Ten Common High-Performance Driving Errors

Out of Zone Performance

It is not the gizmo, not the car. It is the user that makes the real difference.

When timing is right: motion is smooth; skill levels are elevated; driving actions are quicker; more forceful and more accurate. In the "Zone," concentration slows time to allow for confidence, effort is optimized, not over stressed, and endurance is increased; a driver is performing "within" himself.

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Driving high performance

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Ten Common Driving Errors

1. Not enough mental practice.

The more complex the task, the more improvement is likely to result from mental practice; and motor racing would surely qualify as sufficiently complex. Mental practice is the most important part of any driving exercise. Stretching the mind prior to competition prevents mental cramps. Imagery can be used to create intensely realistic pre-experiences that give the feeling of having been there before, with the confidence and competence that comes with it. Arrange the course into a mental slide show. With your eyes closed replay the course exactly as you intend to drive it. Mentally rotate the steering wheel, shift gears and brake at appropriate locations. Repeat these images until they become fluid. Since the brain makes little distinction between a visual image and a thought image, by practicing purely within your mind, imagery can create, modify or strengthen pathways important to the co-ordination of your muscles. Fine skills or complex techniques can be slowed down, analyzed, and on-track driving scenes and actions can become familiar. Familiar scenes are important in order to process the abundance of real-time information created by increasing speed.

2. Not scanning.

Keeping the eyes in constant motion helps maintain a little better sensory connection with the environment. Movement is necessary for sensory input. If you stare too fixedly at a single point your eye develops a momentary blind spot. To maintain visual contact you have to keep your eye moving, sweeping the target area in a searching behavior. Wherever you are, take a quick visual scan of the area in front of you. Start at the horizon on your left and scan across it to the horizon on your far right. Do not concern yourself with breaking the scan down, just scan the area in front of you left to right as you would normally. Use the horizon as an outward limit, but concentrate on seeing everything between you and it. Close your eyes and take a mental inventory of what was perceived. Repeat the scan. This time, break the visualization into six or eight mental snapshots as your eyes move. Compare the first mental picture to the second. It is amazing and fun to perceive detail that was not noticed before. Try it again, this time behind the wheel of the car at speed. Breaking the scan picture into mental snap shots of familiar scenes radically improves the odds of doing the right thing at the right time.

3. Not looking far enough ahead.

Vision is our overwhelming dominant sense: the "king of the senses". Eyesight is so intimately involved in almost every athletic task that superstars often are credited with what amounts to an unfair

visual advantage. Scanning familiar scenes at the point of emerging information provides a necessary perspective for increasing speed. Your eyes lead the way and control smoothness. Without proper visual perspective “High Speed” can be like driving in a bank of fog where planning ahead is unthinkable, but critical. Looking ahead not only gets a racer where he needs to be, it focuses concentration. However, scanning the point of emerging information is not enough. Learn to project ahead. As objects in your scan become closer, anticipate a shift to objects even further ahead. Anticipation is crucial because everything happens very quickly at high speed. The ability to look ahead immunizes against accidents.

4. Scaring or surprising the brain.

The brain allows the driver to anticipate and, therefore, is his best ally. Overload, scare or misuse that ally and response becomes involuntary (emotional). One example: ground rush -- many objects flying by quicker than can be mentally sorted. Ground rush is caused by failing to continually adjust vision further ahead, particularly as speed increases. Escalating speed magnifies anxiety. As visual depths of field get shorter with increasing speed, anxiety progressively grows. If this cascade of events continues, once eye placement is inside reaction distance and speed continues to mount, eye movement becomes fixed and scanning for crucial information stops. Fear is the result of progressively increasing anxiety. Fear brings panic inputs, and involuntary panic input is always wrong. A brain that has been scared sends off commands like: “Lift…” “Look over here, instead of where you are going…” “BRAKE!… in the middle of this turn”.

5. Unfinished business.

The quickest indication of an unskilled driver is the hurried move. The hurried move does not come from starting a skill to soon but from neglecting to finish the skill that preceded it, cutting it off short. Just as a wide receiver must “put the ball away” before he starts to run with it, so must any driver put away the movement at hand before starting the next. It’s a paradox: taking time to finish one move gives you more time to get the next one started right. Skill is simply performing in a higher gear where there is less of the grinding inefficiency of a lower gear to multiply task difficulty. Skill allows you not to rush and lets you have time to choose when to rush. You have to have confidence to take time to control the car. Next time you’re having trouble, try telling yourself you have more time than you think you have. You’ll find another several inches of incoming trajectory to work with, during which you can focus on finishing the skill at hand. That few inches is enough; it is a few inches in time, if you have confidence enough to take it. The result, another racing paradox: You must slow down in order to go fast.

6. Carrying too much speed into a turn.

How much speed is too much? When it keeps you from going precisely where you planned it is too much. Carrying too much speed into a turn can be thrilling and may feel fast, but it keeps you from your planned positions. The primary purpose of braking is to slow the vehicle to target turn-in speed. A car can be slowed faster than it can be accelerated. Over equal distances brakes are capable of producing greater changes in speed than acceleration. Speed is not the issue though, CONTROL is. Control of speed and control of self. Driving is all about making good judgments. “Judgment” is not a sensation. Judgment and experience take the form of thought. Motions generate thoughts too, but feelings of going fast can also be attached to motions. These “feel-fast” sensations are distractions and can be quite unrelated to speed. Carrying demon amounts of speed into a turn might “feel” fast or gain a few hundredths of a second initially, but overall speed is sacrificed and entire seconds can be lost.

7. Overdriving.

Technical proficiency requires little physical effort because the performances are always controlled, balanced. Less technically perfected efforts require as much physical and emotional strength as necessary to continually snatch oneself back from disaster time after time. To do something inefficiently (badly) requires more effort, like driving a car with an out-of-balance wheel. “Natural talent” is no substitute for careful learning and diligent practice. Beginners should not expect to post times that world champions would be proud to claim. Experienced drivers who have been idle should expect to spend practice time to find and refine old skills. Approaching perfection… that’s when the pro-athlete most recognizes the need for his coach. To extract that last 10% to 15% is inordinately more difficult.

8. Motivation.

Once you perform a skill to your own satisfaction you tend to stop looking for improvement. Yet the physiological limits to your performance of the skill may be a great deal higher… the upper reaches are virtually limitless, provided there is sufficient motivation to reach them. Have we forgotten the effort required to “get it right?” There is such an emphasis today on instant gratification and being a winner that we often forget the valuable lessons we learn from losing. Remember that the fact of trying something, even if it does not work, often opens doors that would have otherwise remained closed. Small failures lead to incremental improvements. More than any film, bench-racing session or ride a long, not being able to make it through a turn will sear into your brain the importance of doing it right. Discipline yourself to concentrate on what it takes to be where you need to be. On track, focus on the

present and save analysis for the paddock. It is the driver's job to learn to do the hard thing easily, gracefully, efficiently. Improvement is there for the taking only if the effort is invested.

9. Out of "zone" performance.

A large part of any sport comes from the compelling sensation of getting it right. A coming together of "Art" and "Science" is where magic happens. The feeling is almost mystical. When timing is right: motion is smooth; skill levels are elevated; driving actions are quicker, more forceful and more accurate. In the "zone," effort is optimized, not over stressed, and endurance is increased; a driver is performing "within" himself. Concentration slows time to allow for confidence, the ultimate tool for getting control of the time sequence. More interesting is what control of the time sequence within the movement does for skill. Different arcs or portions of arcs within a sequence of motion can be moved with brilliant results. Today's technology is capable of designing a machine to replicate perfect driving, but the rhythm it produces will always be identifiable, instantly, as machine produced. It is "cold". To warm it up, put a hand on it. Change the time sequence, introduce human control. It is not the gizmo, not the tool, it is the tool-user that makes the real difference.

10. Not recognizing fatigue.

Everything in racing is dynamic: temperature, tire wear, track conditions, excitement, passing opportunities, FATIGUE. When you become physically tired, the first thing to go is your sense of judgment. Fatigue causes lines to get sloppy, crisp turn-in suffers, throttle action becomes more abrupt and driving no longer flows from one action to another. To grow increasingly numb to the "sensation" of speed with each successive lap is normal. Increasing speed to "chase" this seductive sensation can have disastrous results no matter the cause of deteriorating conditions. Failure to recognize mistakes, failure to anticipate and adjust are all indications of lost concentration… FATIGUE. Why driving suffers is no mystery. We are poised for flight, our muscle systems are cocked for emergencies -- and release -- that never come. We get tired of being poised, but we can't willfully let go. Fatigue itself is a snowballing mechanism: tired muscles contract themselves involuntarily and thus use still more energy, generating more fatigue in the uncontrolled effort. Fatigue has focused concentration on your body. If your attention is on your body, it is not on your driving. Adhere to the Three Mistake Rule: Three mental and/or physical mistakes in a row -- slow down, go into the pits; REGROUP.