



Title:	Learning to race 6.0 Reference points – joining the dots
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Objectives:	Understanding the importance and use of notebooks and reference points for effective racing. Learning to ‘join the dots’. Visualising yourself on the track.
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Goals:	Riders will learn to find and use good and appropriate reference points and a notebook to describe their racing, to make their way most effectively around the racetrack.
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Subject:	<ol style="list-style-type: none"> 1. Reference points 2. Braking markers 3. Turning points 4. Corner apexes 5. Vanishing points 6. Sub-products/products 7. Using a notebook for note-taking to learn.
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Procedures	Classroom instruction, one-on-one discussion, group discussion, demonstration of note-taking, on-track instruction, video demonstration.
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Technique	Show riders some examples of note-taking, walk around a racetrack seeking reference points and discuss if they are good, poor or indifferent. Describe joining the dots and visualisation.
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Most Common Mistakes	Not understanding how to create/find and use reference points. Poor note-taking. Not using the notes. Poor visualisation.
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Summary	<p>Successful sports people, including motorcycle riders, make notes describing their performances and the event venue (which in our case means the race track). The point of doing this is for the rider to teach themselves what they are doing on the racetrack and where they are going on the racetrack.</p> <p>The key point to understand about getting around the racetrack as fast as possible, is that it is a game of ‘join-the-dots’ where the ‘dots’ are the reference points. The more ‘dots’ or reference points a rider can find, the better this will allow the rider to beat the racetrack better than anyone else.</p> <p>If a rider can ‘beat the racetrack’ better than all the other riders, then that rider will finish in front of all the other riders.</p>
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So, one of the more important tools a rider can use to 'join-the-dots' is the notebook, where they will make detailed notes about the special parts of the track, identifying features and such other 'reference points' or 'dots'.

The rider can then begin to improve their performance by increasing the numbers of reference points around the track that help them to improve their performance because the reference points help you to understand where you are, at any given time, on the racetrack. This means that you know what you should be doing and how to do it, at any given time.

So, effective note taking to identify and describe the specific riders specific reference points, and the actions the rider should take at each of those reference points, is an important skill.

The note taking should include a track map, either drawn or printed from a website or similar, descriptions of the track describing special points about the track that make it different or special, the number and types of corners, the surface and anything else the rider might deem important or interesting.

Then the rider will then venture around the track on a track-walk or bicycle ride (biking can be more time efficient than walking) looking at where the racing lines might be and where and what the Reference Points (RP) might be. These can be things like: marker pegs, asphalt patches, changes in asphalt, trees, buildings, walls, marshal points, track paint, kerbing and many other types of object. The rider will mark on their track map or their drawings of corners, their reference points and maybe describe them in a manner suitable to the rider.

Poor reference points are things like tyre marks, potholes, small plants, temporary buildings etc, because these things can disappear or be moved, so the next time the rider comes to the racetrack, they may not be there and the dot will be gone.

There are various specific types of reference point at which the rider needs to perform specific actions:

- Braking points and braking zones, (the point on the track where braking should occur and the zone on the track within which braking should occur)
- Turning points, (the different points on the track where the rider should begin turning into a corner)
- Apex points, (the point in each corner where the rider should apex the corner)
- Vanishing points (corner exits) (the points the rider should be aiming for as they exit each corner, as per its name, the vanishing point moves as the rider goes further around the corner)
- Sub-products, (somewhat more complex and describes the outcome of actions around two or more reference points, as an example, entering and exiting a section of two or three linked corners.)



At the beginning stages, it is likely that riders can begin by simply having a notebook with track maps in it on which they can start to draw and write reference points.

As the rider begins to learn more about racing, more about themselves and more about the racetracks at which they are riding, their note-taking can become more detailed and can begin to include descriptions of their performance and what might be done to improve their performance.

The other main technique for riders to decide how to go around the track is that of Visualisation. Some people prefer to create mental pictures and even videos of themselves in the situation. In this case the rider can create and then access an image of how and where they want to be on the racetrack.

They can then follow a series of images one after the next and put themselves in those positions in the physical sense. This technique may seem very complex, but with sufficient practice, for the right minds this technique can be very powerful.

Bear in mind that the two different techniques are not necessarily mutually exclusive and the visualisation technique may use 'dots' and may represent the mental product of applying the 'join the dots' technique.

But as the figure below points out, notes on paper might not be asphalt, but they are closer to it and more tangible than 'the stuff thoughts are made from'.



Assessment Sheet
Learning to race 6.0
Reference points - joining the dots

Item	Pass/Fail	Comment
Understanding reference points		
Noting of reference points on a track map		
Track walk and reference point discussions		
Note taking development		

Overall Comments:

Guardian/Student Signature:

Trainer Signature:

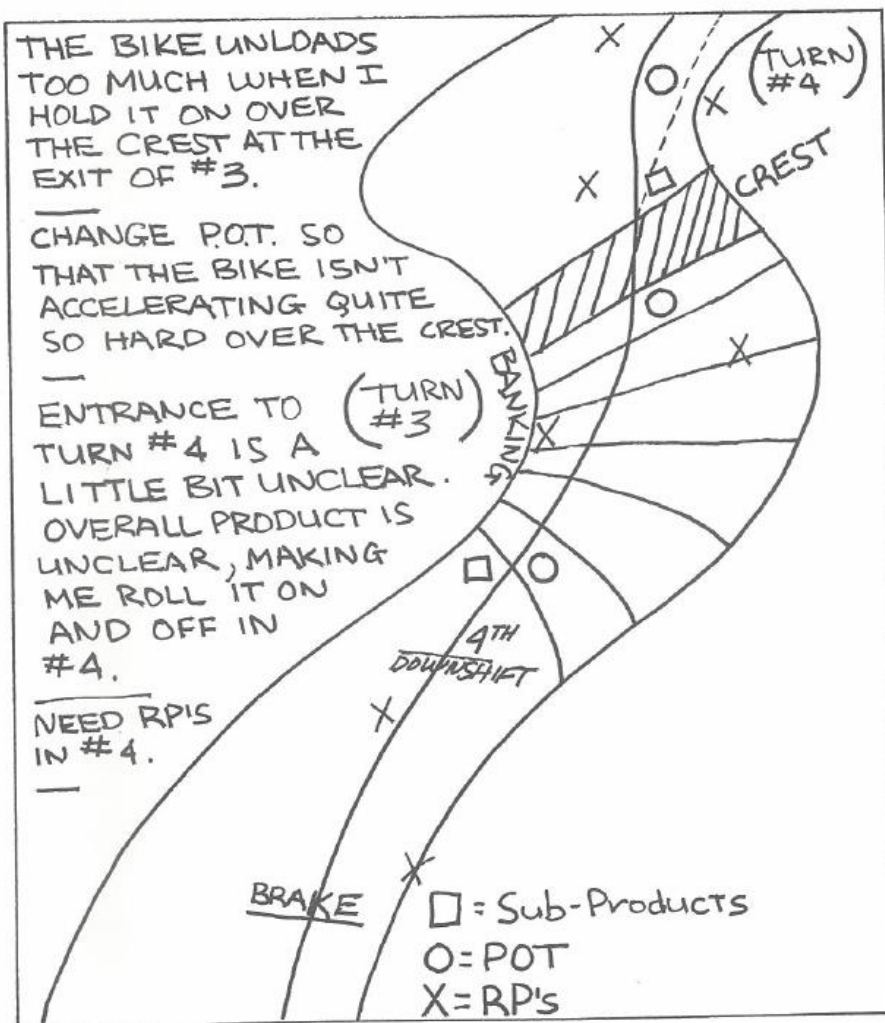
Date:



GOING DOWN THE FRONT STRAIGHT INTO TURN ONE, I RAISE UP AND SHUT OFF THE THROTTLE JUST BEFORE THE RED CONE. THEN I DOWN SHIFT ONE GEAR, THEN START MOVING MY REAR OVER TOWARDS THE LEFT AND LEAN LEFT. THEN I START ROLLING THE THROTTLE BACK ON IN THE CENTER OF THE CORNER, STILL LEANING LEFT AND GRADUALLY RAISING THE BIKE UP STRAIGHT. THEN DOWN THE SHORT SHUTE INTO TURN TWO. AS I APPROACH TURN TWO I START TO LEAN RIGHT ABOUT FIVE FEET FROM THE OUTSIDE EDGE OF THE TRACK, ROLLING THE THROTTLE $\frac{1}{2}$ OFF, LEANING RIGHT AND GOING THRU THE CENTER OF THE TURN ABOUT $\frac{3}{4}$ THROTTLE AS THE TURN STARTS TO TIGHTEN UP, I ROLL THE THROTTLE ON LEANING THE BIKE TOWARD THE INSIDE POLE. THEN I AM GOING STRAIGHT TURN THREE IS APPROACHING. I SHUT OFF THE THROTTLE, DOWNSHIFT ONE GEAR AT THE RED CONE AND APPLY THE FRONT AND REAR BRAKES, LEAN LEFT AND ROLL THE THROTTLE BACK ON AS THE TURN LOSES IT BANKING. BY THEN I'M STRAIGHT AND LEANING RIGHT INTO TURN FOUR. I AM ON THE INSIDE POLE AS I ENTER THE TURN, ROLLING THE GAS BACK ON, I AM ABOUT FIVE FEET FROM THE OUTSIDE EDGE OF THE CENTER OF THE CORNER AND THEN I AM LEANING IT OVER HARD FOR THE EXIT OF THE TURN.

Track Drawings

Make your track drawings as exact as possible. Anyone who can ride a motorcycle can make a simple line drawing of a turn. It doesn't take artistic ability. If you find it difficult to make a turn drawing after you've ridden the track, sleeping through art class wasn't the problem, **you just don't know the turn.** Parts of it are still unclear to you. **A drawing makes your thoughts one step closer to the real thing.** Paper isn't asphalt, but it is closer to it than the stuff that thoughts are made of. Drawings get you involved in a very direct way with what is going on while you're riding.



Drawings bring your thoughts one step closer to the track. Work out problem turns on paper. Have you ever tried it?

An example of note taking and track map drawing with reference points and zones noted on it. Note taking at this level of detail will develop as the rider gains experience and skills. The riders' notes must be regarded as a 'living document' that will change over time as the rider improves their skills and goes faster around the track, so new reference points and notes will be needed as the rider develops.