

Psychological factors in young drivers' traffic accidents

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The frequency of traffic accidents and offences is highest among young drivers in the age range 17 - 23 years, and higher for men than women (figure 1). Apart from age and sex, some other, important factors related to accident rates are education, socio-economic status, the traffic environment, and various psychological factors such as personality traits and attitudes. However, none of the effects of these factors are sufficiently explained as yet.

In the first phase of the present project, we administered a questionnaire to 101 drivers (Briem, Ragnarsson, & Thordarson, 2000). The results indicated a significant effect of age and sex on the frequency of both accidents and offences, which were also related to driving experience and exposure. Fourteen psychological traits were shown to be associated with involvement in accidents and offences. These findings provided a basis for constructing a second version of the questionnaire containing 94 questions, both of a general nature and pertaining to traits and attitudes.

The aim of the second phase, reported here, in which the new version of the questionnaire was used, was to further explore the association of previously isolated traits to accident proneness, as well as to construct a final version of the test for use in predicting the incidence and types of drivers' accidents and offences. The project is being carried out in Iceland and Sweden, and figure 1 shows the relationship between drivers' age, sex, and serious traffic accidents in these two Nordic countries. The observable trends are identical to all intents and purposes. Extending the comparison to include relative traffic exposure, 65% and 35%, respectively, for male and female drivers in Iceland in 1997 (Thordarson & Briem, 1998), these proportions closely match the accident frequencies for male and female drivers (cf. figure 1).

Method

322 young drivers (17-28 years) completed the revised test. The sample was then reduced to 257 drivers, 142 women and 114 men, 17 - 23 years old, by excluding (i) those who had driving experience of 6 months or less, (ii) several people who were over 23 years old, and (iii) a few who had misunderstood some central questions. The data were then subjected to a series of statistical analyses ($\alpha = .05$).