

The Safety Corner

Cornering Calisthenics

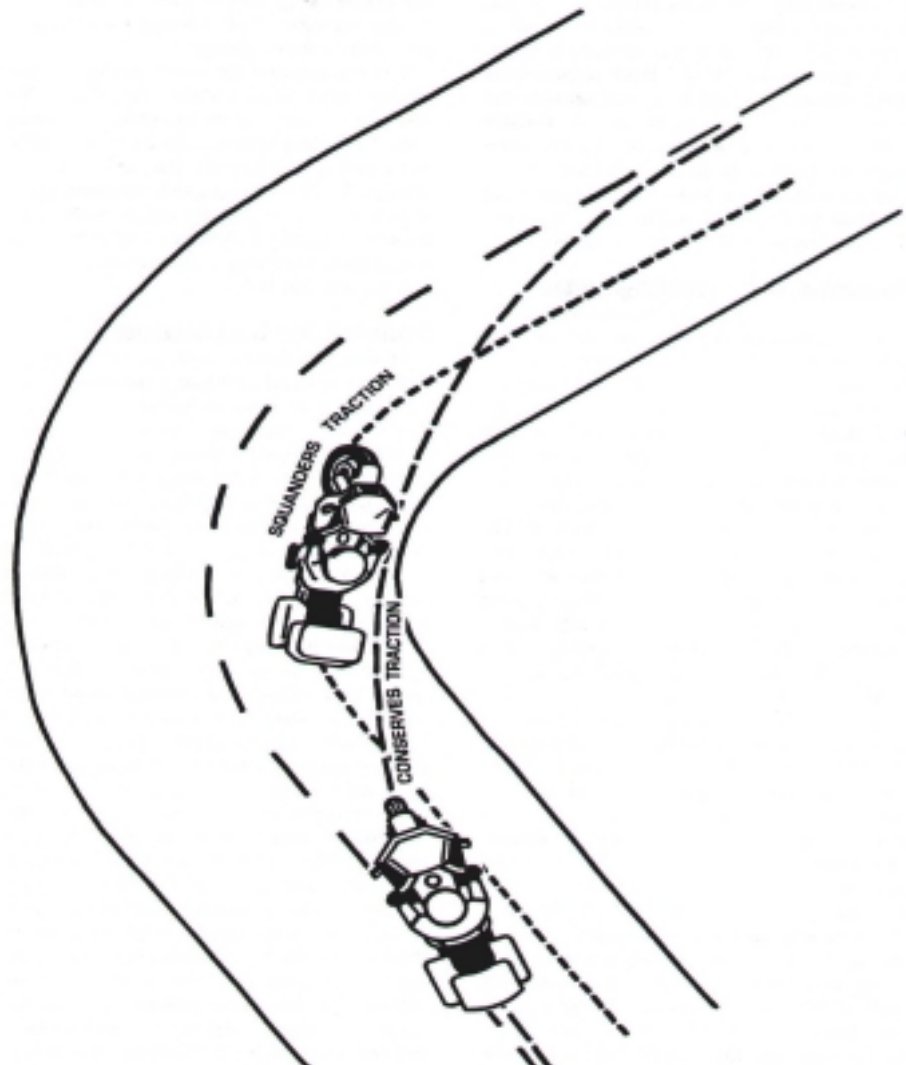
.... Slow, Look, Lean and Roll

by Harold Dallmann

Keeping the risks of motorcycling in check involves knowledge and skill. No matter what speed you choose to ride, how many miles you decide to cover in a day, or the environment in which you find yourself, this is always the case. One area where both knowledge and skill are critical is in cornering—the business of approaching and negotiating curves in the road.

Proficient cornering involves certain balancing and steering skills, but traction is of major concern. As we lean over into a turn, we depend upon tire traction to keep from skidding out. If I should make the mistake of leaning over onto pavement that's coated with diesel fuel, the tires are very likely to slide out, and the machine will go crashing off on a tangent. There simply isn't enough traction on such a slippery surface for the tires to force the motorcycle to turn, while providing enough traction for balancing.

Wet pavement, manhole covers, loose gravel, cow poop, mud or even a plastic bag can reduce traction dramatically. So tire traction occupies a lot of our attention on twisty roads. Traction is an ever-changing commodity that we must understand and learn to manage if we are to corner successfully. A big part of controlling traction is using the brakes and throttle correctly and following a path of travel, or cornering lines, that demands the least amount of traction (Figure 1)

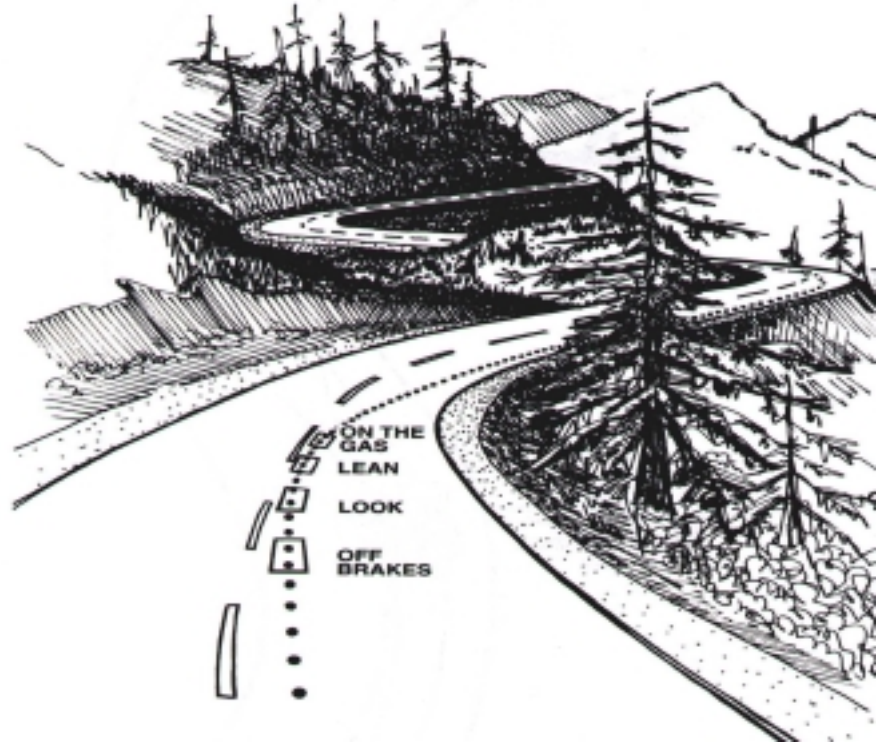


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Having considered the need to manage traction, cornering habits are developed by practicing the right technique. One of the most concise descriptions of the right cornering techniques is the MSF slogan “*Slow, Look, Lean & Roll.*” Let’s take a closer look at the details (Figure 2).

APPROACH/ SLOW

The first part of the turning technique is to reduce your “approach speed” to a proper “entry speed” *prior to the turn.* Approaching a curve, the rider rolls off the throttle and applies both brakes, pointing the machine toward the edge of the curve. The motorcycle is slowed while in a straight line, and the rider downshifts as appropriate to keep the engine within the powerband. Note that all of the slowing takes place *before* the motorcycle is leaned over in the turn, and that the rider uses the brakes in addition to rolling off the gas.



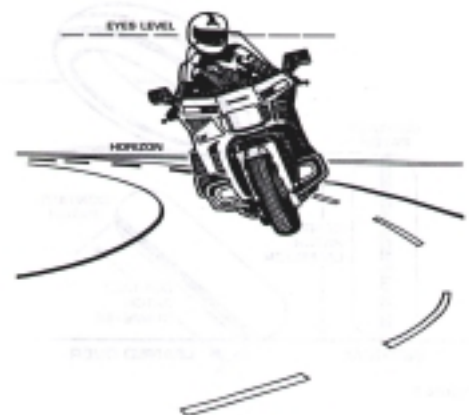
The ideal maximum “Entry Speed” into the curve is whatever will permit a gradual throttle roll-on through the curve. The Slow portion of the cornering procedure ends once your “entry speed” is established.

LOOK

Before you dive into a corner, your eyes continue to move about and scan the riding environment (scrutinize the surface for loose gravel, debris, animals, etc), but the center of your field of vision is where you will be going. In a normal situation, I would determine that I would get the best view of what’s happening from the edge of the curve (but inside the centerline). So, for a right hander, I would point the bike toward the centerline while I’m still braking, to put it in the right place for me to see farther around the corner to provide directional control and a smooth entry into the turn. We tend to go where we are looking. Keeping the eyes level (Figure 3) helps in plotting the direction of curve and selecting an appropriate line.

LEAN

With the bike slowed and positioned for the best view, and your nose pointed toward where you want to go, it’s time to lean the bike over and roll a little on the throttle. A motorcycle needs to lean in a turn for two reasons. First, the lean of your tires produces much of the cornering force necessary to make the bike turn. The other reason that you have to lean in a turn to maintain balance.



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There are a number of ways to cause a motorcycle to lean over but the most accurate way to lean the bike is by pressure on the handgrips. Push on the right grip to lean right. Hold enough pressure on the grip to get the bike leaned over and pointed where you're looking, then ease up on the pressure to hold a stable line. This is known as countersteering. Countersteering is an essential part of everyday riding technique—it's not just for obstacle avoidance. Remember, push on the right grip to lean right; push on the left grip to lean left. Keep pushing on the grip until the lean angle is where you want it to be. This leads us to the final step of the cornering procedure.

ROLL

As the motorcycle is leaned, roll on just enough leading throttle to keep the engine pulling smoothly all the way through the curve. Roll on the throttle. There are many benefits of a gradual roll. It stabilizes the machine on its suspension and prevents sudden changes in the distribution of traction between the two tires. Ground clearance is improved, while the centrifugal forces associated with balance are not disrupted. The correct technique is to ease on more throttle progressively to keep the engine pulling smoothly all the way through the curve.

One excellent way to tune up your cornering skills is to take the Experienced Rider Course developed by the Motorcycle Safety Foundation. The "ERC" takes about 8 hours and the usual tuition is about the same as the cost of a turn signal. You won't get any hills, but you'll practice some good basic flatland cornering techniques on your own motorcycle, plus some important evasive maneuvers such as quick stops and swerves.

While we look toward the New Year, Irma and I want to wish our GWRRA family prosperity, good health, and a safe riding season in 2000. Remember:

Safety is for life.

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