

Editorial

The Need for Traffic Emotions Training

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Citation: Leon James (2017) The Need for Traffic Emotions Training. J Psychiatry Cogn Behav 2: 120. DOI: 10.29011/2574-7762.000020

Received Date: 23 May, 2017; **Accepted Date:** 24 June, 2017; **Published Date:** 01 July, 2017.

Editorial

Public Health Crisis

Our society has been facing an epidemic of aggressive driving that causes every year in the United States 42,000 fatalities, 6 million serious injuries, and 150 billion dollars in annual cost, not counting untold human suffering [1,2]. In other words, more than 50 million people in the United States had to have emergency treatment in the past ten years as a result of vehicular accidents. Law enforcement initiatives are becoming more aggressive, and invasive, and a number of States have passed new and tough aggressive driving legislation that land people in jail [3]. Motorists consider stress in traffic as their number one worst daily hassle [4]. The connection between stress and illness has long been established in medicine and new research shows that driving related stress is no different from life stress in the way it affects our health [5]. People's health is affected, and the nation's glue of civility is torn apart by the war zone on our highways [6].

Neither legislation, nor law enforcement, nor public awareness and education programs can solve the problem totally, though they all help and are necessary, and should be increased. But what would solve the problem altogether is general, widespread traffic emotions training for current and future drivers. As there are nearly 200 million licensed drivers in the U.S, such an undertaking may present a major challenge for the health professions who may be called upon to manage and coordinate public and private efforts that can assist individual drivers to modify their thoughts and emotions while driving in traffic.

"Aggressive" driving is driving under the influence of negative emotions resulting in increased physical risk on other road users. Habitual negative affectivity can promote self-serving and subjective cognitive justifications that distort self-assessment and resist change in behavior. Driving involves the whole person: perception, emotions, thoughts, speech, and motor output. People know from experience that their personality in traffic can be very different from how they act and feel at other times. One driver comment that I've seen recurring over the years is: "I'm a pretty

calm and reasonable person. But when somebody does something stupid and dangerous it's normal for me to react. It's not my fault if someone pushes my button". Traffic emotions training would provide people with cognitive skills that are effective in managing their emotional reactions in traffic situations. For example, people can learn that there is no "Button" in their emotional system that others can "Push". They can be taught that traffic events are social occasions for people to react, either aggressively or adaptively.

Cognitive and Affective Interactions

The emotions that drivers experience in traffic tend to be specific to traffic conditions or the ongoing situation. Drivers may be unaware of their traffic emotions until they make an effort to monitor themselves [6,7]. This also applies to emotions that people report when walking in crowded sidewalks [8]. For many people, traffic emotions are unconscious affective habits, possibly acquired in childhood by modeling and absorption when being driven by parents or other adults. There is evidence that some affective habits and attitudes of drivers originate in childhood as children ride on the back seat and absorb the driving style and attitude of parents [9]. Another contributing factor may be watching movies and playing video games that promote aggressive driving as fun.

It is known that traffic emotions can influence the perception and judgment of drivers [10,11]. Mesken (2002) [12] and Mesken, et al. (2007) [13] describe three feasible methods of measuring a driver's emotions in traffic. These include (1) physiological measures that are known to correlate with emotions, like heart rate or skin conductance; (2) observable overt behaviors that are considered emotional reactions, like repeated honking, making insulting gestures, or yelling at another driver; (3) self-reports, which can be either concurrent while driving, or retrospective and not while driving. A fourth method needs to be mentioned that may be especially relevant to mental health professionals. (4) content analysis of narrative accounts that drivers produce about their traffic related experiences regarding other drivers, driving incidents and near misses, explanations of traffic slowdowns, attitude towards early and late merging, speed limits and speed "Traps", etc. [6,14].

Content analysis can be applied to transcripts of audio recordings of drivers who are thinking out loud behind the wheel, as well as to content produced in interviews with patients and clients.

Reading many such transcripts of think aloud recordings has led me to the conclusion that most drivers are involved with negative emotions on a regular basis in daily traffic. This is corroborated by research with driving simulators that concludes that anger is the most common emotion that drivers experience in traffic [15,16]. Anger promotes aggressive driving and is correlated with anger-proneness and accident involvement [17,18]. Accident reporting by law enforcement normally includes the cause of an accident, one of which is "Driver Error". Negative traffic emotions may be a principal contributing factor to errors of judgment, misattribution of cause, and distraction or loss of attentional focus.

Lawton, et al. (1997) [19] found that drivers who feel good when committing violations engage more frequently in those illegal behaviors. They hypothesize that drivers who engage in fast driving do not define it as aggressive. They argue that they are simply having fun and experiencing the thrill and excitement of "Winning the Race". They assess themselves as being a good driver. They deny that other motorists are in greater danger. There is a natural tendency to want to attribute fault to others rather than to self. This self-serving bias even influences the memory of what happened, slanting the guilt away from self and laying it on others. Drivers lose objectivity and right judgment when a dispute comes up. Subjectivity increases stress by strengthening the feeling that one has been wronged.

It is common for people who vent anger to recite the details of another driver's "Objectionable" behavior, often called "Stupid" behavior. Venting tends to intensify by its own logic until it breaks out into overt hostility and physical violence. To bring venting under control before it explodes requires motivation and self-training. Venting by drivers in traffic can be felt as energizing and can facilitate aggressiveness under the impetus of a stream of anger-producing thoughts that impair judgment and may promote rash and dangerous actions. Repeated venting takes its toll on the immune system and acts as physiological stress with injurious effects on the cardio-vascular system [20].

Drivers who consider themselves "Excellent Drivers" also report on the same survey engaging in more aggressiveness than drivers who consider themselves to be "Still Improving" [14]. This shows a serious lack of objectivity in cognitive self-assessment. Despite their self-reported aggressiveness these drivers continue to think of themselves as excellent drivers. This egocentric phenomenon can be seen in specific forms of aggressive behaviors. For example, those who report considering themselves as "Near Perfect" drivers (8 or 9 on a ten-point scale), admit to twice as much chasing of other cars compared to those who consider themselves lower on the excellence scale (6 or 7). It appears that part of being an aggressive driver is to deny that needing to improve. An additional complicating factor is the psychological tendency

to maintain a preferred level of risk called "Risk Homeostasis" [21,22] so, that increased risks are taken when road and vehicle improvements are introduced.

During a week of self-imposed driving within speed limits, my students in a driving psychology class commonly reported paranoid feelings and thoughts (e.g, "Everybody is giving me the stink eye for holding them up. They are going to attack me, ram me off the road") - which did not appear in the baseline records while the students were driving regularly by keeping up with traffic.

Conclusion

Developing sound judgment and emotional self-control are not part of the driver's training, even though these cognitive skills were mentioned as being essential. In my estimation, most drivers today are untrained or under-trained, in cognitive and affective skills. Cognitive driving skills involve the driver's habits of thinking and judgment. Affective driving skills involve the driver's habits of attitude, morality, and motivation. Without appropriate training drivers are thrown into dangerous situations every day in which they lack the necessary coping skills such as how to cool off when angered or frustrated, or being aware of how their driving style affects other drivers, or how to cooperate with the traffic flow and not hinder it. Traffic emotions training may usefully incorporate the findings on emotional intelligence [23].

Besides driver education, traffic emotions training may be delivered in therapy, counseling, self-improvement groups, and social networking activities. I believe there is a need for greater involvement of health professionals in assisting society in a rapidly evolving public health crisis.

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