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Beyond the threat of legal sanctions: What deters speeding behaviours?



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ABSTRACT

The effectiveness of countermeasures to reduce the incidence of speeding is extremely important when considering the impact the behaviour has on the road toll. Deterrence-based sanctions such as fines and licence loss are heavily utilised to deter drivers from exceeding the speed limit as well as emphasising the threat of physical harm (e.g., media campaigns). However, surprisingly little research has actually examined the extent to which legal and non-legal sanctions influence speeding behaviours. This paper reports on an examination of 1253 Queensland drivers' perceptions of legal and non-legal speeding sanctions and the corresponding deterrent impact of such perceptions on self-reported offending behaviour. Participants volunteered to complete either an online or paper version of the questionnaire. The self-reported frequency of speeding behaviours was consistent with previous research, as was the significant link found between speeding and being a younger male with greater exposure to the road. Encouragingly, perceptions of apprehension certainty were not only the highest rated factor, but were also found to be a predictor of avoiding speeding behaviours. However, an expected link between perceptual severity and offending was counterintuitive in nature (e.g., positive) and participants generally did not consider penalties were applied swiftly. Fearing being injured was the only non-legal sanction predictive of reduced speeding behaviours, as the threat of social sanction or internal loss (e.g., shame) had a limited impact. While researchers have long proposed that a range of legal and non-legal sanctions can influence speeding behaviours (which are also utilised in complementary media campaigns), a strong link between deterrent forces and offending behaviours with self-reported data remains lacking. This paper further considers the findings in regards to the need for further research.

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1. Introduction

Deterrence-based initiatives form a cornerstone of the majority of road safety countermeasures, in particular, police enforcement activities and media campaigns that focus on reducing the prevalence of speeding. Non-compliance with speed limits is one of the largest contributors to the Australian road toll ([Bureau of Infrastructure, Transport and Regional Economics \[BITRE\], 2015](#)), not least because increases in kinetic energy creates greater danger. Deterrence processes are informed by Classical Deterrence Theory, which proposes that individuals will be deterred from committing offences if they fear the *perceived* consequences of the act ([Beccaria, 1963](#); [Bentham, 1948](#)), especially the perceived certainty, severity and

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swiftness of sanctions (Bates, Soole, & Watson, 2012; Freeman, Armstrong, Truelove, & Szogi, 2015). This is known as general deterrence (which is the focus of the current study) and this theory is a psychological paradigm that focuses on enhancing the perceived likelihood of apprehension. Despite its significance, comparatively little research has examined the relationship between perceptual deterrence and subsequent self-reported offending behaviours.

Researchers such as Homel (1988) have argued that deterrence is based on an utilitarian framework (dependent on both the costs and benefits perceived by a potential offender when considering committing an offense) and as such, deterrence should be examined more complexly, by separating personal and general deterrence as they are likely to measure different constructs. It is believed that perceptions of certainty of apprehension is multifaceted, therefore, the authors of this study decided to utilise general and personal perceptual certainty items so that they could be examined separately and compared.

Recent advancements in deterrence research have suggested that age also plays a role on the effects of deterrence. Specifically, it has been suggested that older adults are more influenced by deterrence than younger adults (Allen, Murphy, & Bates, 2015; Bates, Darvell, & Watson, 2015; Bushway, DeAngelo, & Hansen, 2013). This demonstrates an additional important area to consider when considering the effectiveness of deterrence.

1.1. *The threat of legal factors*

Research has provided preliminary evidence that compliance with speed limits can be influenced by enforcement activities (Fildes, Langford, Andrea, & Scully, 2005; Harrison, 1998), although in regards to perceptual deterrence, the results have been mixed and/or counterintuitive. For example, studies have demonstrated that higher levels of perceived certainty and severity is associated with increased speeding frequency (Fleiter & Watson, 2006; Fleiter, Watson, Lennon, King, & Shi, 2009). Furthermore, research has demonstrated that drivers estimate the chances of being apprehended for speeding to be “unlikely” (Hatfield & Job, 2006), which is further diluted through high levels of punishment avoidance (Fleiter & Watson, 2006; Hatfield & Job, 2006). More broadly, perceiving certainty of apprehension to be highly likely has been considered an effective deterrent, as demonstrated in drink driving literature with the implementation of random breath testing (Henstridge, Homel, & Mackay, 1997; Watson et al., 2005).

Comparatively little is known about the perceived severity and swiftness of penalties for speeding (Fleiter, 2010). In other deterrence research, it has been considered that severity only has a deterrent effect when perceived levels of certainty are high, as deterrence depends on a relationship between the two constructs (Grasmick & Bryjak, 1980; Piquero, Paternoster, Pogarsky, & Loughran, 2011). Meanwhile, the limited attention given to swiftness is consistent across deterrence literature (Babor et al., 2003; Nagin & Pogarsky, 2001). Although it is accepted that penalties are rarely applied swiftly in the criminal justice system (Babor et al., 2003). This may be considered a significant shortcoming as models of learning and experimental psychology demonstrate that the time between stimulus and response is vital for learning new behaviours (Nagin & Pogarsky, 2001). Taken together, given the reliance on deterrence and the ever increasing use of fixed and mobile speed cameras (in Queensland), it is timely to examine the link between Classical Deterrence mechanism and perceptions regarding the threat of sanctions and corresponding impact upon speeding behaviours.

1.2. *Non-legal sanctions: social mechanisms*

Researchers have long argued that scientific endeavours to examine the impact of penalties needs to extend beyond legal sanctions, as sanctions are never applied within a social vacuum (Berger & Snortum, 1986; Sherman, 1993). However, the concept of social sanctions has also received little attention within the road safety arena (apart from drink driving) and it is therefore not well understood (Fleiter, 2010). Within the Australian context, Homel (1988) offered one of the most prominent expansions of Classical Deterrence Theory whereby he proposed that the fear of social sanctions (e.g., peer disapproval/stigma), internal loss (e.g., feeling shame, guilt or embarrassment), physical loss (e.g., bodily injury/fear of hurting someone) and material loss (e.g., damage to vehicle/receiving a fine or demerit points) can deter offending behaviour. While proving informative, this model was developed to examine drink driving behaviours and has not been utilised to examine other aberrant behaviours of equal significance such as speeding. Feelings of embarrassment and shame have been linked with reductions in drink driving behaviour (Baum, 1999), although the opposite effect has also been reported (Piquero & Paternoster, 1998; Piquero & Pogarsky, 2002). For the domain of speeding, research has focused on other areas such as the influence of the speed of others on the same road (Aberg, Larsen, Glad, & Beilinson, 1997; Connolly & Aberg, 1993; Haglund & Aberg, 2000) or normative pressure from others (e.g., younger males) to actually speed (Connor, Smith, & McMillan, 2003), which has revealed significant relationships. One of the few studies to examine the direct relationship between social sanctions and speeding (among 838 Queensland drivers) failed to find a significant relationship between the two constructs (Fleiter, 2010). Given on-going media campaigns that focus on creating strong general deterrent images linked to speed-related crashes and disapproval from peer groups, inclusion of non-legal sanctions within a broader exploration of deterrence processes is warranted. Taken together, this study focuses on three main research questions:

- (a) How do drivers currently perceive the certainty, severity and swiftness of speeding sanctions?
- (b) Are drivers concerned about social sanctions, feel guilty, or worry about being injured from engaging in speeding behaviours?
- (c) Which of these deterrent factors predict compliance with speed limits?

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