



Thrill and Adventure Seeking as a modifier of the relationship of perceived risk with risky driving among young drivers



Julie Hatfield*, Ralston Fernandes, R.F. Soames Job

NSW Injury Risk Management Research Centre, University of New South Wales, 2052, Australia

ARTICLE INFO

Article history:

Received 2 August 2010

Received in revised form 30 January 2013

Accepted 30 September 2013

Keywords:

Sensation seeking

Risk perception

Risky driving

Young drivers

ABSTRACT

Risky driving contributes to road trauma, a leading cause of mortality among young people. Health-relevant behaviour models suggest a negative relationship between risky driving and perceived risk of its outcomes. However, high sensation seekers may value the “thrill” of the risk, and positive associations between sensation seeking and risky driving have been observed. This is the first study to examine whether aspects of sensation seeking modify the relationship between perceived risk and risky driving. Young drivers in metropolitan Sydney and rural New South Wales [NSW] ($n = 797$) completed a survey relating to one of the four risky driving behaviours (speeding, drink-driving, driving while fatigued, and failing to wear a seatbelt). Results suggest that the Thrill and Adventure Seeking subscale of Zuckerman's (1994) Sensation Seeking Scale moderate the relationship of perceived risk with risky driving – indicating a negative relationship for low-scores, but not high-scorers, on the TAS subscale. Thus, road safety campaigns that emphasize the riskiness of a particular behaviour may be of limited benefit to thrill and adventure seekers.

© 2013 Elsevier Ltd. All rights reserved.

1. Introduction

1.1. The road safety problem and the role of risky driving

Road trauma is recognized as a serious problem both in Australia and internationally. The World Health Organization (WHO) estimates that road crashes account for 2.1% of all deaths globally (Jaffar Hussain, 2006), while in Australia, in 2007 there were 1603 people killed in 1454 road crashes (Australian Transport Safety Bureau, 2008). Younger drivers are over-represented in crashes among all classes of road user throughout the world (WHO, 2004), including Australia (Ivers et al., 2006), at high societal cost.

Various driving behaviours have been found to predict crashes, and/or crash seriousness (for review see Jonah, 1986). Such behaviours are often the subject of legislation – which people violate by engaging in these behaviours. Intentional violations have been distinguished from errors or lapses, and pose greater risks (Parker et al., 1995). This study focusses on four risky driving behaviours: speeding, drink-driving, driving while fatigued, and not wearing seat belt. Speeding has been found to increase both the frequency (Vernon et al., 2004) and severity (Moore et al.,

1995) of road crashes. Research has consistently shown that higher levels of alcohol consumption are associated with a higher risk of a road crash (Mayhew et al., 1986). Evidence for the contribution of driver fatigue to road crashes is hampered by the lack of a direct and objective measure of fatigue. Nonetheless, Arnedt et al. (2005) found that sleep deprivation resulted in a significant increase in mean crash rate during a simulated drive. Failure to wear a seat belt substantially increases the risk of injury in the event of a road crash (Ball et al., 2005). Iversen (2004) found that people who had been involved in at least one car crash over the last one-year period engaged in more speeding, drink-driving and reckless driving, as well as lower use of seat belts, over the same period. Jonah (1986) concluded from a review of relevant literature that risky driving is an important contributor to the over-representation of young drivers.

1.2. Perceived risk as a determinant of risky driving

Perceived risk has received considerable attention as a contributor to risky driving. Perceived *personal* risk is a principal causal factor in a number of important and widely used theories of health behaviour, including the Health Belief Model (Janz and Becker, 1984) and the Theory of Planned Behaviour (Ajzen and Fishbein, 1980). Essentially, these models posit that the more risky a behaviour is perceived to be, the less likely an individual will be to engage in it. Perceived personal risk may be understood to include the *perceived susceptibility* to, and *perceived severity* of, the

* Corresponding author at: NSW Injury Risk Management Research Centre, University of New South Wales, NSW 2052, Australia. Tel.: +61 2 9385 7949; fax: +61 2 9385 6040.

E-mail address: j.hatfield@unsw.edu.au (J. Hatfield).

consequences of performing a risky behaviour (or not performing a safe behaviour) (see Janz and Becker, 1984). In the case of driving, such consequences may be having a car crash or being penalized (which in Australia may involve receiving a fine, or demerit points against the driver's licence). Numerous studies have demonstrated the predicted negative association between perceived risk and risky driving (e.g. Cunill et al., 2004; Smith et al., 2005).

Because people's judgements are often based on social comparison, these theories have been extended by some researchers to suggest that perceived risk *relative* to others may also influence behaviour (e.g. Weinstein, 1988). In a laboratory study testing this proposition Klein (1997) demonstrated that perceived relative risk influenced self-reported driving intentions at least as much as perceived personal risk. This is particularly important, since people tend to underestimate their risk relative to others, and this could promote risky behaviour (see Weinstein, 1987).

It has rarely been recognized that the relationship between perceived risk and risky driving may vary depending on an individual's attitude to risk. Specifically, individuals who value risk positively may be motivated to engage in a behaviour that they perceive is risky, counter to the predictions of the Health Behaviour Model. In fact, positive associations between perceived risk and behaviour have been observed. For example, Rutter et al. (1995) demonstrated that higher perceived vulnerability to crashing measured in 1989 was associated with more frequent breaking of law and rules in 1990 (standardized beta=0.11, $t=2.6$, $p<0.01$; see also Hatfield and Fernandes, 2009; Rutter et al., 1998). This may owe to risky behaviour influencing perceived risk (see Weinstein et al., 1998); so that individuals who engage in risky behaviour acknowledge their consequently higher risk. Nonetheless, it may also indicate a sample with sufficient motivation for risk; so that higher perceived risk encourages engaging in risky behaviour.

1.3. The role of sensation seeking in risky driving

Recognition of the importance of positive motivation for engaging in risky behaviour is evident in the attention received by sensation seeking as a predictor of risky behaviour. Sensation seeking is a personality trait describing the tendency to seek new, different, and intense sensations and experiences (Zuckerman, 1994). It is comprised of four subscales, of which the Thrill and Adventure Seeking subscale, which assesses "the desire to engage in physical activities that provide unusual sensations and experiences, such as mountain climbing, skydiving, or scuba diving" (p. 13), appears most relevant to risky driving. For example, drivers may engage in behaviours which they know to be risky (either from common sense, or because the behaviours are identified as such in community messages) partly because the "thrill" of the risk provides a sensation-rich experience, in addition to any other sensual aspects of the behaviour (e.g. the intoxication associated with drink-driving).

Many studies have demonstrated positive associations between sensation seeking and various risky driving behaviours. For example, Jonah (1997) reviewed 40 relevant studies and found that 36 demonstrated positive associations between sensation seeking and at least one of a range of risky driving behaviours (e.g. speeding, drink-driving, following too closely, not wearing seat belts). More recently, in a cross-sectional survey, Jonah et al. (2001) found that high sensation seekers were significantly more likely than low sensation seekers to speed (in general, on highways, and on wet roads), drink-drive, and not wear seat belts (see also Dahlen et al., 2005; Iversen and Rundmo, 2002). Studies which considered the subscales of Zuckerman's scale generally found Thrill and Adventure seeking to be the best predictor of risky driving (Jonah, 1997).

These studies have assessed the direct relationship between sensation seeking and risky driving, which is appropriate to

determine whether high sensation seekers engage in risky behaviour for their sensual aspects (e.g. wind rushing past when speeding). However, the possibility that high sensation seekers engage in risky driving for the thrill of the risk – i.e. the possibility that sensation seeking moderates the influence of perceived risk – is yet to be examined. Nonetheless, Jonah (1997) is suggesting something similar when he draws on Risk Homeostasis Theory (Wilde, 1994) to hypothesize that high sensation seekers are more likely than low sensation seekers to adapt to road safety counter-measures (such as ABS brakes) to achieve an optimal level of risk. Confirmatory findings (Jonah et al., 2001) support the view that high sensation seekers are attracted to the risk itself (rather than only to other sensual aspects of the behaviour).

1.4. Aims

The present research examined the role of thrill and adventure seeking in speeding, drink-driving, driving while fatigued, and not wearing seat belts, for young drivers aged 16–25 years from metropolitan Sydney and rural New South Wales [NSW]. Thrill and adventure seeking was examined as a direct predictor of these risky driving behaviours, and as a moderator of the relationship between perceived risk and risky driving.

2. Method

2.1. Design

Four questionnaire versions (one for speeding, one for drink-driving, one for driving while fatigued, and one for not wearing seat belts) were handed out to participants consecutively and randomly, resulting in four groups within the metropolitan and the rural sample.

2.2. Participants and sampling

Participants were 1009 drivers from metropolitan Sydney and rural New South Wales [NSW]. For the metropolitan Sydney sample, participants were recruited outside six Roads & Traffic Authority (RTA) Motor Registries¹ across the Sydney metropolitan area. For the rural NSW sample, participants were recruited outside eight RTA Motor Registries across rural NSW. Participants were required to be 25 years of age or less, and have held a current NSW drivers license for at least one year.

This methodology has achieved an initial response rate of around 65% previously (Fernandes et al., 2006). Of all participants to accept a questionnaire, 212 were immediately excluded from further analysis because they returned a questionnaire that was less than half completed. To reduce the influence of socially desirable responding as a contaminant of self-report data, 83 participants with a score greater than 9 on the Marlowe–Crowne Social Desirability Scale (Reynolds, 1982) were excluded from the sample. Table 1 shows the final sample sizes, proportions of female participants, mean ages, and standard deviations of age, for each questionnaire version.

2.3. Materials

2.3.1. Risky driving questionnaire

For each of the four risky driving behaviours examined, the following variables were assessed by each of the four questionnaire versions:

¹ RTA Motor Registries are offices located throughout NSW at which vehicle registration and license application and renewals occur. Although vehicles can be registered and re-registered on-line, many drivers visit a registry for this annual activity. Licensing activities can only be performed at a registry.

Download English Version:

<https://daneshyari.com/en/article/6966064>

Download Persian Version:

<https://daneshyari.com/article/6966064>

[Daneshyari.com](https://daneshyari.com)