# 2 - BENDS & JUNCTIONS.

#### MotorCycle RoadCraft, Chapter 5. pages 85 - 106.

I risk stating the bleatingly obvious, by saying there are two basic types of bend i.e. left hand bends and right hand bends I intend to deal with each one separately, beginning with, possibly the simplest, the right hand bend.

- 1. Position on approach this is easy, WELL TO THE LEFT, the reason for this is to improve your view into and through the bend, and to increase the safety margin between yourself and any oncoming vehicle(s). UNLESS, THAT IS, there are hazards on the left which require extra clearance. Typically pedestrians (especially children), animals, vehicles (movable hazards) all of which are not entirely predictable, poor road surface, loose grit, potholes, ice, snow, spilt fuel, serious adverse camber, etc. Side roads or openings, especially if you cannot see into them (moving hazards may appear). Where conditions allow, try to be into position, well before, the bend begins. Otherwise you will make the "U" of the bend into a "V", thereby increasing the severity of and reducing your view into the bend.
- **2.** Path through the bend (see MotorCycle RoadCraft, page 91 limit points) when you can see through the bend, providing it is safe to do so, straighten the bend on a gradually curving path, either
  - a) as "Motorcycle Roadcraft" advises " towards the centre of the road",

or

b) my personal opinion "using the whole width of the road" if it is advantageous, providing IT CAN BE SEEN TO BE COMPLETELY SAFE AND CONVENIENT FOR OTHER ROAD USERS and does not involve illegally crossing "double white lines".

Using the off-side of the road in a right hand bend - given usual road camber - is helpful, in that, it reduces the angle of lean between the tyres and road surface. See MotorCycle Roadcraft, pages 89/90.

Both of the above being dependant upon the absence of other hazards: - road users, poor road surface, road junctions on the right could present danger, etc.

Fairly straightforward and not too controversial so far, I think. Now consider left hand bends.

3. Position on approach - this is easy, OR IS IT?"The Driving Manual" now says "centre of lane" - previously it advocated "well to the left".

"Roadcraft" advises "just to the left of the centre of the road". Both these positions are intended to improve ones' view into and through the bend.

I feel, however, that there will be few experienced, advanced riders who would not use the right hand side/offside of the road, if there was an advantage in this - **PROVIDED THAT ONES' VIEW AHEAD WAS NOT RESTRICTED** by walls, hedgerows, buildings, brows or crests etc. and you are not illegally crossing "double white lines".

THE ABOVE IS NO LONGER ENCOURAGED OR REQUIRED BY THE IAM.

WE DO, OF COURSE, OFTEN USE THE OFF-SIDE OF THE ROAD, FOR EXAMPLE, WHEN OVERTAKING. THE IMPORTANT THING IS TO KNOW, BY SEEING, THAT IT IS SAFE

All these approach positions are dependent, again, upon the absence of other hazards, road users, poor road surface, road junctions, etc.

4. Path through the bend - when you can see through the bend, straighten the bend on a gradually curving path, taking the apex of the bend near the left hand edge of the road, again dependent on the absence of other hazards, etc.

Using the nearside of the road, again - given usual road camber - is helpful in reducing the angle between tyres and road surface.

MotorCyle RoadCraft, pages 89/90.

Some "advanced" (??) riders seem to advocate positioning to the right side of the road even on blind bends, to enable them to see around the bend a little earlier and whilst this may be quite safe when riding in a "convoy" or "snake" or riders (if the lead rider is to the left of the centre of the road or even better, centre of left half of the road, then - not too closely - following riders can be progressively further out to the right - since the actions of the rider(s) ahead would/should (?) give warning of an oncoming vehicle or other problems).

However, a single rider or lead rider should **NEVER** adopt this position (right of centre on a blind bend) since, even though an oncoming vehicle would be seen earlier, you would certainly cause the other rider/driver to be unnecessarily inconvenienced (which no **GOOD** rider, let alone an **ADVANCED** rider should ever do) - the other rider/driver would almost certainly slow/brake (having seen you on their part of the road).

And, if s/he were a "foreigner" i.e. someone who was more accustomed to "driving on the right", they could well "revert to type" and assume THEY were on the wrong side, which could cause them to swerve TO the wrong side of the road, that is to the part of the road that YOU were heading towards.

**RESULT**, one or more killed/seriously injured (**KSI**) person(s): another **RTA** (road traffic accident) caused by an "advanced" (??) rider.

Nowadays, more and more, RTAs are being referred to as RTIs or RTCs (Road Traffic Incidents or Road Traffic Collisions - Accidents, suggests they are unavoidable.

But, since the vast majority are caused by human error, they ARE avoidable).

Indeed, when riding on blind and/or narrow left hand bends, it is safer to ride more "centre of left half of the road", rather than, "left of centre".

Watch for "worn" road markings in the centre - a sure fire warning that many (most?) oncoming vehicles "cut" the corner.

Following the principle of formulating one's riding plans on: -

What can be seen - very little, other than the bend?

What can't be seen - what is around the bend?

What one can reasonably expect to happen - oncoming vehicles and/or parked vehicles or other problems around the bend?

On a similar theme, when one is riding on a single track road or very narrow country lanes (not an unfamiliar occurrence for SAM – Solent Advanced Motorcyclists - when on Group rides).

One often finds a continuous path of gravel along the centre of the road, thrown there by the 4-wheeled boxes.

# How should this affect your riding plans?

Generally on straight roads, one endeavors to ride mid-way between the hazards i.e. the pavements or in this case, the hedgerows.

If however the centre is covered in gravel, then one should ride between the left hand edge and the gravel (avoid riding on the right hand side of the gravel unless you have a very clear view of the road ahead, otherwise you may need to brake, due to oncoming vehicle(s) AT THE SAME TIME as you are riding back over the gravel.

**DEFINITELY NOT RECOMMENDED**, even if you have the dubious advantage of anti-lock brakes.

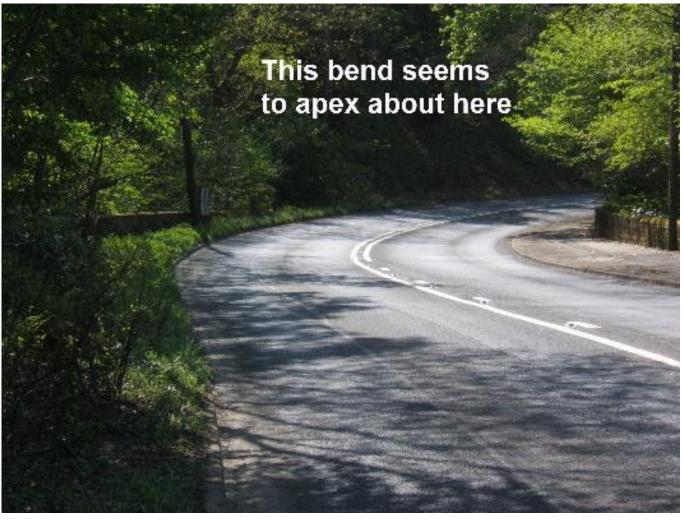
- 1. Have you ever had to "pick your bike up" in a left hand bend due to parked vehicles or similar?
- 2. Or had to do likewise in a right hand bend due to an oncoming vehicle?

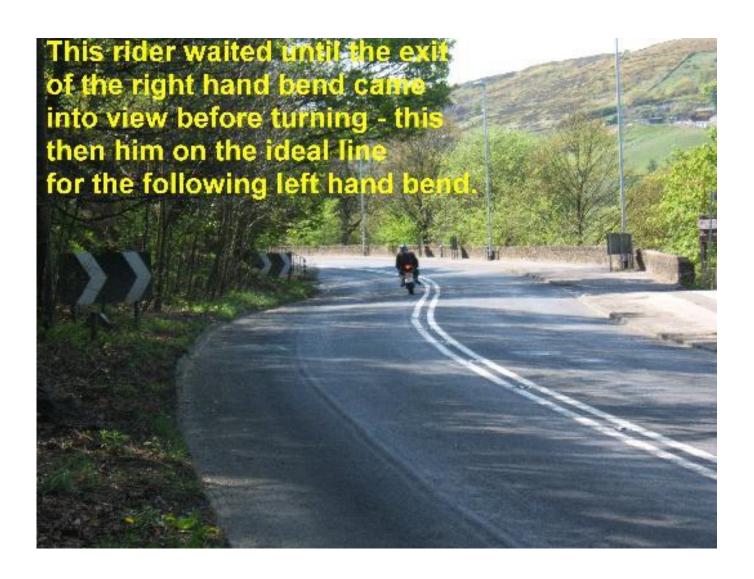
Question: -

WHAT DID YOU LEARN FROM THESE EXPERIENCES? (see below).









## Answer: -

Hopefully, that in all instances you turned too soon, that is, before your view opened. In right hand bends, this puts your head on a path towards the radiator of the oncoming "artic" (into the decapitation zone) - OUCH!

#### THAT MIGHT STING A LITTLE!

On the road, as opposed to the race track, you don't know where the apex is until you can see through the bend no matter how many times you may have ridden the road/bend. Only make your decisions on what can ACTUALLY be seen.

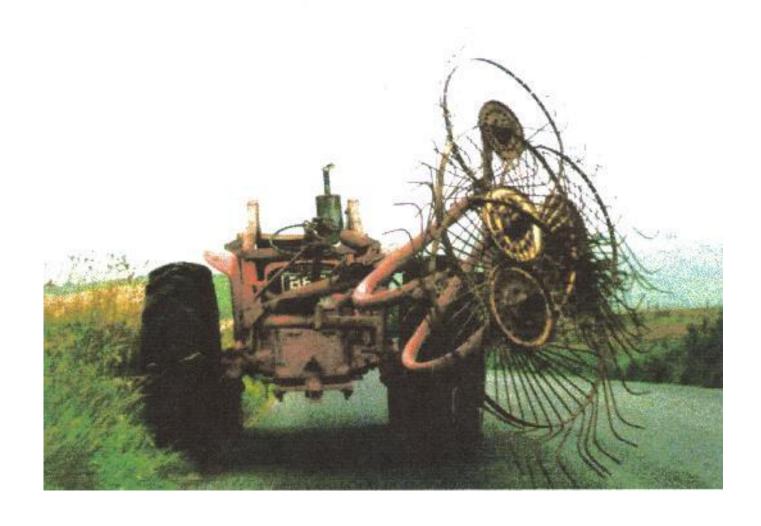
**KEY POINT:** - never try to put your bike anywhere that your eyes AND brain haven't already been.

This includes actually seeing the road surface you intend riding on at brows and bends.

Until you can see the road surface you can't assess whether it is safe to ride on it.

Perhaps there may be sheep or pot-holes?

IF I AM EVER TEMPTED TO RIDE, PERHAPS A LITTLE FASTER THAN I SHOULD, THROUGH RESTRICTED VIEW BENDS OR OVER BROWS OF HILLS – I TRY TO CONJURE A MENTAL PICTURE, OF WHAT I MAY BE RIDING INTO.



#### ADVANCED RIDERS AND DRIVERS DO IT BACKWARDS.

When dealing with multiple bends (2 or more) in close proximity to each other - this also applies to roundabouts, unless going left.

Try to plan backwards.

Think of the exit line that, ideally, you want for the last bend - or roundabout exit - and work out the best path to get you there.

Local knowledge helps - though most roundabouts are very similar - but don't depend on it.

There may be, unseen parked vehicles, a pot-hole may have appeared or been filled in (unlikely I know, but it might happen).

Always formulate your riding plans based on what you can **actually** see - not on what you can **remember** about a road.

Similarly with the exit(s) from roundabouts. In the absence of other vehicles, look for the best line.



Is the best exit line here the one viewed from the camera to the "arrow" in the exit road, rather than the one being taken by the novice driver?



Again on this roundabout, IN THE ABSENCE OF OTHER VEHICLES, is the line viewed from the camera to the black car the best exit line?

But not going directly from camera over the kerbs and grass !!!

**DOH** !!!

# **NEGATIVE/COUNTER STEERING.**

A question that I always ask Associates and others is how do you get your bike to round a bend or curve?

A seemingly silly question to ask a motorcyclist, perhaps?

The answer I mostly receive is "I lean in the direction of the bend".

I then ask, "What do you do with the handlebars"?

The usual answer is "I steer a little to the left in a left-hand bend and t'other way in a right hand bend". **WRONG**.

A bicycle at any appreciable speed can only be made to lean by steering, **SLIGHTLY**, in the opposite direction to the lean.

It is something to do with "gyroscopic forces" (which is beyond my ken).

This phenomenon is usually referred to as "negative or counter steering".

All motorcyclists use it, though many don't realise it.

Think about it, if you hold a broom handle (handlebars) in your out-stretched arms, then lean your body to the left, the broom handle (handlebars) will turn, **SLIGHTLY**, to the right.

#### You are using negative/counter steering.

Those who argue about using weight transfer, pressing down on one or the other foot peg, moving over the seat to one side are talking about changing the centre of gravity and causing the bike to swerve or veer.

## I am talking about steering the bike accurately.

Before attempting to use negative/counter steering in bends it is essential you practice on a quiet straight road until you become familiar with the technique.

The input/effort required is very small.

#### So take care!

As your newly found confidence in negative/counter steering improves, gradually introduce it into curves and then bends.

When I first discovered negative/counter steering, I practiced by riding wide lines in bends, to fine-tune the skill.

I did this by riding in the gutter (not literally, but close to it in right hand bends and riding the white line in left hand bends, traffic and road conditions allowing.

Finally introduce it into everyday riding. Don't rush things. Time is required to develop the skill.

I am convinced that non-active/positive use of negative/counter steering is the reason many motorcyclists come to grief on bends.

If/when they find a bend is tighter than they thought.

#### What happens?

They try to lean further over and when panic sets in, they try to steer towards the bend, as they would in a car.

They are applying negative / counter steering.

THE WRONG WAY.

Inevitably, they run wide and maybe don't arrive home for supper that evening.

OR EVER.

If they had trained/practiced negative/counter steering and actively used it on a daily basis, there would not be a problem.

All they would need to do would be to push, slightly more, on the lower handlebar (left for a left hand bend, right for a right hand bend) and the bike leans over more in the direction of the bend.

EASY.

When you are familiar with the technique.

# IF IN ANY DOUBT, DO NOT TRY THIS TECHNIQUE WITHOUT FURTHER GUIDANCE.

## Three final points.

The most Advanced Rider is not necessarily the QUICKEST rider through bends, but, s/he is the SAFEST through the bends.

If you riding through a bend "as fast as you can" then you are almost certainly going **TOO FAST**.

NOTE: - The MotorCycle RoadCraft method of negotiating bends: -

Was not,

is not

and I guess never will be, necessarily, intended to be the fastest path through bends, but the SAFEST path.

KEY POINT: - if you want to find out how fast you can corner, the place to do it is on a "track day", not the public highway.