Driver style and driver skill – Clustering sub-groups of drivers differing in their potential danger in traffic

The Driver Behavior Questionnaire (DBQ) and the Driver Skill Inventory (DSI) are two of the most frequently used measures of self-reported driving style and driving skill. The motivation behind the present study was to test drivers’ consistency or judgment of their own self-reported driving ability based on a combined use of the DBQ and the DSI. Moreover, the joint use of the two instruments was applied to identify sub-groups of drivers that differ in their potential danger in traffic (as measured by frequency of aberrant driving behaviors and level of driving skills), as well as to test whether the sub-groups of drivers differed in characteristics such as age, gender, annual mileage and accident involvement. 3908 drivers aged 18–84 participated in the survey. The results suggested that the drivers are consistent in their reporting of driving ability, as the self-reported driving skill level mirrored the self-reported frequency of aberrant driving behaviors. K-means cluster analysis revealed four distinct clusters that differed in the frequency of aberrant driving behavior and driving skills, as well as individual characteristics and driving related factors such as annual mileage, accident frequency and number of tickets and fines. These differences between the clusters suggest that two of the sub-groups are less safe than the two others. The present findings highlight the need to look into driver’s attitudes towards safety, in order to improve the motivation to drive safely. Information from this study is useful for interventions to be able to target specific problematic groups of the population in the attempt to improve road safety nationwide.