

## Using Movement to Stand Out

This article is the sixth in a series discussing rider conspicuity strategies. Conspicuity (con-spih-CUE-i-tee) is a fancy term for "visibility." It's the ability of an object to draw attention to it, even if nobody's actively searching for it. Rider and motorcycle conspicuity, therefore, is the ability of a motorcyclist to draw attention to him or her and their motorcycle, even though other drivers may not be actively looking for them.

We introduced the topic and have published articles as follows:

- (1) More about the why and what of HighViz
- (2) Described our top 20 HighViz strategies
- (3) The use of a HighViz vest, a bright or light colored helmet and a HighViz jacket
- (4) Strategic lane positioning
- (5) HighViz modifications for your motorcycle

In this article we will address

- (a) Bike movement
- (b) Path-of-travel movement and "motion camouflage"
- (c) Use of hand signals

### **Bike Movement**

A moving object is more likely to draw another driver's attention than a stationary one. But sometimes, a moving object can *appear* stationary. When you're riding directly toward or away from another driver, because you stay in the same general place within their larger field of vision, you may eventually "disappear" from view, even though you are in plain sight. (This is sometimes referred to as motion camouflage - more on that in the next section). To prevent this from happening, you can use purposeful, variable (irregular or changing) bike movements to draw attention to yourself.

There are a few ways to use movement for increased visibility. You can:

- weave within your lane
- change positions within your lane, or when it is safe to do so,
- change lanes and then change back

Weaving within your lane is nothing more than lightly weaving or making small swerves around pavement markings or objects such as manhole covers - or even imaginary objects. Changing positions within your lane means quickly changing from the left portion of the lane to the right, and vice versa. And changing lanes, while it may not be necessary for positioning, can be useful for getting the attention of other drivers.

Making movement changes such as described above may help get you noticed by other drivers but it also takes time and attention. If making such movements takes your attention away from your current situation (lessens your situational awareness) it might not be a good trade-off. Be cautious about making movement choices.

## Path-of-Travel Movement and "Motion Camouflage"

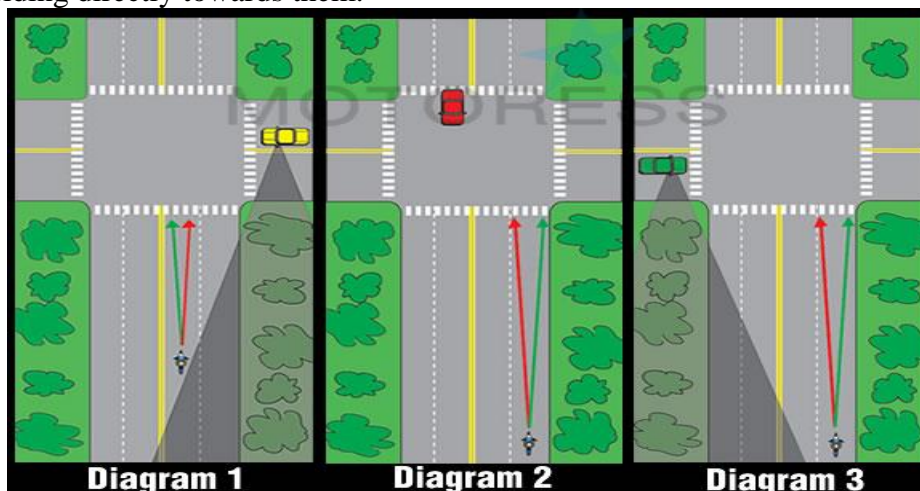
"Motion camouflage" a dynamic type of camouflage by which an object (you and your motorcycle) can approach a target (auto and driver) while appearing to remain stationary from the perspective of the target. The way it works is the approaching object remains on the same line of travel between the target and some landmark point – so it seems to stay near the landmark point from the target's perspective. Usually movement will draw the attention of a driver versus a stationary object. But if you're riding predominantly toward another driver you may 'disappear' because you seemingly remain in the same spot.

In the animal kingdom this phenomenon is used by predators to sneak up on prey. A good example of this is the way a dragonfly hunts. It hovers in one place in its prey's visual field, moving closer without changing its position relative to the background. When its prey moves, the dragonfly moves with it, staying in the same place, and so goes unnoticed. Eventually, the dragonfly becomes effectively invisible to its prey and it can move close enough to strike. Why would a rider be interested in motion camouflage - or dragonflies, for that matter? Because riders can use this knowledge to avoid becoming the "prey" of another driver.

When approaching another vehicle, particularly one that is going to pull out or turn in front of you, the last thing you want is to go unnoticed. You can use movement to avoid motion camouflage.

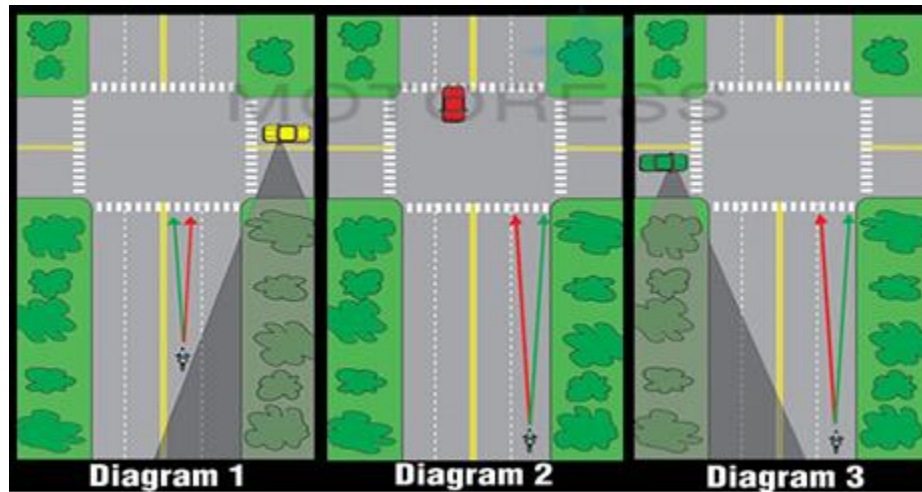
Your objective is to ride slightly *away* from the oncoming vehicle, as opposed to riding *toward* the oncoming vehicle. What you're doing is adjusting your path of travel.

Doing this has two benefits. By riding at a greater angle toward the oncoming vehicle, you present your bike more in profile - there is more visible surface area on the side of the motorcycle than the front, so there is "more bike" for the other driver to see. And using a path of travel that's slightly *away* from the oncoming vehicle, you "cross" their field of vision more, rather than riding directly towards them.



See the examples above. The outside (green) path of travel is the better line that may help you get noticed; the inside (red) path of travel is one that might subject you to motion camouflage.

In general, if an upcoming vehicle is on your left side, your path of travel should move slightly left-to-right. If an upcoming vehicle is on your right side, your path of travel should move slightly right-to-left.



**In Diagram 1**, the better path of travel is the one that moves slightly left-to-right. The outside line points more *away* from the car, the inside line points more *toward* it. Using the outside line will help you avoid motion camouflage and also present more of you and your bike in profile. Note that using the outside path of travel also puts more space between the rider and the car at the intersection.

**In Diagram 2**, the paths of travel have changed from Diagram 1, because the oncoming vehicle is now on the left. The outside line is best because it points more away from the car, the inside line points more toward it. Note that the outside line provides additional space between the rider and the car at the intersection.

**In Diagram 3**, because the car is on the left, the paths of travel are similar to that of Diagram 2. Choose the outside path of travel over the inside one to ride more away from the car and to create more space at the intersection.

Path-of-travel movement is subtle at best, and may not have any effect at all on an inattentive driver. However, by understanding the benefits of using motion to draw attention to yourself, you may be able to affect your visibility in a positive way.

Check out an activity regarding motion induced blindness here:

<http://michaelbach.de/ot/mot-mib/index.html>

Also read the research “*The Role of lane Position in Right-of Way Violation Collisions Involving Motorcycles*” found here: <http://smarter-usa.org/wp-content/uploads/2018/02/2016-The-Role-of-Lane-Position-in-Right-ofWay-Violation-Collisions-Involving-Motorcycles.pdf>

## Use of Hand Signals

One simple, cheap way to make yourself more visible to other drivers is to use hand signals in addition to your bike's turn signals. Because traditional hand signals are so rare in traffic, they tend to get noticed by other drivers. Not only will you give other drivers a better idea of your intentions, but a big, sweeping hand gesture can also make drivers more aware of your presence.

This technique is only advisable for experienced riders who are comfortable operating their bike with one hand for a few moments. If you do not feel safe taking your hand off the handlebars, don't do it. But if you can do it safely, try it.

The standard hand signals are described below.

**Left Turn:** When making a left-hand turn or changing lanes from right to left, you'll need to make a left-hand turn signal by extending your left arm sideways keeping your arm straight and your fingers extended. Try to make your arm as visible as possible.



**Right Turn:** When turning right or changing lanes from left to right, make a right-hand turn signal by extending your left arm out and bending the elbow at a 90-degree angle so that the hand is pointing up and your palm is facing forward. Try to make your arm as visible to those around you.



**Stopping or Slowing:** When you intend to stop or slow down, signal your intentions by extending your left arm and bending your elbow and point the hand down toward the road with your fingers extended. Your palm should face the drivers behind you.



### When to Use Hand Signals

While it might not seem like hand signals are needed most of the time, there are instances when they are both necessary and helpful in order to abide by state traffic laws. These include:

- When a tail or brake light isn't working
- When the morning and evening sunlight makes it hard to see signal lights
- Operating a bicycle or other vehicle that doesn't have turn signals
- Motorcyclists who want to increase visibility to other vehicles on the road

As a motorcyclist when you're setting up to make a turn, flip on your turn signal and raise a hand signal long before you reach your turn.

Notice, in the photos below the difference in visibility that a simple hand signal makes in city traffic. Using a hand signal will give drivers behind you additional time to adjust their following distance or lane position so you can turn safely, without having to worry as much about being rear-ended. Your hands should be back on the bars when making the turn, so make your hand signals early.



When merging or changing lanes, flip on your turn signal and point in the direction of the lane you're going to take. (Pointing likely gets more attention than just sticking your hand out.)



In one photo, a merging hand signal. In the other, a merging hand signal combined with a reflective vest. Both get additional attention from other drivers; which one stands out most to you?

If the idea of using hand signals appeals to you, consider taking it one step further by wearing high-viz gloves (available from many motorcyclist gear suppliers) While seeing a rider hand-signaling in traffic is a rare sight, seeing one with bright orange and retro-reflective gloves is even more unusual - and sure to net you some extra conspicuity.

