

WOULDA, SHOULDA, COULDA...

Perspective

THEY SAY HINDSIGHT IS 20/20
NOW WHAT DO YOU DO?

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In karting we tend to always be pushing to get as fast as we can for the next outing on the track. As soon as we get everything loaded up and start the drive home we are already looking back at the night's activities and trying to plan what we're going to do next weekend to try to get the kart better and go faster. Once we do get home, it's get everything cleaned up, start working on the tires, make it to the next weekend, load it all and back to the track for several hours or more of thrashing on the kart to get it fast. While there's nothing wrong with this and it's much of what kart racing is about: the constant pursuit of speed, it can cause us to miss some of the pieces of information that we most need to really improve our racing program and consistently run better. Perspective is a very powerful thing when we have it and is something that can prevent us from seeing the truth when we don't. What we can see and understand we can improve, but those things which escape our sight are nearly impossible to improve. Given this, we need to make sure we have the proper perspective with respect to our racing program. Unfortunately, the constant push to get faster *now* and to figure out what to do in the next instant, as well as the fact that it is very difficult to see things beyond what we see through our own eyes tends to cause us to overlook quite a bit of information which is available because, effectively, we cannot see it. Even more unfortunate is that to truly experience a step-change in our program this ability to see things from a broader perspective is crucial.

What do we mean by perspective? It is simply what we see from our current vantage point. For the driver it's maybe 50 feet in front of him/her on the track and for the crew it's the position of all the karts and their relative speeds on the track. In order to see things a bit more clearly, let's look at a specific example. Many karters experience, at one time or another, a situation where they think they are taking a particular line through the corner when in reality they are not. In this case we'll say that the driver realizes that he/she needs to move up about a foot at the apex to keep the left side tires on good track and prevent a loose problem. All the while the driver is concentrating on moving up the track but then when he/she

gets off the track the crew asks them why they were running so low at the apex and that they needed to move up to be faster. The driver immediately responds, "I did move up." What we have here is a difference of opinion which stems from a different perspective. For the driver who is traveling at 50 mph, trying to hit the entry point, apex point, and then the corner exit point, all while keeping up with the brake and throttle and other competitors, a foot is sometimes barely noticeable, but to the crew who can see the kart approach the corner, what line it takes and what lines the other karters are taking, a foot stands out much more obviously. On the other hand, the driver is often much better suited to detect small pushes or loose problems that only a very well-trained eye would notice from the sidelines. So then, we can see that what the driver sees is affected by his/her perspective just as what the crew sees is affected by theirs and each is better suited to see certain things than the other.

If there is knowledge and understanding to be gained by looking at our outing performance from the sideline as well as the driver's seat, what other perspective might we need to consider? What about looking across the entire race night looking at only the trends of how the kart performed rather than the specific, individual adjustments? What if we were to step back far enough to see the trends across several race weekends, what might we see and what impact might it have? Before we dive in, just a little more conceptual speak, so that we can better understand what we're looking for as we try to see things from a broader perspective. In our karting, as in every aspect of our lives, there are details which are like threads in a quilt. During our day-to-day operations we deal with the individual threads so it is on those that we focus our attention and it is these threads that we see. What is going on at the same time is that these threads are fitting together with other threads to form a pattern and it is this pattern which has more to do with our rate of success than any individual thread. In other words, there is no silver bullet or single decision which will instantly make us faster. Rather, it is a series of



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good decisions over time which makes the difference, and it is the series of decisions which create the pattern. Given this, if we can take a step back and gain the perspective to see this pattern of decisions we've been making and the pattern of results that they have yielded, we can begin to make the necessary changes to affect the pattern, and thus the overall effectiveness and success of our racing program. The ability to do this well is not quite as it may sound but it is something which can unlock more speed and consistency in your racing program than any single adjustment, tire prep or anything else that you could do.

With the understanding that there are patterns to be seen, let's talk first about a medium perspective - where to look and what to look for - and then we'll take another step back to an even broader perspective and understand where to look and what to look for from there. From the medium perspective, the minimum time frame we want to consider is one race night and we typically wouldn't focus on more than two or three race nights. When we do this we need to resist the temptation to see too much detail. We don't want to focus on the individual adjustments we did make or should have made but rather we want to look at the general characteristics of how the kart ran and how the track evolved. Remember, we're not looking for specific things at this point, we're looking for patterns. One of the first patterns that we can look for is that when we made an adjustment, did it help the kart, hurt the kart or make no difference? Remember again that we don't care what adjustment we made but only its results: whether it helped or not. What we may see is that most of the adjustments we made went beyond what we needed, or we may see that we never quite got to where we were going although each time we adjusted on the kart or tires we did get closer. We may also see that many of our adjustments took us in the opposite direction of where we needed to be. If we do see any of these patterns, what might we do differently? Well, let's say that we notice that when we make adjustments the kart gets closer to what we know it should be but never quite gets all the way "there." From this we might conclude that when we make adjustments we go in the right direction but we never go quite far enough - this is a common problem for many karters. They're reluctant to make a larger setup changes for really hurting what is a decent kart but in doing so they never get the last bit of speed out of it which will propel them to the front. If we did notice this pattern we could come to a couple of conclusions. First we could gain the confidence of realizing that we have good accuracy in deciding which way we need to go with our adjustments.

This understanding should help us get comfortable with the other piece of information which we can see which is that we need to make larger adjustments. If we are able to step back and see this trend and then carry out the solution of when we make changes to make them a bit larger we will go from being constantly one step behind the track and our competition to right with them or even ahead. This simple revelation can easily make the difference between a top-five kart and a top-two kart and not only on one race night but nearly every race night. Hopefully you can now start to see the power in broadening our perspective.

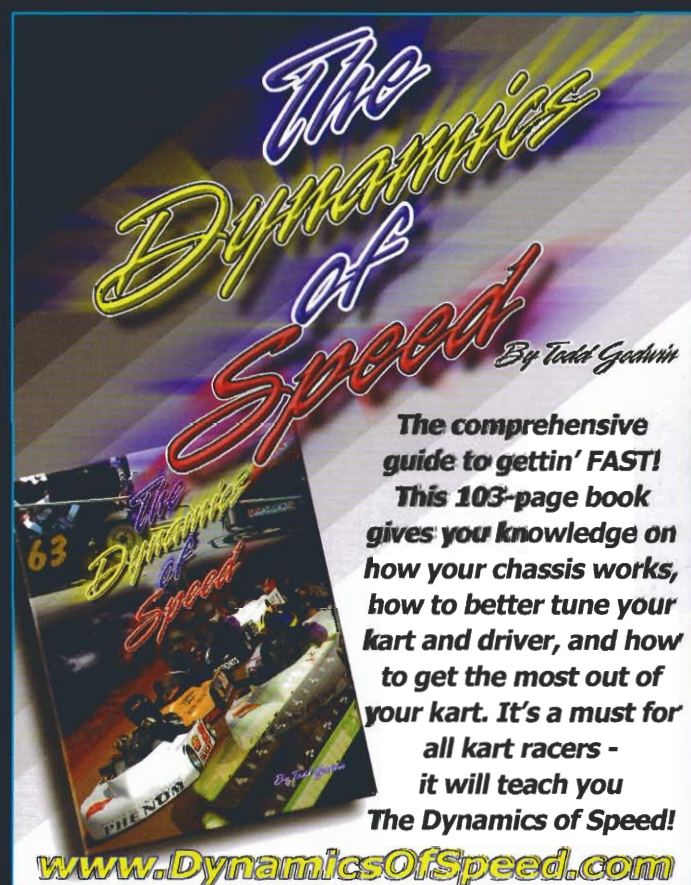


Before we get into too much detail on the medium perspective let's go ahead and take another step back and start to really look hard at what we can see which spans several race nights. Certainly we can begin to see the same trends from week to week that we saw in a given race night but we can also see a multitude of other things. One of the things that so many karters miss has to do with noticing the pattern of how their track and chassis evolve through the night. They'll practice and notice that their kart is loose. They'll

then make an adjustment to get the loose out but the result is a push in the heat. Before the feature they make another adjustment to get the push out and this adjustment will be successful and the kart ends up well balanced. The problem is that with the push in the heat they don't finish as well as they needed and now must start farther back in the feature which makes getting a really good finish more difficult. After the race the discussion is around, "if we had only had a better kart in the heats we could have won the feature." Next weekend comes and in practice the kart is loose, then for the heat the adjustment makes it push, then for the feature we've got a bad starting place and can't finish well. See the pattern? It's obvious written out like this but there are many karters which go through this every weekend. Looking at the pattern of how the kart runs through the night from week to week what do we need to do? Realize that the kart is going to be loose in practice and don't worry about it or make an adjustment for it; simply let the kart be loose knowing that the track will come around and our kart will work well in the heat. If we can just see this we won't thrash as hard on the kart, we'll have a more balanced kart in the heats which will produce a better finish position. This better finishing position will yield a better starting position for the feature and that will result in better finishes. Notice that this will happen not only just one night of racing but nearly every night. With one simple recognition we may improve our average finish position by 2 or 3 or more positions every week!

What are some other things that can be seen fairly easily when we look at multiple weekends from a broad perspective rather than any particular decision? What about those adjustments which we don't often use but do often wonder when we should? How about rear stagger? Rear stagger isn't something that we often change from week to week; most set it to a common setting and never work with it. Most of the time this is the best thing to do but what if we're able to step back for a moment and we realize that our kart always has a tendency to push and that even when it's not pushing it seems we're only a tick away from a push? What if we see this same tendency over several weekends of racing? If we do then we might start to try to think of what adjustment we could make once and leave from week to week which will get rid of that tendency to push. At the same time we notice this tendency we may also notice that the track does have fairly tight corners and we don't have this tendency at most of the other tracks at which we run. In the end we may be able to see that maybe now is a good time to try a bit more rear stagger as it's something we can change and once we find a good setting can leave alone (for that track at least). It is also an adjustment that will tend to help the kart turn better in every phase of the corner. Now we see that we may start to occasionally use some of those rarely used adjustments when we see patterns over weeks of racing which they might address. People ask me why I change castor or rear stagger or make a really large change in camber or left and I respond that I rarely do but the truth is that when I see these patterns over several weeks, this is when I'll make those less often used adjustments.

Let's look at another common situation these days. I hear from several karters each week that say their kart runs pretty good but for some reason it gets tight and they can't free it up so that it can be fast. I'll go through the normal battery of questions about setup and tires and air pressures and what I find most often is that the adjustment they chose to use was to keep adding air all night long to try to free up the kart. Upon further questioning it becomes obvious that the added air didn't work and sometimes the problem got worse. This same condition happens each week and they add air, sometimes lots of air, but for some reason it just never works. From our perspective here maybe you've already seen a pattern which can help you see an alternative route. What I see is that if more air never makes it better then what we need to do is stop trying to use more air to free it up, no matter how much we might believe that more air frees up a kart. Maybe there is another explanation for why our kart is tight other than our air being too low. Interestingly enough, with many current karts and especially the current generation of tires, a kart will often feel tight when what is really happening is that the kart isn't making enough grip. As we add air we take even more grip away from the kart which only makes our problem worse. What we need to do is possibly let some air out of the tires so we can make more bite rather than continuing to add more air taking bite out. Some may say that's an easy conclusion to come if you know that a tight kart can sometimes result from not enough bite, but even without having any idea why the kart is tight, we should still be able to recognize by looking at multiple race nights that what we are doing, whatever it is, isn't working and we need to try something different.



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By Todd Godwin

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Another point on this last example is that sometimes when we step back and look at weeks or months of racing from a broader perspective we will see something that we are or are not doing that isn't working but we won't know exactly what we need to do to make it work better. An example of this might be that we may see that we get to the track and need tires with more prep in them, then we prep like crazy, but then the surface of the tire gets too soft and gets chewed up. When we see this happening week in and week out we should see that something different needs to happen even though we may not have any idea what exactly we need to do differently. That's okay because just the knowledge of the problem urges us to go study, ask for help, and learn so that we can figure out what will work better. In the end we'll figure it out and we'll end up running quite a bit better. The critical, initial step was to first realize the pattern of doing the same thing every week and that the same, unsuccessful results were happening every week.

Next time you've got some time on a lazy Sunday afternoon, think back to the last few weeks of racing (or few months or few years) and see if you can see any patterns which pop out. It may just be that you'll see the thing which will propel you further up the finishing order or to the next level.

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