



Optimism about safety and group-serving interpretations of safety among pedestrians and cyclists in relation to road use in general and under low light conditions

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ABSTRACT

Drivers are known to be optimistic about their risk of crash involvement, believing that they are less likely to be involved in a crash than other drivers. However, little comparative research has been conducted among other road users. In addition, optimism about crash risk is conceptualised as applying only to an individual's assessment of his or her personal risk of crash involvement. The possibility that the self-serving nature of optimism about safety might be generalised to the group-level as a cyclist or a pedestrian, i.e., becoming group-serving rather than self-serving, has been overlooked in relation to road safety. This study analysed a subset of data collected as part of a larger research project on the visibility of pedestrians, cyclists and road workers, focusing on a set of questionnaire items administered to 406 pedestrians, 838 cyclists and 622 drivers. The items related to safety in various scenarios involving drivers, pedestrians and cyclists, allowing predictions to be derived about group differences in agreement with items based on the assumption that the results would exhibit group-serving bias. Analysis of the responses indicated that specific hypotheses about group-serving interpretations of safety and responsibility were supported in 22 of the 26 comparisons. When the nine comparisons relevant to low lighting conditions were considered separately, seven were found to be supported. The findings of the research have implications for public education and for the likely acceptance of messages which are inconsistent with current assumptions and expectations of pedestrians and cyclists. They also suggest that research into group-serving interpretations of safety, even for temporary roles rather than enduring groups, could be fruitful. Further, there is an implication that gains in safety can be made by better educating road users about the limitations of their visibility and the ramifications of this for their own road safety, particularly in low light.

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1. Introduction

1.1. Optimism bias and vulnerable road users

It is well-established that people tend to be optimistic about the risks they personally experience in relation to their actions, when compared with the risks other people experience when undertaking the same actions (McNaughton-Cassill and Smith, 2002; Rothman et al., 1996; Signorielli, 1990; Weinstein, 1980, 1984; Weinstein and Klein, 1996). This is sometimes termed 'optimism bias' (e.g., Weinstein and Klein, 1996). A body of research

on optimism about road crash risk (as opposed to other forms of risk) has developed, primarily addressing the risk assessments of drivers rather than those of vulnerable road users such as pedestrians and cyclists (e.g., Brocas and Carillo, 2002; Dejoy, 1989; Delhomme, 1991; Job, 1999; Mesken et al., 2005; Watson et al., 1996). Some studies have focused on particular types of driver, e.g., young drivers (Fernandes et al., 2004; Harrison et al., 1999; Keating, 2007), drivers involved in rural crashes (Sticher and Sheehan, 2006), taxi drivers (Dalziel and Job, 1997a) and heavy vehicle drivers (Williamson et al., 1992). Other studies have focused on other characteristics of drivers, e.g., aging (Marottoli and Richardson, 1998; Rafaely et al., 2006), fatigue (Dalziel and Job, 1997a; Williamson et al., 1992), and drink driving (e.g., Dalziel and Job, 1997b). However there are few examples of research on optimistic assessments of risk in relation to vulnerable road users (an exception being Rutter et al., 1998 study of motorcyclists) and a lack of comparative research

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