

## Strange but True: Helmets Attract Cars to Cyclists

*Although you might not want to leave your protective gear at home, just know that if you do, drivers will be a lot more scared of hitting you.*

Spring is in full swing now, and a number of the straphangers (read: subway riders) in New York City, as well as citizens in other locales, are getting new tubes and tires and dragging their bikes out of storage. Bicycle riding is the skill you reportedly never forget, but there's a raging debate about whether or not you should forget your helmet when you hop on your two-wheeler.

Last September a plucky psychologist at the University of Bath in England announced the results of a study in which he played both researcher and guinea pig. An avid cyclist, Ian Walker had heard several complaints from fellow riders that wearing a helmet seemed to result in bike riders receiving far less room to maneuver—effectively increasing the chances of an accident. So, Walker attached ultrasonic sensors to his bike and rode around Bath, allowing 2,300 vehicles to overtake him while he was either helmeted or naked-headed. In the process, he was actually contacted by a truck and a bus, both while helmeted—though, miraculously, he did not fall off his bike either time.

His findings, published in the March 2007 issue of *Accident Analysis & Prevention*, state that when Walker wore a helmet drivers typically drove an average of 3.35 inches closer to his bike than when his noggin wasn't covered. But, if he wore a wig of long, brown locks—appearing to be a woman from behind—he was granted 2.2 inches more room to ride.

"The implication," Walker says, "is that any protection helmets give is canceled out by other mechanisms, such as riders possibly taking more risks and/or changes in how other road users behave towards cyclists." The extra leeway granted to him when he pretended to be a woman, he explains, could result from several factors, including drivers' perceptions that members of the fairer sex are less capable riders, more frail or just less frequent bikers than men.

Randy Swart, founder of the Bicycle Helmet Safety Institute (BHSI), says that studies such as Walker's run the risk of misleading cyclists as to the effectiveness of helmets.

"The cars were giving him, on average, a very wide passing clearance already," he explains, noting that most vehicles typically stayed well over three feet from the bikes, rendering the 3.35-inch discrepancy to be insignificant. "If you really want the greatest passing distance, you should wobble down the road," looking as inept as possible, he adds.

Walker actually reanalyzed his data recently to counter this line of reasoning. "I assessed the number of vehicles coming within one meter [roughly 3.3 feet] of the rider, on the principle that these are the ones that pose a risk," he says. "There were 23 percent more vehicles within this one-meter danger zone when a helmet was worn, suggesting a real risk."

Dorothy Robinson, a patron of the Bicycle Helmet Research Foundation and a senior statistician at the University of New England in Armidale, Australia, published a 2006 review article in the *BMJ* (British Medical Journal) about regions in Australia, New Zealand and Canada that introduced legislation that spurred an over 40 percent increase in bicycle helmet use among their populaces. The newly instituted laws, she found, did not have a significant effect on bicycle accidents resulting in head injuries, the primary purpose of the gear. Her conclusion was "helmets are not designed for forces often encountered in collisions with motor vehicles" as well as that they "may encourage cyclists to take more risks or motorists to take less care when they encounter cyclists."



© University of Bath

Coincidentally, around the same time as Walker announced his results, New York City released a report on bicycle deaths and injuries: 225 cyclists died between 1996 and 2005 on New York streets; 97 percent of them were not wearing helmets. Of these deaths, 58 percent are known to involve head injury, but the actual number could be as high as 80 percent. Comparing the helmet to a seat belt in a car, Swart of the BHSI says, "When you do have that crash, you better have it on."

Walker, whose much-publicized report may inspire a new generation of bareheaded riders, won't make any specific recommendations to other cyclists (and neither will Scientific American), though he notes that when it comes to riding in traffic, motorists are the real problem. "If people read the research and decide a helmet makes them safer, they should wear one; if they read the research and decide it doesn't, perhaps they don't need to," Walker says, adding the caveat, "But they do need to read the research!" And watch out for cars.

<https://www.scientificamerican.com/article/strange-but-true-helmets-attract-cars-to-cyclists/>

By Nikhil Swaminathan on May 10, 2007