

Just The Basics – 6 - Eyes Up!

Autoweek columnist Cory Farley wrote that American drivers are terrible:

No. 1: They don't look past the grille. Even without nav systems and texting, traffic 50 feet away might as well be on Uranus.

No. 2 (maybe related): They tailgate...

No. 3: What traffic they do acknowledge exists on in the front of the car. To the rear or the sides: Uranus."

I believe that if there is one thing I hope to get across, it is to be aware of what is going around you when you are driving. There is much more happening around you than what is on the "movie screen" that is the windshield. The more aware you are, the less chance there is of being involved in an incident. Most people who are learning to drive or have not spent much time on the track do tend to focus on the road immediately in front of them, or at best, on the back bumper of the car in front. It is an easy habit to get into and a harder one to break. At night, the focus tends to go even closer as most headlights are not designed to shine further down the road for safety reasons. There are numerous reasons not to focus your sight on these close-in items.

The 3 Second Rule:

If you are focusing on the road immediately in front of you, you do not have the reaction time to avoid a situation that may be coming at you quickly. On the track, where speeds exceed 100 MPH, it is crucial. At 100 MPH, you are covering the length of a football field every 2 seconds.

At the track, we stress the importance of looking 3 seconds ahead. At one second, you do not really have enough time to comprehend a dangerous situation. The body will just freeze and you will continue straight ahead. At two seconds, you have ability to figure out what is happening, but there is not enough time to develop a plan to react and avoid the situation. You may be able to hit the brakes but that may not prevent becoming involved in the situation. At three seconds, you have time to figure out what is happening, develop a plan of action and implement the plan. By looking that far ahead, the perception of things that happen will actually slow down as well.

At 100 MPH, you need to be looking 450 feet ahead (150 yards). Track drivers routinely look that far ahead even when not on the track. There is another benefit to looking ahead in addition to the safety aspect. By looking ahead, you will make fewer and smaller steering inputs than if you are looking just past your bumper. We have all seen cars go from one edge of the road to the other, like a pin ball bouncing off the rails. By taking a straighter line, you will be less fatigued, you will use less fuel and your tires will last longer since they are not zig-zagging down the road. On track it means a higher top speed!

How do you look three seconds ahead when there is a car in front of you? You look through the windshield of the car in front. If that is not possible, move slightly to the left and look along the side of the car in front. Don't forget to look for shadows too. The shadow of a car will tell you how many cars are in front and how spread out they are.

Night driving:

The same rule applies at night. You want to look well past your headlights. The main reason headlights do not throw much light ahead of the car is due to regulations regarding oncoming traffic. Human vision is comprised of two types of photoreceptors in the eye: cones

and rods. The cones allow you to see color and are densely packed directly behind the retina. The rods determine light and dark and are much more receptive in low light. That is why you can only see in black and white at night. The rods are much more prevalent beyond the cone cluster. This means you can actually see better at night by not looking directly at what you want to see. By focusing well beyond the headlight beam, you will be able to see more and more clearly of what is ahead of you.

The movie screen, part 2:

Most people only focus on what is directly in front of them, on that big movie screen called the windshield, when driving. On the track, we spend some time looking out of the side windows to look through turns or check the track ahead. I usually check turn #3 while on the front straight at Roebing Road Raceway. That means I am looking out the passenger side window at speeds around 120 MPH. It lets me know if there is slower traffic ahead. A cloud of dust says someone went off and there may be dirt or even a car stalled on the track.

On the street, especially ones you are familiar with, you can use your vision as well. We have all seen people who come to a freeway entrance ramp and stop, awaiting an opening big enough for them to go from zero to traffic flow speed.



This is a picture of an entrance to the Cross Island Expressway on Hilton Head. You can see there is nothing ahead, but what issues may be coming up beside you at 55 MPH? As you can see, there is a wall of trees there!



Yes, but by looking through the trees, you can see two cars that are coming. The first is an SUV and it is in your lane. The second is a pick-up truck and it is in the passing lane. It may be getting ready to pass the SUV, which may cause a bit of a traffic jam just as you are getting ready

to enter the freeway. By adjusting your speed now you can come out ahead of the SUV or behind it. You determine your entry point well ahead of the intersection. You would avoid any potential problems that may arise if you came out beside the SUV, which could be a real

possibility. The SUV driver may try to change lanes to avoid you and run into the faster pick-up. Or the SUV may hit their brakes when you appear which could cause other problems.

Check your mirrors:

If you are coming to a particularly hard stop, an unexpected stop or in foul weather it is a good idea to check your rear view mirror as you are braking. Remember, the vast majority of people do not know what you know now. Do you see that ‘deer in the headlights’ look from the driver behind you? You need to come up with a plan B quickly.

Here is a true story: I was driving down Rt. 278 in the Bluffton area a few years ago. It was a 4 lane road with a wide grassy median. I was in the left lane. Traffic was heavy and I was looking through the windshields of the cars ahead of me. I saw a car three cars ahead of me make an unusual movement, swinging left and then right and then it spun. (Known as a “Hook” or “J” spin to track junkies.) It had blown a front tire and the driver was having trouble trying to keep it under control. I started braking fairly hard when it made its first move. I checked my right mirror and confirmed there was a car beside me. About then the other cars hit their brakes. The 2 cars ahead of me plowed into the car with the blow out.

I checked my rear view mirror as I was slowing, and saw a woman with huge eyes. We both knew she was going to hit me. Since I braked earlier than everyone else, I had a little extra room in front. I pulled up and onto the shoulder of the road. The person behind her hit her rear end. She ended up about 4 feet from the bumper of the car that was originally in front of me. A total of 5 cars were involved, 3 in front and 2 behind me. I was unscathed.

On the track, we have additional reasons to not have people focus on the bumpers. Front, rear and mid engine cars all take different lines due to the nature of the weight distribution and the tires they have. The instructors try to teach you a line that is compatible to your particular set up. People using different lines can cause problems with beginners. If the student in front misses their turn in, apex or makes a mistake, you do not want to be in the following car and make the same mistake. Also, if there are a few cars in front, you must adjust your braking points as cars stack up at turns. By following your line, looking through the turns and looking where you want to go, the car will naturally follow.

Bottom line: keep those eyes up!