# **DOING** JUDD THINGS

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The World's Toughest Riders aren't even immune.

few years ago, I was helping teach an Experienced RiderCourse for a local Gold Wing club. It was a big course, divided up into two groups, over two days. I taught the classroom sessions and other instructors supervised the range (practice) exercises. After I had completed the Sunday classroom, I went out to see how the range exercises were going. One rider couldn't get beyond the first simple exercises. He could not bring himself to consciously countersteer.

I optimistically offered to take him aside and do some oneon-one coaching. I asked him to ride to the other end of the range, turn around, and ride back toward me, occasionally nudging the right grip to see what would happen. He rode back in a straight line, sweating bullets. I kept at this for a few laps, until it became obvious that he was *never* going to risk what might happen if he actually pressed on one grip or the other while in motion. He flunked the course and I was flabbergasted to see him a few days later riding a twisty mountain road. I thought of this rider as being stupid, for not trying to learn anything beyond his novice skill level. Now, it should be obvious that he was countersteering, or he would have quickly fallen down, or By David L. Hough

run off a cliff. He had simply relegated balancing and steering to his subconscious, and steadfastly refused to interfere. But, was he really "stupid," or was there something else going on that I didn't appreciate?

Bernt Spiegel, in his book *The Upper Half of the Motorcycle*, talks about dumb behavior. He gives the example of a plank balanced with one end out over deep water, a sausage tied at the end. A hungry puppy sees the sausage, and trots out the plank to gobble it down. Focused on the sausage, he is not thinking about anything else. Of course, as he trots out the plank, it tips into the water.

Spiegel notes that motorcyclists do similar dumb things, such as zipping around blind turns, focused entirely on aggressive cornering. Cornering to his limits, the rider does not waste any brainpower on peripheral issues such as other traffic or surface hazards that might upset his goal. But suddenly a logging truck comes around the corner. The rider, leaning halfway over the centerline, sideswipes the truck.

Bernt suggests that what's needed to avoid such hazards is to form a hypothesis about what might happen. The puppy brain was not capable of forming an abstract hypothesis. The rider



When I'm riding in a foreign country, my top priority is to see the view. Aggressive riding is much lower on my priority list.

might have been capable of forming a hypothesis about oncoming traffic hidden by a blind corner, but he didn't.

Several years ago I was participating in a group tour of New Zealand. One day I took off with two other riders to do an extra loop. The road took us through some beautiful countryside where it twisted through some hills in a series of tight turns, not unlike Deals Gap. The two riders ahead of me took this as a challenge and then a competition to see who the "big dog" might be. OK, I was riding a rented bike in a foreign country, on the left side of the road, around turns with severely limited sight distance. I wasn't really interested in riding competitively, and I gradually found myself dropping back.

Nothing bad happened and no one crashed, but the tour organizer must have heard about my timid riding, because he asked me if I *could* have ridden faster if I had wanted to. I responded that I just couldn't bring myself to ride any faster in those circumstances. We were on different wavelengths. He



When sight distance closes up suddenly, my suggestion is to immediately transition to the brakes. If you just roll off the throttle to decelerate, you won't scrub off speed quickly, and if there happens to be a hazard just over the hill or around the corner you'll run out of distance before you can get the bike stopped.

valued fast riding. I valued enjoying the scenery and surviving the ride. I've been on tours where someone has crashed and the aftermath is always time consuming, painful, and expensive.

One of my pet peeves is over-riding sight distance. Sight distance at one point might be two miles. At another point (such as those New Zealand left-handers) sight distance might be 30 feet.

A while back, a rider rejoined an internet forum, noting that he was back after a year of absence for surgery and physical therapy, after crashing his bike. He recalled that he and two friends had been on a ride in the country, cruising a twisty road (not unlike that road in New Zealand) at an admitted 55 to 60 mph. They crested a hill to find a car stopped in the lane. The riders attempted to slow, but it was too late. All three riders crashed, and got carted off to the hospital.

What surprised me is that even after a year of pain and expense, the rider still didn't believe that it is reasonable to assume the road might be blocked, even where his sight distance is severely limited. I'd suggest that he hasn't learned from his crash and he's destined to go through this all over again.

But before you jump all over this apparently stupid rider, take a serious look at your own cornering tactics. When facing similar blind situations, do you get on the brakes, or do you just roll off the throttle? As long-distance motorcyclists and members of the Iron Butt Association, we're supposed to be the best riders in the world. We should also constantly train to be the smartest!

#### Sense of Speed

Imagining the future is difficult for a number of reasons, not the least of which is that humans have developed a sense of speed based on walking. Let's say a man is running at 12 mph. He takes a 2-second glance to one side. At 12 mph, he will have covered about 35 feet while not looking ahead. Assuming he had been looking ahead before glancing to the side, it's highly unlikely much has changed as he moved 35 feet.



A motorcycle at just 55 mph covers 160 feet during a two-second glance to the side of the road. It isn't always obvious to a brain developed for walking speeds that a lot can happen in 160 feet.

OK, the same guy gets on a motorcycle and rides down the highway at 55 mph. He glances toward an oncoming van for two seconds, during which time the bike has covered 160 feet. In 160 feet, a lot can change. As the late Larry Grodsky put it, we're trying to ride motorcycles at highway speeds using brains developed for human speeds. »

## **DOING STUPID THINGS**

## Sense of Kinetic Energy

A related issue that is very hard to grasp is that kinetic energy increases so much faster than speed. Remember that runner who was trotting along at 12 mph? Let's say he hops on the bike and wicks it up to 120 mph, or 10 times as fast as his running speed. So, how much greater would the kinetic energy be for the speeding motorcycle than for the runner on foot? 10 times? 30 times? In fact, kinetic energy would increase *100* times. It's very difficult for the human brain to comprehend what that means in terms of cornering, braking, or impact forces.

## Selection Bias

The human brain makes some notable mistakes when sizing up information. We can instantly pick and choose what facts to believe and which to ignore. This isn't an intentional bias but just the way our brains function. For instance, let's consider how our bias applies to braking.

You've probably seen those quick stop numbers in magazine reviews, and perhaps formed some opinion about how quickly you could stop a similar bike yourself. Here's a magazine performance page, for the 2008 K1200GT.



It's easy to believe that if a 2008 K1200GT will stop in 121.2 feet, you could stop one yourself in a similar distance. (Reprinted from Motorcycle Consumer News)

With respect to any bias you may have about your braking skills, it's not possible for you to repeat the test rider's performance while riding on public roads. First, the test rider knows where to initiate braking and is prepared. He gets as many runs as he needs to get the shortest possible braking distance. Second, the test distances don't include response time. In a real world situation you'll require some time to comprehend what's happening and more time to actually get on the brakes. Third, few of us-even the most proficient LD veterans-are as skillful at braking as the professional test riders, who can often pull a 1g deceleration rate.

If you're over age 50, your reaction time is probably around one second. And if you're over 60, it's more likely two seconds. But let's be charitable and assume you're



Let's assume you're a very skillful rider who can react to a problem on the street within 0.75 second.

a very skillful rider who can respond to an emergency within three-quarters of a second.

Then, continuing our charitable attitude, let's assume you can pull a deceleration rate of 30 feet per second per second, not quite the very skilled 1g braking rate of the professional riders, but darned close. OK, your total stopping distance will be a bit longer than the magazine report, say 150 feet instead of 121 feet. If you think that's reasonable, it's your selection bias talking. Even in the best of circumstances, you'd be lucky to pull off a 60-0 stop within 200 feet.

I'm not poking these numbers to shock you, but rather to

Below: At 60 mph you'll cover 66 feet in the 0.75 sec time it takes you to react. Then it will take at least 128 feet to get the bike stopped. The total stopping distance will be 194.92 feet, and remember that's a best case scenario.



stress how a rider's selection bias can trick him (or her) into riding tactics that lead to crashes. You can't erase your personal biases, but you can keep them in check with a bit of humility. We all have blind spots in our perceptions of reality. It helps to have some tools to measure what's really happening.

When you're riding in traffic, it's important to give yourself some maneuvering room. That's almost impossible in situations such as the Interstate highways in and around big cities, but you can compensate by scrutinizing the situation to predict what's going to happen before a crisis occurs. Whenever possible, back off to increase your following distance behind the vehicle ahead of you.

When you can open up your following distance, it may help to measure it, to avoid forming a bias that's unrealistic. It's never wise to allow yourself to get squeezed into less than two seconds following distance, even on a clean dry road in the daytime. And since long-distance challenges and events aren't limited only to daytime, it's even more important to increase and count out your following distance at night, especially since it's very difficult to judge the distance of a light in the red spectrum. At night, or in the rain, I suggest a minimum following distance of four seconds. And let's be clear that you need to count it out aloud to get a realistic measurement.

### The \$1,200 Ticket

Another rider contacted me personally in a vain attempt to get me to approve of a passing incident in which he was nabbed for \$1,200. He had been following a line of cars held up by a slow driver and decided he ought to pass the whole string. His logic was that he could be rear-ended by a following vehicle and thought passing would reduce his risks. He could more-or-less see the road ahead was clear, so he twisted up the wick and was just shooting by the creeper car at warp speed when he was nailed by a trooper with a radar gun, hidden in a dip in the road.

I suggested that if he couldn't see the LEO he couldn't have seen oncoming traffic. That didn't help him to justify his bias, so our conversation ended abruptly.

Iron Butt riders have a reputation for traveling fast. Most of our touring and sport-touring motorcycles are designed to be ridden anywhere in the world,



including Europe where maintaining speeds of 100 mph is not out of the ordinary. And although traffic in locations such as Los Angeles or Atlanta is moving at much faster speeds than the posted limits, it doesn't mean we have to exceed the flow of traffic — especially since speed limits are not only low, but seriously enforced in the US of A.

I was teaching a "Road Survival" course years ago that a local BMW rider desperately needed to complete. He had picked up one too many speeding tickets and the judge had wisely agreed to let him off if he would bring in proof he had passed a "safety" course. There weren't many motorcycle courses around in those days. On the fourth Saturday, the BMW guy rode in to the course trailed by a LEO with the blues and reds blazing. We had a frank conversation about that. He confessed that he just liked to go fast. I admitted I liked to go fast, too, but I picked *where* and *when* I rode fast.

There is little point in riding fast on surface streets in the city because that's where there are many collision hazards and also where the cops are patrolling. My point here is that it's not necessary, nor smart, to get into the habit of *always* riding faster than the posted limits. Remember, ride smart, not fast.



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