The Armchair Economist

Economics and Everyday Life
Revised and Updated for the 21st Century

Steven E. Landsburg
The economist’s faith in the power of incentives serves him well, and he trusts it as a guide in unfamiliar territory. Back when seat belts (or air bags or antilock brakes) were first introduced, any economist could have predicted one of the consequences: The number of car accidents increased. That’s because the threat of being killed in an accident is a powerful incentive to drive carefully. But a driver with a seat belt or an air bag faces less of a threat. Because people respond to incentives, drivers are less careful. The result is more accidents.

The governing principle is precisely the same one that predicts behavior at the gas pump. When the price of gasoline is low, people choose to buy more gasoline. When the price of accidents (e.g., the probability of being killed or the expected medical bill) is low, people choose to have more accidents.

You might object that accidents, unlike gasoline, are not in any sense a “good” that people would ever choose to purchase. But speed and recklessness are goods in the sense that people seem to want them. Choosing to drive faster or more recklessly is tantamount to choosing more accidents, at least in a probabilistic sense.

An interesting question remains: How big is the effect in question? How many additional accidents are caused by seat belts, air bags, and other safety equipment? Here is a striking way to frame the question: Seat belts tend to reduce the number of driver deaths by making it easier to survive an accident. At the same time, seat belts tend to increase the number of driver deaths by encouraging reckless behavior. Which effect is the greater? Is the net effect to decrease or to increase the number of driver deaths?

This question can’t be answered by pure logic. One must look at actual numbers. The first person to do that was Sam Peltzman of the University of Chicago. He found that the two effects are of approximately equal size and therefore cancel each other out. When seat belts were first introduced (along with padded dashboards and collapsible steering columns) there were more accidents and fewer driver deaths per accident, but the total number of driver deaths remained essentially unchanged. Pedestrian deaths, however, appear to have increased—pedestrians, after all, are not equipped with padded dashboards. Subsequent studies have found comparable results for air bags and antilock brakes.

I have discovered that when I tell noneconomists about Peltzman’s results, they find it almost impossible to believe that people would drive less carefully simply because their cars are safer. Economists, who have learned to respect the principle that people respond to incentives, do not have this problem.

If you find it hard to believe that people drive less carefully when their cars are safer, consider the proposition that people drive more carefully when their cars are more dangerous. This is, of course, just another way of saying the same thing, but somehow people find it easier to believe. If I took the seat belts out of your car, wouldn’t you be more cautious when driving? What if I took the doors off?

Carrying this logic to its extreme, we could probably cut the accident rate dramatically by requiring each new car to have a spear mounted on the steering wheel, pointing directly at the driver’s heart. I predict there would be a lot less tailgating.

At the other extreme, NASCAR drivers have cars so safe that they can generally crash into concrete walls at high speeds and walk away with no injuries. How do they respond to all that safety? In the words of the economists Russell Sobel and Todd Nesbit, “They race them at 200 miles per hour around tiny oval racetracks only inches away from other automobiles—and have lots of wrecks.” And when the cars get safer, they have even more wrecks. NASCAR introduces hundreds of safety-related rule changes every year, which has allowed Sobel, Nesbit, and others to test and confirm this prediction.

One of the most dramatic rule changes followed the tragic crash