



How to read traffic





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Introduction

You approach a roundabout and there are cars EVERYWHERE!



The only thing that goes through your mind is:
'DEATH! I'm going to die, there's just death waiting to get me wherever I look'.



It's only because you're looking at the wrong thing.

I think of driving as a game of skill and timing; it's all about turning up at the correct time and then you look like a driving god!

What I'm going to teach you is how to read traffic, it's applicable everywhere but I'm going focus mainly on roundabouts. Hopefully, by now you have worked out that roundabouts are just T-junctions anyway so you can apply this liberally.

The problem

The number one accident for students is at a roundabout and it's being hit from behind.

The reason for this is that the student drives up to the give way line thinking it is much safer to stop, have a look around and go again when safe; it isn't.

The car behind them is approaching, looking to the right, sees there's a hole in the traffic and keeps driving. BANG. They drive into the rear of the student who has stopped for absolutely no reason.

If this did happen, as far as the insurance company is concerned, it is the fault of the following car, however, by driving in this way, you are massively increasing the chance of being driven into.

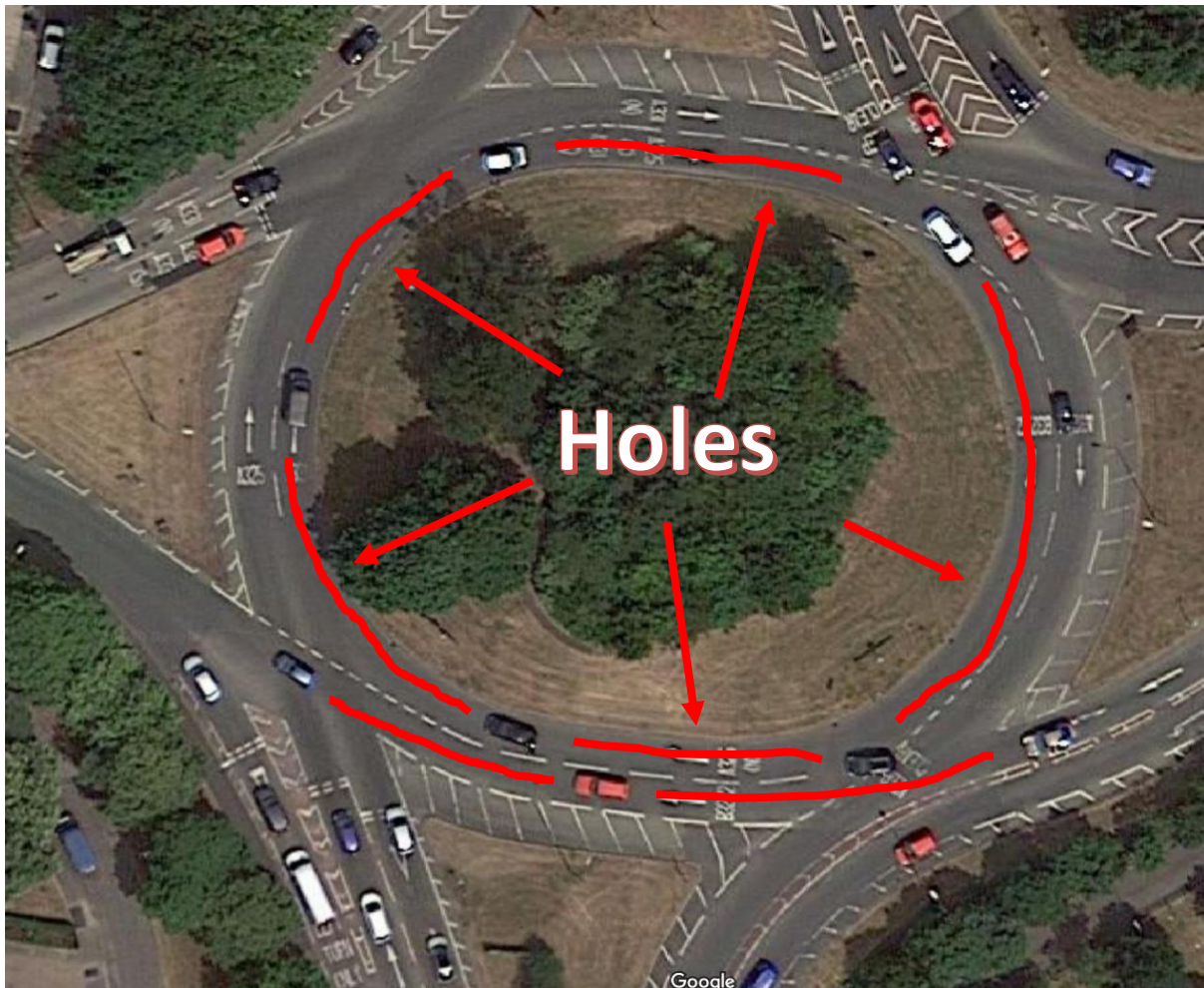


You have to cater for the car behind; that's the person most likely to hit you.

If you are approaching a junction that has poor visibility, the car behind also has poor visibility and so they should be slowing as well.

The problem comes when you have good visibility. This is because the car behind may have decided to go before you have even looked yet. You have to look early for opportunities and go when you can.

Look for holes and fill them!



Most novice drivers look for cars, so they see cars, but I don't want to see cars, I want to see holes. When I'm driving, I like to use a bit of road that isn't currently being used by someone else; it's much cheaper and easier that way.

You need to **merge** with traffic.

On a motorway, we can assume that traffic is travelling at 70mph. If I enter a motorway, I get up to 70mph by the end of the slip road because:

Enter slower than the surrounding traffic and someone will drive into the back of me.

Enter faster than the surrounding traffic and I will drive into the back of someone else.

The bigger the difference in speeds between two vehicles, the bigger the impact. My job is to assess the speed of surrounding vehicles, look for a hole, enter that hole at a speed that means I don't hit anyone.

Traffic on a roundabout is usually somewhere between 15mph and 30mph, so that's what I'm aiming for.

Junction approach

Expect to stop, look to go.

Think of a journey, home to the shops or college for example. You will have to go through traffic lights, roundabouts, pedestrian crossings, deal with people walking around, cyclists etc.

The only place you actually want to stop is at your final destination; everything else is just in the way.

If you could build a road between two points, you'd just make one long straight road, I doubt you'd add a few roundabouts in for fun!



But you can't build your own road, you have to use what has already been built by the council and those roads have all sorts of inconvenient junctions in them – how rude!

So, because I don't want to stop at anything, I need to look for opportunities to go as soon as I can.

Remember, if I brake for a line, I have to look at the line to make sure I don't drive over it. If I'm looking at a line, I can't be looking at the traffic. If I'm not looking at the traffic, I won't see a hole in the traffic. I'll stop when I could be going and then...

'Disaster Darling'



Trailer hitting



What I want you to do is imagine that all vehicles are towing a caravan or trailer and I want you to hit the back of the trailer (you can have more room if you want but no less than about a cars length away from the car please).

If the vehicle in question is actually towing a trailer, then imagine it's towing two trailers. Greedy!

You want to start moving whilst the car you're going out behind is still to your side. Just like you do when catching a ball coming from the side, your hand starts moving to a place the ball will be in a second or two. You want to move your car to a place the back of the trailer will be soon.

Brake for vision and take a run up

It takes time to build speed. If you go into traffic from stationary, you need a hole big enough to cater for your car and accelerating time, i.e. big holes.

If you go out at the same speed as the traffic you're joining, you only need enough space for your car, i.e. small holes.

If you need small holes, you can drive into small or large holes! You therefore have more options, more opportunities to go, and you are less likely to have to stop. You have just reduced the chance of being rear-ended.

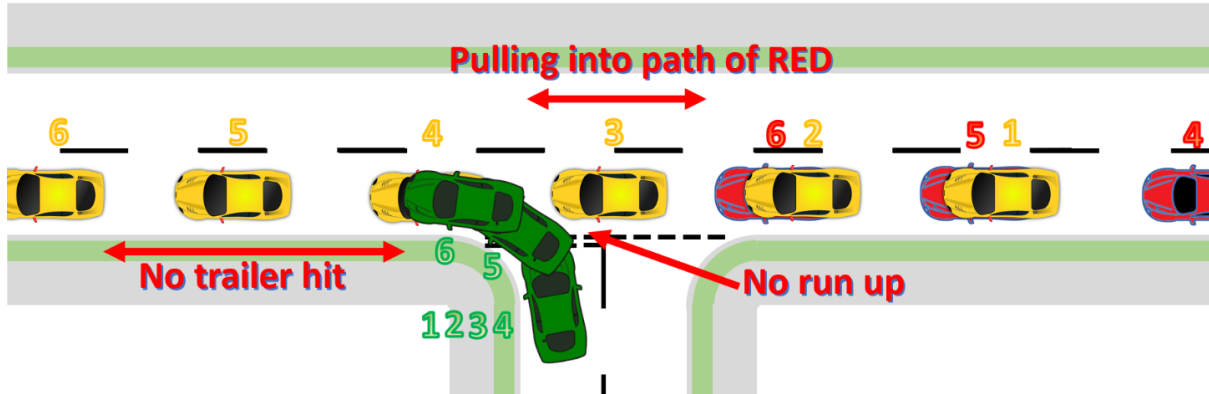
It is soooooooooo much easier to enter 20mph traffic at 20mph than start from zero and build your speed. You could slow to 10mph on the approach and then accelerate up to 20mph as you enter!

You want a gap so that you can take a run up into the flow of traffic. If this means that you stop and wait a car length or two before a give way line then do so. As long as you can still get a good view of the traffic, then you will gain an advantage by taking a run up.

Often there are multiple cars approaching and you want to get between them, if you go out slowly or late, you will just pull into the path of the second car causing them to brake, which is a great way to fail your driving test!

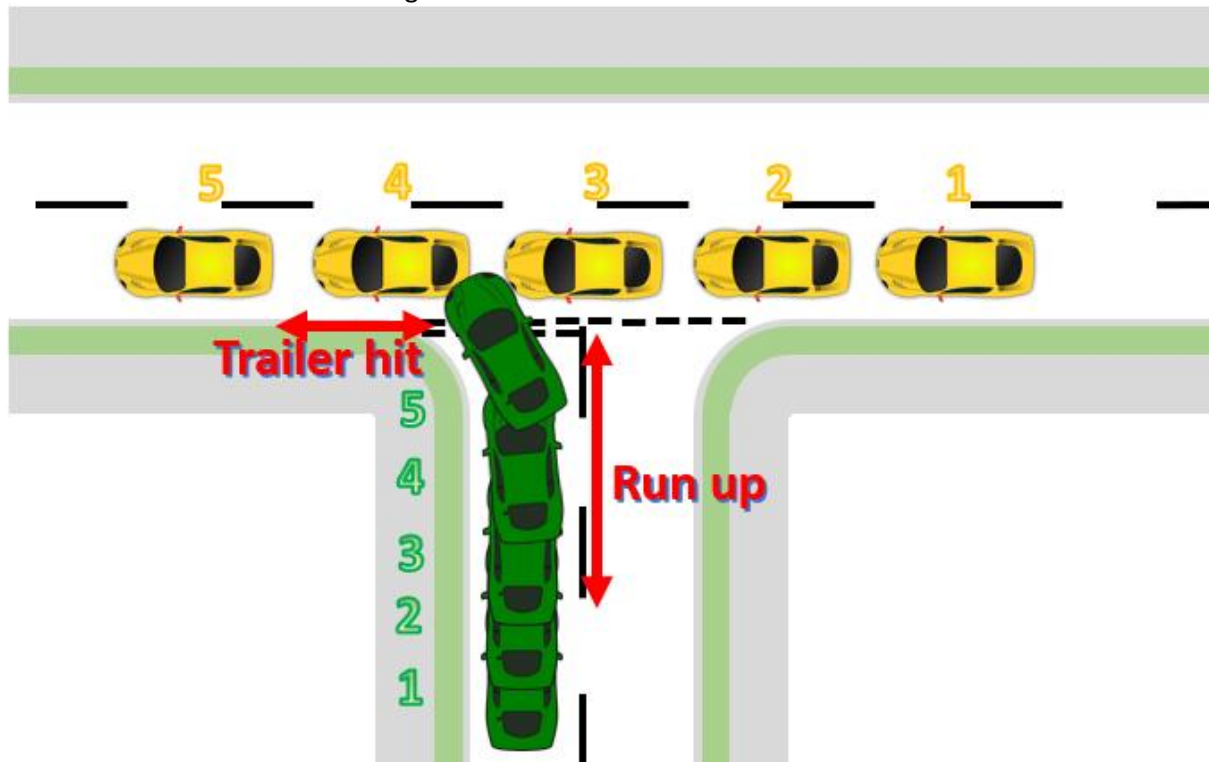
Vision is king. As soon as you can see traffic, you need to start assessing. How close you are to a junction when you get a good view varies at each junction, no one said you must go to the junction though. If you can see and are near the junction if you stop then that's fine.

The following numbers correspond to where each vehicle is at the same moment. i.e all cars marked 6 will be where the 6's are. You can't have one car at 6 and another at 3 for instance.



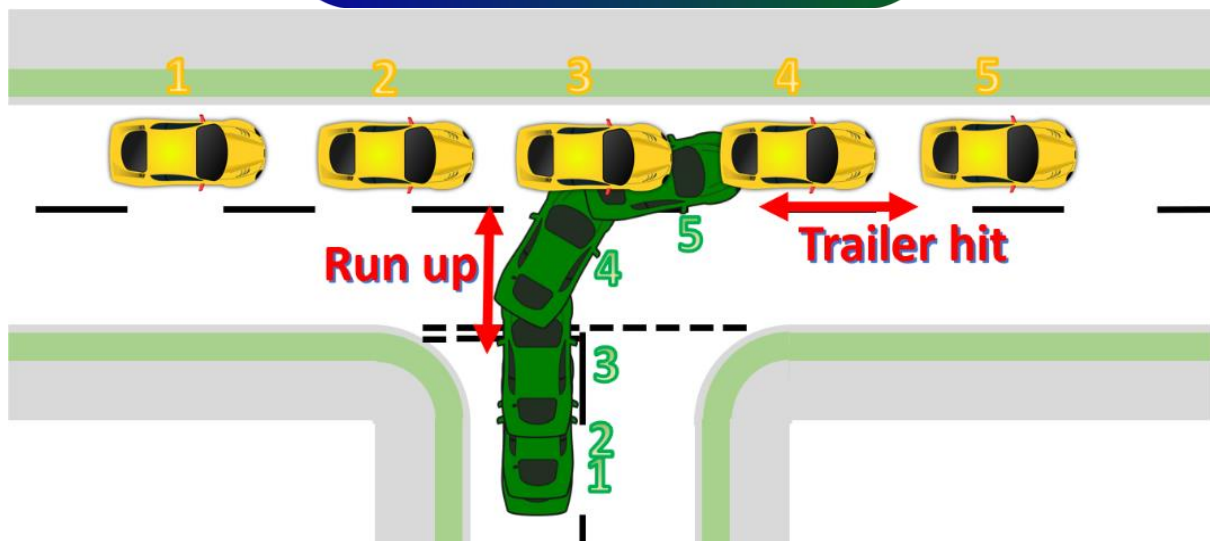
Above, YELLOW and RED are approaching from the right, GREEN intends to get between them.

GREEN has stopped at the line and has to wait for YELLOW to pass because there is no room to take a run up. By the time GREEN is at 6, YELLOW has passed and RED is just about to arrive and so will have to take evasive action – not good.



This time, GREEN approaches slowly to allow YELLOW to turn up. GREEN takes a run up and is able to follow YELLOW out by trailer hitting. If it was the same as the previous diagram, GREEN would have time to build speed and keep a gap to RED.

I'm not suggesting you stop 2 or 3 cars back from the line, I'm saying take your time to arrive.



This time, GREEN has again gone to the line, but he's turning right. This means that there is still a gap to take a run up and trailer hit YELLOW.

Now I'm talking idealism here. I'm not saying it's bad to go to a line, I often do myself. I'm saying that there are ways of doing things and there are good ways of doing things.

Trailer hitting is what I call it but if you read 'Roadcraft – the Police drivers handbook', they are basically saying the same thing. It's about improved awareness and planning, not just turning up but turning up at the optimum time.

For example:

You approach a roundabout (there's an example on the next page so don't worry).

There are cars coming around the roundabout.

By looking nice and early as you approach, you get a good view and can see what's coming. You have established that there is a hole you can drive into in 20 seconds time.

Option 1:

Arrive after 10 seconds, wait 10 seconds then go if there is still a hole big enough for your car and accelerating time. Because you are stationary you are also a target for being hit from behind.

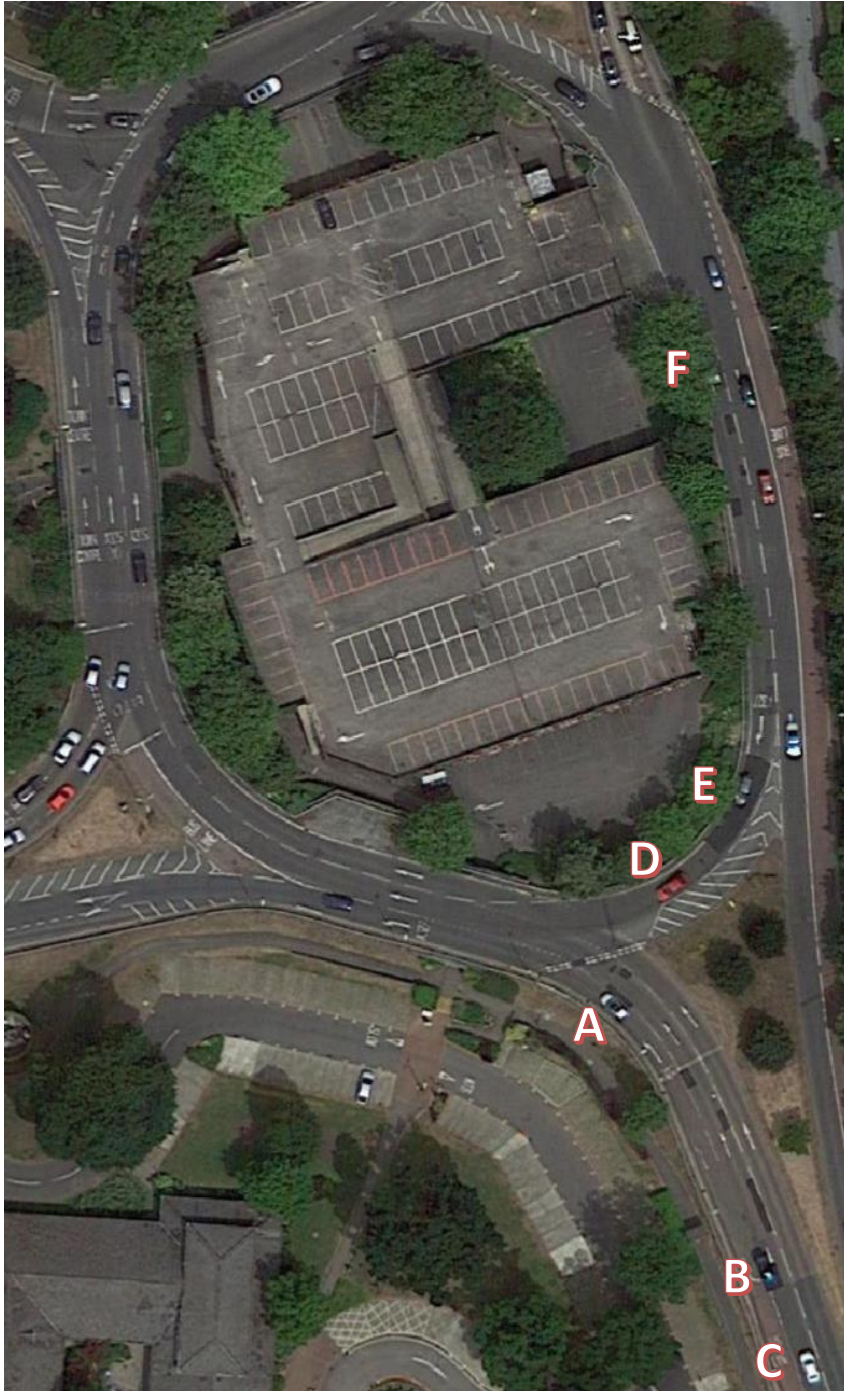
Option 2:

Control your speed on approach, maybe slow down early. Get your timing right and accelerate so that you arrive in 20 seconds time at the same speed as the approaching traffic. Flow out into traffic having not stopped.

Any car who chose option 1 will now watch people who took option 2 drive straight passed them and disappear into the distance. People taking option 2 can take pretty much any sized hole to put their car into unlike option 1 people who need a big gap.

Both options are valid, but varying your speed and merging at the right time is so much better.

Remember though, you always 'expect to stop, look to go' and you should plan to stop about a car length from the give way line if there is a lot of traffic (to give you room for a run up). If this will compromise vision though, never mind about a run up, get to where you can see.



The next advantage is that you don't need to be particularly great at moving off (handy for learners).

Learners can stall and if the car behind sees you go, starts looking right and moves off, they might drive into the back of you.

Additionally, if you're at the line and stall, you're likely to stall into the roundabout and in front of approaching cars. You could well fail your test for this.

If you stayed back from the line and stalled, you would still be in the side road. Stalling in front of a stationary car behind you is only a driver fault so you could still pass your test.

If all you did was cruise up and merge into traffic, there are no issues.

It's ironic that an 'advanced' driving technique is more suited to learners.

Anyway, on the diagram, Car A has turned up at the same time as D – doh! They

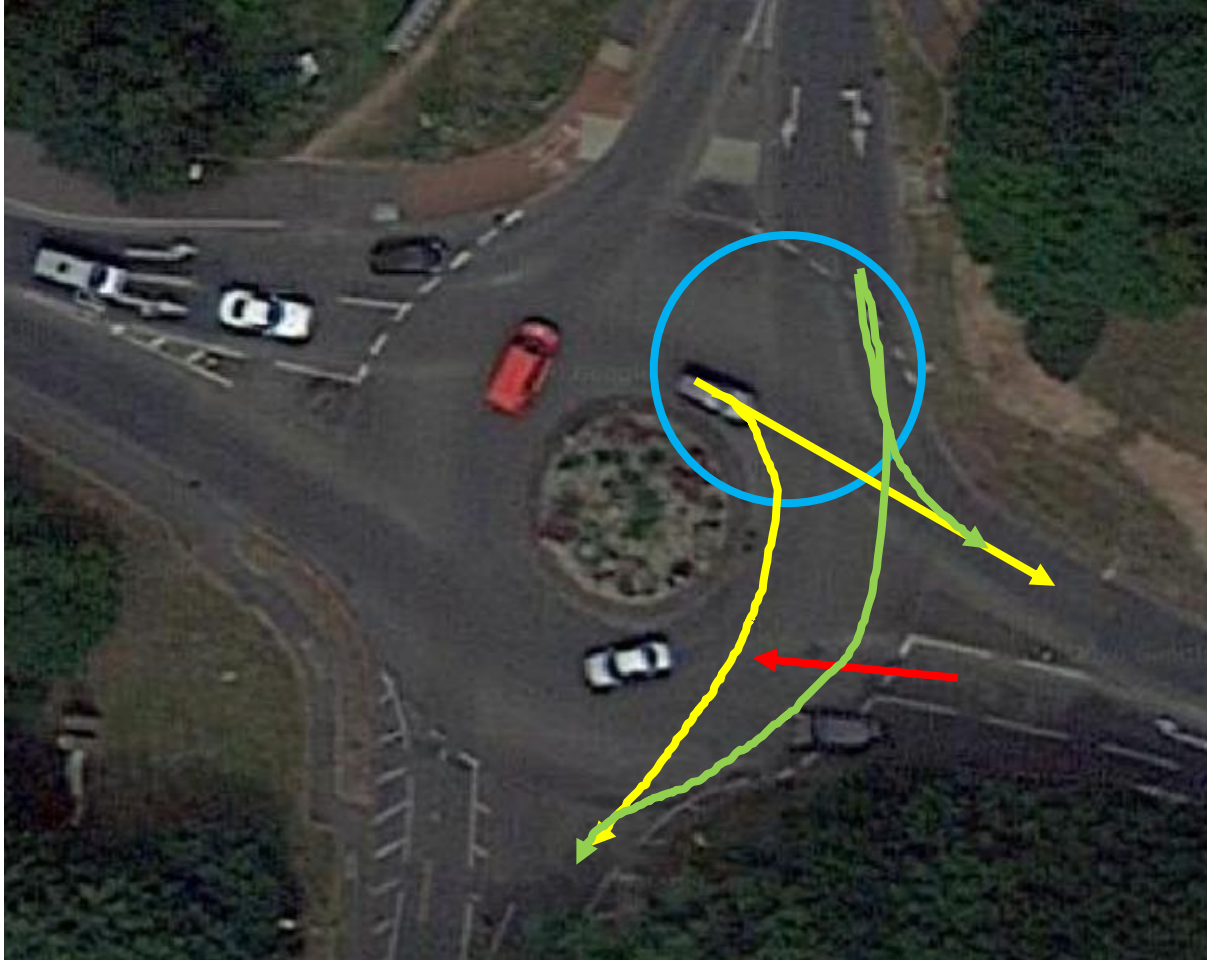
will have to wait for E as well – double doh – poor awareness and planning.

Cars B and C get a good view of D, E and possibly F.

They can now speed up or slow down on the approach to get their timing right and just flow out into the roundabout, probably at 30mph in 3rd or 4th gear.

Told you it was a game of skill and timing. Can I position myself to get a good view, not run out of road and then smoothly flow into traffic with no fuss? A bit of practice and it's very satisfying.

Danger Zone



The danger zone (blue circle) is an area that is quite close to you where a car could turn on you.

We are the red line wishing to go out. There is a car at the start of the yellow line and we can pretend there's also one at the green line.

We don't know yet if those cars are going into the road we are leaving or turning across our path.

I will show you shortly how to try and work it out but if there's a car only a few car lengths away from me who could potentially drive at me, I wouldn't take the risk. Just wait until you know what they are doing, better to stay alive than take unnecessary risks.

From a driving test point of view, the examiner is checking to make sure you aren't taking unnecessary risks.



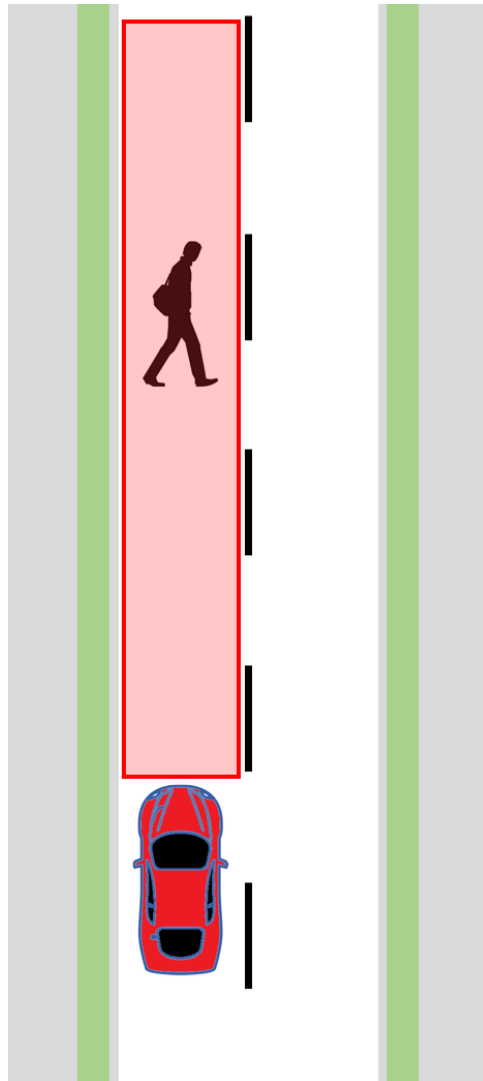
This time, YELLOW is at risk of BLUE and GREEN, both may turn across their path.

YELLOW needs to adapt their speed so that they turn up:
After BLUE has committed to going ahead
Before GREEN arrives and can potentially turn right.

To not adapt the timing would mean that YELLOW would just wait at the roundabout when they could have gone.

**Get your timing
right to turn up
when a car is not in
the danger zone**

Death Zone or shields



The death zone is an area in front of a car that you would be worried about going into for fear of death.

You know this from a pedestrian point of view.

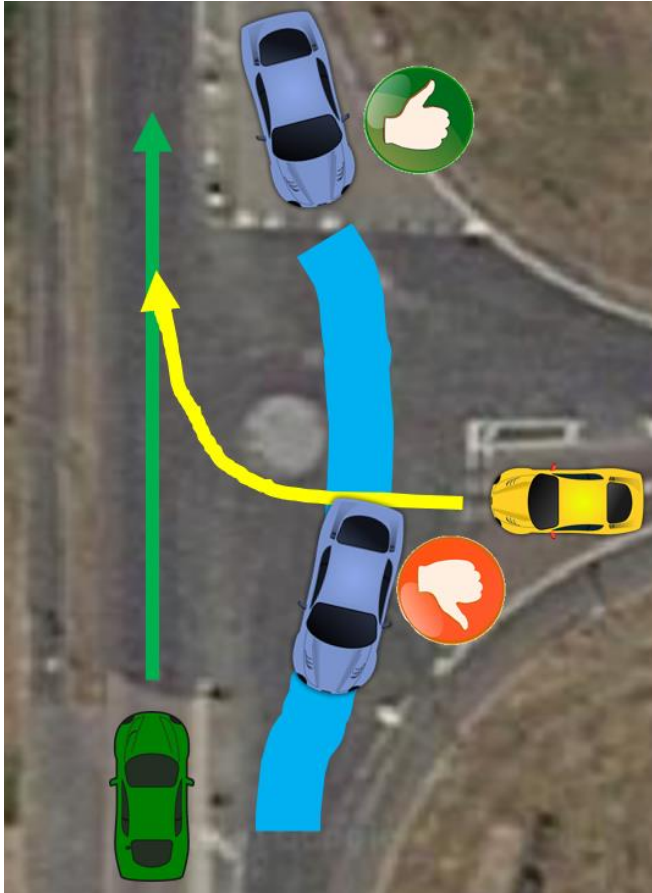
There's a car driving at you and you assess how long it will take that car to get to you versus how much time do you need to cross the road. The faster their car, the further away they need to be to allow you the time you need.

It's not 'are they there', it's 'how long will it take them to get to you'.

Every road user does this, pedestrians and drivers, and knowing that everyone is doing it means we can use it to our advantage.

One man's death zone can be another man's shield, it depends on situation.

Good Death Zone / shield



For this diagram BLUE is shown in two different places, there aren't two blue cars.

GREEN should give way to YELLOW.

However, YELLOW should give way to BLUE.

If GREEN thinks that YELLOW will be held up long enough to get through safely then they should go.

GREEN is using the death zone of BLUE as a shield to stop YELLOW coming at them.

This comes back to trailer hitting and the skills employed there.

Yes, GREEN could just turn up and wait, but if he saw that BLUE was coming and got his timing right, he could turn up and go across as BLUE blocked YELLOW.

So by turning up at the best time, GREEN can use BLUE and not even need to stop, he

just needs to vary his speed to arrive when BLUE does.

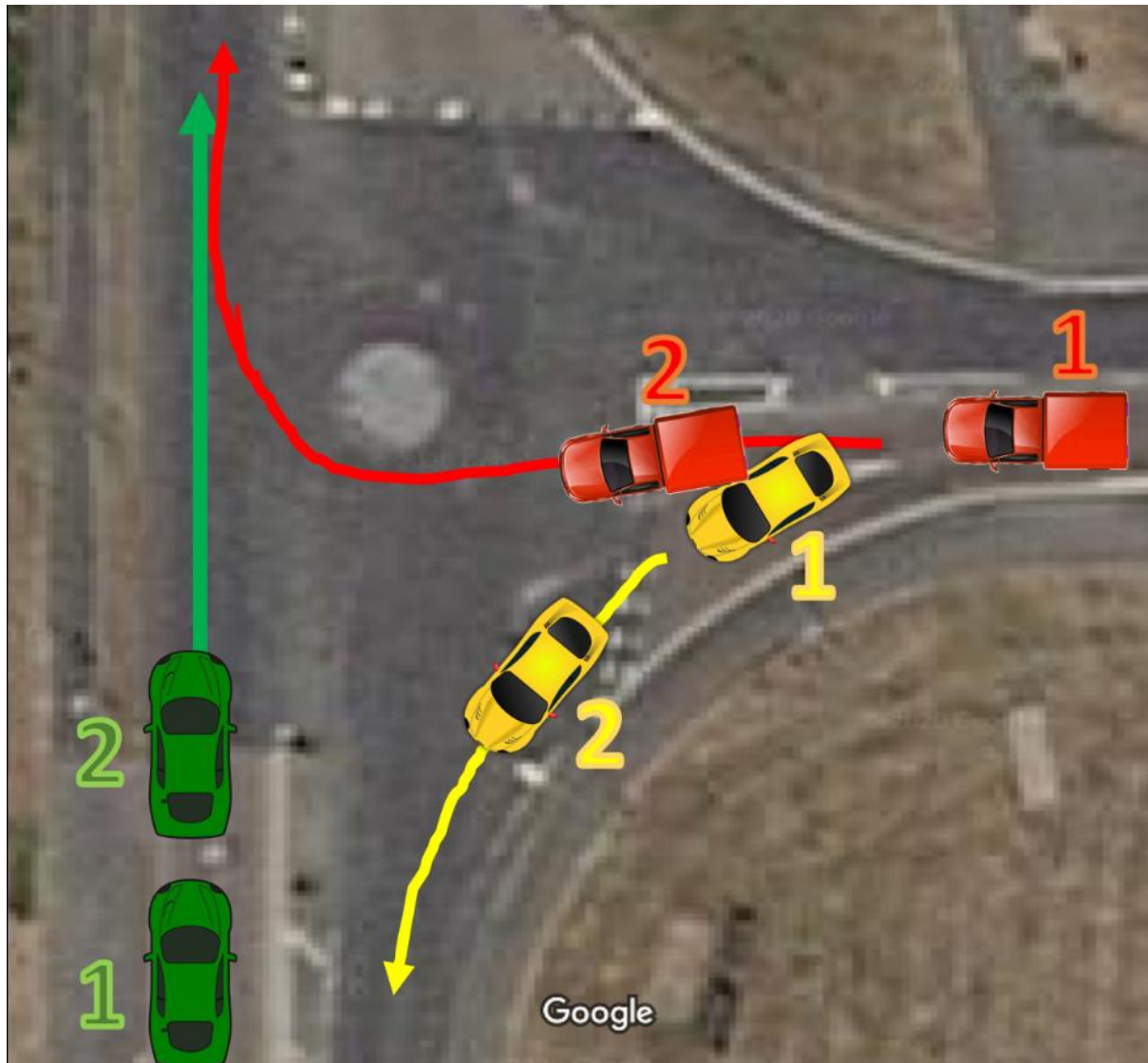


When GREEN goes out, BLUE still needs to be to the right of YELLOW.

YELLOW needs to be concerned about hitting or being hit by BLUE.

If BLUE is in front of YELLOW, it is already too late for GREEN to go out because YELLOW is trailer hitting.

Pretend / Fake shield



GREEN may think that it's safe to go because YELLOW is turning left, but look at the 'big picture'.

RED is going right and can enter the roundabout as soon as YELLOW moves slightly to the left.

GREEN would now pull straight into the path of RED and would fail their driving test as a result.

This is a common learner error, only looking at the first vehicle and not anticipating how events will unfold. Don't just look when driving, you must 'see' what is going on and drive accordingly.

Vision being blocked



On the approach to junctions (especially roundabouts), you often find the yellow 'keep left' bollards.

These bollards are taller than the height of most vehicles' indicators and as such, vision of the indicator is often obscured.

In these pictures, you can see that the bollard is obscuring our view of the indicator of the blue car.

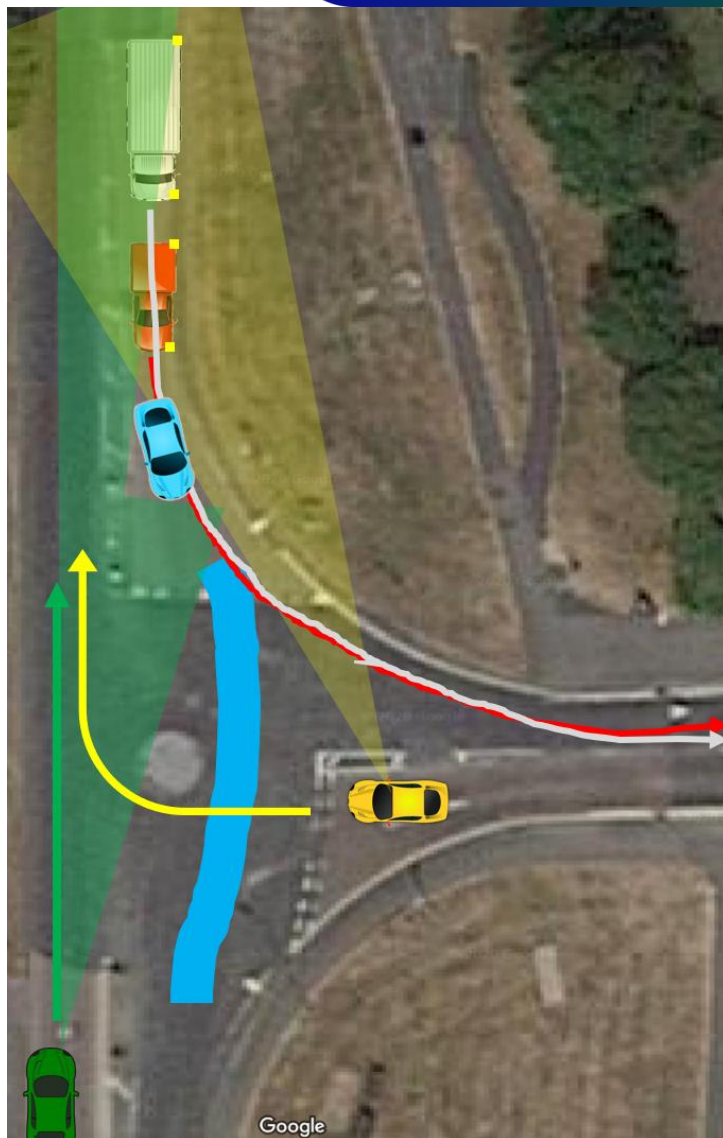
Keep in mind that the 'Google Maps' car that takes these photos has the camera on top of their vehicle. In the real

world your eyes are much lower and so vision is even worse.

The blue car could turn across our path, he could be indicating but we can't see it. If you assume that he is indicating, you will 'prepare to stop' and stay safe.

The silver car behind the blue one has both indicators obscured by the blue car. The silver car could go in any direction so you must also cater for that. If they turned left, they would not shield you from anyone emerging from the road on the right.

You must assume that any indicator you cannot see is on. That vehicle may turn across your path (you'll drive into their death zone) or turn away, in which case they are not a shield.



The triangles are showing what each driver can see.

GREEN can see that BLUE is going ahead and might assume that RED and SILVER are also going ahead.

BLUE is blocking GREENS' vision of the following vehicles indicators.

YELLOW can see the left side of all three vehicles. They can see the indicators are flashing on RED and SILVER.

YELLOW knows that they can trailer hit BLUE when they're happy that RED and SILVER are actually turning left.

You must assume that any indicator you cannot see is on. That vehicle may turn across

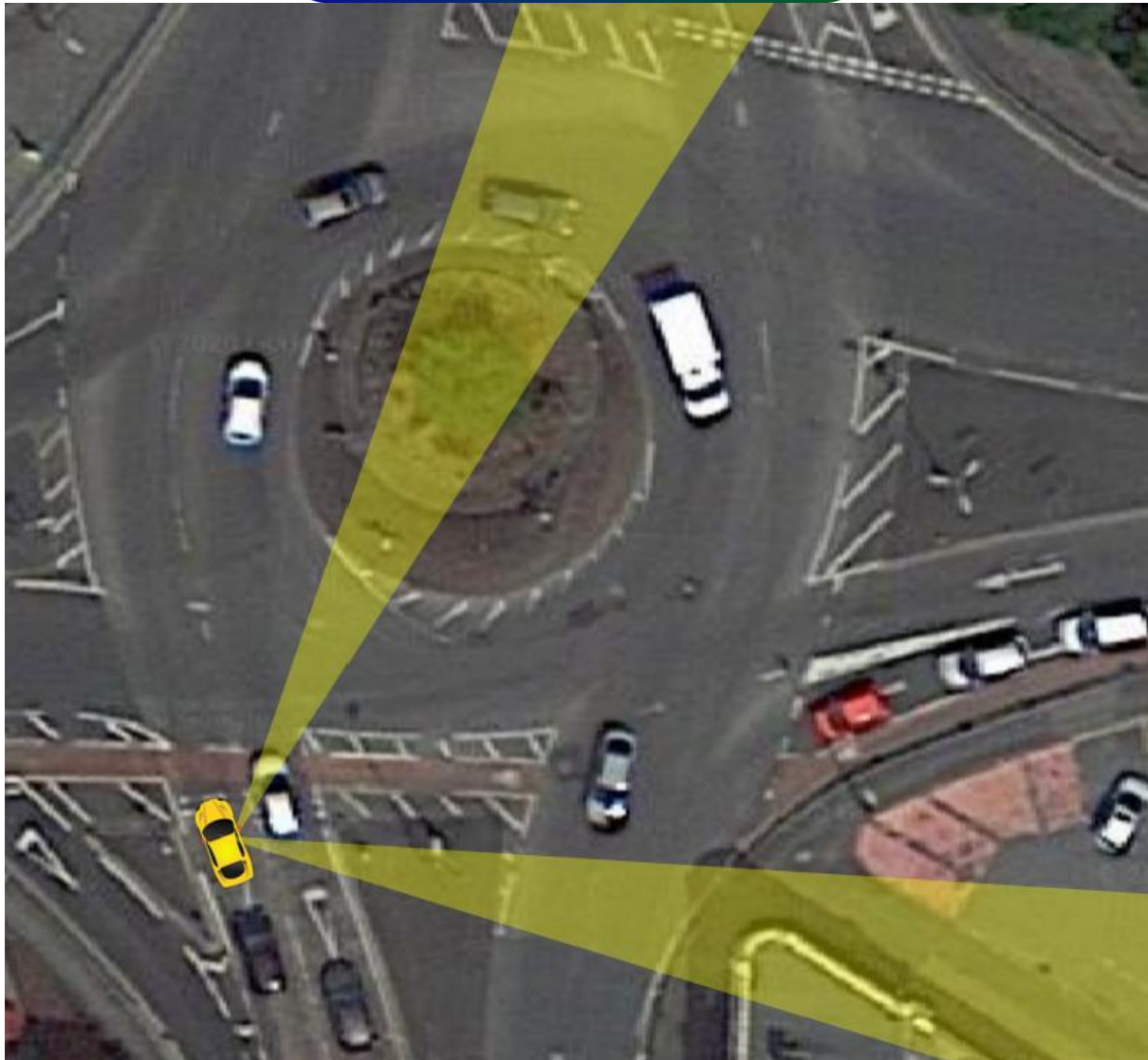
your path (you'll drive into their death zone) or turn away, in which case they are not a shield.

Look before or after cars



This picture shows that the black car A has positioned itself between B and C. A now gets a good view of the roundabout and can go as soon as they are happy it's safe.

They are not dependent on what car B is doing.



YELLOW has made a mistake. They have driven up to the line but the white car is blocking their view. This shows that YELLOW wasn't looking on the approach and has now got themselves in a bad situation.

If YELLOW stays here, they can't see if it's safe to go until WHITE moves off; they have missed an opportunity to go. Worse still, if the grey car behind WHITE then stops where WHITE did, YELLOW will have to wait all over again.

YELLOW would have been better off doing what the black car behind them did.

To get out of this predicament, YELLOW should now move forward to see over the bonnet of the white car.



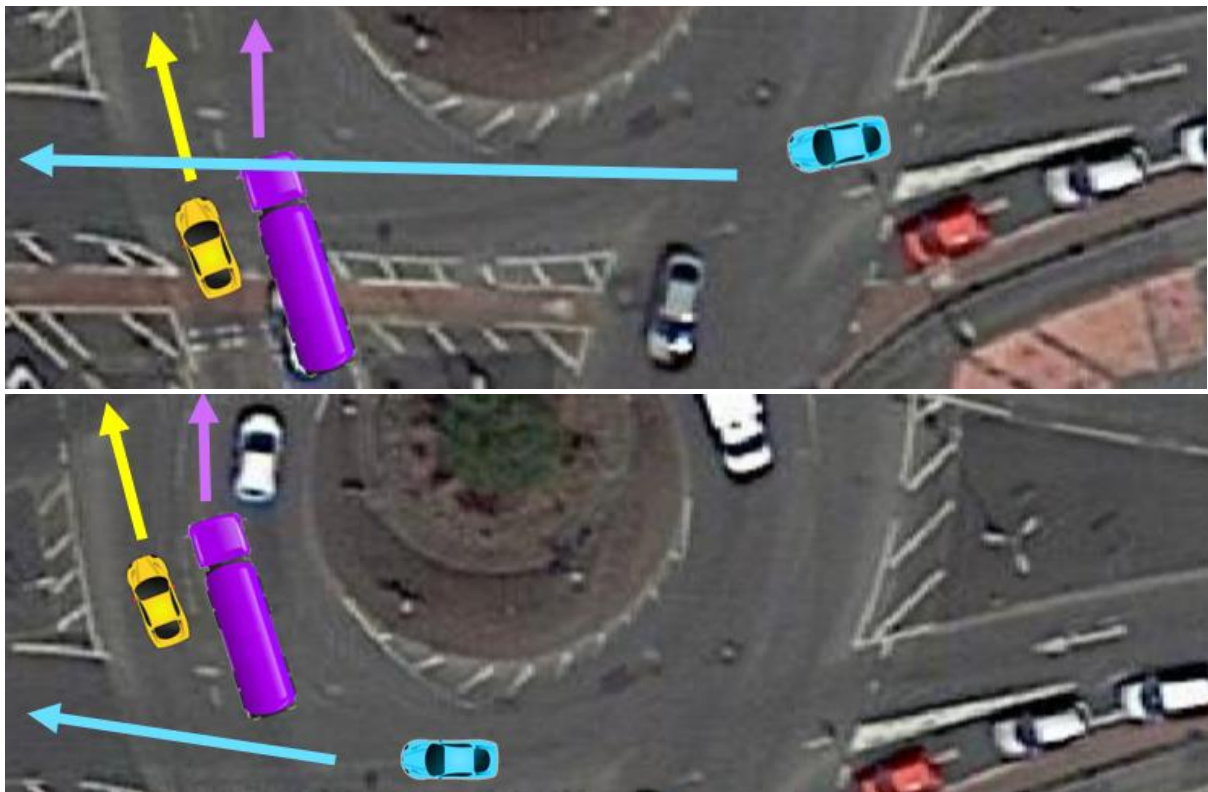
They must make sure no one is using the cycle path and creep slowly but this is an effective way of getting your vision back.

Large vehicles and view

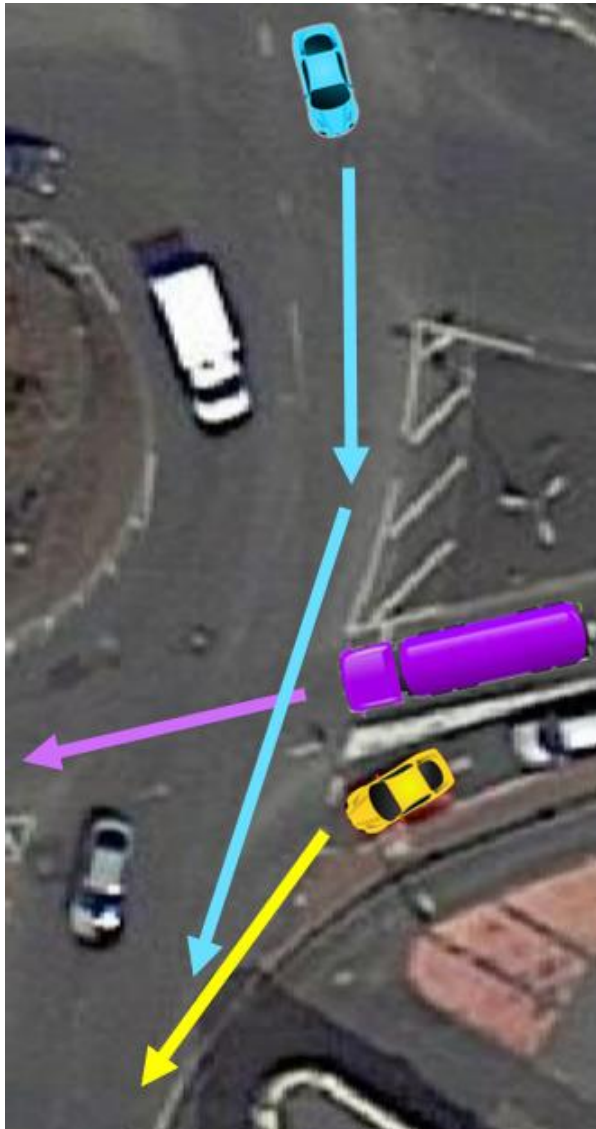
Sometimes I will deliberately stop with my vision obscured and this is when I use a large vehicle.



YELLOW can't see BLUE. YELLOW is going in **the same direction** as PURPLE LORRY. PURPLE LORRY can't accelerate that quickly, so as the lorry moves off, YELLOW can easily go with them safe in the knowledge that if anyone gets hit, it'll be PURPLE LORRY and not them.



YELLOW is fully shielded by PURPLE LORRY throughout.



This time, YELLOW is going left and LORRY is going ahead.

YELLOW can't see BLUE approaching.

If YELLOW isn't quick, as soon as LORRY has gone through the left lane, BLUE can get around the back of LORRY.

YELLOW is now exposed to a collision with BLUE.

If you are pulling into the path of potential oncoming traffic, keep in mind that a vehicle will shield you for only a short period of time.

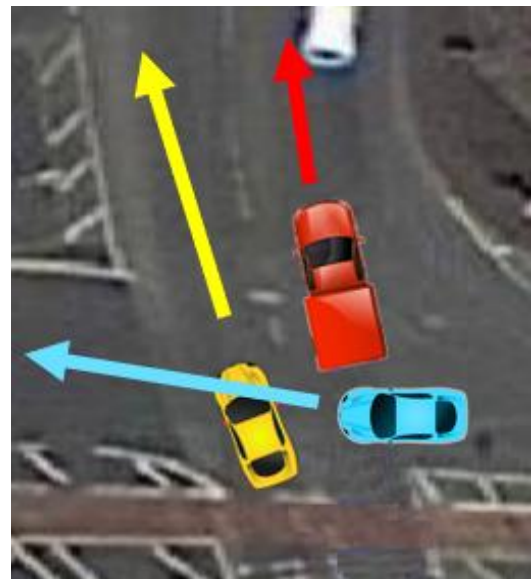
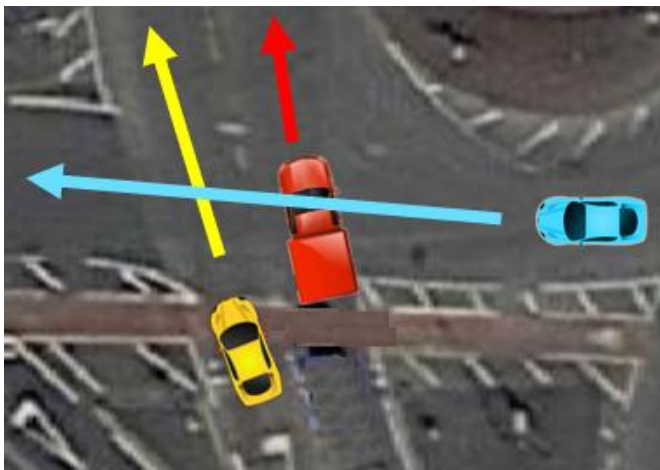
Faster moving vans

A word of caution here. Sometimes, people will 'nip' out in front of oncoming traffic when perhaps they should have waited, not just vans, lots of people do this.



This time, RED is blocking YELLOWS' view but RED is a light van and can accelerate at similar speeds to a car.

Because RED moves off before YELLOW, YELLOW isn't fully shielded by RED, they could well be hit!



If your vehicle isn't fully shielded as you move off, then you should not be using that vehicle to shield yourself.

5 Things

Now that I have given you food for thought, there are actually three attributes to a vehicle that can help you understand where someone is likely to go and two additional skills that will help you identify the three attributes quicker.

You need at least two, hopefully three of these attributes to agree before you know what someone is doing, and even then, they can change their mind!

It's the IPSGA routine (check my website about this). You drive by this routine and because of it, people can see what you are doing and guess your actions. Obviously people don't know what gear you are picking nor how hard you want to press the accelerator, those are internal things, but the outcome of those decisions can be seen externally and it is those things that people make decisions on.

This should be a warning to you to ensure that you give clear signals to others so that they don't misinterpret your actions.

The 5 things to consider are:

- Information
- Position
- Speed
- Tyres
- Lean

Information



This is someone giving off signals, the most common of which would be the indicator.

They could still use hand signals as per the highway code, use brake lights, point fingers etc.

Remember that this is fraught with danger.

An indicator should be thought of as an indication of where someone might go,

an indicator is just a light bulb!

You might go out clubbing one night and leave a bedroom light on to trick people into thinking that you are home. Well that's just a light that's been switched on! I went to bed recently and left the bathroom light on by accident, doesn't mean I was in the bathroom all night!

The point is, a light bulb is a light bulb and the person in control of the switch may not know that the light is on.



GREEN car

In the picture above, GREEN is approaching a junction indicating left.

Option 1. They could turn into the side road before the pub.

Option 2. They could park outside the shop.

Option 3. They might not know the indicator is on and just carry on down the road.

Option 4. They might stop before the junction to let someone out of the car.

YELLOW might assume option 1, but if it's actually option 2 or 3, they'll be hit. Yes GREEN would be giving a misleading signal but it's still YELLOW's fault to pull in front of a car. They would have to

prove to the insurance company that GREEN was indicating and even if they managed that, they would still be partly to blame.

(Options 1 and 4). GREEN should only indicate left if they are parking up before the junction or turning left into the side road.

(Option 3). If they are continuing down the road, they should not be indicating at all.

(Option 2). If they are parking outside the shop, they should only indicate left after the previous road (somewhere near YELLOW). Their brake lights would warn BLUE that they are slowing and then the indicator would confirm why.

If YELLOW arrived at a junction and found GREEN approaching with an indicator already going, how do they know the indicator didn't relate to something that GREEN has just done (like emerge from another road)?

If YELLOW arrived when GREEN wasn't indicating, then GREEN started to indicate, that might help YELLOW narrow down what GREEN might do but it's still dodgy.

RED van



RED is approaching a junction indicating left.

Option 1. They may turn into the pub car park.

Option 2. They may park by the side of the road before the pub.

Option 3. They may go to the end of the road and turn left.

The point is, an indicator alone just implies that someone might do something but doesn't mean they will.

Remember, the rights and wrongs of doing something don't come into it.

Rule 201 of the highway code states that you shouldn't reverse out of a driveway onto a main road but how many households break this simple rule every day? Loads of them! I reckon more people break the rule than comply with it. They shouldn't be doing it, but they do!

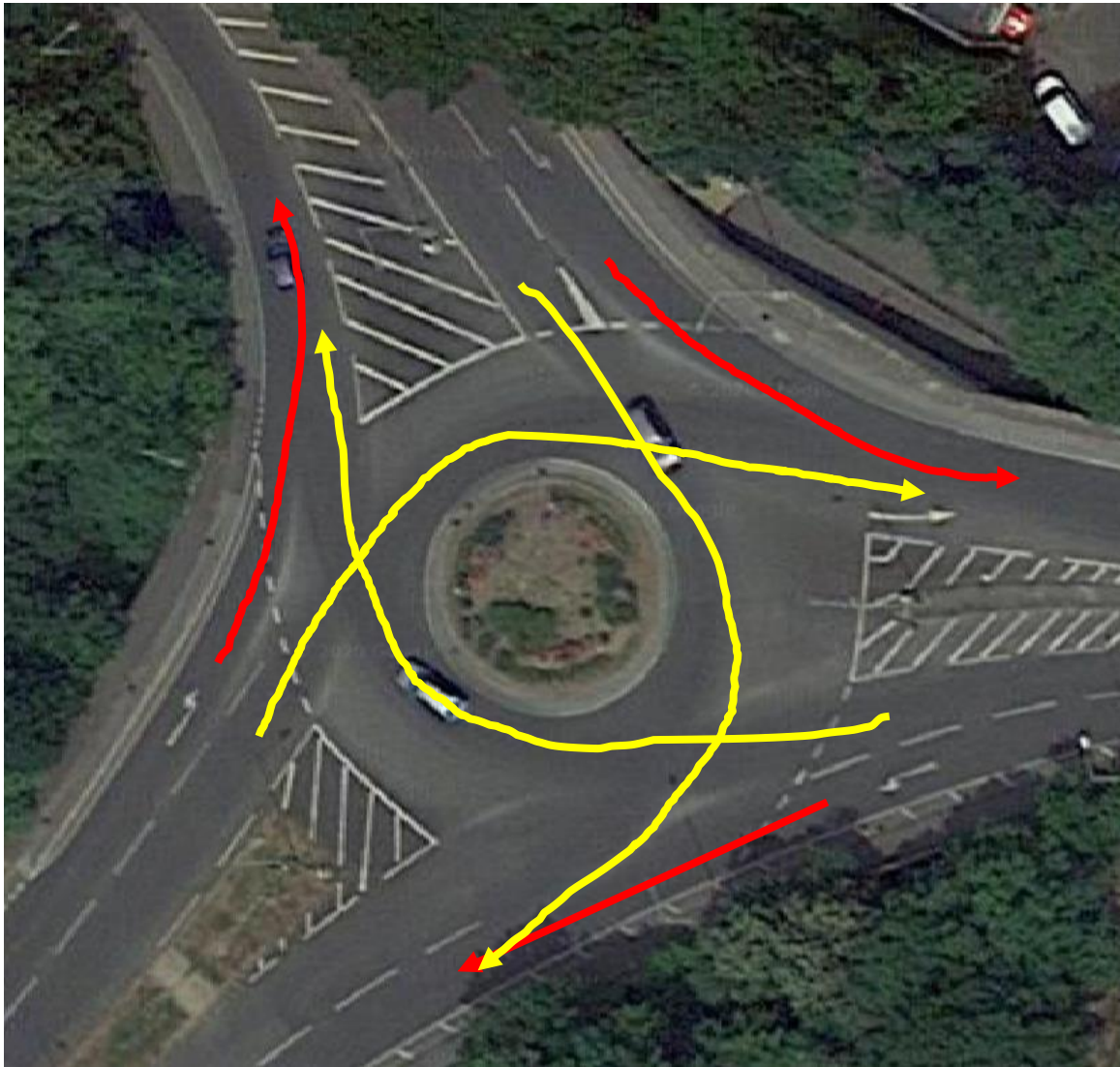
Sunlight might hide the indicator, by lighting it up. I

often ignore indicators when I'm driving, they're a bit rubbish if I'm honest. The other stuff is much better!

Position

Most of the time, people get in the correct place when driving. There are always exceptions, people are human and make mistakes but generally people position correctly.

Yes, if there is only one lane then of course they will have to choose that lane and could go in any direction but if there are multiple lanes, they generally get in the correct lane.

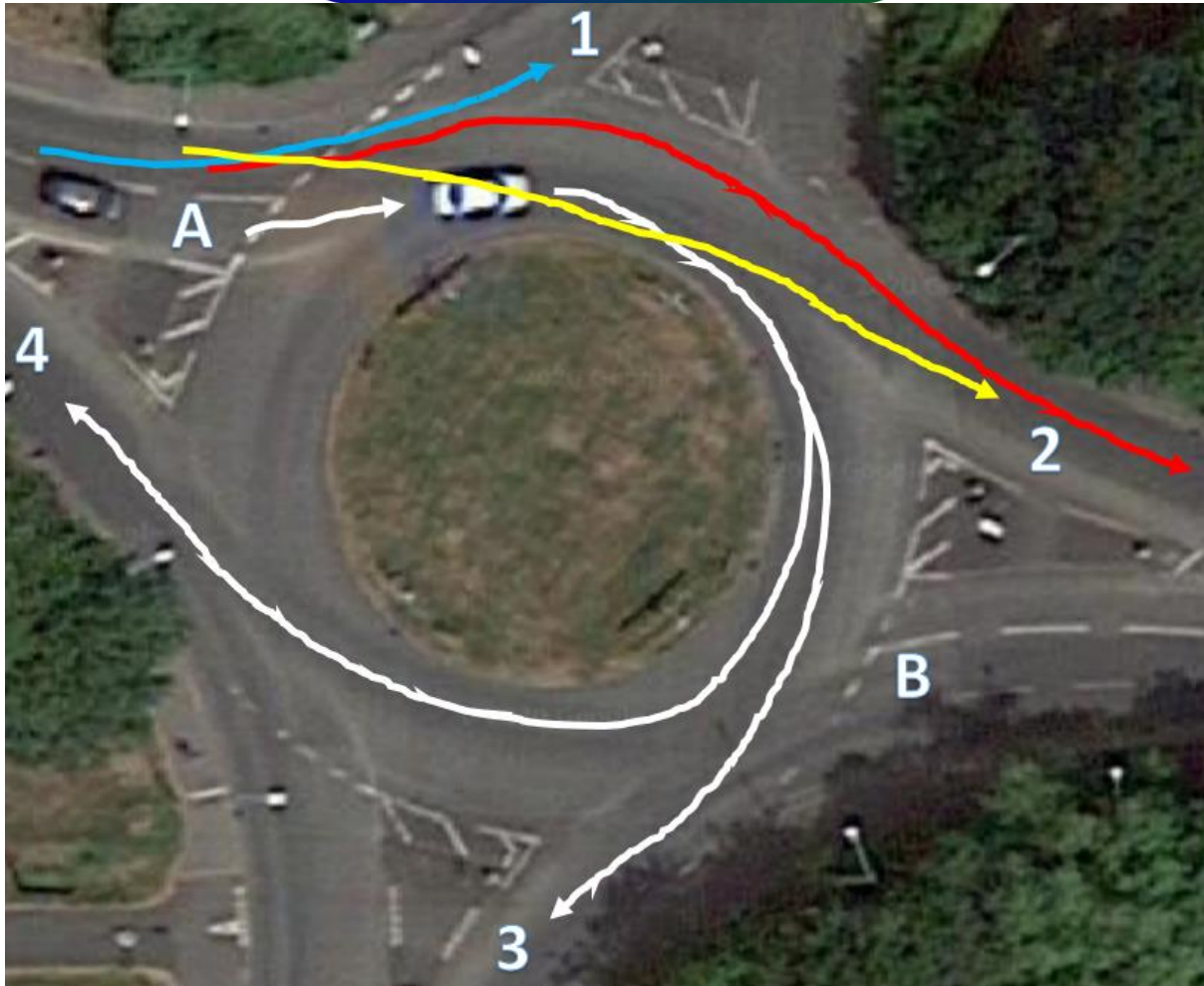


There are markings on the floor that say which lane you should use.

There are 2 cars on the roundabout itself near the island, this means they are coming around it. They may follow the yellow lines, or they may go completely around the roundabout, but we could cater for that. They do not look like they were following the red lines though.

They may be indicating correctly, incorrectly, or not even indicating at all, but who cares? Their body language is telling me what they are doing.

Let us look at the next one.



WHITE car is positioned in the middle of the roundabout and looking at the angle of the car, this means that they originally started at A.

Why position at A?

- If I wanted to turn left, I would follow the blue line.
- If I wanted to go ahead, I should take the red line.
- If I was being naughty and wanted to take the shortest route to exit 2 then yellow line is the quickest route.
- We are told to use the right lane when turning right so, all the signs are there for turning right. They may still do a U-turn remember.

I think they are going to exits 3 or 4 and I think the same about the car behind them.

If I was approaching from B, I would drive expecting both cars to drive in front of me. Again, I might not know, or care, what their indicator is doing.



My thoughts are:

RED is going to 2. I think this because the front of the car is moving away from the roundabout, (see Tyres later on). I also think that they started from 3 because of how the car is positioned. I would expect the car to be flatter to the roundabout if it had come from 4.

BLACK is going to 1.

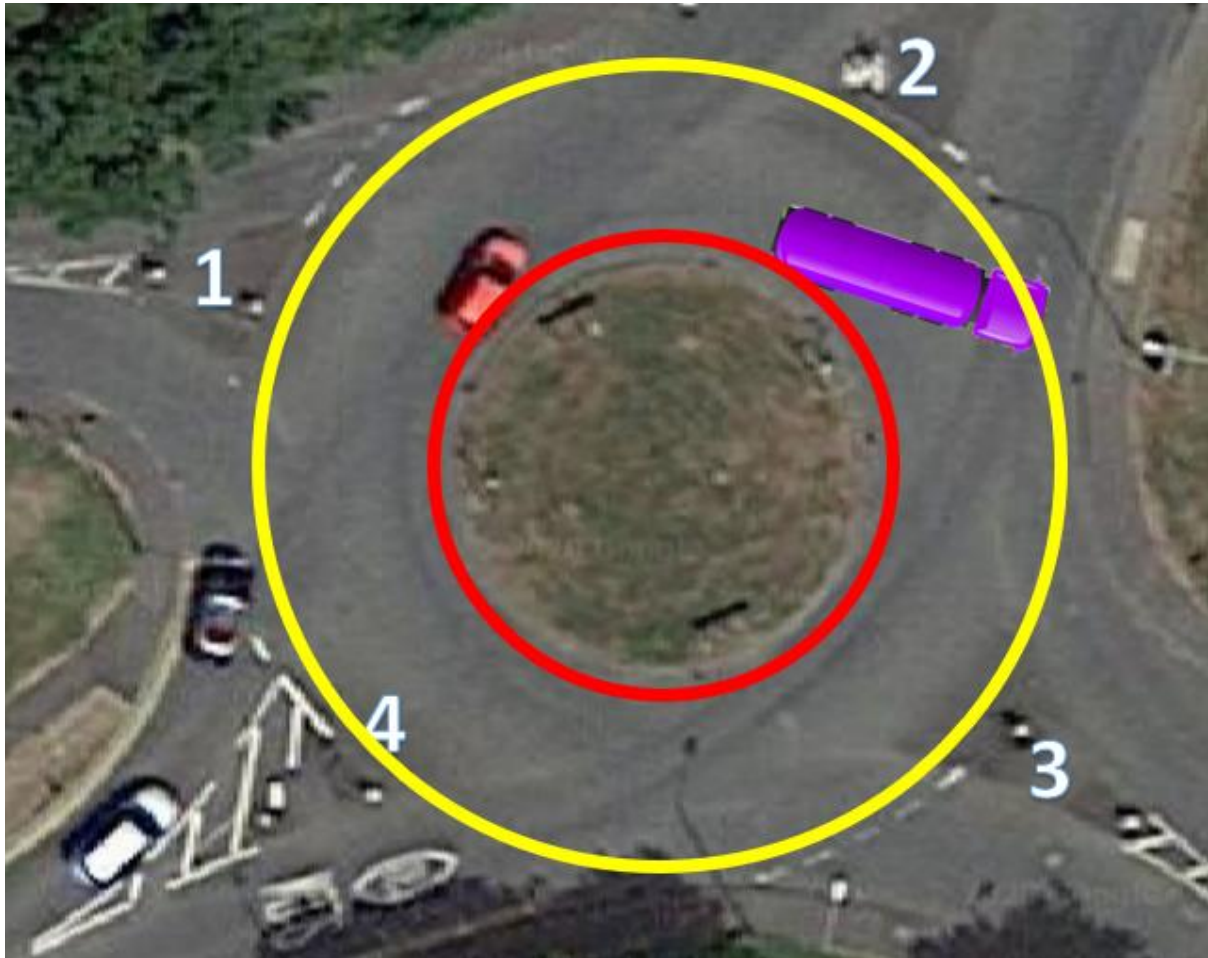
WHITE is going to 2, 3 or possibly 4.

It's pure speculation on my behalf but I'm highlighting that you can try and work out what people are doing by body language.

Other vehicles

Don't forget that large vehicles like buses and lorries will need to take funny routes to get around tight corners.

When we drive a vehicle, we drive to cater for the rear wheels. The longer your vehicle, the wider the front of the vehicle has to go to allow room for the rear of the vehicle.



This is where indicators really do help! The front of the lorry is on the outside of the roundabout (yellow line) to allow the rear to get around the inside (red line).

This means that a lorry may position in the left lane to turn right. To be fair to lorry drivers, they are good drivers and they will generally have their indicator going when turning, but you may not be able to see it because of sunlight or a sign blocking your view, so do keep this in mind.

Cyclists and horse riders have been told to use the outside of a roundabout to turn right so they would follow the yellow line. Again, they should be giving a hand signal, but if their horse is being an idiot, they might not have a spare hand to indicate with.

Always think of others and their actions, they may have been taught differently to what you've been taught.



Here we have a mini roundabout. There isn't much room and the highway code states you shouldn't use them for making U-turns.

However, it's not the roundabout itself which is the issue, it's how much room is there around the roundabout.

The blue line is where you would position to turn right.

The red line is what would happen if you tried to do a U-turn by following the blue line. You wouldn't have room and you would have to reverse on a roundabout – not good.

The yellow line is what you would do to do a U-turn. Position as far left as you can, with a right indicator on to maximise the amount of available space. Keep in mind that other people wouldn't expect you to do a U-turn, so keeping the speed of your car low gives them time to see what you are doing.

Now you know how to do it, you can keep an eye out for other people doing the same thing and give them room.

You have just discovered a situation where you position left, indicate right and keep speed low. Those 3 elements combined show people what you are doing.

See, I said that we are looking for two or more attributes to work out what people are doing!

Speed

We have already started to see speed getting in on the game but let's look again at previous examples and see how speed will help us.



Here we are again, this time we'll incorporate speed into the assessment.

GREEN car

In the picture above, GREEN is approaching a junction indicating left.

Option 1. They could turn into the side road before the pub. They would be slowing for the corner and get to an appropriate speed to turn. Once they start to turn, YELLOW could emerge but only if they are happy with what BLUE is doing. Remember that GREEN is only blocking BLUE for a short period of time.

Option 2. They could park outside the shop. They would be travelling too fast to turn into the side road, therefore, if they look too fast to turn, they're not turning! They would look like they're braking for the shop though! YELLOW would have to decide if they had enough time to outrun the GREEN car.

Option 3. They might not know the indicator is on and just carry on down the road. In which case they would look too fast to stop or turn anywhere. If they look like they're travelling fast, they probably are, in which case, don't pull out in front of them.

Option 4. They might stop before the junction to let someone out of the car. Their speed would be greatly reduced and you'd realise that they won't get to the junction. Providing that BLUE is held up sufficiently, YELLOW could emerge.

RED van



RED is approaching a junction indicating left.

Option 1. They may turn into the pub car park. They would be braking for the car park; they may even swing wide to get a better entrance.

Option 2. They may park by the side of the road before the pub. They would be braking to a stop and moving more to the left.

Option 3. They may go to the end of the road and turn left. Their speed would be commensurate with the end of the road and would look too fast for the car park entrance.

As you can see, reading people's position and speed are far more useful than indicators but if the indicator backs up what the other two imply then great!

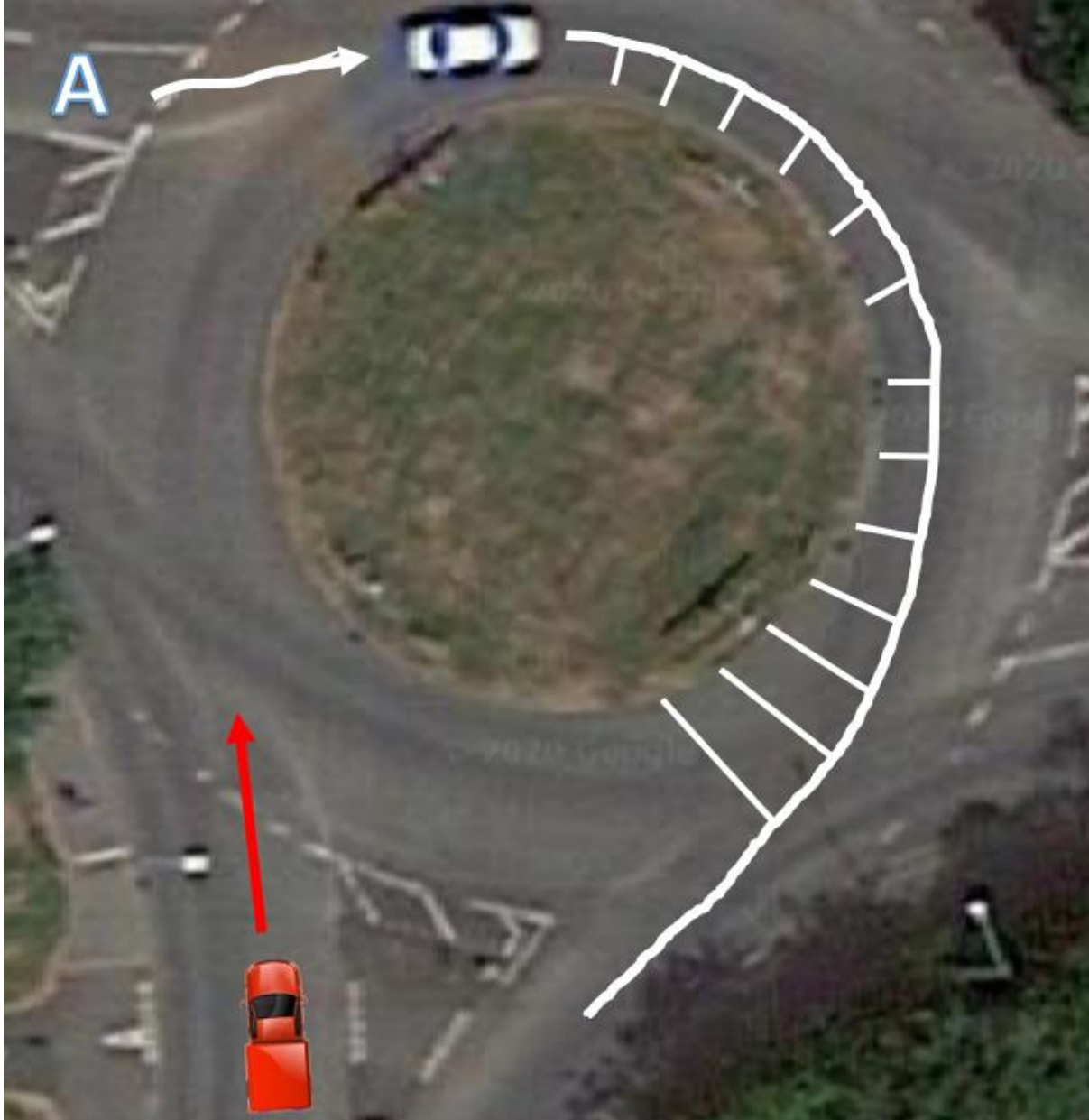
You absolutely must get used to reading the three attributes and don't just rely on indicators. If you only rely on indicators, it's only a matter of time before you crash or fail your test.

Tyres

Wheels / tyres, I do not mind how you think of it.

You have 2 things you can look for:

- The angle of the tyre
- The position of the tyre relative to the surroundings

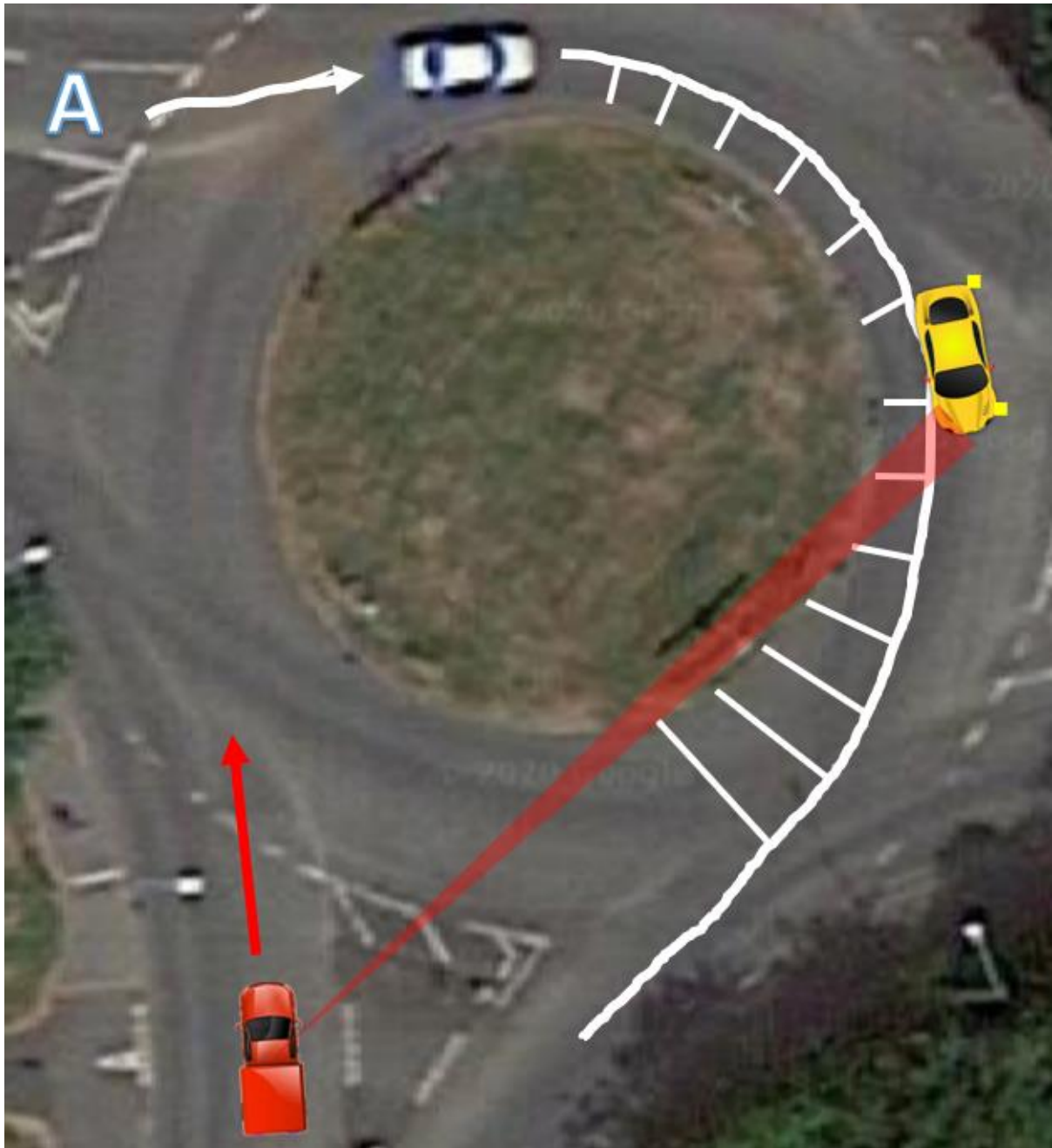


Here we are again at an earlier diagram.

RED is waiting to go out but WHITE is coming around, possibly indicating right. Maybe they get off the roundabout still indicating right because it's a BMW driver.

The distance between the tyres of the car and the roundabout will remain fairly constant until the vehicle starts to exit the roundabout. This is a quick way of seeing that Position is changing.

You may even start to see the vehicle pick up speed because people accelerate off a roundabout.



I have now placed YELLOW in there to demonstrate another point, it's basically the white car but a few seconds later.

Modern cars tend to have their indicators set back from the front, this means that RED will have difficulty seeing YELLOW's left indicator, another reason why I don't rely on indicators.

By looking at tyres, you can see a lot earlier that YELLOW is getting off, very useful if you are using them as a shield to block traffic from your right.



In this diagram you can see the red path and the yellow path.

Purely by looking at the tyres relative to the surrounding road, you could tell if RED was going left or ahead.

Again, you do not need to look at indicators to tell you this.

Left turn only lanes



This is a throwback to old ways of teaching.

Years ago, we were taught 'if you are in a left turn only lane, you do not need to indicate left because, where else are you going to go?'. This depends on if your lane ends or not, but lots of experienced drivers have forgotten that bit and get this wrong.

The picture above shows that there is a left turn only lane but there's a give way line at the end of it.

YELLOW can't see that BLUE is in a left turn only lane and dutifully waits for BLUE. From YELLOW's point of view, BLUE is in the left lane with no indicator going and by the basic rules of driving, that means BLUE is going straight ahead, so YELLOW waits.

Then BLUE goes left. YELLOW mutters 'B*\$****'!



GREEN also goes left without indicating. YELLOW exclaims 'not for my sake, but for **** sake'!

RED doesn't know the area, he couldn't see the arrow on the floor saying it's left turn only because his view was blocked by GREEN and BLUE. He goes straight on with no indicator.

All three vehicles think they are doing the correct thing, no one is indicating but they're going different directions.

YELLOW needs to look at the tyres. Are BLUE's tyres pointing in the direction of the yellow line or the red line? If you look at the tyres, they will tell you which direction the vehicle will move in – easy life!

So when should you indicate then out of interest?



Here you should indicate left because you are crossing a give way line.



aren't adversely affected.

This is a filter lane or bypass lane.

Here you do not need to indicate because the left lane only goes left.

You can still indicate left if you want to, but you do not have to.

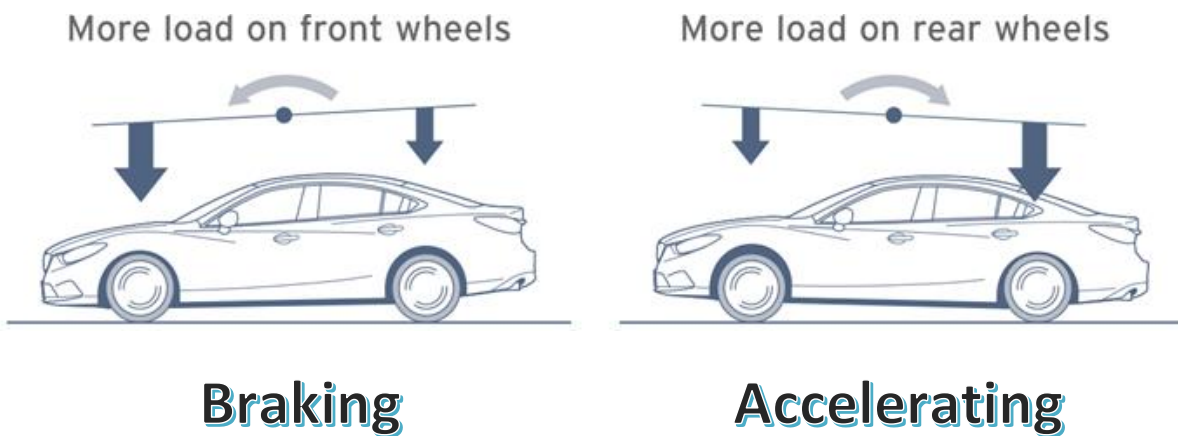
As a general guide, I suggest you indicate left whenever you are turning left. If it subsequently turns out to be a filter lane you can always cancel the indicator.

It's better to clearly show your intentions so that people around you

Lean

This is to do with vehicle dynamics. I am not an engineer but a keen enthusiast so don't beat me up if you find a technical issue. I do not need you to be a font of all knowledge regarding dynamics but a basic understanding will help a lot for this topic. So here goes!

A car is held aloft on 4 springs, one in each corner behind the wheels. When a car moves, the weight of the car shifts around and depending on what you do, some springs take more weight than others and so the car tends to lean around.



Think of your experience in a car.

When the car accelerates, you get pushed into your chair; your weight is being moved backwards towards the back of the car. It makes sense that the back of the car becomes heavier and the front lighter and so the springs at the back will compress more.

When a car brakes, you get thrown forward and so the opposite is true.



When a car turns, your weight gets thrown to the outside of the corner.

Look at the picture to see what happens.

The faster or tighter you corner, the more dramatic the weight shift can be and more obvious the lean of the car is.

Drive a big vehicle like a

Range Rover and it can lean over a lot.



In this picture, the vehicle is braking and turning right, so the weight is being moved forward and to the left, hence why the lowest point of the car is front left.

If there is more weight over a spring it will compress, and that part of the car will appear lower. Conversely, a light part of the car will raise up (the amount it raises depends on the car).



This car is braking and turning left.

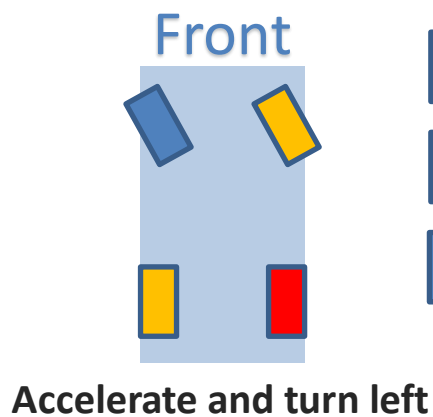
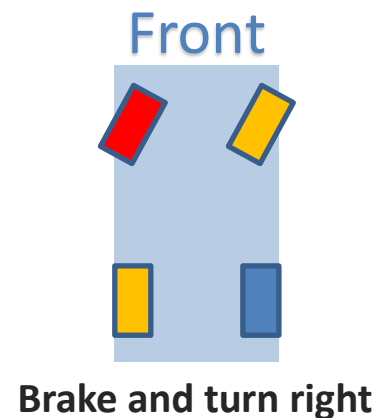
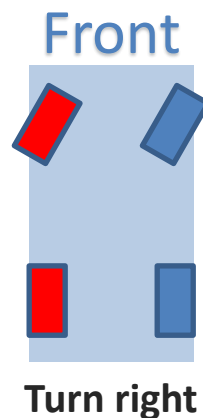
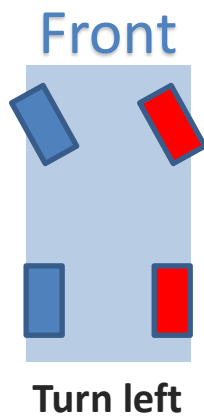
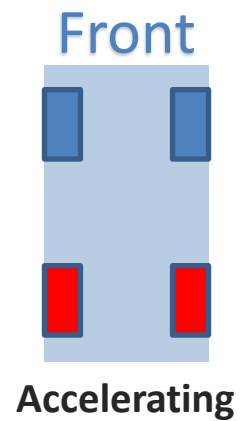
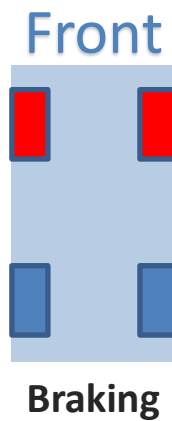
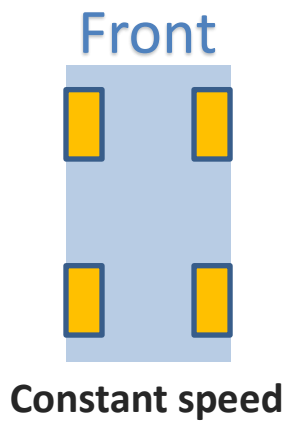
The front right compresses and the left rear lifts off the floor.




This is pretty extreme driving, but it nicely demonstrates weight shifting.

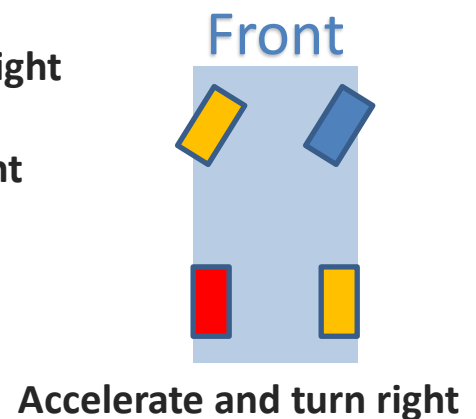
The following diagram shows how weight will move around on the springs depending on what's happening.

Weight distribution on tyres

Looking at cars from above



 = medium weight
 = heavy weight
 = light weight



This is where you use it.



Look at the red car. No indicator on but the car is leaning. The front left is lower than the other corners, this means that they are turning right across our path and braking.

By not indicating, they imply they are going ahead but their body language speaks volumes!

I would be slowing to let them pass and potentially trailer hit them.

Crab Claws

Only I call this crab claws.

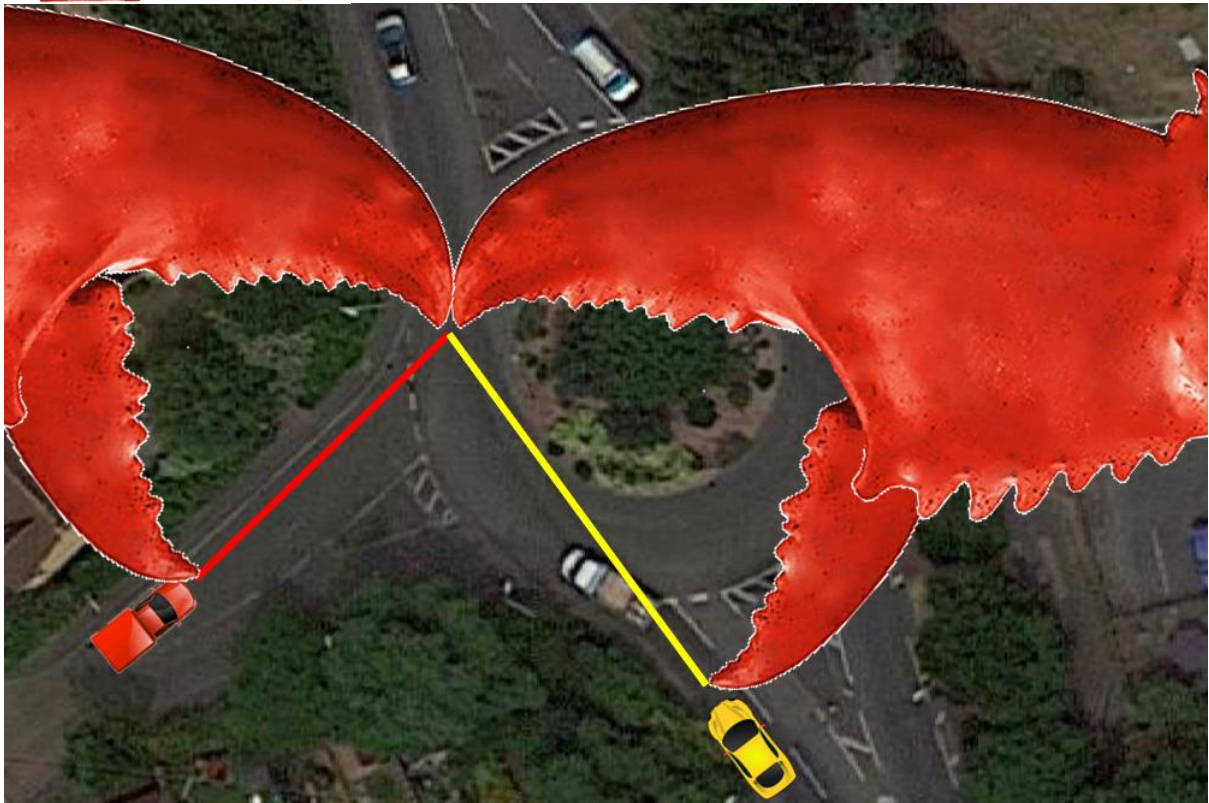
If you mention crab claws to anyone else, they'll stare at you blankly like you're speaking a foreign language. I suppose the same can be said for 'death zones', 'danger zones' and 'trailer hitting' but it doesn't matter, as long as you get the concepts.

I like to add silly titles to topics so when we are in the car, I can say things like 'think crab claws', 'tyres', 'death zone', 'look for a trailer to hit'. It's a much quicker and more efficient way of communicating with you in a situation that is time critical (as driving is).



When I originally demonstrated this in the car with diagrams, I used my thumb and index finger and it reminded me of crabs and their claws, hence the name.

The concept here concerns the gap between the pincers.



Both cars want to use the same bit of road (where the lines meet). The yellow line is longer than the red line. This means that the red vehicle is nearer than the yellow vehicle.

This is the thought process and why I call it 'crab claws'; now, how do we use it?

The biggest issue with roundabouts (especially mini roundabouts) is that they lull you into a false sense of security. They will make you think that everything is ok and it just isn't.

Take this sequence of pictures.



Picture 1. Approaching a roundabout, the roundabout is clear, most people are tempted to keep going because there's no one on the roundabout.



Picture 2. The roundabout is still clear, so it's looking good for going out.



Picture 3. We're almost there and the roundabout is still clear – excellent! Most people would attempt to go at this point.



Picture 4. Surprise! There's a car driving at us.



Just something I've noticed.

These pictures are all taken from Google Maps. To demonstrate this concept, I went to a random roundabout and started looking at the Street View pictures. This is the first roundabout I looked at and it showed me exactly what I was looking for. Co-incidence?

More likely is that this problem occurs so often that I didn't need to look around much.

It's England, our roads are full of cars, you are probably more likely to find a roundabout being used than an empty roundabout.

You must expect to stop! There is a very high chance that there is a car driving at you.

So how do crab claws help then?

It's to do with:

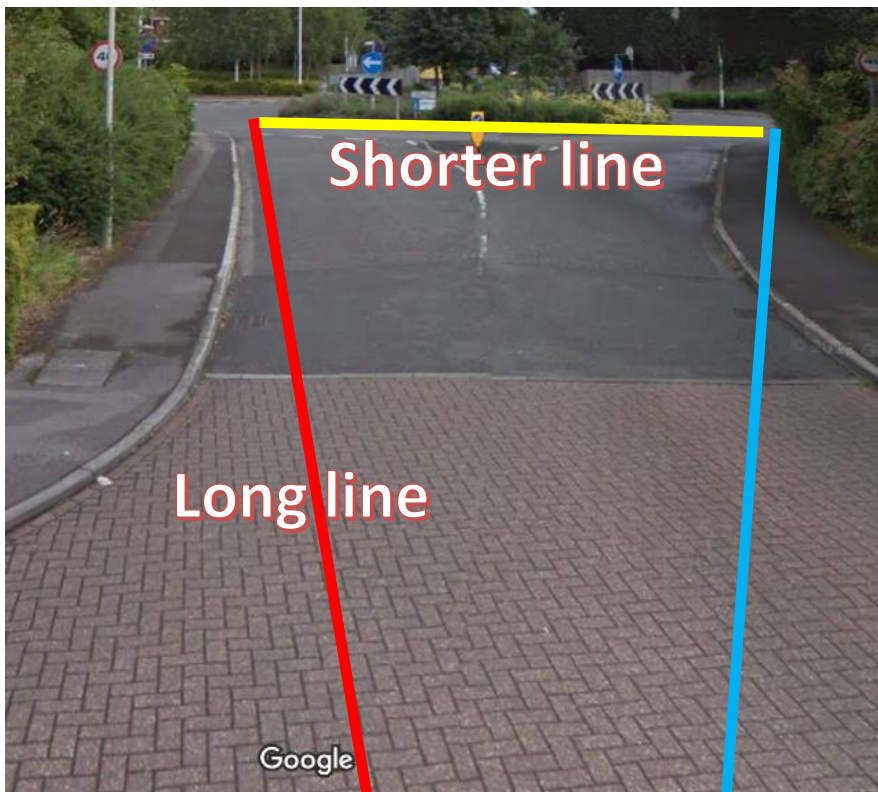
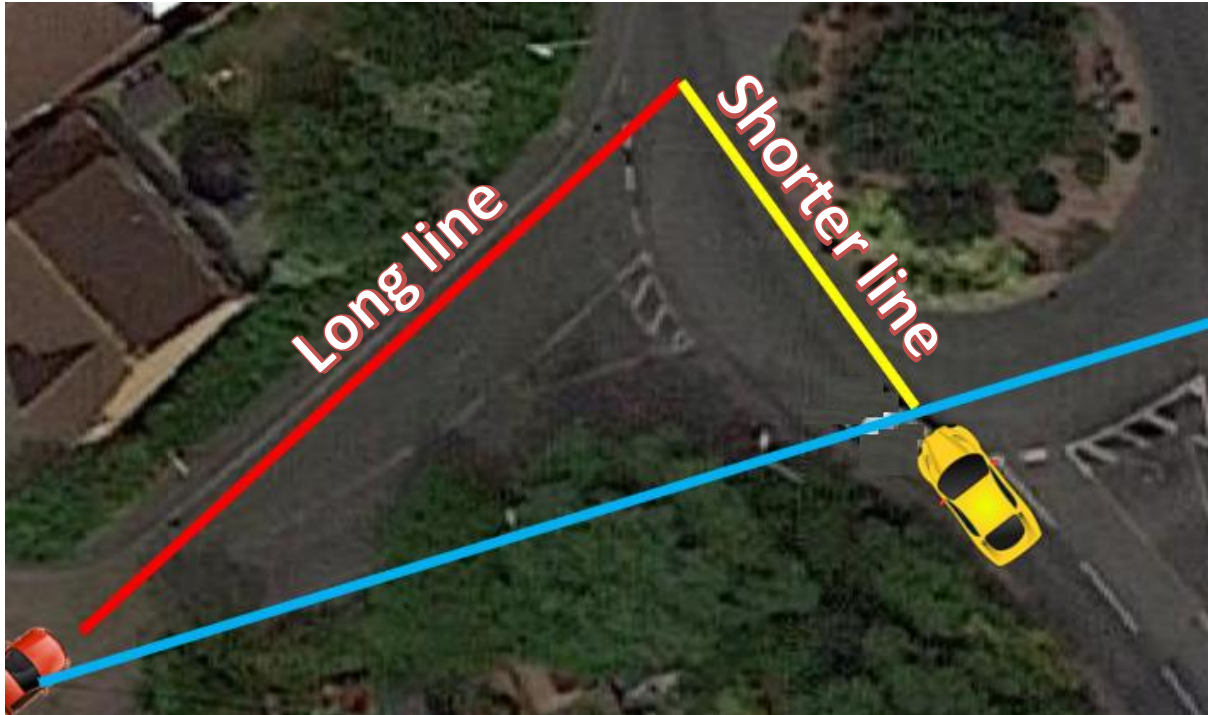
the distance you need to travel

vs

the potential distance the other car must travel.

Just because your view is blocked does not mean there isn't a vehicle there. If you can't see into a bit of road, there could be something there; **always assume that something is driving at you until you know better!**

These are the same roundabout at roughly the same distance.



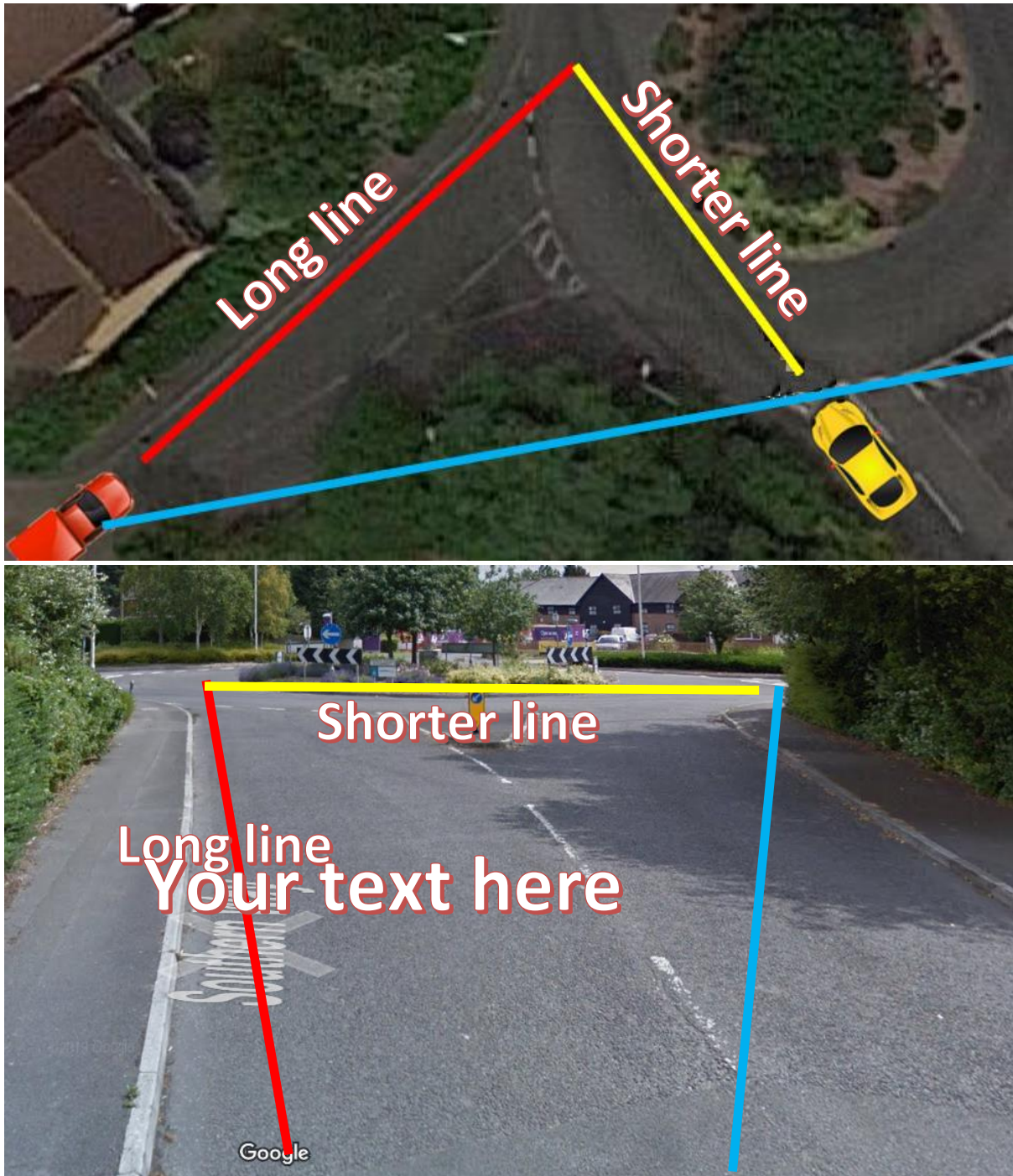
The blue line shows our line of sight and therefore how far to the right we can see.

Red shows the distance we have to travel (our crab claw).

Yellow shows the potential journey of a vehicle just out of sight (their crab claw).

They have the shorter journey; we should be braking to stop near the junction.

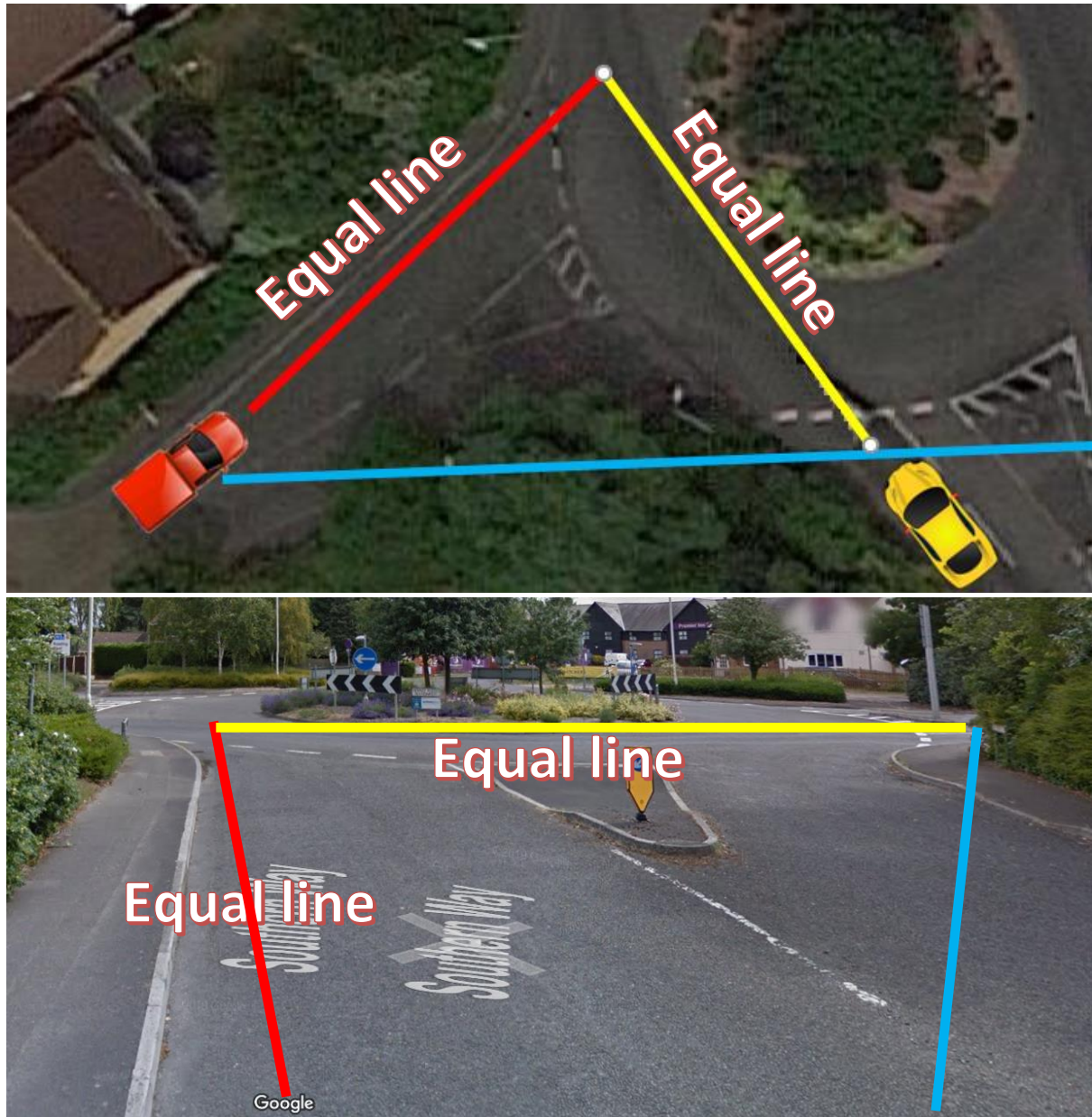
Same again, just a bit nearer.



Keep in mind that the car from your right has priority over you and could be approaching quickly.

Their crab claw is shorter than yours so keep braking!

Nearer still. This is getting to the point where both crab claws are the same. They have priority over us, so we keep braking!



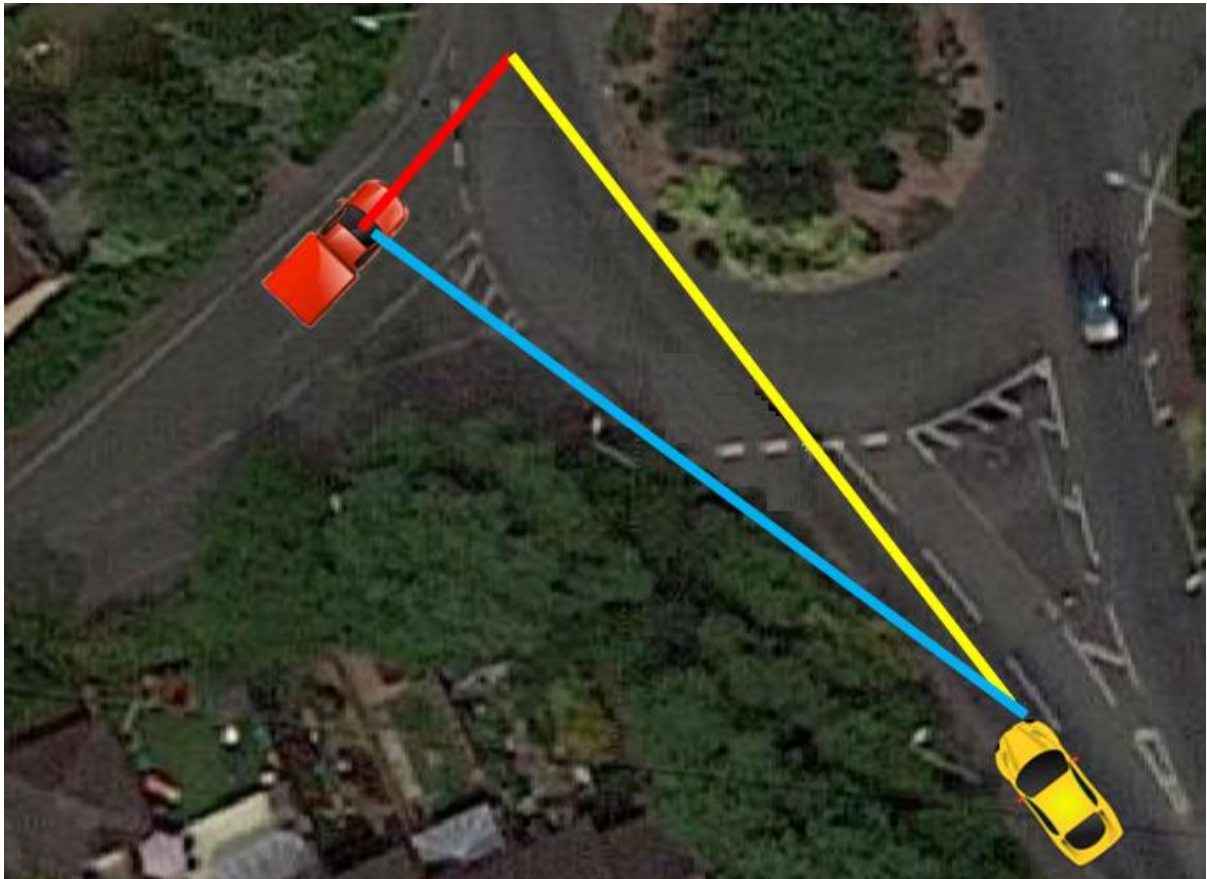
Always assume there is a car just out of sight!

Look at that, there is!

Because we assumed there would be a car coming at us, we have catered for it and so we are safe.

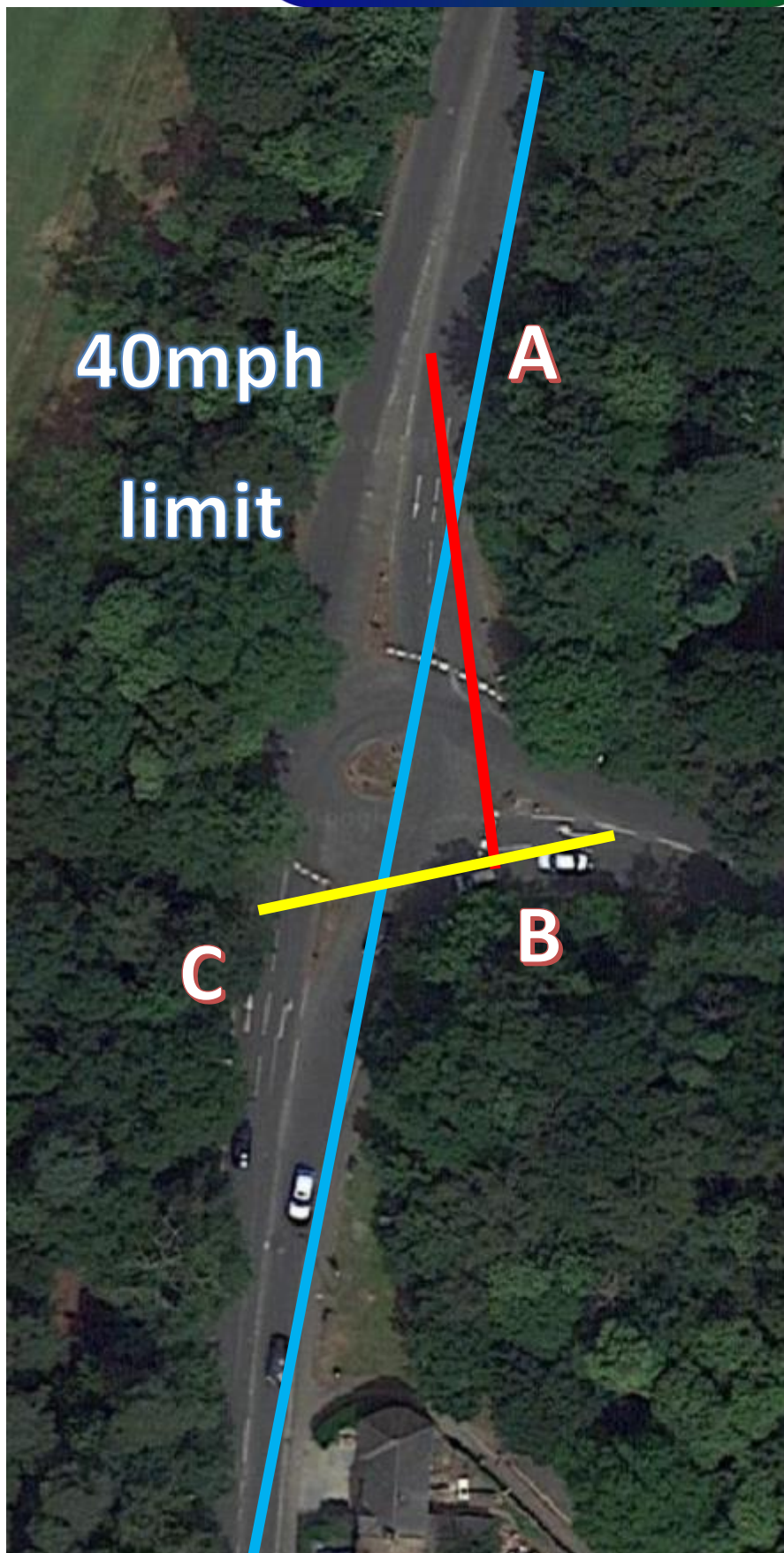


At this point, I would creep forward and only go when I am guaranteed to be able to pull out and accelerate without interfering with the yellow car.



I mentioned it earlier, but it's worth pointing out again. It's not distance, it's time you need to worry about. How long will it take YELLOW to get to RED? If there was a shield cutting across YELLOW's path then RED might have a lot of time.

Remember, if you have a good distance but you're still concerned that could be a car coming at you, accelerate faster when you go out checking your mirrors as you go. Try not to be caught.



This demonstrates the different level of views that people get.

A gives way to C but A can see a very long way up the road.

It's a 40mph limit so A would know really early that they don't even have to brake.

B gives way to A. They have to cater for the fact that traffic can come at them at 40mph.

B has bushes blocking their view so they need to be very near the give way line before they can see far enough into A to be sure it's safe.

C gives way to B. They also have restricted view but, in this instance, they know that B will have to slow a lot.

This means that C has more time on their hands and can be further back from the line when going.

Appreciate other people's situations and adapt accordingly.



Summary

Expect to stop but look to go when you have good vision.

When I approach a junction, I use **crab claws** and if needed I **trailer hit** to actively chase vehicles out into a junction rather than stop.

If I can see that there is a potential **death zone or shield** that could help me, I vary my speed and use the other car to help me merge with traffic.

If I do have to stop near a junction then I ensure that I have good vision. This might mean that I have my nose after the give way line, or it might be before the line! I might even be between cars! If I can have good vision and a run up then I'll have that instead.

When I'm looking for an opportunity to go, I am mindful of the **danger zone** in case someone turns across my path. I am looking at **indicators, position and speed**. I will use **tyres** and **lean** to help me identify earlier if position or speed are changing.

Remember that out of the **5 attributes**, indicators are only really useful at long distance, position and speed are far better at close proximity.

