



To Save Lives, Shake Up Traffic Signs

A new study finds that "active" road signs may make drivers more attentive.

AARIAN MARSHALL | [@AarianMarshall](#) | Apr 8, 2015 | [5 Comments](#)



Traffic signs around the world display varying amounts of movement. These are school crossing signs from, left to right, the United States, Poland and Russia. ([Journal of Consumer Research](#))

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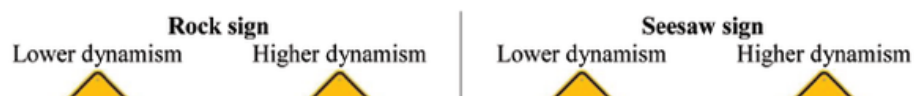
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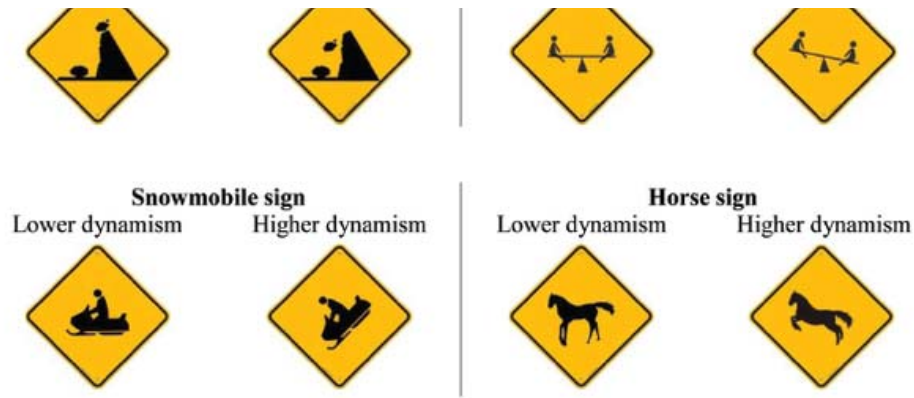
One of the most glorious parts of being a human being is unparalleled adaptability, the power to tune out the most horrible and disruptive things and continue living despite it all.

That skill is downright unhelpful when it comes to traffic signs. Getting accustomed to signs that figuratively spells "danger" could lead to actual danger, and even death. A [new study](#) in the [Journal of Consumer Research](#) takes a look at whether different sorts of signs—specifically, those depicting movement—do a better job of forcing drivers to pay attention to the road.

The investigating researchers, marketing experts [Luca Cian](#), [Aradhna Krishna](#) and [Ryan Elder](#), came up with four alternatives to static road signs, the types commonly used in the United States. While these "lower dynamism" traffic signs contain all the trappings of successful warnings—simple, clean iconography and a black and yellow color scheme—the researchers theorized that "higher dynamism" signs would do a better job of attracting driver attention and heightening risk perception.

So instead of a flat and still snowmobile to indicate *Snowmobilers ahead!*, the researchers tipped the vehicle on an incline to suggest something closer to *Moving snowmobilers ahead!*





Active and non-active signs. ([Journal of Consumer Research](#))

But would drivers react more quickly to signs in motion? In one experiment, participants were asked to watch a short driving video and react to different signs by pressing specific keys on a keyboard. (This is not, of course, a perfect proxy for slamming on a brake or turning a steering wheel in a real car, as the researchers acknowledge.) Participants were also hooked up to eye-tracking sensors, which allowed the scientists to verify when the participants noticed the signs and how many times their eyes swept around the area of a sign. The researchers found that participants reacted to the active signs more quickly, and that the new versions made them pay better attention to their surroundings.

“From evolutionary psychology we know that humans have developed systems to maximize the chances of detecting potential predators and other dangers. Thus, our attention system has evolved to detect actual movement automatically and quickly,” researcher Cian told [The Atlantic](#). “Perception of movement within a traffic sign prepares the driver for actual movement.”

That's one way to interpret the data. Another is this: As the researchers point out in their study, it's possible that the un-active signs used for the study resembled too closely the traffic signs already in use in the United States. Despite the scientists' rigor, “it is possible that the level of familiarity with the sign, or perhaps even the context the sign is placed in, would moderate our effects,” they write. In other words: The participant drivers could have been lulled into a sense of security with the familiar signs, but jarred into attentiveness by the new ones.

Americans are particularly loath to experiment with their precious roads and highways.

That interpretation points to another traffic sign strategy with which urban planners have experimented: No street signs at all. [Shared-space programs](#), popularized by the late Dutch engineer [Hans Monderman](#), have popped up all

over Europe. Intersections re-configured to fit into the [shared-space programs](#) are totally traffic sign- and light-free, and drivers and pedestrians are only alerted where to be by pavements of varying colors and textures. The theory is that, much like dynamic traffic signs, this forces everyone on the road slow down and pay better attention.

Here's the British town of Poynton's [shared space program](#) in action:

Americans are particularly loath to experiment with their roads and highways. Even the relatively unambitious roundabout, which makes high-speed collisions less likely by slowing traffic and eliminating right angle turns, has received a [frosty welcome](#) in the United States. But there were [more than 30,000 fatal motor vehicle crashes in 2013 alone](#), killing 12,600 car occupants and more than 4,700 pedestrians. A little traffic sign experimentation is due.

About the Author



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