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Drivers' tendency to commit different aberrant driving behaviours in comparison with their perception of how often other drivers commit the same behaviours

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ABSTRACT

The aim of the present study is to examine the difference between drivers' self-reported tendency to commit different aberrant driving behaviours in comparison with their perception of how often other drivers commit the same behaviours measured by the driver behaviour questionnaire (DBQ) in Sweden and Turkey, respectively. A sample of 228 Swedish and 302 Turkish drivers completed a questionnaire including questions based on the DBQ. The results showed that in both Sweden and Turkey, the participants reported committing aberrant driving behaviours less frequently than their perception of how often other drivers commit the same behaviours. The size of this difference does, however, vary depending on the DBQ-item and it is suggested that this variation could be used as a clue for understanding social acceptability.

1. Introduction

Previous research has often shown that drivers prefer to behave in the same way as their fellow drivers – to follow traffic rhythm is, for example, given as a reason to exceed the legal speed limit (e.g. Åberg, Larsen, Glad, & Beilinsson, 1997; Wallén Warner & Åberg, 2008). The question that then arises is; how are other drivers' behaviours actually perceived?

Several studies have shown that most drivers believe that they drive better than other drivers. Preston and Harris (1965) did, for example, compare 50 drivers previously involved in serious traffic accidents with 50 drivers without accident involvement. Regardless of their accident history, all drivers rated themselves much closer to *experts* than to *very poor drivers* (on a 9-point scale) and the mean for the two groups (i.e. serious accident involvement versus no accident involvement) were nearly identical. Similar results were obtained by Svenson (1981) who found that 77% of the participating Swedish students thought that they were safer drivers than the median student in their group, while 69% thought that they were more skilful. In the US, the corresponding numbers were 88% and 93%, respectively. Finally, Walton and Bathurst (1998) found that 70% of the drivers in their study in New Zealand thought that they were safer than the average driver while 53% thought that they were more skilful.

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All of these studies do, however, only include general measures of being a 'good' driver (i.e. better, skilful and/or safe) making it hard to examine the effects (if any) of biased perception on the drivers' own behaviour. In more recent studies some specific measures, based on the driver behaviour questionnaire (DBQ), have however been used.

The driver behaviour questionnaire (DBQ) was originally designed by Reason, Manstead, Stradling, Baxter, and Campbell (1990) in an attempt to make a distinction between different types of aberrant driving behaviours. The results showed that the 50 items used could be categorised into three different factors: *violations* (dangerous deliberate violations), *errors* (dangerous mistakes and slips) and *lapses* (harmless slips and lapses). Since then, the DBQ has been extensively used. To reflect differences in driving conditions (e.g. due to climate, traffic density, etc.), driving population (e.g. private or professional) and/or to further examine the different factors, new items have sometimes been added. Lawton, Parker, Manstead, and Stradling (1997) did, for example, find that the original *violations* could be subdivided into *aggressive violations* which contain an interpersonally aggressive component, and *ordinary violations* which contain deliberate deviations from the highway code without having a specifically aggressive aim. After adding a few new items, *ordinary violations* could be further subdivided into *fast driving violations* and *maintaining progress violations*. In the same way Åberg and Rimmö (1998) showed that lapses could be subdivided into *inexperience errors* and *inattention errors*.

Even though items sometimes have been added, resulting in different factor solutions, the distinction between deliberate violations and involuntary errors, first shown by Reason et al. (1990), seems to be robust for private and professional drivers alike, both within and across different countries and cultures (cf. Wallén Warner, 2006). The distinction between deliberate violations and involuntary errors is also supported by the fact that this two-factor solution was the most stable solution (among possible solutions with two to six factors) over a three-year follow-up study in Finland (Özkan, Lajunen, El. Chliaoutakis, Parker, & Summala, 2006).

Using Lawton et al. (1997) version of the questionnaire, King and Parker (2008) showed that drivers believed that other drivers commit both *aggressive* and *ordinary violations* more often than they do themselves. Using these measures (i.e. *aggressive* and *ordinary violations* extracted from several items each) King and Parker (2008) employed much more specific measures than previous studies (using i.e. better, skilful and/or safe). Even more specific measures were employed by Åberg, Afram, and Nilsson (2005) who conducted a study based on Åberg and Rimmö (1998) version of the driver behaviour questionnaire (DBQ-SWE) and showed that drivers believed that other drivers committed all 32 aberrant driving behaviours in the DBQ-SWE more often than they did themselves. One limitation with that study was, however, that the sample answering the questions about their own aberrant driving behaviours and the sample answering the questions about other drivers' aberrant driving behaviours was taken from two different studies conducted approximately 7 years apart. As far as the authors are aware, no study has compared drivers' own aberrant driving behaviours with their perception of other drivers' aberrant driving behaviours using the same sample.

If drivers' prefer to behave in the same way as their fellow drivers (as stated in the beginning of this introduction) drivers' biased perception of other drivers' aberrant driving behaviours are likely to affect their own behaviours. Furthermore, as there are large differences in drivers self-reporting of how often they commit different aberrant driving behaviours depending on country (Bener, Özkan, & Lajunen, 2008; Özkan, Lajunen, & Summala, 2006; Wallén Warner, Özkan, Lajunen, & Tzamalouka, 2011), there might also be differences in drivers' perception of the frequency of other drivers' aberrant driving behaviours depending on country.

The aim of the present study is to examine the difference between drivers' self-reported tendency to commit different aberrant driving behaviours in comparison with their perception of how often other drivers commit the same behaviours measured by the driver behaviour questionnaire (DBQ) in Sweden and Turkey, respectively.

2. Method

2.1. Participants

A total of 228 drivers from Sweden and 302 drivers from Turkey participated in the study.

The Swedish drivers' age ranged from 21 to 68 years, with a mean age of 40 years. Fifty-seven percent of the drivers were men while 43% were women. On average the drivers had had their driving licence for 19 years and had driven approximately 14,000 km during the previous year. Furthermore, on average the drivers had been involved in 0.2 accidents per year during the previous 3 years (or shorter if the driver has held a driving licence shorter than 3 years).

The Turkish drivers' age ranged from 19 to 68 years, with a mean age of 32 years. Sixty-seven percent of the drivers were men while 33% were women. On average the drivers had had their driving licence for 10 years and had driven approximately 10,000 km during the previous year. Furthermore, on average the drivers had been involved in 0.4 accidents per year during the previous 3 years (or shorter if the driver has held a driving licence shorter than 3 years).

Independent-samples t-test showed that the two groups differ with regard to age ($t[458.6] = 6.8$, $p < .001$; unequal variance t-test), years holding a driving licence ($t[370.6] = 8.8$, $p < .001$; unequal variance t-test), mileage (in km) during the previous year ($t[528] = 2.0$, $p < .05$; Student's t-test) as well as yearly accident involvement during the previous three years (or shorter if the driver has held a driving licence shorter than 3 years) ($t[475.8] = 5.0$, $p < .001$; unequal variance t-test). Finally, chi-square test showed that the two groups also differ with regard to gender ($\chi^2 = 6.2$, $p < .05$).