

Culture, crowding and social influence all tied to aggressive driving behavior

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A study of angry, competitive and aggressive driving suggests that these dangerous behaviors are becoming a worldwide phenomenon of almost epidemic proportions, and are a reflection of a person's surrounding culture, both on the road and on a broader social level.

The research was done with drivers in China where competitive driving is very common. It concluded that such behavior is more pronounced in men than in women, and is partly a reaction to overcrowded road networks. The study also implies that different social conditions might ultimately translate into better drivers.

The findings have been published in *Procedia Engineering* by researchers from Oregon State University, the Beijing University of Technology, and the Ministry of Transport of the People's Republic of China. It was supported by the Beijing Municipal Education Commission.

At its worst, aggressive driving can be seen as "road rage" leading to serious or fatal accidents. In lesser forms it is viewed as "competitive" behavior that includes speeding, crowding or lane-hopping that drivers often use to gain a few minutes in an urban rush hour. In all its variations, this behavior is a problem that appears to be increasing. The American Automobile Association estimated that 56 percent of accidents involve [aggressive driving](#).

"China is a good place to study competitive driving because it's very common there," said Haizhong Wang, an assistant professor of

transportation engineering in the OSU College of Engineering. "Roads are overcrowded, there's less traffic control, and many drivers are younger or have little training or experience."

The problems in China as it becomes increasingly crowded with drivers, however, reflect similar concerns at varying levels around the world, Wang said. Urban areas and road networks are becoming more crowded and congested. Research such as this may help to better understand the underlying human and psychological behaviors that come into play.

In this analysis, the researchers concluded that drivers in congested situations generally believed that the chaotic traffic state was responsible for their competitive behavior, and they had no option other than to compete for space, the right-of-way, and gain advantages through speed and spacing. In simple terms, it was right and proper that they should try to keep up with or get ahead of traffic; that was the example being set for them, and they drove that way because everyone else did.

However, the study also suggested that "personality traits draw on and are influenced by aspects of one's [social environment](#)." The researchers said in their report that this indicates some countries and cultures may be more susceptible due to their social environment, and that improvements in that arena would also be seen in driving behavior.

"The choice to be competitive versus cooperative always starts with culture, by the influences around us and the way other people behave," Wang said. "And it's clear there's a role for education and experience, where studies have shown the value of young drivers participating in driver education programs and receiving positive guidance from their parents and peers."

Part of the concerns in China at the moment, Wang said, may evolve from many new drivers just in the past 20 years who drive in a very

challenging environment. But, as a developing nation which until recently had comparatively few automobiles, China doesn't have generations of experience and support systems to draw upon. The result is a high level of accidents, injuries and fatalities.

As more areas around the world see increasing traffic congestion, Wang said, part of the psychological challenge will be to retain a sense of personal responsibility, avoid mimicking dangerous behaviors of other [drivers](#), and strive for a level of tolerance, courtesy and personal cooperation essential for safe driving.

More information: Pengfei Li et al, The Theory of Planned Behavior and Competitive Driving in China, *Procedia Engineering* (2016). [DOI: 10.1016/j.proeng.2016.01.270](#)

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