

# Fear and Driving Opportunity Motivated Changes in Driving Behavior After 9/11

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A catastrophic event – such as a terrorist attack, a natural disaster, or market collapse – often strikes twice. There is the damage caused by the event itself, as lives are lost or left in ruin. But there is also the second act, catalyzed by our response to the catastrophic event. This second act has the potential to cause just as much damage as the first.

In the year following the terrorist attacks of September 11, 2001, there were approximately 1,600 more traffic fatalities in the United States than expected. This figure suggests the possibility that fear may have been a strong motivator for many people, leading them to choose driving over flying. This change in behavior, motivated by fear, may have ultimately led to additional deaths through traffic fatalities.

But fear does not tell the whole story. As Wolfgang Gaissmaier and Gerd Gigerenzer of the Harding Center for Risk Literacy at the Max Planck Institute for Human Development in Berlin, Germany, observe, the changes in driving behavior observed after 9/11 varied widely across different regions of the United States and did not just occur in those states closest to the attacks where fear was presumably strongest.

Gaissmaier and Gigerenzer hypothesized that another factor might have played a central role: driving opportunity. While fear provides a motivational explanation, in order for people to substitute driving for flying there had to be an environmental structure that allowed fear to manifest in a behavior change.

The researchers explore this hypothesis in a new research article to be published in [Psychological Science](#), a journal of the [Association for Psychological Science](#).

They collected data on the number of miles driven and the number of traffic fatalities per month from each of the 50 states and the District of Columbia. They also gathered data on fear and driving opportunity. They used proximity to New York City to get an approximate measure of post-9/11 fear, as previous research had shown that proximity was linked with substantial stress reactions after the attacks. To measure driving opportunity, they assessed the length of nationally significant highways in each state in the National Highway System, divided by the number of state inhabitants and they also looked at the number of car registrations per inhabitant.

The results of the analyses show that people did in fact drive more following 9/11: Across all states, the average monthly increase in miles driven per inhabitant was 27.2 miles in the three months following the attacks. This increase was significantly greater than that observed in the same three-month period in the five years leading up to 2001.

Interestingly, people who were closer to New York City showed only a slight increase in driving. Increase in miles driven was strongly associated, however, with greater driving opportunity. Most

importantly, increased driving was associated with an increase in traffic fatalities. These findings suggest that fear can lead people to engage in potentially dangerous behaviors, such as increased driving, but that understanding fear is not enough.

“To be able to foresee where the secondary effects of catastrophic events could have fatal consequences, we need to look at the environmental structures that allow fear to actually manifest in dangerous behaviors.”

According to Gaissmaier, understanding citizens’ behavior as a function of both the mind and the environment ultimately allows for two routes toward behavior change: altering people’s minds (through education or awareness campaigns) or altering people’s environments.

You can hear Gaissmaier discuss his research in an interview with BBC Radio:

<http://www.bbc.co.uk/programmes/p00xh32n#synopsis>