd motion very quickly. He has an interesting filtration system. When moving at speed, there is very little stress in his body or his movements.

Although he failed to catch Matt King Coal, My Man Sam confirmed his excellent Distance Target Focus, closing a lot of ground on a front-runner that was not stopping. That unwavering forward focus is a crucial skill for Group Herd Dynamic closers to be effective. This was a very good runner-up effort and not a herd dynamic defeat. He still had gears left at the wire. We think he would roll by Matt King Coal at distance beyond 1 $\frac{1}{16}$ miles.

The inner track at Aqueduct is not known for being kind to Group Herd Dynamic closers, and that makes his performances there over the winter that much more impressive.

In his final Derby prep, Sam shipped to Kentucky and stepped up to Grade 1 company in the Blue Grass Stakes. Breaking from a very tough #14 post, he managed another 2nd-place finish while looking like a horse who will relish more ground.

We did not like the ride he got from Julien Leparoux in the Blue Grass, specifically the decision to choke him back, keeping him in last place as the field was on the first turn approaching the back side. The rider applied stress there needlessly and gave Sam a lot to do. This is not a horse that needs a heavy hand telling him to conserve energy. He does that on his own, working through his gears in a very natural progression. Sam can make incremental moves, and the rider should take advantage of that. This is not a one-run closer that needs to come from dead last on the far turn. He is more versatile than that.

Regardless of the ride, Sam put in a wide, sustained run in the Blue Grass. He was relentless in edging out Cherry Wine for second, but did not threaten the winner Brody's Cause. My Man Sam is still improving, and based on his finishing energy in the Blue Grass, we think he is going to love 10 furlongs.

Sam has a high-functioning GHD and a nice series of IHD gears. He molds to environmental changes in herd chaos and has some very impressive forward traits and determination.

My Man Sam is a gutsy, youthful, improving horse with a versatile, efficient sensory system. With only a maiden win and just four lifetime starts, it is hard to say if he is quite ready to win this Kentucky Derby. But he has handled everything thrown at him so far, and we think there is a good, classic-distance horse here with the tools to make a good showing in Louisville.



SUDDENBREAKINGNEWS

Mineshaft – Uchitel, by Afleet Alex

Once he finds his top gear, Suddenbreakingnews is one of the smoothest, most powerful movers in this field.

Watch his stretch run in the Southwest Stakes (G3), and you will see a freight train of a horse that covers ground very impressively.

Even when he finished 5th in the Rebel Stakes (G2), note the stride length and forward efficiency he moves with once he switched over to his right lead in the stretch drive. This is a very impressive, nice moving horse.

But as good as he looks in his best moments, Suddenbreakingnews has been inconsistent.

In his breakthrough win in the Southwest, Suddenbreakingnews was dead last of 14 early and 12th, 8 ½ lengths behind, through six furlongs. We were really impressed with his forward focus and determination the way he built momentum while 6 or 7 wide on the turn, cut the corner, and blew by 11 opponents through the drive.

That was an excellent sustained rally (:25-3, :23-3, :24-3, :31-2) that showed an unwavering forward target focus. Unfortunately we have not seen him put it all together in a seamless sequence again.

In the Rebel, Suddenbreakingnews tried to repeat that pattern of motion, but he lost valuable time and momentum when checked on the turn just as the other Group Herd Dynamic closers Creator and Cherry Wine were launching. Suddenbreakingnews is not the type of horse who stops and starts very easily. He moves with somewhat heavy emotions. He is strong and powerful and he builds like a freight train moving downhill. We think he is better than that 5th-place finish.

In the Arkansas Derby (G1), Suddenbreakingnews showed higher energy at the start. Although his pattern of motion has been to settle at the rear of the pack, we see little signs here and there that he may be capable of a slightly different running style (more on that later).

We liked that Suddenbreakingnews was not dead last on the backside. And rider Luis Quinonez had the right idea – he wanted his mount to move before the field hit the far turn -- but Suddenbreakingnews did not give the desired response. When Quinonez asked him again, his mount leaned into Whitmore and idled, as the winner Creator blew by on the inside.

Moving out widest of all turning for home, Suddenbreakingnews finally got into gear around the quarter pole. He passed nine horses in the lane to get up for second, but he couldn't quite pierce Creator's space.

We have no problem with Suddenbreakingnews moving up in distance to 10 furlongs. There is a good chance he will benefit from added time in motion.

We love his strengths, but we also have seen some traits that could cost him, including delayed transitions and reactionary responses to herd chaos. Sometimes he appears stuck in place, other times forward, strong and smooth as silk.

It has been announced that Suddenbreakingnews will wear a shadow roll in the Derby. For people like us who pay close attention to how equipment can affect a horse's sensory system and pattern of motion, this was potentially big news.

We watched the video of his workout at Churchill Downs on April 29, and we were intrigued. Suddenbreakingnews appeared responsive and very forward wearing the shadow roll. His energy burn also appeared higher.

Without doing a personal inspection of Suddenbreakingnews to assess his sensory system or a chance to see him wear a shadow roll in a race, we don't know how it will affect him in the Kentucky Derby. It certainly made him look appealing in a workout going five furlongs all by himself. But there is a big difference between that and a 10-furlong race in a field of 20 horses.

Even before the equipment change, we gave Suddenbreakingnews an outside shot to win this Derby. There is a chance the shadow roll will free him up, improve his launch and/or make him a more forward, free-flowing horse. That would make him a very strong contender here. But keep in mind there is usually a tradeoff when you use equipment to alter a horse's sensory perception.

The shadow roll may make him a more, forward, efficient horse, and it could even alter his running style and/or change his energy distribution. For every action, there is an equal and opposite reaction. The problem with making an equipment change in the Kentucky Derby is that this is not a race where you want your horse learning a new pattern of motion on the fly.

Suddenbreakingnews is one of the biggest wildcards in this Derby field.

MO TOM

Uncle Mo – Caroni , by Rubiano



We cannot recall seeing a horse that has had more traffic trouble and still qualified for the Kentucky Derby than Mo Tom.

If not for moving roadblocks, Mo Tom would have run much faster – he should have been right there with Gun Runner at the finish -- in the Risen Star Stakes (G2) and the Louisiana Derby (G2). And in both cases he recovered well, regathered his momentum and fought hard through the wire, earning just enough Derby points to qualify for this field.

On the other hand, this rider (Corey Lanerie) and horse combo has made a habit of finding trouble and under-achieving. We can watch his races and say, “He could have done this, or he would have done that if not for...” but the fact is he didn’t do those things.

There appears to be a classic-distance Herd Dynamic profile here, but he hasn’t been able to operate at full efficiency for a while.

Despite some running lines that suggest a last-to-first, deep closer, Mo Tom is no plodder. He actually has a nice series of gears. He won his debut sprinting at Ellis Park last September. Checked pretty hard early, he settled about three lengths back of the leaders. He launched on the turn into some chaotic traffic, split horses and found another gear to get the win. He put together some nice sequences there despite a less-than-perfect trip.

In his first race against winners Mo Tom finished a closing third in an allowance race at Keeneland. He was too far back to win, but his internal fractions of :24-1, :23, :23-4 were good. This rhythm needs more time-in-motion against fast horses. He galloped out very strongly.

That race served as a stepping stone to victory in the Street Sense Stakes (1-turn mile at Churchill Downs). Mo Tom stalked the front flight from 7th place, spun out wide turning for home and ran past them all. We liked a lot of things about this performance – including his Group Herd Dynamic interpretations and steady rhythm. His internals of :23-3, :23-1, :25-2, :24-3 were really nice. Note the underrated early cruising speed and the late acceleration.

Next, Mo Tom stepped up in class and tried two turns in the Kentucky Jockey Club Stakes (G2). He was 12th of 13 early, running his usual GHD closing style. This was a very interesting race, especially viewed in context with Mo Tom’s troubled trips in 2016.

Mo Tom started his windup on the turn but checked when #2 Nana Looch drifted into his path. We didn’t love to see all that body language, but he recovered quickly, squeezed past along the rail and continued up the inside through the stretch run.

Around the 1/8 pole Mo Tom was advancing on the leaders Mor Spirit, Gun Runner , and Airoforce, when he bobbed, veering outward. It was fairly minor, but still a strange incident because he was basically alone in space along the rail, getting a nice run at the leaders, who were focused on battling each other.

We don’t know why he did it – wet track, shadows, something in the infield, Lanerie’s whipping? – but it did break his rhythm at an important part of the race. Mo Tom finished third, just missing catching Mor Spirit for second. This was a good performance in one of the best two-year-old race of the year, at the site of the Derby.

Mo Tom built on his two-year-old from in his first start of 2016 when he rallied from 10 lengths back to win the LeComte Stakes (G3) at Fair Grounds. Checked and squeezed back early, he showed good lateral movement and strong late energy.

Then came his two infamous troubled trips. In the Risen Star he checked mid-stretch just as he was getting going. We didn't think this incident was that bad – it looked like a bit of an overreaction to us, but Mo Tom did recover well to finish third. All things considered we thought he was second-best that day to Gun Runner. Mo Tom did gallop out well, and his internals of :25-4, :23-1, :24-1, :31-1 looked very solid.

In the Louisiana Derby, Mo Tom's stretch run (up the inside again) was severely disrupted by traffic problems. Lanerie slammed hard on the brakes twice, yanking his mount's head back and losing all momentum. Mo Tom did a good job re-kicking for 4th place. He easily should have been second and might have given Gun Runner a challenge with a clear path. There is no way to say for sure.

We hate to see a trip like that in an important race. And at this point we wonder if there are trust issues between rider and horse (they stuck with Lanerie in the Derby). These kinds of incidents can turn into negatively associated experiences, leading to sticking points in similar circumstances.

We think Mo Tom can get 10 furlongs, and we see a lot of qualities in him that we like. But we are concerned about his development curve, and we have a question about his close space interpretations. The trouble in Louisiana was legitimate, but his immediate reactions (before the recoveries, which have been excellent) showed more body language and emotion than we like to see from an elite Herd Dynamic horse. And then there was that little bobble in the heat of battle in the Kentucky Jockey Club Stakes for no apparent reason at all.

Will he over-compensate if he gets checked or encounters space infractions in the Derby? And where is Lanerie's confidence level at?

If you watch how Mo Tom handled trouble in his career debut, and then watch the sequences in Louisiana, he hasn't really improved from that standpoint. Mo Tom has plenty of gears, including a good cruising speed and a sustained finishing move, but his time-in-motion experiences have not taught him to be as forward as he could be.

There is a classic distance Herd Dynamic profile here, but it hasn't been able to put together a smooth sequence since mid-January. To win this race, Mo Tom is going to have to skip a step – not just run as well as he should have in Louisiana, but improve off of something he hasn't done yet. Plus, he is going to have to layer over the top of some negative associated stimulus. That is a lot of things to ask for in the Kentucky Derby.

We see Mo Tom as a candidate to close for a piece and having a longshot's chance at the win. But we won't be surprised if he adds another trouble line to his resume.

OUTWORK

Uncle Mo – Nonna Mia, by Empire Maker



Outwork made just one start as a two-year-old, impressively winning a 4 ½-furlong race at Keeneland on April 23, 2015.

The early season two-year-old races are dominated by precocious speed types. They are not the place you would expect a big, tall colt with Classic aspirations to make his first start. Nor would you want it to be the only start of his two-year-old campaign.

But that is the case with Outwork, who certainly stood out that day at Keeneland. Rider John Velazquez – who has ridden Outwork in all four of his career starts – hustled the big dark bay out of the gate and had him under a drive through the opening quarter mile.

Outwork showed a strong Individual Herd Dynamic shift as he moved between horses to take control of the race. You almost have to send hard if you want to win a 4 ½ furlong race, especially with a long-striding horse who wants more ground.

Outwork showed a nice rhythm, a great stride and good body control for an April two-year-old. He won by 2 lengths. Very few horses of his stature would have been ready to deliver this kind of an effort so early.

Outwork was not seen in a race again until February 13, 2016, in a six-furlong allowance race at Tampa Bay Downs. He was a big two-year-old, but he has really grown into something regal at age three.

He appears to be a good gate horse, but his rhythm can be slightly rushed early. Nevertheless he was quick enough to find his way to the front of this sprint race, and once that happened, he had the field dominated. Outwork eats up ground with his long stride and loping rhythm. His transitions were smooth and his release points clean as he put those horses away and drew off for the win.

Outwork stepped up to the Tampa Bay Derby (G2) in his third lifetime start. He finished second, beaten a length by stablemate Destin, but we liked what we saw from him. Outwork broke sharply and controlled his space from the start. His natural rhythms are a perfect fit for two-turn racing.

The Tampa Derby was one of the fastest preps run this year, and in the stretch run it turned into a match race, as Outwork and Destin left the rest of the field far behind.

The head-on view of their battle was very interesting. Outwork drifted in slightly towards the rail in early stretch. From that point to the wire he held an almost perfect line. His head was cocked to the outside, locked on and competing hard with Destin in IHD battle.

Outwork was learning the continuity between his sensory system and body control in a fast race over a route of ground for the first time. Destin, drifting out in the middle of the track, crossed the finish line a length in front of him, but Outwork did not defer. And we don't think 1 1/16 miles is necessarily a distance wall for Outwork. We think this was a good growth race for Outwork. We also think that effort was harder on Destin and give the nod to Outwork in the rematch.

Outwork's final prep for the Kentucky Derby came in the Wood Memorial Stakes (G1) at 1 1/8 miles on a sloppy track. Breaking from the outside post in a field of eight, he had a brief bobble at the start but recovered quickly and went to the front end. From there he engaged in a wicked IHD pace battle with Matt King Coal.

Outwork operates very efficiently in high-end cruise control. He won the IHD battle up front and hung on gamely for the win over the maiden Trojan Nation, who had the benefit of running a deep-closing, Group Herd Dynamic pattern of motion in a very fast paced race.

That was the closest thing to panic we have seen from Outwork. He definitely knew he was in deep water. He was a little wobbly late. On the bright side, he battled on gamely even when physically tired, and he lasted for the win. But he was out of gears at the finish. He will have to improve his energy distribution going another furlong in the Kentucky Derby.

Outwork has gone to the lead in all of his races. Has he been taught to go to the lead at all costs? He is clearly IHD-shifted, and he may be a single-target-focus horse, but his rhythm is methodical and he has processed herd chaos very efficiently in every scenario we have seen him in. We sure wish they had given him a race where he sat behind horses, as that would give us a better read on his Group Herd Dynamic and given him vital practice.

Although Outwork has not demonstrated much versatility in his pattern of motion thus far, he has been executing it under increasingly difficult scenarios. He deserves a lot of credit for that. This is a very lightly raced horse that is still improving. He may not have shown all his cards yet.

Outwork has a strong Herd Dynamic profile (we think he could possibly be a sneaky horse for the Belmont Stakes). We think he has a reasonable chance to get 10 furlongs, but getting it 100% right the first time he tries it, in the Kentucky Derby, is a big task.

MOR SPIRIT

Eskendereya – Im a Dixie Girl, by Dixie Union



Mor Spirit is a gritty, physically talented colt, who sometimes is a little too methodical.

We have seen him work fast in the mornings, but we also have seen him virtually pull himself up in a work, deciding he doesn't want to run.

He has probably been a challenging horse for trainer Bob Baffert, who is seeking his fifth Kentucky Derby victory.

Baffert has outfitted Mor Spirit with blinkers and a shadow roll since his debut. (He also wears ear plugs at times.) We would love to inspect Mor Spirit in person, sans equipment, and see the horse behind all that sensory tinkering.

We have seen various versions of the blinkers, including a quite restrictive blinker that Mor Spirit wore in a fast-early, slow-late five-furlong workout at Churchill Downs on April 26. That was probably a little bit too much sensory funneling.

We don't know exactly what version of those blinkers Mor Spirit will wear on Derby day, but we trust Baffert to make the right call as he tries squeeze a quirky horse's sensory system forward just the right amount in an attempt to get the best combination of forward efficiency, space awareness, and responsible energy distribution.

All the equipment in the world won't make a difference if there isn't a talented physical athlete to begin with, and Mor Spirit definitely is that.

One of our favorite performances came in defeat when he finished second in the Kentucky Jockey Club Stakes (G2) at Churchill Downs last November 28. Following a solid maiden win in his second lifetime start at Santa Anita, Baffert shipped Mor Spirit to the site of the Kentucky Derby, where he faced a very good 13-horse field that included Derby horses Mo Tom, Gun Runner and Tom's Ready, plus the enigmatic but talented Airoforce.

The race was conducted on a sloppy track and was a hard-fought, demanding contest from start to finish. Mor Spirit got in a bumping contest with Tom's Ready at the start, but with rider Martin Garcia urging him to go forward, he came through and secured a pace-pressing trip.

This race featured a great stretch drive, and Mor Spirit held off everyone until the final sixteenth when he could not contain Airoforce. It was a commendable, gritty effort, and he left it all on the track that day, barely holding off Mo Tom's charge for second. We thought the Kentucky Jockey Club was the second best two-year-old race of 2015 (behind the Breeders' Cup Juvenile).

Mor Spirit, as outfitted with blinkers and shadow roll, is tilted toward the Individual Herd Dynamic and is almost running in a tunnel in terms of his herd awareness. He moves with a low head carriage and just methodically does his thing.

Mor Spirit returned to California and posted a pair of developmental wins in the Los Alamitos Futurity (G1) and the Robert B. Lewis Stakes (G3). Gary Stevens, who had ridden Mor Spirit in his first two starts, was back on board and we really like how Stevens was able to win both of those races while also coaching his mount and not getting to the bottom of him.

Mor Spirit wanted to go into an IHD drive and challenge for the lead early at Los Al, but Stevens made him wait. It looked like that lesson was well learned when Mor Spirit again rallied for victory in the Lewis, with a very smooth, efficient, easy victory.

Mor Spirit's internal splits in the Lewis of :24, :24, :24-2, :30-3 were excellent. The way he finished that race, it looked like Mor Spirit would relish distances beyond 1 1/16 miles.

At that snapshot in time we really liked Mor Spirit's profile for the Derby. But his development has flattened out in his two most recent races, when Derby winners usually are making big strides.

In the San Felipe Stakes (G2), Mor Spirit was a little too keen early trying to keep up with the leader Danzing Candy, and Stevens had to jam on the brakes twice. Mor Spirit settled in 5th place, 6 lengths back.

Exaggerator (who moved way too early there) went by him, but Mor Spirit would overtake him before the wire to finish a non-threatening second, two lengths back of Danzing Candy. We have used the word methodical a lot in this report, and we use it again here to describe Mor Spirit's pattern of motion, right down to the way he moved off the rail to find room in late stretch. This is a sturdy, steady moving horse, fairly fast in a straight line, but his sensory transitions looked a little sluggish when he was asked to move laterally and multi-task.

The Santa Anita Derby was run on a sloppy track, and we thought Mor Spirit handled it fine, just as he did at Churchill last fall. Mor Spirit and Stevens worked out a pace stalking trip, five lengths behind a very fast pace set by Danzing Candy.

He was just getting into his grinding rally on the turn when Exaggerator blew by him and ran off to win by 6 lengths. Absolutely coated in mud, Mor Spirit showed grit to pass Uncle Lino for second. We thought Mor Spirit ran his race there, but his lack of extra gears was exposed.

Mor Spirit is a very even, grinding runner. He gives it everything he has got from start to finish. We think he will stay 10 furlongs. Given all the equipment he wears and based on his behavioral traits and sensory system, we wonder if he has the mental dexterity to efficiently move laterally or hit a quick hole in the Derby.

Mor Spirit was in between a rock and hard place in the Santa Anita Derby – not fast enough to match strides with elite IHD early speed, and lacking the gears to hold off a high-quality late closer. We think the Kentucky Derby could unfold in similar fashion.

Lacking the dynamics of Baffert's previous Derby winners – Silver Charm, Real Quiet, War Emblem, and American Pharoah – we think a minor award is probably the ceiling for Mor Spirit.



DESTIN

Giant's Causeway – Dream of Summer, by Siberian Summer

With consecutive victories in the Sam F. Davis Stakes (G3) and Tampa Bay Derby (G2), Destin comes into the Derby with a fairly strong resume, but there is a hitch.

Destin's human connections decided to sit out the final round of preps and train him up to the Kentucky Derby on an 8-week layoff. Reportedly this was done with an eye on Destin's speed figure progression. The Tampa Derby was rated very highly by most major speed figure makers. The working theory is that Destin would need time to recover from such a big effort to avoid a performance bounce in his next start.

From our standpoint of Herd Dynamics and sensory efficiency, we would have liked to have seen another race for him. Destin has only run five times in his career, and when blinkers were added in his third start, Destin had to re-learn a lot of things. And while Destin has accomplished a lot in five races, he is still very much a work in progress on Herd Dynamics.

Destin debuted on October 11 at Belmont Park going 7 furlongs. He rubbed up against the gate at the start, but came out running along the inside. He was just a gear or two below an all-out send for the lead. Then four horses came over, pushing him back behind a wall. He settled into what we call a high-revving Group Herd Dynamic mode. This is the running style of a pace stalker/presser – not going all out for the lead, but still revving high enough to be involved with the front of the herd.

Destin had to wait behind horses and come through a gap to get the win. He was definitely a little green – his space awareness was a little shaky, and the transition was not smooth – but this was his first race, and he got the job done. His finishing energy and rhythm were very good as he crossed the wire.

Destin ran in an allowance race at Gulfstream Park in his second start. He was crowded at the start but showed a good forward reaction to the trouble and was pressing the pace early. What happened next probably had something to do with the decision to add blinkers.

Destin's forward focus began wavering around the half-mile mark. It looked like jockey Javier Castellano would have liked Destin to go after the leader at that point, but Destin got stuck in no man's land as #2 Pilot House crowded him a bit. When a horse is stalking the pace and dealing with traffic, we like to see some sign that they are interpreting things. Destin had his ears pinned, and he was in a very reactive mode, briefly stuck to the flank of Pilot House.

As Pilot House tired, Destin still did not release and return to forward focus, instead connecting with a horse coming up on his outside (#1 Sumter). He finally released very late and he was cutting into the winner Golden Ray at the end, but he crossed the line 2nd, beaten 1 ¼ lengths as the heavy .30-to-1 favorite.

This performance raises some questions about Destin's sensory efficiency. Is there a functioning Group Herd Dynamic here? Something caused him to get stuck mentally there for a couple furlongs, and it really hurt his physical efficiency.

Blinkers were added for his next start when Destin shipped to Fair Grounds for the LeComte Stakes (G3). Sometimes it takes a race (or more) for a horse to adjust to blinkers, and Destin really struggled with his space awareness and limited vision field.

His break from the gate was good, but from there he became lost, stuck in GHD mode trying to survey and understand his environment. He did not resume driving forward into space until way too late. He crossed the line 4th, 5 lengths behind Mo Tom, but he did finish and gallop out well. Draw a line through that run.

In his first race with blinkers on, Destin's GHD was not functioning properly. In IHD drive, he looked very good and efficient, but his transition came way too late. The LeComte essentially restarted his sensory growth patterns as a racehorse.

Destin's next race was the Sam F. Davis Stakes (G3) at Tampa Bay Downs, where he faced only five opponents. He broke a little flat-footed and was not interpreting well at the start. He is not great when held up behind horses. But once the rider steered him to the outside he settled nicely in stalking position.

Destin's rudder can leave the water in some situations. When it was time to go after the leader Morning Fire on the turn, Destin struggled to target forward. His body was moving, but his mind was floating laterally as he was trying to reach out to his oblique to feel Rafting approaching.

When Destin finally released and refocused forward, he drew away from those horses. This race looks good on paper, and the time was fast, but that was more of a sensory struggle than it should have been.

Destin took another step forward in the Tampa Bay Derby, running a fast time and beating a good field. But again under the Herd Dynamic microscope we see some things that could present a problem in a race like the Kentucky Derby.

Without blinkers Destin had some holes in his Group Herd Dynamic. The blinkers funnel him more into Individual Herd Dynamic mode, where he is better, but they also make him more one-dimensional.

Destin did a good job of squeezing forward through some chaos at the start. That allowed him to work out a limited stimulus, pace-pressing trip while outside in the clear.

He and Outwork engaged in a really intense stretch battle that ended with Destin crossing the line a length in front, and a seven-length gap from Outwork back to the rest of the field. This was a fast race, and Destin delivered some serious sustained pace (:24-2, :23-3, :23-4, :31-1).

Watching the head-on view we see that each time Castellano hit Destin left-handed, he floated a couple paths. There was not a lot for Destin to interpret at that point in time – an opponent battling him from the inside, his own jockey urging him on, and a whole lot of open space. Destin should have been able to interpret that scenario without drifting 5 paths out.

Destin is obviously a very fast horse, and he is improving. But we don't fully trust this profile in a race like the Kentucky Derby. There is a good chance his sensory interpretation issues will lead to less than optimal physical efficiency and/or increased energy burn as he attempts to go 1 ¼ miles in a field of 20 under the Twin Spires.



MOHAYMEN

Tapit – Justwhistledixie, by Dixie Union

Mohaymen is a gritty, Individual Herd Dynamic fighter who wears his heart on his sleeve.

He has two primary modes: competing and waiting to compete.

Things were going really well for him through five starts. He had ground down every opponent he looked in the eye and was undefeated heading into his final Kentucky Derby prep, the Florida Derby (G1).

Everything appeared to shape up to Mohaymen's comfort zone that day, until he tried to pass the leader Nyquist turning for home. It didn't take long for Mohaymen to sense that he had never met a horse like that before. A stressed, beaten feeling hit him pretty quickly.

We saw the Florida Derby as a clear herd dynamic defeat. Two previously undefeated IHD fighters met on the track, and one of them had to lose.

Mohaymen was left wobbly in Nyquist's wake. He floated laterally, gave up on challenging Nyquist, and drifted into Fellowship (whom he had handled easily on two previous occasions). He faded back to 4th place, beaten 8 lengths. It was the first and only time we have seen Mohaymen release a target in defeat.

So what are Mohaymen's chances in the Kentucky Derby? As long as Nyquist is in this field and in top form, not that good in terms of win probability. There can only be one best IHD horse, and we remain in Nyquist's corner for this rematch.

But if Mohaymen can avoid going eye-to-eye with Nyquist too early, we think he can compete here, as he is a very good horse overall. And the Florida Derby was run on a track rated good. We don't think that explains his loss, but it could have been a contributing factor to him burning out.

When he is behind horses, Mohaymen is always in chase mode. That is good in terms of keeping him engaged and forward. But it could hurt him against elite horses in a strongly run race, especially going 10 furlongs, where energy distribution is important.

Mohaymen definitely has that intense, high-revving mind that Tapits often possess. He also has the great physical ability and depth of emotional energy Tapits are known for.

Every one of his races, until the Florida Derby, was impressive. But note that none of the horses he was beating are considered top members of this crop.

The Remsen Stakes (G2) at 1 1/8 miles was probably his best pattern of motion in terms of getting the Derby distance.

Rider Junior Alvarado pulled him out of the battle for the early lead and asked him to settle. Mohaymen obeyed, but even when waiting behind horses, he still shows a big IHD shift.

It is not that Mohaymen does not have a Group Herd Dynamic. He shows good space awareness, interprets stimulus efficiently and moves with a herd adeptly. But GHD is not his primary mode of moving. He doesn't see himself as just another horse in the herd. He wants to lead or he wants to target the horse in the lead.

Mohaymen split horses nicely in the stretch of the Remsen. When it is time to go forward, he pins his ears and goes. He savors a challenge.

His internals of :49-3, :24-3, :24-2, :12-1 look solid for adding more ground, but note he was up close to a slow pace there. That is the best case scenario for a forwardly placed horse trying to stretch his distance potential. At least he showed that if he makes an effort to conserve energy, it will be there later when called upon.

He proved that again in his three-year-old debut in the Holy Bull Stakes (G2). Mohaymen broke a little slowly in the Holy Bull and against sat just behind the leaders, who were setting a slow pace. About a half mile through the 1 1/16-mile race he split horses and took over.

Mohaymen made a really nice transition and a smooth, athletic lead change in the lane. He had a very driven expression on his face as he shifted into top gear. This was an intense, powerful run. His internals of :24-4, :24-2, :23-2, :29-3 show he did his best running in the second half of the race.

Trainer Kiaran McLaughlin, his staff, and Alvarado have done a good job teaching this intense-minded horse to distribute his energy as responsibly as he can.

In the Fountain of Youth Stakes (G2) Mohaymen handled an outside post and a short run into the first turn (though we note he has never run in a field bigger than 10, and his races have averaged just 7.7 starters). Bumped and carried out wide, he was in 5th early, but showing an intense forward focus. He doesn't easily come out of chase mode.

Mohaymen methodically and relentlessly took charge of the Fountain of Youth. He had Zulu beat at the quarter pole, but notice how Mohaymen ran through the wire, his ears pinned flat to his head even when Alvarado was easing him.

There aren't a lot of holes in Mohaymen's sensory system. He will physically tire faster than he mentally tires. But once the wheels come off, they could come off quickly. Mohaymen developed quickly, but we have not seen much growth lately, and he is coming off a big herd dynamic defeat.

We think the Derby distance is probably right at the high end of Mohaymen's range, largely because of his emotional conformation. It is hard to move with that kind of intensity for 10 furlongs. With the right trip vs. the right opponents, he can do it. But we don't think he has much room for error in Louisville.

We also have some concern about how a horse this intense will hold up under Derby day stimulus during the leadup to the race and in the starting gate. When his body isn't moving, his mind is still spinning. That creates a chance for uncontrolled motion when he first gets to move or changes gears. The longer Mohaymen stands in the starting gate, the more chance he has of breaking inefficiently. And as a target-oriented, IHD-slanted horse, Mohaymen may not respond well if he breaks poorly and gets buried in Derby traffic.

WHITMORE

Pleasantly Perfect – Melody's Spirit, by Scat Daddy



When we identify sensory inefficiency in a young horse for a client, we always point out that there is good news and bad news.

The bad news is that your horse has a sensory issue that is negatively affecting its performance.

The good news is that if that sensory issue can be addressed, your horse is capable of improvement.

Unfortunately for Whitmore and his supporters, there is additional bad news in this case. Whitmore is about to run in the most demanding race in the world when it comes to sensory efficiency.

Whitmore's physical talent and his mental quirks were apparent in his debut at Churchill Downs back on November 6. Stalking the pace from third place while revving hard, Whitmore took the lead at the head of the stretch with his ears pinned stiff.

Even before jockey Didiel Osorio hit him left-handed, Whitmore anticipated the move and started drifting out. He veered out sharply several more paths at the crack of the whip. From that point on he weaved in and out and back in, all the while putting seven lengths between himself and the rest of the field!

Based on the debut, Whitmore showed a lot of Individual Herd Dynamic energy, limited Group Herd Dynamic awareness, and some clear behavioral overcompensations. You have to be careful how much pressure you put on horses with this mindset. They react first, and figures things out later. That can lead to trouble.

No doubt encouraged by a very fast debut win, the connections probably chalked up all that drifting to first-race greenness. They took a shot, shipping Whitmore to Louisiana for the Delta Jackpot (G3) for his second start.

The Jackpot was run over a muddy, sealed track. Whitmore stayed in the race physically for five or six furlongs, but he was struggling to interpret his environment. He stalked the pace of Exaggerator but faded when asked to split horses at the top of the far turn. He did not have much left in the lane and finished 5th, beaten 14 $\frac{3}{4}$ lengths. Whitmore is better than that. Something caused him to burn out early.

When Whitmore made his three-year-old debut in an allowance race at Oaklawn Park on January 16, he was outfitted with blinkers. The result was interesting.

Sandwiched at the start, the rider hit the brakes four or five times to stop Whitmore from running up onto the leaders' heels. He finally settled along the rail and turning for home, shot up the inside to win by 3 $\frac{1}{4}$ lengths. This was a very intense run, highly inefficient but impressive that he had so much run left after having his momentum interrupted repeatedly and being forced to wait behind horses. It was a fast race, and Whitmore's internals of :22-3, :23-3, :24-3 were strong, though certainly not the stuff of classic-distance energy distribution.

Whitmore embarked on the Derby trail in the Southwest Stakes (G3). Mike Smith, who was on board him that day, was the latest jock to find out that Whitmore is not an easy horse to ride. Whitmore hopped at the start and had to be checked when trying to advance up the inside heading into the first turn. Smith was doing his best to get Whitmore to relax on the backside, checking him multiple times.

No doubt growing tired of using the brakes, Smith tipped him out five-wide midway around the far turn and pushed the button. The response was impressive as Whitmore ran down everyone to grab the lead around the sixteenth pole. But he only held the lead for a couple of strides as Suddenbreakingnews rolled by on the outside.

Considering his ground loss and how many times he had his momentum interrupted, this was a very big run from Whitmore. But sensory efficiency issues abounded as he continued to struggle to interpret the herd around him, responsibly negotiate traffic and dole out his energy.

Another new rider (Irad Ortiz Jr.) got on board Whitmore in the Rebel Stakes (G2). Ortiz was trying very hard to rate him as he ran up behind horses on the backside. All things considered, Ortiz worked out as good of a trip as we have seen Whitmore get, but there was still plenty of weirdness.

Ortiz and Whitmore made a nice lateral move on the far turn to get out from behind a wall of horses and launch at the leaders. Turning for home he was in the three path, but he drifted out in early stretch then veered back inside. It still looked like Whitmore might have the race won inside the eighth pole, with only the pacesetter Cupid left to pass, but Whitmore hung late. Cupid was pulling away again at the wire. It is likely that the energy he needed to put away Cupid had been tapped into already.

Whitmore's final prep – the Arkansas Derby (G1) – was another eventful experience. Squeezed back early (he may have clipped heels?), Whitmore struggled with his space awareness. His mind and body often are not quite in the same place, and he found himself in 10th place early. Given the fast pace up front, that wasn't a terrible place to be, even if it wasn't by design.

Whitmore put in another big 5-wide launch on the turn (he looks pretty strong on any of the performance figures that include ground loss!). But his bid for herd leadership ended in early stretch when Creator came up on his inside, crowded him to earn a path, and rode on to victory.

Whitmore ran on but was passed by Suddenbreakingnews late. To us that looked to be the upper end of his distance range at this time.

Whitmore is a physically talented colt that lacks the supporting cast of an efficient sensory system or successful pattern of motion. That makes him reactionary, a trait that does not play well in the chaos of the Kentucky Derby.

All these difficult, eventful trips have not been coincidence. With Ortiz choosing to go with My Man Sam, Victor Espinoza will ride Whitmore for the first time in the Derby. He will be his fifth rider in his seven career starts. We hope he gets a good scouting report.

As tempting as it is to imagine how well Whitmore might run with a smooth clean trip, we can't trust this profile in the Kentucky Derby.

MAJESTO

Tiznow – Unaccloud, by Unaccounted For



Majesto scores highly in a whole bunch of Herd Dynamic categories that are important for the Kentucky Derby.

He has a well above average Group Herd Dynamic. He moves well in a crowd. He doesn't waste energy, and he looks like a stayer.

But there is one big problem here. We don't see enough consistent strength in his Individual Herd Dynamic. We don't see the killer instinct it takes to win a Kentucky Derby.

Majesto's second lifetime start (GP, 12-12-15, Race 1) is recommended viewing. It illustrates many of Majesto's Herd Dynamic traits. It actually was one of his better efforts.

Rider Edgard Zayas asked Majesto for speed at the start, really getting into him. Like most GHD-slanted horses, Majesto's natural pattern of motion does not involve charging to the front during the early stages of herd movement. Majesto just held his spot, allowing a couple horses to come over on him, squeezing him back on the first turn.

But notice how Majesto didn't lose much ground when cut off. He stayed up in that tight cluster of horses. Moving in a crowd is no problem for Majesto.

On the far turn he crept up on the leader Gettysburg when Majesto seemed to idle slightly. Again Zayas felt the need to really get busy with the whip to urge Majesto to take the lead.

Majesto did pass Gettysburg, a talented colt, but then he himself got pounced on by the winner Neolithic. Majesto didn't shrink up – he fought back a little – but he also did some rhythm matching near the wire, a sign of a horse trying to run with another horse, not trying to pass him.

Still, that was only his second lifetime start, and it was a good second-place finish all things considered. Note his internal fractions of :24-3-, :24-4, :23-4, :31-2 were very solid and indicative of a horse who stayed on well going 1 1/16 miles on the dirt.

Majesto took a step backwards in his third start. He looked fine dealing with herd chaos in close spaces early. He was quite comfortable in this 14-horse field, and he worked out a nice stalking trip. But he lacked a gear change late. Gettysburg drew off powerfully, while Majesto really slowed down. He ran his final three furlongs in over 40 seconds and faded to 6th place, beaten 11 3/4 lengths. He was struggling to keep up – like trying to run 60 mph when he's only in second gear. He was trying to engage in IHD battle when his brain was in GHD mode.

Majesto rebounded in his 4th start to finish 3rd – again showing off a nice GHD, good space awareness and a solid stayer's profile (despite a very wide trip). But watch from the top of the stretch to the wire and you will see a horse who is running with the other horses. Notice how his energy seems to rally after he was passed.

Majesto broke his maiden in his fifth start, and it was a good run. He looks great moving in Group Herd Dynamic mode. He's a very steady rhythm horse. And he beat a very good maiden field. The runners up Dig Deep and Street Gray both returned to win, and Dig Deep is now a stakes winner.

Majesto did float briefly and bump into Dig Deep on his IHD transition. That hiccup just tells you he was doing something that was difficult for him; his space awareness suffers when he tries to funnel his focus into a single target. But the overall performance and result were good. He improved there.

Majesto earned his way into the Kentucky Derby by finishing second in the Florida Derby (G1). He worked out a great trip, looking deft in GHD mode as he handled several tight moments while moving along the rail in traffic.

Turning for home, Majesto was in a strong position to challenge for the win having avoided any space battles and saved every inch of ground along the rail. Meanwhile the leader Nyquist had done the dirty work winning the front-end pace battle and turning back an advance from Mohaymen.

When rider Javier Castellano asked Majesto to go after it, we again saw Majesto's hitch on the IHD transition. He finished strongly enough to hold off Fellowship for second, but he lost three lengths to Nyquist, after nearly drawing even with him. Note that Majesto galloped out after wire very well, as he often does when the pressure is off.

Majesto is improving, and we think he is probably going to get 10 furlongs just fine. He has a bunch of Group Herd Dynamic traits we like. We could see him out-staying many of his opponents. A small share of the purse is not out of the question here. But his Derby ranking lowers considerably because we just do not see him as a win candidate.



DANZING CANDY

Twirling Candy – Talkin and Singing, by Songandaprayer

There are probably, at most, five or six horses in this year's Kentucky Derby field who have a truly elite Herd Dynamic profile. Danzing Candy is without a doubt one of those horses.

Unfortunately, we don't think he is a 10-furlong horse. So we had to drop him way down in our rankings.

Although we don't think Danzing Candy is going to win the Derby, he could have an impact on the outcome. He is this field's strongest and most reliable Individual Herd Dynamic speed presence, to a point. His established pattern of motion is to lead the herd, at all costs, and he is a very talented and fast horse.

Danzing Candy debuted at Del Mar On November 29. He hinted at tons of talent even when finishing 8th. He had a terrible trip – he broke poorly from the rail, rushed up, slammed on the brakes, moved outside and eventually tired.

His second start was something special. Although he broke slowly again, he quickly split horses and took the lead. He was less frantic early, and he settled into a beautiful rhythm on the lead. We love to see a horse leading the herd with relaxed ears, in mental cruise control like that.

This was not ears-pinned, pedal-to-the-medal intensity. He showed a good sense of feel and was responsive to rear pressure. His sensory system was functioning at a high level even when his body was moving at top speed.

Danzing Candy projects and interprets forward space very nicely, and that makes for very flowing, efficient movement. He won by 3 ¼ lengths, and the internal fractions were excellent -- :22-4, :22-4, :24-3, :12-3.

Danzing Candy stretched out to a mile against NW1X foes in his third race, and he delivered another bigtime speed effort. Again, he did not break all that well, but he recovered instantly.

This is an edgy, competitive, mentally sharp horse. He loves competing. He relaxed very well on the lead again while showing good ear articulation, surveying the rest of the herd. There is a functioning Group Herd Dynamic in this horse. We like his sense of feel, and he shows no stickiness or attachments to horses in his rear sensory field. He is very responsive to rear and oblique space challenges.

Danzing Candy won the allowance race impressively, by 5 ¾ lengths under a very mild hand ride from Mike Smith. His internal fractions of :23-1, :23-2, :24-2, :25-3 were strong, although they did not suggest anything more than a middle distance (up to 1 1/16 miles) projection.

Next up was the San Felipe Stakes (G2), where basically everything about the profile we had seen so far was confirmed, but against even better competition. Sent out of the gate, he fought hard to grab the lead into the first turn.

As soon as he is in control of the front of the herd, the loose, floppy ears kick in. Danzing Candy has a great rhythm when on the lead. He likes being n front and has no problems at all forging into new space.

He again showed strong rear feel sensory feel, and it does not disrupt forward motion, as it can for some horses. Danzing Candy can multi-task at a high rate of physical speed. This race proved to us without any doubt that he is an elite Herd Dynamic horse, winning by two lengths over Mor Spirit and Exaggerator.

This was a nice win, but note that his internals of :23, :23-1, :24-4, :32 were not screaming out for more distance.

They tried to take the next step in the 1 1/8-mile Santa Anita Derby (G1). This was Danzing Candy's first try on a muddy/sealed track. Smith sent him hard at the start, and he fought to get the lead through a first quarter in :22-1, a half in :45-1, and six furlongs 1:10-1. Those fractions were too intense for the distance, especially over a demanding surface.

Danzing Candy was all-in on the far turn. At the top of the lane, he was trying to fight off Uncle Lino when Exaggerator rendered that battle meaningless, blowing by them on the outside. Danzing Candy finished 4th, beaten 13 ¼ lengths.

Danzing Candy is a beautiful moving horse with an extremely athletic, efficient mental profile. We really like him a lot, but we think he is poorly spotted in the Kentucky Derby. There is more Group Herd Dynamic than meets the eye here, but that is not the area he has been developing in his recent races.

We expect Danzing Candy to have the lead after 6 furlongs and maybe even the 1-mile mark, but we doubt he will have enough left to compete for the win.

TROJAN NATION

Street Cry (Ire) – Storm Song, by Summer Squall



Trojan Nation's second-place finish in the Wood Memorial Stakes (G1) rates as the single biggest upset so far on this year's Triple Crown trail.

We have no idea what encouraged owners Aaron Sones and Julie Gilbert, and trainer Patrick Gallagher to ship their five-race maiden colt from Los Angeles to New York to compete in a Grade 1 race.

But we applaud them, as the trip resulted in a great Herd Dynamic development race for their horse and a spot in the gate for the Kentucky Derby.

Let us re-examine the steps that led a maiden 81-to-1 shot to finish second, missing the win by a head, in New York's most important Kentucky Derby prep.

Trojan Nation debuted on October 10 in a 6-furlong maiden race at Santa Anita. He rallied from 9th place to finish 6th, beaten 4 ½ lengths. He ran a Group Herd Dynamic, closing pattern of motion. He competed well late and looked good on the gallop-out. His internal fractions of :23-3, :23-2, :24-2 were promising. This was a learning race, and Trojan Nation looked like a horse who wanted more distance.

Trojan Nation stretched out to a mile at Del Mar on November 15. He broke excitedly, then settled at his rider's asking. He was a little green with his space awareness as he made the adjustment from sprint herd motion to the more relaxed route speed, but he showed a good cruise control gear once in GHD mode.

His launch into Individual Herd Dynamic was good. He showed that he can release objects in his rear and oblique sensory fields very cleanly. He also appeared to respond well to rear pressure (with a desire to maintain the space, to stay in front). He finished 3rd, beaten 1 ¾ lengths.

Seeing him go two turns confirmed that added time in motion helps him. He was coming in the stretch, but he got cut off. He was learning to compete in this race. We saw no glaring potholes in his mental/behavioral traits, and we liked his sensory awareness.

Trojan Nation did not progress in start #3, finishing 4th, beaten 6 ¼ lengths. He made a good effort, and he did not quit mentally, but he simply got outrun in the lane. His final 5/16 in :33 flat was a little disappointing.

We are not surprised they tried blinkers in his fourth start. Some horses we inspect, we can say with a high degree of certainty they want to be a front-running speed type or they will be more comfortable as a closer. Trojan Nation is a bit of a 'tweener. He is a slightly GHD-shifted horse, but his Herd Dynamic is fairly balanced overall. He has enough IHD energy and physical speed that we could see a large range of possible running styles for him.

The blinker experiment went just ok. He pressed the pace, went to pounce on the leader, but himself got pounced on by the winner Cupid, who drew off by 5 ¼ lengths (Cupid later shipped to Oaklawn and won the Grade 2 Rebel Stakes.)

Gallagher took the blinkers off for start #5. We liked this move, especially when we saw how the race unfolded. Rider Drayden Van Dyke jammed on the brakes right after the break. The message – relax. The move was a bit heavy-handed; it didn't help him win that day, but it re-enforced the pattern of motion they wanted Trojan Nation to execute.

Trojan Nation was 9th and last after a half mile. Van Dyke asked him to run barely past the halfway point of the 1-mile race. That is early, but Trojan Nation responded with a very nice, wide, sustained rally to finish third. There was a slight sticking point on his lead change, but overall this was a good effort, and his internals of :24-3, :24-1, :24-3, :24-3 were promising enough for additional distance.

Finally, we reach the race that landed Trojan Nation in the Kentucky Derby. Veteran jockey Aaron Gryder rode him for the first time that day (and remains on for the Derby). We thought horse and rider got along well, and Gryder can only benefit from having ridden him in New York. He got a feel for Trojan Nation -- his strengths, maybe some little quirks, and how he handled trouble when things got tight along the rail during the stretch run.

The Wood was Trojan Nation's first on a wet track, and he handled the surface well. Gryder checked Trojan Nation early when Tale of S'avall came over. Trojan Nation went along with the plan, relaxing kindly. We like to see the pattern of motion re-enforced like that, so that it becomes almost second nature.

It is less than ideal for a horse like this to fall behind 17 lengths early – Trojan Nation is a grinder when all is said and done, so he has to work for every bit of ground – but the pace was fast in the Wood. And if he is relaxing early that means when it comes time to start grinding, he will have maximum emotional energy to draw upon.

That strategy turned out to be perfect for this fast-paced race, conducted on an uneven, demanding muddy surface. Trojan Nation was still last of eight, about 10 lengths back after six furlongs. Riding the inside of the track, he passed two horses on the turn and came through up the rail, only to be crowded by a tiring Matt King Coal. He worked his way through after almost being stopped, then had to rally up a very tight space inside of Outwork, who did not make it easy on him. Traffic arguably cost him the win, as the winning margin was a head and Outwork was expiring on the lead.

Trojan Nation's internal fractions in the Wood were relatively slow, and he got a near perfect setup to execute his pattern of motion, but he took advantage of it enough to earn his way into the Kentucky Derby.

The Wood should have been a great development race for Trojan Nation. He executed his pattern of motion successfully, dealt with trouble, and was herd leader of a Grade 1 race two strides after the wire. His confidence should be at an all-time high.

We think Trojan Nation can handle 10 furlongs. We also think he will need to take another step forward to even hit the board in the Derby. However, this is a hard-trying, likeable underdog who has some emergent properties. Although not at the elite level yet, he enters the Derby on an upward swing.



SHAGAF

Bernardini – Muhaawara, by Unbridled's Song

Shagaf is a well-bred, impressive physical specimen who has won three of four lifetime starts. Undeclared on a dry fast track, his only loss came in a sea of mud in the Wood Memorial Stakes (G1).

But as good as Shagaf looks at times, we see some red flags here in terms of his chances in the Kentucky Derby. Physically and mentally, it appears there are two different horses here.

Shagaf moves beautifully, his feet just floating over the ground when he is in top gear. He moves like he should be able to run all day, but his psychology and pattern of motion are not fully optimizing that body.

Shagaf debuted going a one-turn mile at Aqueduct on November 22. He was in a high-end Group Herd Dynamic settle, bordering on an Individual Herd Dynamic drive early. His ears were pinned as he took over from the leaders turning for home.

He drew off to win by 6 lengths in fast time, but he did not release the horses behind him. And note the tail stress. He was carrying the same level of intensity on the lead by himself as he was when fighting for space in close proximity to other horses.

It was a strong maiden win, but there were some things that concerned us regarding his efficiency, stress levels and energy burn. Note his internals of :23-4, :23-2, :25, :25-2 were not indicative of a horse who wants to run much further.

Shagaf made his three-year-old debut at Gulfstream Park at that same one-turn mile trip. He had some bottled up energy here off the layoff and was ready to rock n roll. As the gate opened he went right into an IHD drive, fighting for the lead.

He put those horses away impressively but looked a tad shaky late. This race was off a layoff, so he had a right to get a little tired. But again we note his internals of :23-3, :23-1, :23-4, :26-3. He ran a very impressive six furlongs but was quite slow late. And note the stiff tail carriage from the turn all the way through the wire. Shagaf was carrying a lot of stress. The tail is definitely his method of trying to filter it.

Shagaf stepped up to the Grade 3 level next in the Gotham Stakes. He looked a little intense in the gate and broke out running in IHD, but he listened to his jockey' command to take back and settle.

Shagaf looked ok in behind horses. He still moves beautifully, but mentally he is awfully intense for a horse that should be saving up energy. Turning for home Shagaf tipped out three wide and started his bid. He stayed on gamely and gutted out a 1 ¼-length win over Laoban.

Shagaf was gritty in the lane to run down the pacesetter while holding off Adventist on his flank. But we wonder how much more he had. His internal fractions again suggest the profile of an IHD horse who is doing all his best running early (:23-3, :23-4, :24-3, :33-4).

In the Wood Memorial Stakes (G1), Shagaf drew the rail and was checked back early. He entered the backstretch in 7th place, well behind a very fast pace being set by Outwork and Matt King Coal. His forward focus was good, and his physical motion was excellent as usual, but he was chasing with his ears pinned.

Getting a very good trip from a pace flow perspective, Shagaf cruised up into contention on the turn. He had to wait behind horses, then found a seam turning for home. All things considered he got a good trip, but he was unable to take advantage, running his final furlong in over 14 seconds and finishing 5th.

From a positional perspective, Shagaf's most recent two running lines make him look like a GHD stalking type, but if he were a GHD, classic-distance horse, the Wood Memorial was there for his taking. He did not follow through.

Shagaf has considerable physical talent but he is struggling to find his best pattern of motion. This is a hard trying horse who, for some reason, has been underperforming and carrying some stress. We see potential here, but considering his energy distribution in his races to date, we don't like his chances under Derby day pressure or stretching out to 10 furlongs at this point in his development.

LANI

Tapit – Heavenly Romance (Jpn), by Sunday Silence



Horses prepping for the Kentucky Derby in Dubai come with a lot of question marks and a track record as also-rans in Louisville.

No horse exiting the UAE Derby has hit the board in the Kentucky Derby, much less win. Of course when the right horse comes along, like all stats, this one will tumble. But we doubt that Lani, the Japanese-bred son of top American sire Tapit, is the one to do it.

We ranked last year's UAE Derby (G2) winner Mubtaahij 5th in our Derby report, highest ever for a UAE Derby winner. We saw some quality in him, and although he ran 8th in the Derby, he did somewhat validate that ranking later when finishing a solid 4th in the Belmont Stakes (G1) and then second behind California Chrome in the world's richest race the Dubai World Cup (UAE-G1).

We don't like Lani nearly as much. It is not that there isn't quality here. But we question if he is ready or suited for what he is going to face in Louisville.

This year's UAE Derby featured a field of just seven horses and was run at a very slow pace. Pace is always a concern when foreign horses try the U.S. dirt for the first time, as few races anywhere can match the grueling intensity of top-level American dirt racing.

Lani was unfocused in the gate before the UAE Derby and stumbled badly at the start. He fell back to last place but recovered quickly.

Lani moves very methodically yet runs with a strange Jeckyl-and-Hyde intensity. He made an early, mid-race move up into contention. That move is easier to make when your competition is crawling. It would be much more taxing on his physical body and sensory system to do that in the 20-horse Kentucky Derby field.

Lani won the UAE Derby by staying on. It was a strange stretch run, as he did not look like the winner around the 200m mark. But he proved best by $\frac{3}{4}$ length over the filly Polar River.

Lani is oddly non-responsive at times to urging from his rider and to other outside stimulus, including horses. His response times to stimulus are much slower than we would expect from a Tapit.

This is a very unique profile. Lani has quite a bit of Individual Herd Dynamic fight and intensity, yet his psychological rhythms are very methodical. He is a strange mix of dynamics. More often than not, we think he acts like a long-distance horse.

Most of his Japanese races are on YouTube. His maiden win on November 22 came against 15 horses and was done with emotional ease. He was stalking/pressing what appeared to be a slow pace for most of the race. His ears were floppy and he was not carrying much stress. His transitions looked smooth. For a Tapit, whose progeny can be high-strung, he looked extremely methodical. We wonder what he beat there, as the video made him look like a super horse.

He stepped up and faced another big field just six days later in the Cattleya Sho. Breaking from the 15-post, Lani was in last place early, but he made a huge, wide move to pass the entire field.

His ear was stuck to one of his challengers during the stretch run. He was still moving methodically, but he showed a single target, Individual Herd Dynamic mode there. He wanted a close-space fight. This is a competitive minded horse, but he doesn't always show it.

In the Hyacinth Stakes we got to see him try mud over the distance of 1600 meters. Lani made a big, loping, 6-wide, mid-race move, almost got his head in front, but then faded to 5th place. He ran with a lot of internal intensity there and came up short. He seems better suited to a longer, more methodical pattern of motion.

Lani's Group Herd Dynamic skills remain a bit of mystery to us. In the race footage we were able to find, he has always made big sweeping moves around the outside of horses. He has faced big fields, but we have never seen him between horses, waiting, or picking his way through traffic.

Lani is obviously talented. To us he appears to be a methodical, staying type, so 1 ¼ miles should be fine. The challenge will be the faster physical pace and higher herd dynamic opponents than he has ever faced. His behavioral inconsistencies and a pattern of motion that is unlikely to work under new conditions are causes for concern.

TOM'S READY

More Than Ready – Goodbye Stranger, by Broad Brush



Tom's Ready is trained by Dallas Stewart, who recently has earned a reputation for hitting the board in the Kentucky Derby with big longshots.

In the 2013 Kentucky Derby, Stewart trainee Golden Soul finished second behind Orb at 34-to-1. In 2014, Stewart's Commanding Curve finished second to California Chrome at 37-to-1.

Stewart did not have a horse in the 2015 Kentucky Derby, but he returns to Louisville this year with Tom's Ready, who should be in a similar odds range as his previous two party crashers.

Looking back at our profiles, we liked Golden Soul's Group Herd Dynamic and his transitions, but we didn't see enough overall strength in him. We were more on board Commanding Curve. We liked him going to 10 furlongs, and noting his positive growth pattern, we gave him a realistic chance to finish in the money.

If Stewart crashes the trifecta again in 2016, it will be his biggest upset yet in our book. We don't think Tom's Ready is a 10-furlong horse, and we see holes in his Herd Dynamic profile that could really make the Derby a difficult experience for him.

Tom's Ready has earned his starting spot under the rules of the Derby qualifying system, so we completely understand why they are taking a shot – especially considering the trainer's recent history of over-achieving. But we think he would be much better spotted in a race such as the Pat Day Mile (G3), a one-turn mile for three-year-olds on the Derby undercard.

Looking at our grades for Tom's Ready, we think Stewart has done a heck of a job earning \$302,220 with this horse and qualifying him for the Derby. He has gotten a lot out of a horse that has some significant efficiency issues.

He probably made the right call when he added blinkers in his third career start. In his first two races, Tom's Ready exhibited several negative efficiency traits that were holding him back. He had trouble interpreting horses on his obliques, he appeared to rely too much on his sense of vision, and he also struggled with forward efficiency. All those issues are still there, but the impact is lessened with blinkers.

He still can move a bit head high, but his forward efficiency was way better as he went wire-to-wire to win a maiden race by three lengths at Churchill Downs on September 26. His internal fractions of :23-2, :23-1, :24-3, :12-3 were solid, and when all is said and done, we might like this horse best right there at that 7-furlong trip.

Tom's Ready took another step forward when he finished second to Mo Tom in the Street Sense Stakes. He was in a pocket for much of the race, including part of the stretch run. The GHD closer Mo Tom got the jump on him, but Tom's Ready chased him home as the top two drew off.

This was a good effort, but note how Tom's Ready drifted down to the rail as he stared at his target Mo Tom. That tendency to run with his head high – what we call a “pressure up” horse – can broaden the gap between what the sensory system is doing and where the body is moving.

Tom's Ready was targeting Mo Tom through most of that stretch run, and as a blinker horse who is borderline eye dependent and lacks multi-tasking skills, Tom's Ready was really staring at his target. His awareness is compromised in that moment, and when the rider went to a right-handed whip, Tom's Ready drifted 4 or 5 paths to the inside away from his target. That is an example of a mind/body disconnect that leads to less than optimal forward efficiency.

Tom's Ready qualified for the Kentucky Derby by finishing second in the Louisiana Derby. He broke outward (he is not the most efficient gate horse) and was head-strong early, but rider Brian Hernandez Jr. did a good job getting him to settle. Tom's Ready needs help from his rider for his space awareness and his energy distribution.

Tom's Ready came through and followed Gun Runner to the wire without threatening for the win. He benefitted from Mo Tom being blocked through the stretch run, as we think Mo Tom easily should have been second there.

Tom's Ready is a hard-trying colt, but because of the gaps in his sensory system, he is always fighting an uphill battle when he gets in advanced herd dynamic situations. He is prone to sensory disruptions, and there will be a lot of potential pitfalls for him in the Kentucky Derby.



OSCAR NOMINATED

Kitten's Joy – Devine Actress, by Theatrical

From maiden claimer to Kentucky Derby starter, Oscar Nominated has come a long way since Ken and Sarah Ramsey claimed him for \$75,000 last October 16 at Belmont Park.

Oscar Nominated is a son of the Ramsey's homebred Kitten's Joy, U.S. champion grass horse of 2004 and a world class stallion known for his ability to sire Grade 1 turf horses. No doubt that was a large part of the attraction in dropping the claim slip.

Oscar Nominated has proven to be an excellent buy, finishing second twice before winning a stake on the grass at Fair Grounds and the Spiral Stakes (G3) on the synthetic surface at Turfway Park.

Turfway tends to favor turf horses much more than traditional dirt. And that is the biggest problem with Oscar Nominated's profile in the Kentucky Derby. He has never run on a dirt track, and everything about his profile screams turf horse.

His presence in the Kentucky Derby is probably even a surprise to the Ramseys. They did not nominate Oscar to the Triple Crown, and thus had to pay a \$200,000 late nomination fee to get into the Derby. Luckily, he had already earned more than that for his new owners.

The claim looked good from day one, as Oscar Nominated broke his maiden by 4 ¾ lengths on the day the Ramseys got him.

He used a Group Herd Dynamic, stalking pattern of motion in the maiden win. Turning for home he lugged in as he took the lead. He definitely wants to look at the other horses sometimes, and it can hurt his efficiency. He has been wearing blinkers since day one, so we don't know if the head gear was amplifying or minimizing the eye dependency. As he was looking outside for challengers, he actually drifted into a horse on his inside.

That was not a clean transition, but he still regathered himself, restored his forward focus and drew off for a big win.

Oscar ran in an allowance race on the Churchill Downs turf in his first race for the Ramseys and new trainer Mike Maker. He looked more amped up from the start here; he was cycling faster as he stalked the pace from a length or two back in 3rd place.

Turning for home Oscar was full of run, but just as he took over from the leaders, he was pounced on from the outside by Bondurant. That is a difficult scenario. Those two battled gamely to the wire, with Oscar coming up short by a head at the finish. That was a nice sustained drive from Oscar, who definitely took a step forward there.

Oscar Nominated spent the winter at Fair Grounds in Louisiana, where he finished second in one minor stakes race and won another. His primary improvement was in the length of time he could hold an IHD drive and the forward efficiency of how he did it. In those turf races, Oscar finished very intensely, he was looking around less, and maintaining his drive through the wire. He was not facing elite Herd Dynamics, but he was definitely making some good strides. He turned into a gritty, professional racehorse with a pattern of motion that complemented his strengths.

Oscar Nominated earned his spot in the Kentucky Derby by winning the Spiral Stakes, continuing to show growth. He worked out a pace-stalking trip that required a fair amount of Group Herd Dynamic efficiency, but he won the race with his trademark, gritty finish.

Oscar Nominated can hit his top cycling speed and maintain it for a long time. He must have a good depth of emotional energy inside him.

Oscar has progressed very nicely for his new owners, but the water gets much deeper now. He is going to have to handle the transition to dirt, and it's going to be a lot harder for him to get his accustomed stalking position in this field. He is going to have to work a lot harder to do everything, and that could potentially draw from his strength in IHD drive.

We think Oscar would have a reasonable chance to handle 10 furlongs on the turf. Asking him to do it on a more demanding surface against Grade 1 horses is another matter. Oscar has made some nice achievements since being claimed, but he is probably in for a steep uphill battle in the Kentucky Derby.

LAOBAN (AE)

Uncle Mo – Chattertown, by Speightstown



If Laoban draws into the Kentucky Derby he will add another Individual Herd Dynamic speed type to the early pace mix.

Some IHD speed horses are born, others are made. Laoban appears to be the latter.

A big, tall colt, Laoban debuted at Del Mar back on November 15 going a mile. He broke poorly from the rail and displayed a herky-jerky rhythm. He looked uncertain moving into space. His transitions were drawn out and sticky. Mentally and physically this was a plodding performance. He finished 7th, beaten 10 lengths.

Trainer Eric Guillot added blinkers in Laoban's second start, and a new horse began to take shape. Laoban went straight to the lead. He was still very methodical, but he was much more forward and aggressive. He battled on the front end and opened up a 5-length advantage in the stretch.

His internal fractions of :23-2, :23-2, :24-3, :25-4 showed he went relatively fast early and kinda slow late. That performance still would have won most maiden races, but Laoban got run down by an above average horse in Let's Meet In Rio (who would be Grade 3 placed in his next start).

The maiden Laoban tried the Sham Stakes (G3) next, but he didn't break well. This big loping mover did not look comfortable at all being jammed up behind horses (keep that in mind if he gets into the Derby), so the rider steered him outside for clear operating room. Laoban managed to finish third to Collected and Let's Meet in Rio despite the early trouble and wide trip.

A cross-country trip to New York for the Gotham Stakes (G3) came next, and Laoban represented himself quite well again. Sent hard from the rail he held the lead until deep stretch when Shagaf finally got by him.

The maiden-in-a-graded-stake tour continued with a try in the Blue Grass Stakes (G1). We saw him in the paddock for the Blue Grass and noted his immense size, some reactive traits and possible sensory interpretational issues that could pose a problem for him in the Derby circus.

Stretching out in distance to 1 1/8 miles that day, he held the lead until the final furlong when Brody's Cause, then My Man Sam and Cherry Wine went by him. As he has been doing in all of these races, Laoban was slowing down late (the price to pay for that extra speed they are squeezing out of him early). He finished 4th, beaten 4 3/4 lengths.

This has been a clever training and management job by Guillot to get Laoban on the cusp of the Kentucky Derby. He has taken a big tall, physically imposing colt with an average Herd Dynamic and turned him into a graded stakes horse.

Through the use of blinkers and perhaps other training, they are cycling Laoban's sensory system up. They are getting maximum speed out of him and taking advantage of his long, loping stride and ability to move at an even rhythm for long distance.

Laoban has developed a pattern of motion that, while not ultra-powerful, has proven useful. He has made some nice strides and we could see him being a presence, and possibly developing more, in the lesser three-year-old stakes later this summer or fall.

As far as the Kentucky Derby goes, if he draws in we think he would have to be sent hard in order to secure a clear trip, and even so he would be in for a very tough fight with the high-level IHD speed types in this field.



CHERRY WINE (AE)

Paddy O'Prado – C. S. Royce, by Unbridled's Song

Cherry Wine was probably on his way to a career as a turf horse when on November 28 his maiden race got rained off the grass at Churchill Downs.

Cherry Wine skipped home by 9 1/4 lengths in the rain and slop, and that result changed the trajectory of his three-year-old campaign. Now he is likely to make his next start in either the Kentucky Derby (G1) or the Preakness Stakes (G1).

Because the big maiden win came in the slop, Cherry Wine still had something to prove when he ran in an allowance race over a fast dirt track at Gulfstream Park on January 9. But there was no question about his dirt racing credentials after the race. Cherry Wine showed great forward extension and a lot of determination as he rallied from 8th place early, moving through traffic. We really liked the transitions in that lateral move he made turning for home and then the follow-through – he drew of by 6 lengths – in the stretch.

When a three-year-old clears his first two conditions by a combined 15 lengths, the next step is usually the Derby trail. Cherry Wine went to Oaklawn Park for a start in the Rebel Stakes (G2).

After being squeezed back by Suddenbreakingnews and Whitmore early, Cherry Wine worked out a decent trip in a big 14-horse field. He rallied from 13th early up to 4th at the wire, 1 3/4 lengths behind Creator for third and a head in front of Suddenbreakingnews (who was carrying top weight and encountered traffic trouble at a key point in the race). It was a very solid, but not quite spectacular performance in his first graded stakes race.

Cherry Wine tried again in the Blue Grass Stakes and did a lot of good things again, bettering his finish by one slot up to third, a head behind My Man Sam and 1 3/4 lengths back of Brody's Cause.

Since his maiden victory, Cherry Wine has been executing a Group Herd Dynamic, closing pattern of motion and showing a lot of good Herd Dynamic traits and sensory efficiency. He has good space awareness and he moves well in a crowd. He is agile, he is forwardly focused, and his transitions are smooth. He has what it takes to run his race in Louisville.

These last couple rounds of Derby preps have surprisingly been dominated by GHD horses; that is rare. And while Cherry Wine has been doing a nice job, he hasn't been the best GHD horse in any of the graded stakes fields he has faced (he's generally been the third best one).

Cherry Wine is a talented horse but at this point in his development, we would rank him just below the best GHD closers in this field. That would make him competitive, but an unlikely winner if he were to draw into the Derby. We are neutral on the idea of him adding more distance. There are little signs here and there in his rhythm that suggest he might be best as a miler down the road, but that jury is still out.

Cherry Wine is a nice athlete, and if we owned him, we would be looking forward to bringing a fresh, live horse to Baltimore.

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 herd motion. He is the founder of the Thomas Herding Technique (THT) and author of *Horse Profiling: The Secret to Motivating Equine Athletes*. Kerry co-founded THT Bloodstock with Pete Denk. For more information, visit www.thtbloodstock.com or follow Kerry on Twitter @thomasherding.

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GLOSSARY

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.

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.

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: 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 race-track.

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

Group Herd Dynamic (GHD): GHD is a horse's awareness of the environment, including the herd around them. GHD goes hand in hand with the ability to interpret 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 usually is integral for a horse to consistently run well through traffic. 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. GHD horses literally feed off of the energy of herd motion and are comfortable letting it unfold over time and distance. GHD horses do not feel an urgency to take control of a herd immediately. Horses with high-functioning Group Herd Dynamics are usually multi-taskers, capable of taking in a number of stimuli at once without focusing too much on any one thing.

Horses with high-functioning GHDs usually have the ability to travel with a herd while rating/conserving energy. For this reason, horses with good GHDs tend to get the most out of their physical bodies in terms of distance aptitude.

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): IHD is the dynamic that involves just the self and a singular target. IHD mode is one-on-one competing mode, hence it is very important in racing. A high individual herd dynamic is integral to being a great racehorse. IHD is the ability to turn on the intensity, fight for space, and vanquish an opponent.

As important as IHD is, too much IHD energy or unwise usage of it can lead to inefficiency. For 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, and he uses too much energy too soon.

Horses that rely too much on individual herd dynamic also can get lost/overwhelmed 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.

Horses with a lot of IHD energy sometimes don't "turn it off" that easily. So while they possess more fighting energy, they also tend to burn emotional energy at a higher rate. This sometimes leads to inefficiency in their distance aptitude.

In some ways, IHD dominant horses are like bullies. They are very dependable in their ability to dominate weaker competition and assume herd leadership at the front of the pack. This works well, especially for American racing where front-end speed wins a lot of races. But there is a downside to being an imbalanced IHD bully -- 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, some individual dynamic horses tend to fall apart.

In nature, male horses tend to be Individual Herd Dynamic dominant.

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: 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.

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.

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. Example: eye dependent

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