

Cornering – Safety, Stability/View and more...

- You need to be out to the very offside of the road to get a view into left handers
- The examiner wants to see you using all the road
- You pay road tax? Use all the road you pay for
- Get as far across as you can so others can see you and you can see them

Are these comments correct or are they just comments passed down from others experience?

Let's look at what we're dealing with - Cornering

More precisely, safe cornering.

Q. What is cornering?

A. Driving a car or riding a bike round a corner, curve or bend – one of the main driving/riding activities, where your vehicle loses stability and places extra demands on available grip.

How do we achieve safe cornering?

The answer is, like every other question posed in RoadCraft and driving or riding, by using The System of (Car/Motorcycle) Control and its elements;

- Information
- Position
- Speed
- Gear
- Acceleration

RoadCraft covers this in the chapter covering Cornering.

(The chapter number varies between the versions of RoadCraft - in Motorcycle RoadCraft it includes Balance and Avoiding Skids. There are differences which are detailed below)

Car RoadCraft

Information

On approach to any corner, constantly scan road for information, especially;

- Traffic in front & behind
- Road surface/weather conditions effect on it
- Limit point

Position

Consider;

- **Safety**
- **View**
- **Stability**

(Note – this is sometime referred to as S-V-S although this is NOT an abbreviation in RoadCraft and shouldn't be used)

- **Safety**

The overriding consideration.
Position so that you're least likely to come into conflict with other road users.

Look for hazards to nearside and oncoming traffic to offside.

Be mindful of the width of your vehicle

Always be prepared to sacrifice road position for safety

Motorcycle RoadCraft

Information

On approach to any corner, constantly scan road for information, especially;

- Traffic in front & behind
- Road surface/weather conditions effect on it
- Severity of bend & limit point
- Hazards – what you can see, cannot see and what you can reasonably expect to happen

Position

Consider;

- **Safety**
- **Stability**
- **View** (*getting the best*)
- **Reducing tightness of the bend**

(Note – this is sometime referred to as S-S-V although this is NOT an abbreviation in RoadCraft and shouldn't be used)

- **Safety**

The overriding consideration.
Position to minimise risk of oncoming vehicles coming into conflict.

Look for hazards to nearside and oncoming traffic to offside.

Be mindful of the width of your machine

Always be prepared to sacrifice road position for safety

- **View**

Determines how much you can see when you enter a bend.

Put the car in the best position to see, with due regard to safety.

The position that gives the best view is different for a left- and right-hand bend

- **Stability**

Unlike Motorcycle RoadCraft stability is no specified explanation in Car RoadCraft albeit being part of the Safety – View – Stability triumvirate.

Stability will come from creating grip and steering feedback through correct speed and gear.

- **Stability**

Select a course that will provide best tyre grip.

- **View (getting the best)**

Determines how much you can see when you enter a bend.

Put the bike in the best position to see, with due regard to safety.

The position that gives the best view is different for a left- and right-hand bend

Reducing the tightness of the bend

Where it is safe to do so, reducing tightness of bend can help improve stability. Moving bike from one side of your road space to the other you can follow a shallower curve (the path taken varies for left- or right-hand bends – but always consider safety first)

Do not take a straighter course unless you can see clearly across the bend. Often you won't be able to do this until the road begins to straighten out.

RoadCraft in both Car and Motorcycle versions go on to describe the Speed, Gear and Acceleration elements of *The System* which should be read for the individual disciplines.

Car Roadcraft

Motorcycle RoadCraft

Speed

When in the correct position for the bend use limit point to judge safe speed. Where it is a constant curve the limit point remains a constant distance from you. Keep your speed constant if the curve changes, re-assess speed and re-apply The System. You must always be able to stop in the distance you can see to be clear on your own side of the road. In a car it is not to take the bend as fast as you can, whilst on a motorcycle this rule will give you a safe speed for the bend.

Car – To assess correct speed consider;

- Severity of bend
- View into bend
- Vehicle characteristics
- Road and surface conditions
- Traffic conditions
- Weather conditions
- Road width

Motorcycle – To assess correct speed consider;

- View into and around bend
- Road and surface conditions
- Traffic conditions
- Bike characteristics
- Weather conditions
- Your own ability

Gear

When you have the correct entry *speed* for the bend select the appropriate gear for that speed. Select the gear that gives the greatest flexibility to leave the bend safely

Car Roadcraft

Motorcycle RoadCraft

Acceleration

Where the bend is a constant curve, the limit point remains a constant distance from you.

Apply gentle pressure to the accelerator to maintain a constant speed

(maintenance throttle – note - term not in RoadCraft)

If there are no hazards, start to accelerate when the limit point begins to move away.

As you continue to straighten your steering increase acceleration to match the limit point, until you reach the appropriate speed for circumstances

Acceleration

Open the throttle enough to maintain a constant speed round the bend. This will contribute to stability.

(maintenance throttle – term - not in RoadCraft)

If there are no additional hazards, start to accelerate when the limit point begins to move away and you begin to move the machine upright.

As you continue to straighten the bike, increase acceleration to catch the limit point.

Accelerate until you reach the speed limit or appropriate speed for circumstances

As can be seen with the above breakdown of the chapter, in side by side comparison, whilst the basics are very similar, there are differences between car and motorcycle when dealing with bends/corners.

Most of these differences relate to the characteristics of two or four wheels.

Cornering forces, and tyre/grip trade off are different, as are the manoeuvrability and width of the different vehicles, especially in how they are able to position on the road.

To answer the initially posed questions. The examiner wants to see you use the road and place your vehicle in the **safest** position on the road that allows best **visibility, stability** and allows the **shallowest turn**.

Safety is primary and this ties in with being able to stop safely in the distance you can see to be clear, on your own side of the road.

Remember – **Safety, View, Stability (Car)** and **Safety, Stability, (best) View and reducing tightness of the bend (Motorcycle)**

Practically? In a left-hand bend do not 'just' stay out wide in the offside position as a matter of rote, consider the time something takes comes into view, giving yourself a

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greater margin of **safety** as you may come into conflict with opposing traffic, perhaps even cutting the corner. Think whether and what advantage you gain and how it could be perceived by others, even leading to confusion. Consider being more central to your carriageway, perhaps a slower entry and lower gear to create better **stability** through better tyre grip and steering.

Consider moving over for oncoming or potential oncoming which is out of sight.

For right hand bends there is no need to be in the gutter where there may be blind junctions, exits or entries, debris and detritus, ironworks and potholes. Position for **safety, view and stability** again perhaps a slightly reduced speed with a lower gear to create better tyre grip and more confident steering.

The aim is to be in the **correct place, at the correct speed, in the correct gear** to deal with any hazard you may encounter considering what you **can see, can't see and what you can reasonably expect to occur**.

The examiner wants to see a thinking driver or rider, who can gain Advantage from Position which will result in a smooth progressive demonstration of the System

Be prepared to explain your decisions based on the above principals during any pre-drive/ride engagement or if challenged regarding how you have delivered a practical drive or ride in a post ride/test de-brief.

Know your stuff. Understand it. Use the System – It works.