

Criminal histories of crash and non-crash involved Queensland speeding offenders: Evidence supporting the idea that we drive as we live

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Abstract

Evidence increasingly suggests that our behaviour on the road mirrors our behaviour across other aspects of our life. The idea that we drive as we live, described by Tillman and Hobbs more than 65 years ago when examining off-road behaviours of taxi drivers (1949), is the focus of the current paper. As part of a larger study examining the impact of penalty changes on a large cohort of Queensland speeding offenders, criminal (lifetime) and crash history (10 year period) data for a sub-sample of 1000 offenders were obtained. Based on the 'drive as we live' maxim, it was hypothesised that crash-involved speeding offenders would be more likely to have a criminal history than non-crash involved offenders. Overall, only 30% of speeding offenders had a criminal history. However, crash-involved offenders were significantly more likely to have a criminal history (49.4%) than non-crash involved offenders (28.6%), supporting the hypothesis. Furthermore, those deemed 'most at fault' in a crash were the group most likely to have at least one criminal offence (52.2%). When compared to the non-crash involved offenders, those deemed 'not most at fault' in a crash were also more likely to have had at least one criminal offence (46.5%). Therefore, when compared to non-crash involved speeding offenders, those offenders involved in a crash were more likely to have been convicted of at least one criminal offence, irrespective of whether they were deemed 'most at fault' in that crash. Implications for traffic offender management and policing are discussed.

Introduction

A large body of road safety-related research has examined the links between a range of human factors (e.g., attitudes, motivations, personality traits) and on-road behaviours. Criminological research has also extensively examined links between such factors across a broad range of criminal behaviours. However, there has been relatively little work to date in the area where these two fields intersect – namely, the association between traffic offending, crash involvement and off-road criminal behaviour (Brace, Scully, Clark, & Oxley, 2010). Yet the idea that our on- and off-road behaviour would be consistent is not new. The idea that we drive as we live was first described by Tillman and Hobbs more than 65 years ago when examining off-road behaviours of taxi drivers (1949). They examined court and social services records of 96 crash-involved drivers and compared them to 100 non-crash involved drivers. Results indicated that 66% of the group with 4 or more crashes, compared to only 9% of the non-crash involved group, were known to at least one of the court/service agencies. From this finding they concluded that our personal life is reflected in our on-road behaviour ('a man drives as he lives', p.329); a concept that has also been described by others as cross-situational consistency of behaviour (Junger, West, & Timman, 2001). This maxim, that we

drive as we live, is the focus of the current paper and is an area that has been noted as needing further exploration. As recommended by Brace et al (2010), 'the relationship between crime and road safety, specifically, the link between criminal history and crash involvement, [should] be examined within the Australian context' (p.37).

Relationship between on-road behaviour and criminal behaviour.

A growing body of evidence is suggesting that on-road behaviour mirrors behaviour across other aspects of life. For instance, work conducted in Britain sought to map associations between anti-social behaviours on the road with other criminal activity (Rose, 2000). Drivers were classified into three groups of serious traffic offenders: drink drivers, disqualified drivers, and dangerous drivers (including people convicted of speeding by excessive amounts). Comparisons with criminal history data revealed that a significant proportion of offenders from each of the three driver groups had mainstream criminal convictions (e.g., violence against the person, drug offences, robbery). Disqualified drivers showed the most involvement with other forms of crime, followed by dangerous drivers, and then drink drivers. The report's summary highlights that serious traffic offenders should not be thought of in isolation from other criminals. Those convicted of drink driving, though reported as the group least likely to be involved in mainstream criminal activity, were approximately twice as likely as non-convicted drivers, to have a criminal history. These findings are consistent with work by Watson (2004) that found that almost 40% of the unlicensed drivers surveyed leaving court in Queensland, Australia, reported having a prior criminal conviction. Moreover, the proportion with a prior criminal conviction was particularly high (approximately two thirds) among the 'disqualified' and 'never licensed' drivers in Watson's unlicensed sample.

Associations between self-reported lifetime traffic violations and self-reported lifetime illegal behaviours (including burglary, arson, assault, and disorderly conduct) have been examined among outpatients at a non-emergency medical centre in the USA (Sansone, Lam, & Wiederman, 2011). Results indicated a significant relationship ($r = 0.39$, $p < .001$) between the two types of behaviours, such that those drivers who reported more traffic citations also reported more illegal behaviours. When gender effects were examined, it was found that men reported statistically significantly more traffic infringements and other illegal acts. However, when looking at gender and history of traffic violations together to predict other illegal behaviours, traffic-related violations was the only significant predictor.

Similar research has been conducted in the Netherlands where a random sample of 1,000 crashes were extracted from more than 10,000 crashes registered in a police database in 1994 (Junger, West & Timman, 2001). The police records of 1,531 people found to be involved in those crashes were examined and were used to determine whether risky traffic behaviour had contributed to the crash. Results revealed that people who were recorded as demonstrating risky behaviour leading to a crash (e.g., speeding, tailgating, right of way violations) had an odds ratio of 2.6 for having a violent crime record, 2.5 for vandalism, 1.5 for property crime, and 5.3 for prior traffic crimes (e.g., refusing a blood test, hit and run, driving under the

influence of alcohol). The authors concluded that these findings were indicative of a general underlying trait representing risk taking and/or lack of self-control.

Relationship between off-road behaviour and road trauma.

Another line of research enquiry has sought to investigate whether crime rates (including motor vehicle-related crimes) are specifically related to traffic fatalities and injuries. In relation to fatalities, for example, data across a broad range of variables from 28 European Union member states were obtained to examine the link between crime rates and traffic crash fatalities (Castillo-Manzano, Castro-Nuño, & Fageda, 2015). Results indicated that the overall criminal attitudes of a country were related to road crash fatality rates and further, that crimes more specifically linked to traffic violations (as measured by drug trafficking crime rates and motor vehicle theft rates) were statistically significant and positively related to road crash fatality rates. Overall, the authors concluded that across the 28 member states, the findings indicated that traffic fatality rates were higher in countries where people exhibited more 'socially aggressive' behaviour (as measured by overall crime rates).

Overall, the research summarised above represents an important line of enquiry; one that offers the potential to enable patterns of behaviour to be examined in order to help develop interventions that may be possible to prevent the pattern continuing. It is important to understand more about these patterns and to identify the factors that help to determine those at risk of crashing and causing harm to self and others. The current study contributes to this endeavour by examining links between road crash involvement and lifetime criminal offences among a group of speeding offenders. Speeding is, arguably, one of the more 'socially acceptable' driving behaviours, due in part to its transient nature and the widespread belief that everyone speeds (i.e., normalised on-road behaviour) (Johnston, Muir, & Howard, 2014). We have previously reported the relationship between speeding behaviour and criminal history for the sample used in the current paper, based on the categorisation of the sample according to an index speeding offence (once only low-range offenders, repeat high-range offenders, and other offenders) (see Watson, Watson, Siskind, Fleiter, & Soole, 2015 for a more detailed explanation of categorisation). Overall, results revealed significant differences in criminal offence histories, with repeat high-range speeding offenders more likely to have committed a previous criminal offence compared to the other two groups. More than half of this high-range speeding group (55.2%) had a criminal history (lifetime) compared to 21% of the other offender group and only 7% of the once only low-range group. The current paper extends upon these analyses to further examine patterns of behaviour by examining links between crash involvement and lifetime criminal history. More specifically, we were interested to examine the association between 'at fault' status in a crash and criminal history, since this area of enquiry has previously received limited attention. Research conducted in the United Kingdom sought primarily to examine the feasibility of linking policing and traffic authority licensing databases in order to investigate links between offending and crash causation (Dodson & Hill, 2010; Stannard, Cookson, & Hitchins, 2010). Offence histories for motorists from two areas (Nottinghamshire and Thames Valley) were examined and information on 'at fault' status of crash-involved motorists was obtained and matched across the two databases, where possible. The traffic authority licensing database contained

information relating to causes and injury outcomes of all investigated crashes, whereas the police database contained conviction and arrest data for all non-motoring offences but also included motoring offences where there was some level of police involvement. It did not include minor traffic offences. Results revealed a clear link between ‘at fault’ status and offence history across both datasets. For instance, information contained in the licensing database showed that 40% of motorists deemed ‘predominantly at fault’ in a crash also had an offence history compared to 31% of those ‘not predominantly at fault’ – a statistically significant difference. Similarly, from records contained in the police database it was found that 28% of those deemed ‘predominantly at fault’ also had a policing offence, compared to 17% of those deemed to be ‘not predominantly at fault’ – a statistically significant difference.

Research hypotheses.

Based on the evidence presented above, it was hypothesised that crash-involved speeding offenders would be more likely to have a criminal history than non-crash involved offenders. In addition, it was hypothesised that those deemed ‘most at fault’ in a crash would be more likely to have a criminal history than those deemed ‘not most at fault’ in a crash, since this status may point to a level of risky driving leading to a crash.

Method

As part of a larger study examining the impact of penalty changes on a large cohort of Queensland speeding offenders, criminal and police-reported crash history data for a sub-sample of 1,000 offenders were obtained (see Watson et al., 2015 for further details). Criminal history was obtained from the Queensland Police Service and included all criminal offences committed by the sample of speeding offenders in their lifetime (up to the date of extraction, 20th April 2009). The criminal offences were categorised into offences against property (e.g., stealing, break and enter), offences against the person (e.g., assault), drug offences, traffic offences (e.g., drink driving, unlicensed driving, dangerous driving), offences against order (e.g., disorderly conduct, public nuisance), and regulation offences (e.g., gaming, prostitution, liquor licensing). For the purposes of determining the proportion of the sample with any criminal offence, traffic offences were excluded. Crash data was provided from the Queensland Road Crash Database by the Department of Transport and Main Roads. It included all police-reported crashes for the sample of speeding offenders between 1st January 1996 and 31st December 2005. ‘Most at fault’ status was determined based on an involved vehicle or person being deemed most at fault by police and designated a ‘Unit 1’ status. All other vehicles or persons were deemed to be ‘not most at fault’ (although may still have contributed to some extent to the crash).

Comparisons were made on the criminal histories, using chi-square tests of independence, between:

- non-crash-involved and crash-involved speeding offenders;
- ‘most at fault’ crash-involved and ‘not most at fault’ crash-involved speeding offenders; and
- non-crash involved and ‘not most at fault’ crash-involved speeding offenders.

Comparisons were also made for the type of criminal offence (i.e., property, person, drug, against order, regulation, and traffic). Phi (ϕ) was used as a measure of effect size with a value of less than .10 considered to be a small effect size, between .10 and .30 moderate, and more than .30 a large effect size (Aron & Aron, 1991).

Results

Of the 1,000 speeding offenders in the sample, 305 (30.5%) had committed a criminal offence some time prior to their index speeding offence and 89 (8.9%) were involved in a reported crash between 1st January 1996 and 31st December 2005.

There was a statistically significant difference between those motorists involved in crashes and those who were not in terms of their criminal histories [$\chi^2(1) = 16.53, p < .001, \phi = .13$]. Specifically, a greater proportion of those involved in a crash had criminal histories compared to those who were not involved in a crash (Table 1).

Table 1: Criminal histories of crash involved and non-crash involved speeding offenders

		Criminal history ¹	
		No (%)	Yes (%)
Crash involved	No	650 (71.4)	261 (28.6)
	Yes	45 (50.6)	44 (49.4)

¹excluding traffic offences

There was no statistically significant difference between those deemed ‘most at fault’ in a crash and those deemed ‘not most at fault’ in terms of the proportion with a criminal history [52.2% vs. 46.5%; $\chi^2(1) = 0.29, p = .593, \phi_c = .05$]. Also, compared to those not involved in a crash a greater proportion of crash-involved motorists who were deemed ‘not most at fault’ had a criminal history (28.6% vs. 46.5%) [$\chi^2(1) = 6.31, p = .012, \phi_c = .08$] (Table 2).

Table 2: Criminal histories of crash-involved ‘most at fault’, crash-involved ‘not most at fault’, and non-crash involved speeding offenders

		Criminal history ¹	
		No (%)	Yes (%)
Crash involved	No	650 (71.4)	261 (28.6)
	Yes – most at fault	22 (47.8)	24 (52.2)
	Yes – not most at fault	23 (53.5)	20 (46.5)

¹excluding traffic offences

Compared to those not involved in a crash, a greater proportion of crash-involved motorists had criminal offences recorded, for all categories of offence, a statistically significant difference in the case of property and regulatory offences (Table 3).

Table 3: Offence type of crash involved and non-crash involved speeding offenders

		Crash involved		Statistical significance
		No (%)	Yes (%)	
Property offence	No	780 (85.6)	131 (14.4)	$\chi^2 (1) = 17.69, p < .001, \phi_c = .13$
	Yes	61 (68.5)	28 (31.5)	
Drug offence	No	784 (86.1)	127 (13.9)	$\chi^2 (1) = 2.58, p = .108, \phi_c = .05$
	Yes	71 (79.8)	18 (20.2)	
Person offence	No	849 (93.2)	62 (6.8)	$\chi^2 (1) = 3.70, p = .055, \phi_c = .06$
	Yes	78 (87.6)	11 (12.4)	
Offences against order	No	822 (90.2)	89 (9.8)	$\chi^2 (1) = 2.07, p = .150, \phi_c = .05$
	Yes	76 (85.4)	13 (14.6)	
Regulation offence	No	873 (95.8)	38 (4.2)	$\chi^2 (1) = 4.29, p = .038, \phi_c = .07$
	Yes	81 (91.0)	8 (9.0)	
Traffic offence	No	848 (93.1)	63 (6.9)	$\chi^2 (1) = 1.24, p = .265, \phi_c = .04$
	Yes	80 (89.9)	9 (10.1)	

Discussion

To date, limited work has examined associations between on-road and off-road offending behaviour, particularly in the Australian context (Brace et al., 2010). However, the concept that people ‘drive as they live’ is not new. The current study sought to investigate links between lifetime criminal history and crash involvement among 1,000 speeding offenders in Queensland in order to add to the literature. Among that sample, 30.5% were found to have had committed a criminal offence at some point prior to their speeding index offence used in this study. We hypothesised that there would be an association between criminal history and crash involvement; there was mixed support for the hypotheses.

The first hypothesis, that crash-involved speeding offenders would be more likely to have a criminal history than non-crash involved offenders, was supported. We further hypothesised that ‘at fault’ status would be associated with criminal behaviour, since the limited evidence available had indicated that this outcome was likely (Dodson & Hill, 2010; Stannard, Cookson, & Hitchins, 2010). More specifically, we hypothesised that those deemed ‘most at

fault' in a crash would be more likely to have a criminal history than those deemed 'not most at fault', since this status may point to a level of risky driving/riding leading to a crash. This hypothesis was not strongly supported; the difference did not achieve statistical significance, although the direction of the result was in the hypothesised direction. This outcome may be due to the way in which fault is determined; an issue that is discussed further towards the end of this section, where study limitations are canvassed.

Implications for policing.

Finding support for our first hypothesis adds additional weight to the idea that 'we drive as we live'; that a pattern of behaviour off-road is continued on-road (whether because of a general propensity for risk taking, rule breaking, or other reasons; Junger et al., 2001). There are important implications of this finding in relation to policing because it is apparent that some traffic offenders are likely to be of great interest to police for reasons other than traffic infringements. As described by Rose (2000, p.68), 'the evidence shows that serious traffic offenders cannot be thought of as otherwise law-abiding members of the public'. This concept has important implications for policing and the manner in which scarce policing resources are allocated. With regard to this, some research has examined the impact of policing operations targeted at minor and disorder-related offences; an approach most well known as 'Broken Windows' policing (Kelling & Coles, 1996). The concept of 'Broken Windows' describes a situation where a determination to investigate and prosecute minor crime can lead to prevention of major crime. Specifically, it is suggested that if left unaddressed, these minor crimes may create an atmosphere of fear and contempt within a community that could indicate a lack of care and social control, thereby leading to the gradual deterioration of the community and providing an environment conducive to more serious offending (Kelling & Coles, 1996; Wagers, Sousa, & Kelling, 2008).

It has been argued that a similar concept applies in the traffic policing context. Giacopassi & Forde (2000) described the concept of 'Crumpled Fenders' which they identified as the traffic equivalent of 'Broken Windows'. It is the idea that limited presence of traffic law enforcement may portray the perception that police do not care about on-road offending and/or that they are unable or unwilling to enforce traffic laws. Giacopassi & Forde (2000) also suggested that limited traffic policing presence may enhance the perception that community norms in regard to policing are weak or non-existent. Of relevance to the current paper is the issue of ensuring that offenders (traffic or non-traffic) are detected and apprehended, and further, that policing resources are optimally used to promote community safety. From the information provided in the current paper, and from evidence reported elsewhere that indicates reduced crime overall as a result of traffic enforcement (for example, see Fell, 2013; Stuster, 2001), it is apparent that traffic policing has an extremely important role to play in enhancing the safety of the community (i.e., apprehending traffic offenders and non-traffic offenders) as well as in enhancing community perceptions about the level of overall policing being conducted. Use of police intelligence across policing activities is, no doubt, one important way that action can strengthen law enforcement efforts; a prime

example of how ‘taking action together’ could improve road safety as well as community safety more generally.

Implications for offender management.

The findings reported in the current paper, supported by findings elsewhere, raise a critical question: *What can be done, if anything, to intervene with offenders in order to prevent the pattern of behaviour developing?* Indeed, this question is common among juvenile justice programs that seek to intervene to prevent recidivism by young offenders (Trotter, 2012). One response to that question is to continue to treat traffic offenders as ‘discrete entities’, such that any other misdemeanours they may have committed off-road are not considered when receiving traffic offence sanctions. Such an approach is underpinned by a lack of recognition that a person ‘drives as they live’ and by a focus only on on-road behaviour. This approach to offender management is potentially much less costly in a monetary sense in that it simply deals with offenders in one context via the application of one-off traffic-related sanctions each time an on-road offence is committed. However, compared to a more holistic approach involving aspects of diversion and rehabilitation, it is not necessarily more cost effective. It is, arguably, more cost effective to prevent further offending, including costs associated with injury and death from road trauma. Research conducted in Western Australia supports this idea (Ho, Rao, Burrell, & Weeramanthri, 2015).

Ho and colleagues (2015) sought to examine associations between on-road offences and road trauma and demonstrated a link between various risky/illegal on road behaviours and road related death and injury. In that study, researchers used clinical data from all adult road trauma patient admissions (n= 10,330 between 1998-2013) to the State’s Trauma Centre and linked them with previous traffic offences. They were attempting to assess whether traffic offence history could predict subsequent road trauma. Overall, 60.7% of admitted patients had prior traffic offences. Furthermore, the number of previous traffic offences was significantly associated with alcohol-related road trauma, severe trauma, and admission to an intensive care unit or death. The offences found to be most strongly associated with road trauma were drink driving, non-use of seatbelt, and using a hand-held electronic device. In support of the theme of the current paper, those authors concluded that road-related injuries did not simply happen by chance, but rather, were indicative of a pattern of risk-taking behaviours; a finding that will not be surprising to those who work in the road safety and policing professions.

Importantly, Ho and colleagues (2015) suggested that there are likely to be points for intervention, long before a person ends up as a long term offender with an extensive criminal and traffic offence history and a history of admissions to trauma services. They noted the possibility that a ‘window of opportunity’ exists to intervene in order to prevent a pattern of offending developing. We suggest that one avenue where this may occur is at the point of first contact with the justice system. As has previously been reported by Wilson and colleagues (2010) in relation to drink driving offenders, those who are termed ‘first offenders’ (i.e., making their first court appearance as a result of their first detection by police) should more accurately be termed ‘first time apprehended’, since many of the drink

drivers in that particular sample reported previous drink driving episodes without being detected by police. Therefore, in their case, the first time that they came in contact with the criminal justice system (if it was indeed for that drink driving offence) indicates that a pattern of behaviour had already started to establish itself. The trial and evaluation of innovative interventions in order to determine whether a person's first serious traffic infringement can be used as a successful point of intervention to prevent further offending seems entirely warranted. In addition, existing offender management approaches that involve some form of surveillance (e.g., alcohol ignition interlocks and intelligent speed adaptation devices) may serve to both constrain traffic offending as well as potentially deterring other types of vehicle-facilitated crime by creating the impression that one's behaviour is constantly monitored.

Several limitations with the current research should be borne in mind when interpreting the findings presented above. Firstly, data used for the analyses reported above were primarily collected for administrative, rather than research purposes and may, therefore, be limited with regard to the level of specificity and sensitivity necessary for conducting scientifically rigorous research. Further, it is possible that errors occurred during recording and coding that can result in inaccurate or incomplete data. Additionally, the data relate specifically to motorists detected speeding in Queensland during specific time periods. We therefore recognise that it is not necessarily representative of all motorists, and further, that detections for speeding are unlikely to accurately reflect the prevalence of overall speeding because speed surveillance is not conducted across the entire road network at all times. Secondly, as noted earlier, the determination of fault in a crash can be problematic and has implications for our findings. As noted by Dodson and Hill (2010), 'most at fault' can be attributed to the person whose action/s directly precipitated the crash, irrespective of whether those actions were illegal. Furthermore, crash causation is complex and the attribution of fault can, therefore, occur at a simplistic level. The attribution of 'most at fault' in relation to our results, therefore, presumes that other crash-involved motorists (i.e., those deemed 'not most at fault') were not acting in the most inappropriate/ illegal/risky manner. However, it could be argued that those deemed 'not most at fault' in a crash may still have been driving in a risky manner, at a high risk time, or in high risk conditions, a scenario that may well be indicative of someone driving as they live, even though their 'fault' status would not reflect that.

Based on the findings reported herein, in conjunction with the work of others from a range of international jurisdictions, we are of the belief that on-road offending can act as a signal to police in regard to other offending behaviours. This is not to suggest that every single traffic offender should be offered a diversionary or rehabilitation program. Rather, we reiterate that there may be value in developing, trialling and evaluating intervention programs for traffic offenders that consider a broader focus than on-road behaviours (Ho et al., 2015). Conversely, there may equally be value in offering interventions to off-road offenders in association with probation that incorporate road safety messages.

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