NHTSA, the US National Highway Traffic Safety Administration, will study the idea of vehicle interlocks that prevent a car being driven unless each occupant is using a seat belt. Interlocks of this type are permitted, but now some automakers want the option to install seat belt interlocks instead of complying with uniquely American regulations for protection of unbelted vehicle occupants.

Citing cost, weight, and fuel savings to be had by not installing padding and other components needed to pass the American beltless-occupant crash tests, BMW last October petitioned NHTSA to allow belt interlocks as a compliance option. NHTSA denied the BMW petition last week, but will consider the safety implications and may eventually let automakers do as BMW asked. NHTSA Administrator David Strickland says he'll request research to look at opportunities for adjusting the regulations "if there is 100% certainty that everyone is wearing a belt". Strickland says he sees BMW's point; "This could provide manufacturers design flexibility and options to not only improve the margin of safety in a crash, but could also relieve regulatory burdens and save significant costs."

BMW's petition mentions three types of ignition interlocks that might be used: one that prevents the car being started unless all occupants buckle in, one that prevents the transmission being shifted out of Park, and one that would allow only very low speed driving (as for example to go down a driveway or private road, or manœuvre in a parking lot) if the driver isn't using the seat belt.

Last year, 86% of vehicle occupants in the US were belted in. That's an all-time high for the United States, but still below neighbouring Canada's rates—and those of most of the developed world—in the mid to high 90s. The 14% of unbelted drivers and passengers tally up a whoppingly disproportionate 52 percent of those killed in car crashes in the US.

This is not the first time seat belt interlock ideas have been kicked around in the American market. A seat belt/starter interlock was very briefly required almost four decades ago. It was an idea put forth by then-Ford executive Lee Iacocca to stave off an airbag mandate; at that time American seatbelt usage rates were approximately zero percent and airbags were incorrectly regarded as a replacement for seat belts rather than a supplemental restraint. So 1974-model cars came with an interlock
: the belts in all occupied front seats had to be buckled or the engine couldn't be cranked.

The system was immediately and viciously hated by the American motoring public. The

mechanically-inclined quickly figured out which wires to cut and solder to defeat the system; those without technical skill found that leaving the belts buckled and just sitting on them did not work—there was a logic module that required the correct sequence (sit, buckle, turn key) or else the starter would not function. There was an underhood bypass button that could be pressed to give one "free" start in case of system fault. Taping the button down wouldn't work; it had to be pressed each time.

The components of the day were not very reliable, especially within what automakers would pay. Too, seat occupancy was detected with weight sensors; this made problems with bags of groceries, brief cases, parcels and suchlike. System faults and nuisances were common. That was on top of the US public's rabid scornful dismissive hatred of seat belts and their perceived infringement on personal freedom—of course, now we know that the libertarian argument that belt nonuse affects only the nonuser is wrong; an unbelted driver is much more likely to be knocked unconscious and/or out of position to control the car by a first impact, making subsequent impacts much more likely. Shortly after a critical mass of congressmen bought new 1974 cars, the interlock requirement was repealed and a (rare) exemption was enacted to the prohibition on rendering inoperative a vehicle safety device or system.

Now we have much more accurate and precise ways of detecting seat occupancy by a human vs. an inanimate object—cameras able to monitor a driver for fatigue can surely tell the difference between a driver and a stack of books—and today's automotive electronics are quite dependable. Defeating a current-day interlock would likely be much harder than it was in 1974. But then again, few people would try; decades of education and social and legal pressure have gradually brought most Americans to a view of the matter supported by science: seat belts unequivocally save lives and prevent injuries.

It is difficult for the scientific mind to object to the revival of the interlock; if nothing else it is well to recall we have had interlocks preventing the car cranking if it's not in Park or Neutral since before the advent of NHTSA in 1968. Few people object to these obvious crash-prevention devices in that context; with today's understanding and general acceptance of seat belts, a belt interlock ought to meet with good acceptance.

And the BMW point is an interesting one to ponder—not just in terms of crashworthiness requirements such as seat belts, air bags, knee bolsters and interior padding, but over a much broader scope. As driver assistance systems increasingly take over vehicle operation from the arbitrary, capricious, problem-prone "nut behind the wheel" (the driver), discussions of how much vehicle intervention on behalf of the driver are increasingly apposite even to those of us who ponder cameras and sensors and automatic brake activation rather than safety belts.