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## A positive view on road safety: Can 'car karma' contribute to safe driving styles?

### Lucienne M.B. Kleisen<sup>a,b,\*</sup>

<sup>a</sup> School of Physical, Environmental & Mathematical Sciences, University of New South Wales/Australian Defence Force Academy, Canberra, Australia
<sup>b</sup> Faculty of Business, Government and Law, University of Canberra, Canberra, Australia

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#### ABSTRACT

Many studies in the field of road safety are occupied with studying road unsafety since it generally concentrates on traffic crashes, crash, risk, and aberrant driving behaviour, especially in relation to young drivers. However, this study shows there is scope for thinking about driving and driver training from a different vantage point, that is in terms of safe or normal driving. The findings are reported from four group interviews with young drivers (18–25 years of age); the young drivers discussed their ideas of safe driving and their reasons for using (or not using) safe driving styles. The data show a type of optimistic thinking among young drivers which they call 'car karma'. This finding offers an opportunity to reconceptualise driving in a way that is focused on normal, safe driving styles, a topic that has received less attention in the past. The paper argues that greater focus on safe driving styles could be more conducive to young drivers actually driving safely than focusing on, for instance, crashes, which on an individual level are relatively rare (Elander et al., 1993, p. 277). Based on empirical research, the first positively stated definition of road safety is proposed based on the notion of 'car karma'.

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#### 1. Introduction

Although "a fundamental concern of traffic psychology is traffic safety" (Michon, 1985, p. 500), the field of road safety or traffic safety research is often occupied with studying road unsafety since it generally focuses on traffic crashes or the prevention of crashes. Aberrant driving behaviour, such as risky or angry driving, also has received much more attention in the field than normal safe driving (see for instance Blockley and Hartley, 1995; Åberg and Rimmö, 1998; Jonah et al., 2001; Deffenbacher et al., 2002; Kontogiannis et al., 2002; Rimmö, 2002; Deffenbacher et al., 2004; Sullman and Baas, 2005; Vallières et al., 2005). This is also the case for young driver research; the majority of studies on young drivers concentrates on dangerous driving behaviour, crash risk, and crash involvement (see for instance Catchpole et al., 1994; Deery and Fildes, 1999; Williamson, 2000; Elliott et al., 2001; Arnett et al., 2002; Williams, 2003; Begg and Langley, 2004; Styles et al., 2004; Catchpole and Styles, 2005; Bina, 2006; Redshaw, 2006; Shope, 2006; Williams, 2006; Fernandes, 2007; Ho and Yong Gee, 2008; Shope and Bingham, 2008; Prato et al., 2010). In addition, the literature seems to emphasise 'the young driver problem' (e.g. Gregersen, 1996; Triggs and Smith, 1996; Shope, 2006; Fernandes, 2007; Wundersitz, 2007; Sigurdardottir, 2009) concentrating on

the negative aspects of young drivers instead of on their potential for safe driving.

Despite an extensive body of road safety research, drivers 16–24 years of age are still over-represented in the statistics regarding crashes and fatalities on the road (Organisation for Economic Cooperation and Development (OECD), 2006). Youth make up 10.1% of the total population of the 30 countries of the OECD but account for 26.7% of the driver fatalities in these countries (OECD, 2006). This suggests that knowledge of negative aspects of driving alone, such as crashes and crash risk, may not be enough to sufficiently improve road safety for young drivers.

Most researchers provide no explicit definition of road safety in their published work. Instead, they adhere to the common usage of the term in a negative way, meaning a reduction in the numbers of crashes, injuries and deaths caused by some form of traffic (Lehtimäki, 2001). According to Lehtimäki, this negative definition of road safety is useful, but not sufficient in all situations. For instance, crashes are relatively rare events at the individual level (Elander et al., 1993), and the scarcity of crashes is one of the essential problems for studies trying to predict traffic crashes (Af Wåhlberg, 2003). Lehtimäki (2001) posits that a positive definition of traffic safety may be more effective for traffic safety work. He states that traffic safety can either be explained as a lack of crashes, or could be seen as "some actual harmonious circumstances not explicated up to now" (p. 8). The idea of reframing road safety in a positive light could be especially relevant for driver training and, since young people make up the majority of learner drivers, to improving young driver safety.

<sup>\*</sup> Correspondence address: University of New South Wales, PO Box 7916, Canberra BC, ACT, 2610 Australia. Tel.: +61 2 6268 9522; fax: +61 2 6268 8017.

E-mail addresses: l.kleisen@adfa.edu.au, lucienne.kleisen@gmail.com

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Lehtimäki (2001) asserts that a negative view of road safety poses a specific problem for driver training because a driving instructor needs to emphasise existing objects in the actual driving context (such as other drivers, road signs or pedestrians) instead of 'non-entities' such as crashes. Since crashes do not normally happen during driver training, they are inappropriate teaching aids. He stresses the importance of a positive definition of road safety based on 'real entities' in the traffic context and independent of the concept of damage (e.g. crashes). That a difference between 'real entities' and something theoretical (such as non-existing crashes) can be problematic is supported by more recent research of driver training dialogues. Rismark and Sølvberg (2007, p. 603) found that while driving instructors use 'scientific concepts' to convey knowledge on driving, the trainee operates according to 'everyday concepts'; a conceptual mismatch that results in the driver training situation being less effective than desired.

Lehtimäki (2001) states that the negative and positive standpoints in relation to road safety suggest different mental activities on the part of the driver while acting in traffic. When defining road safety in a negative way, a driver must match the activity of driving with thinking about conceivable harmful results that will most often not happen (e.g. crashes). From a positive point of view, the driver is informed by, and acts in, the actual situation (Lehtimäki, 2001). Lehtimäki's biggest objection to a crash based definition of road safety is that it is normally impossible to use crashes as a realtime perception while driving. Summala (1985) also stated it would actually not be rational to take crashes into account while driving, since they happen too infrequently, while Fuller (2005) found that "risk of collision is generally not relevant in the decision-making loop" (p. 461) and that "risk estimates linked to risk feelings are not ongoing determinants of driver decision making" (p. 463). Thus, although knowledge of crashes and crash risk is important, it provides only part of the picture and studying normal safe driving can contribute to a more holistic view on road safety, as recently advocated by road safety researchers in the field of geography (May et al., 2008, 2011). In spite of this call for a positive definition, Lehtimäki's (2001) work did not actually propose a positive definition of road safety that illuminates the 'harmonious circumstances' of the driving context.

This paper presents the qualitative part of a mixed methods study design consisting of two sequential stages undertaken from a positive perspective (Kleisen, 2011). The first part of the study (not reported on here) used the Thinking Style Inventory-Revised (TSI-R) from the theory of Mental Self-Government (Sternberg et al., 2003) and the Multidimensional Driving Style Inventory (MDSI) (Taubman-Ben-Ari et al., 2004) to explore the thinking and driving styles of young drivers. The results of these questionnaires showed that specific thinking styles predicted the use of patient- and careful driving styles by young drivers. The second phase of the study explored the meaning of these findings for young drivers in 'real life'. This second part of the study (reported here) comprised four group interviews with the aim to establish areas of contention on the constructs of thinking and driving style, and in particular to further investigate the link between thinking and safe driving styles as found in the first stage of the study. This article explores how young drivers think and talk about 'safe driving', 'thinking in relation to driving', and 'learning to drive' in order to answer the research question how can young drivers relate to road safety in a positive wav?

#### 2. Methods

Qualitative research methods were chosen to find a meaningful answer to the proposed research question, since they are more suited to answering "*why* and *how* questions" compared with quantitative methods (Collins et al., 2006). While the questionnaire data clearly showed relationships between thinking and driving styles, they did not clarify the *meaning* of these academic constructs for young drivers in their everyday life. As discussed in the introduction, much road safety research concentrates on the negative aspects of young people's driving (e.g. the 'young driver problem'), but it is unclear if young drivers can relate to driving in a positive way.

There were two main reasons for using group interviews for this study. Firstly, with a group interview the focus is on interaction between the participants and the participants form a majority in relation to the researcher. This makes group interviews more egalitarian (than one-on-one interviews) because the less controlling moderator offers participants more influence on the flow of the discussion, or "to follow their own agendas" (Wilkinson, 2004, p. 188), which can lead to unexpected data and therefore new insights (Kitzinger, 1995). Secondly, a group interview offers the possibility to generate data in the language of the participants; a point made by Kitzinger (1995) and Wilkinson (2004). This was important because participants' own words showed how meaningful (or not) the findings regarding thinking style and driving style were in the everyday lives of young drivers.

#### 2.1. Participants

This study focused on young drivers aged between 18 and 25 years old, in the Australian Capital Territory (ACT), holding a current Australian drivers licence. The NRMA-ACT Road Safety Trust scholarship that funded this research required that the research was conducted within the boundaries of the ACT. However, while the study was conducted within the ACT many participants have come from other parts of Australia to study in the country's capital. Therefore, it could be said that the study was conducted with AUSTRAIN AUST

Participants for group interviews were purposefully recruited from the University of Canberra (UC) on the criterion of holding an Australian drivers licence and having driving experience for at least a year. Participants were recruited *via* both convenience and snowball sampling and were unknown to the researcher. Participants received AU\$20 as compensation for their time (1.5 h). The group interviews did not exceed the 1.5 h time limit. All names have been changed in this article to ensure anonymity for participants.

While in quantitative studies it is important to use a probability sample in order to make results generalisable (Kalton, 1983), in qualitative group interviews it is more important to control for shared experience (Grim et al., 2006). Therefore, participants were selected who were "homogeneous on the key qualification of having shared knowledge and experience germane to the research objective" (Grim et al., 2006, p. 521), in this case knowledge and experience of driving a car (at least a year). In addition, according to Kalton (1983) if a sample size is very small "the variance of the probability estimator will be large" (p. 91), thus relatively speaking the bias that might be created by using a nonprobability sample is less significant.

No qualifications were assigned to the criteria for participation, such as cultural background or field of academic study. Because the quantitative data found significant differences between female and male young drivers, it was ensured that all groups consisted of both males and females, with a total of nineteen participants (8 males, 11 females). Participants were between 18 and 24 years of age. Two participants held a learner's permit<sup>1</sup> (for at least a year),

<sup>&</sup>lt;sup>1</sup> Australia has a graduated licensing system for drivers. Drivers on a learner's permit have to be accompanied by a fully-licensed driver and display L-plates at the rear and front of their car.

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