

Understanding Driving Culture: Safe System and the ACT: A report on a systematic literature review and research scoping project.

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Abstract

Working toward a “Safe System” goal not only requires a commitment from government but also from the larger community to adopt a culture and pattern of behaviours that minimise the likelihood of traffic crashes. It has been assumed in some literature that if this is to be achieved, community attitudes towards road safety also need to support safe road use behaviours. However, to date, little research has directly explored the elements of road use culture and related policy considerations that may influence community adoption of such initiatives. The aim of this study was to firstly conduct a systematic review of relevant literature then conduct a preliminary scope of the views of key informants regarding the road culture of the ACT, and the factors perceived to affect it. This information will provide a foundation upon which to build a longer-term, more in-depth investigation of the relevant factors underpinning road culture that could yield information regarding the best ways to implement and achieve a “Safe System”-type approach. This aim was pursued through semi-structured interviews with 11 representatives from key road use entities in the ACT and a comprehensive literature review. Interviewees raised the possibility of a “culture of entitlement” among a variety of subcultures of ACT road users. This paper will discuss the future approach to the exploration of this culture and subcultures. In particular, the planned research will examine how people’s attitudes towards their vehicle, the road, car ownership and driving are related to their road use behaviours and responses to road safety initiatives.

Keywords

Attitudes, Behaviour, Driving culture, Car culture, Safe System, ACT

Introduction

The ACT has the lowest road crash fatality rate in Australia and one of the lowest in the world for crashes occurring within the jurisdiction. On average, however, one person is killed on ACT roads every 25-26 days (Office of Transport ACT Department of Territory and Municipal Services [TaMS], 2009). ACT drivers frequently travel into NSW, where they have almost as many fatal road crashes as they do in the ACT. Taking into account crashes that occur outside the ACT almost doubles the road crash fatality rate of ACT citizens (Cairney & Gunatillake, 2000; Imberger, Styles & Cairney, 2005; Pyta, 2007). In particular, young males are over-represented in ACT with the single most vulnerable road user group for casualties in the ACT being those aged between 20 to 24 years of age, and over 40% of all casualties are experienced by those younger than 30 years of age (ACT Government, TAMS, 2009). Males are disproportionately represented in vehicle crash casualty and fatality statistics in the ACT accounting for 60% of all motor vehicle crash casualties in 2008 (55% in 2007).

The ACT Government has expressed a commitment to address the persistence of road fatalities in the ACT and to the achievement of the road safety goals of the innovative Safe System approach. This approach promotes that no level of death or serious injury from road crashes is acceptable.

Some research involving ACT residents indicates that ACT residents currently hold attitudes that may be inconsistent with the successful implementation of road safety initiatives that restrict road travel mobility. For example, in 2009, 21% of ACT respondents agreed with the statement that it is “Okay to speed if driving safely” and 59% of ACT respondents agreed that speeding fines are mainly intended to raise revenue (Community Attitudes to Road Safety Survey (CAS), Petroulias, 2009). Although the results of the former statement are an improvement on the 2008 results of this survey (Pennay, 2008), these attitudes are held despite the fact that even low-level speeding accounts for a substantial proportion of the total harm associated with speeding (Australian Transport Council, 2008).

Unfortunately, currently there are no data available on the level of social acceptance of drinking and driving among the ACT population. However, one finding from the CAS indicated that 30% of the

ACT residents surveyed hold the view that a blood alcohol reading of .05 would not affect their ability to act safely as a pedestrian (Petroulias, 2009). It may also be the case that a proportion of the ACT population believes that a blood alcohol reading of .05 would not affect their ability to safely drive a vehicle. Nevertheless, ACT residents rate drink driving and speeding as the factors most likely to contribute to road traffic crashes. The next highest contributor is "inattention /lack of concentration" with 35% expressing this view in the 2009 CAS (Petroulias, 2009). Regardless of the expressed awareness of the dangers of distraction, 62% of the same ACT survey sample also reported engaging in the distracting behaviour of using a mobile phone whilst driving. Those ACT residents surveyed also considered driver fatigue to be a major contributing factor to road crashes and 17% of respondents reported that they had fallen asleep while driving.

It appears that despite awareness of the dangers of and enforcement sanctions against certain driving practices, a proportion of ACT residents continue to engage in such practices. It may be that ACT road users do not see that the road use behaviour they engage in might be risky. Based on the surveyed attitudes and behaviour of ACT road users it could be argued that to reduce ACT road fatalities and serious injuries ACT road users may need additional road safety measures to be employed. There is currently little research available to clarify this need and further evidence is required to determine directions for effective road safety initiatives.

Despite the above findings, it has been claimed that improved road safety outcomes require a community willing and able to adopt a culture of safe driving behaviour that minimises the likelihood of crashes (e.g. see Elliot, 1992; Christie, 2002; OECD/ITF, 2008). One question that arises from such a position is the degree to which such willingness is essential to achieve safe road use behavioural compliance that might otherwise be achieved through legislative and enforcement action. Indeed, the relationship between an attitude such as community willingness and actual road use behaviour appears to be complex. For example, community support for the implementation of a safe systems initiative in Western Australia has been found to be strong however, the community's perceived efficacy of the interventions was comparatively low (Synovate, 2007). Research has highlighted the need for comprehensive evaluations of behavioural responses to such interventions to more clearly understand the psychological bases of road user behaviour (Haworth, 2005).

Earlier road safety initiatives indicate that road users can change both their behaviour and attitudes towards road use in a relatively short period of time to adopt safer road use practices. For instance, in relation to the compulsory fitting and wearing of seat belts in Australia throughout the late 1960s and 1970s, public opinion in 1962 demonstrated little awareness of the critical safety role of seat belts. In 1970, however, awareness presented as much higher with 75% of survey respondents rating seat belts as either "important" or "very important" (Freedman, Champion & Henderson, 1971). However, of concern was the finding that this reported awareness did not necessarily translate directly into seat belt wearing behaviour. Based on the apparent lack of relationship between awareness of the increased safety afforded by seatbelts and behaviour in wearing them, Milne (1979) concluded that "it is probable that continued publicity campaigns in the absence of compulsory wearing legislation would have been largely unsuccessful in raising wearing rates" (p.5). Nonetheless, the issues faced in the ACT, as in many other jurisdictions, point to the fact that despite legislation to prohibit practices such as speeding and drink driving, these practices continue and in some instances, behaviour is supported by attitudes. It therefore seems that legislation may not always be a completely effective measure in all circumstances.

The relationship between awareness, attitudes and behaviour remains a point of interest in the literature of social psychology some 30 years since Milne's comments. Nonetheless, research over that time suggests that there is a considerably more complex relationship between such constructs and behaviours than was considered to be the case when Milne was writing. For example, more recent research suggests that other considerations in the attitudinal-behavioural link include consideration that as attitudes are being formed, they are more likely to have a stronger relationship to behaviour if they are readily accessible or easy to recall, if they tend to remain stable over time, if the person has had direct experience with the focus of the attitude and if people tend to report their attitude frequently (see Vaughan & Hogg, 2008 for a review of this literature). It has also been found that moderators can vary the strength of the attitude-behaviour relationship. For instance, certain kinds of attitudes such as those that emphasise self-concept, can be better predictors of behaviour than those that simply maximise rewards and minimise punishments (e.g. Verplanken & Holland, 2002) such as may be the impact of certain legislative measures on road use behaviour.

Certain situational variables such as social norms can also act as moderators to the attitudinal-behavioural relationship and may be powerful predictors of behaviour. As norms can vary between different groups of people, we may find quite different behavioural responses to the same stated attitudes depending on how such attitudes fit with the norms for a particular group (e.g. Terry, Hogg & White, 2000). So, although it might be the case that behavioural compliance with recommendations to perform certain road safety behaviours may increase when legislation demands, we are yet to learn if that is the best way to target all sectors of the population.

One way to refer to a broadly shared conglomeration of beliefs and attitudes and concomitant behaviours might be summed up as “culture”. Currently, little research exists on the culture of road use behaviour as it relates to drivers’ attitudes towards their car, the road, ownership, road use and road safety. However, literature that is available on the subject indicates that such culture most likely involves complex social processes of influence by the larger society, interest groups and the individual.

Road use culture

Although there are many different ways in which one can be a road user, the car has come to dominate the road use landscape and has come to assume and express meaning on a societal level. In a recent review and commentary, Redshaw (2008) highlights the ways in which the car is subject to the pervasive societal forces to be powerful, influential and ahead of the rest; achievements that are promoted through advertising as accessible via the motor vehicle with an overt emphasis towards young males. Cars have been marketed to appeal to a masculine occupation with speed, power and masculine identity. Even car design has been primarily directed towards male tastes. Redshaw (2008) talks about such design factors being “baked” into the technology and construction. For example, car colour and look can meet gendered tastes with cars being constructed or modified to present as “aggressive” and “powerful” for males or “feminine” for females.

Given the constructed nature of the vehicle as a social expression, other culturally significant dimensions interact with the vehicle to prescribe different meaning for different groups. For example, age and gender are dimensions of cultural and social significance that have been prevalent in driving research. The dominance of these dimensions in this literature is not surprising given the general over-representation of males and particularly young males in road fatality statistics (Australian Government, Jan, 2010).

Redshaw (2008) points out that the car exemplar as aggressive and powerful is highlighted in the racing car associations given to the passenger vehicle in general marketing. Racetrack or rally driving is generally presented as the authentic driving style which one can strive to emulate with the car that is best designed to handle such conditions. The enthusiast who aims to meet this challenge is portrayed as the serious driver. The commuter, for whom a car is primarily for convenient mobility, is often regarded as having no genuine connection to driving. “Real” driving is viewed as skilful and fast. In an earlier paper, Redshaw (2004) highlights that racing analogies for passenger cars promote the pursuit of “competitive individualism” through the promotion of cars that are perpetually faster and better. She notes, however, that “the violence of the race and the rally, and their inappropriateness as a model of driving is overlooked” (2004, p. 5). Furthermore, whilst technologically “the race car has moved further and further away from the road car...the alliances are being emphasised more than ever” (p.6).

The car as a private lounge room in a public space

The car, paradoxically, is regarded as both a highly private domain and a very public expression of social achievement. The possibility that the car can be viewed as one’s *territory* has fostered the examination of the car as a means to the establishment, maintenance and expression of personal identity through the car (see Fraine, Smith and Zinkiewicz, 1999). This might be achieved through actions such as decorating or modifying the car to meet aesthetic goals as is done with street machines; a goal recognised in the ACT each year through the “Summernats” street machine festival.

One function of genuine territorial behaviour is asserted to be the regulation of social interaction through the establishment of social and possibly physical boundaries. For example, formal membership of particular motor interest groups may stipulate certain behavioural expectations. This can be seen at potentially its most extreme in motorcycle “gangs” with strong codes of behavioural expectations of their

members. Signals of this type of social regulation are commonly seen in the “markings” adopted by such groups through symbols like the motorcycle gang “colours” or name icon worn on their leather bike jackets. For example, formal membership of particular motor interest groups may stipulate certain behavioural expectations. This can be seen at potentially its most extreme in motorcycle “gangs” with strong codes of behavioural expectations of their members. Signals of this type of social regulation are commonly seen in the “markings” adopted by such groups through symbols like the motorcycle gang “colours” or name icon worn on their leather bike jackets.

Fraine, Smith, Zinkiewicz, Chapman, and Sheehan (2007) investigated drivers’ relationships with their cars as a function of the driver’s age, trip purpose, car ownership categorization (drivers of work vehicles and a group over the age of 25 who did not regularly transport children). From their findings, the authors concluded that there is wide variation in the ways in which different drivers view their relationships with their cars. Additionally, they found that there is variation within individual drivers regarding their perceptions of their car as territory. That is, although they may ascribe territorial connections to their cars in some ways, in other ways, they do not. For instance, they found that people often referred to their cars in ways which inferred a high degree of psychological centrality, describing their car as a “safe haven”, for example.

Variation in views of the car find voice in the numerous groups dedicated to motoring interests, often with distinctive subcultures and expectations for behaviour. Not only do these groups distinguish among car drivers, but the car driver is distinguished from other road user groups such as cyclists, pedestrians, motor cycle riders, which, in turn, make distinctions within their own groups. Belonging to different social groups creates the expression of different road use behaviour.

Rothe (1984) sums up the complexities of the social considerations in road safety by referring to traffic safety as a social process. For example, he contends that “speed or speeding is not necessarily a pathological condition on the part of the drivers ... Drivers have learned to speed as a normal social behaviour despite the threat of sanctions being held over them” (p. 145). He suggests that a way to approach the issue is to gain an understanding of why people speed and to consider “how their reasons reflect the social ethos of the times” (p.145).

Rothe (1984) challenges that to examine traffic crashes as the outcome of individual choice for risk-taking behaviour is to presume the individual chooses to deviate from the social norm rather than enacting behaviour that follows what is perceived to be a social norm. He further argues that traffic safety approaches need to account for “knowledge, standards, beliefs, and codes of conduct that drivers use as blueprints” (p.6). He suggests that to reduce motorists’ behaviour of study to single aspects and isolated social factors negates the quality of road safety research and commentary. Rothe suggests that research could be enhanced by addressing the central question as to how it is that road users often seem to operate according to social norms that are in stark contrast to those that guide traffic safety agents and researchers.

Symbolic, Affective and Instrumental Motives of Vehicle Use

Another way of understanding road user actions is offered by Ditmar (1992) and Steg (2005) whose research highlights the importance of social considerations in driving behaviour. They discuss three primary categories of vehicle use motives distinguished in the literature. Instrumental motives are those motives related to convenience and functionality of a vehicle which are related to considerations such as speed, flexibility and safety. Symbolic or social motives refer to the ways in which people can express themselves and their social position or social identity by means of the use of their car. Affective motives refer to the emotions that are evoked or expressed through the use of a vehicle.

It is interesting that Steg (2005) found that the level of car use was not related to the evaluation of the instrumental aspects of car use. This was even the case for commuter travellers who made their decision to travel to work by car more as a function of symbolic and affective motives rather than the functionality of the car. So, even for a purpose that might be presumed to be essentially instrumental, such as getting to and from work, it was found that the way people felt about the car and related the car to their expression of identity was a greater determinant of whether they would commute by car instead of other transport, more so than, for instance, getting to work on time in a convenient manner.

Steg’s (2005) research also found that individual differences were experienced more within the symbolic or affective motives than was the case for instrumental motives. These differences were

examined within demographic groupings with the findings that affective motivations were more important to younger participants than they were for older. Likewise, affective motivations were more valued by those from low income levels over those of higher income levels. Males valued the symbolic functions of the car more than did women. Also, it was found that the greater the distance travelled in a year, the more valued was the car on the symbolic dimension of motivation.

In contrast to differences on the symbolic and affective motivations for car use, from Steg's (2005) research it appears that there is general agreement between car drivers as to the instrumental motives for using cars, such as speed to reach destinations, flexibility over time and route, and general convenience. People seem to express similar levels of desire for the flexibility and convenience that driving a car affords. It appears that there is much wider variation in the way they *feel* about their car than the way they think about the usefulness of their car.

One important implication of Steg's (2005) findings is that any policy relating to road vehicle use would be advised to account for the reality that people use their vehicles for more than instrumental reasons. She clarified this position clearly with the statement, "People do not only drive their car because it is necessary to do so, but also because they love driving" (p. 160).

Driving Culture as a Shared Experience

There are collective means by which a culture of driving is shared and promoted. The influence of other people in our groups, communities or society has featured prominently in the research on road use behaviour. Zaidel (1992) argues that it is the social processes around us and that we are a part of that are a fundamental determinant of our driving practices; "Each driver is influenced by the collective behaviour of other drivers. At the same time each driver is also part of this collective, and thus influences others" (p. 585). It is not only other drivers who influence driving behaviour. Many road safety programmes aiming to encourage positive road use behaviour have leveraged off the influence of significant others. For example, graduated licensing systems can employ the influence of family members, usually parents, as positive models of driving behaviour to influence positive driving behaviour in novice drivers. Likewise, school-based curriculum programs such as Skills for Preventing Injury in Youth (SPIY) may be effective in reducing road use risk-taking behaviour partly because adolescents actively seek to protect their friends (Buckley & Sheehan, 2008). Research such as that conducted by Buckley and Sheehan is indicative of a line of inquiry into social influence in road user behaviour that is becoming more prevalent in the literature.

Theories of Social Influence and Learning of Road Use Behaviour

Explanatory frameworks applied to road use or associated behaviour have been dominated by the Theory of Planned Behaviour, Social Learning Theory, and Deterrence Theory. In considering how people respond to messages regarding road safety, the frameworks of Third Person Effect, Social Identity Theory and Optimistic Bias are also relevant. A review of the ways in which personality or individual differences have been researched as relevant to road use behaviour revealed that agreement is yet to be reached regarding which variables to explore or the ways in which those variables thus far explored contribute to road use behaviour. However, little research or literature currently exists that marries the observations of those examining individual differences with those exploring road use behaviour as an outcome of broader social processes; clearly both influences are likely to play a role in road use behaviour.

Method

Given the nature of the current project as a scoping study, it was important to gain an understanding of the road safety issues germane to the ACT as assessed by the local experts. Organisations and individual participants were selected to provide access to a broad knowledge base regarding road safety issues in the ACT. It should be noted that the consultation conducted in this phase was not exhaustive or inclusive of all road safety stakeholders in the ACT. The organisations consulted for this preliminary scoping project were as follows:

- ACT Department of Territory and Municipal Services (TAMS): Roads ACT, Road Safety (Manager)
- TAMS, Roads ACT, Traffic Management and Safety (Senior Manager, Traffic Engineer)
- TAMS, Transport Regulation and Planning, Road Transport Regulation (Manager)
- ACT Policing
- ACT Department of Education and Training
- Motorcycle Riders Association ACT
- Canberra Pedestrian Forum
- Pedal Power
- Australian Driver Training Association Inc (ACT) (three participants)
- An independent Road Safety Consultant registered as a Road Safety Professional with the Australian College of Road Safety

A total of eleven (N = 11) participants were interviewed.

Participants

Interviews were undertaken from October, 2009 through to January, 2010. Interviewees were contacted either by telephone or email and subsequently were emailed 11 questions to guide discussion prior to interview. Discussion was not limited to these questions, rather they were used as prompts to explore interviewee's perceptions of the primary issues for road use norms and culture in the ACT. Interviews lasted an average of 1.5 – 2 hours. The majority of interviews were conducted on a one-to-one basis with the exception of three representatives of the Australian Driver Training Association Inc. (ACT) who were interviewed together. All interviews were undertaken by the same interviewer and interviews were digitally recorded.

The guiding questions were:

1. *Do you think that a culture exists around the way people approach road use?*
2. *Do you think there is a specific culture for different places?*
3. *Do you think that Canberra has an identifiable road use culture?*
4. *Alan Evans has suggested that different demographics create different road cultures and that it is likely that Canberra has a unique road culture. Do you have any anecdotal evidence to support this possibility?*
5. *The chief minister has questioned if Canberrans care that, on average, 14 of our own die on our roads each year. Do you agree that we may be an uncaring population?*
6. *Are ACT drivers likely to have significantly more deviant behaviour (rather than attitudes) to those in other jurisdictions?*
7. *What groups would you recommend for focussed opinion gathering on the ACT road use culture?*
8. *What experts would you recommend we interview to gather insight into the nature of the ACT road culture?*
9. *Monash University Accident Research Centre research suggests that as we already have a high level of compliance, that we will get more efficient returns on investment if we direct funds towards other elements of the Safe System rather than directing resources towards road user behaviour. Your response?*
10. *Primary resistance to the safe roads and roadsides strategies were canvassed in community consultation in research in Western Australia with the following feedback, that: driver behaviour is the problem not the roads / roadsides; the strategy not feasible / too hard to implement; it is expensive; education is a more important area to focus on; and better policing will be more effective. Three out of these five comments focus on correcting the individual's (or community's?) poor behaviour; a strategy counter-indicative to the MUARC research findings. Are we likely to find similar / different attitudes in the ACT?*
11. *What do you think research on road user culture in the ACT should be examining?*

Results summary

Key themes emerging from interview responses included the perception that Canberrans view the road in a manner that suggests that they feel an entitlement to mobility at their own discretion; that is, they feel they should be able to decide how fast they should drive and how infrastructure and planning should be designed to best enable their mobility via a car. There was a commonly expressed view that those in different road user groups often see those in the other groups as less “entitled” to the road; a view that was perceived to support less harmonious road use behaviour between the groups. This view was summed up by one interviewee who questioned if “the shared *right* of entitlement held by different groups is clashing?”

Despite perceiving an overall expectation of entitlement by drivers of the ACT, respondents also perceived a variety of road use cultures operating within the city with different road use behaviours demonstrated by different groups of drivers. These groups were perceived to exist along the lines of demographic factors or differing levels of motor interest.

Interviewees expressed a perception that Canberrans have either a real or perceived need to drive a car; a need believed to arise from the spread-out nature of the city and a smaller public transport system than in larger cities. There was also a perception that relatively good roads in Canberra may aid motorists to speed within the ACT and foster an expectation for similarly easy travelling outside of the ACT. It was posited that this expectation may contribute the equally high road fatality toll of ACT residents outside of the ACT as those occurring within the ACT when ACT motorists encounter roads of a lesser quality in other jurisdictions.

There was a broadly expressed belief that the community needs to genuinely agree on the need for heightened safety on ACT roads. There is a concern that this may be difficult with a perception that ACT drivers generally view themselves as being better than average drivers and attributing the road toll to “*all the other idiots on the road*”. There was a revelation that some of those in motor vehicle and motorcycle use training may convey a view to students that avoidance of enforcement is the primary motivator for adherence to road laws rather than road user safety.

Interviewees identified a range of issues they believe should be investigated in road safety research in the ACT. In particular, there was a general concern with gaining more information on the most effective ways to convey the imperatives of safe road use to the ACT community.

Conclusion

It is evident that any attempt to describe or understand road use culture and the way it is promoted is a complex task. The ways we view our vehicles or means of travel, other road users, and the roads we travel on, are informed by broad social and psychological processes. Variation in the way these processes are experienced and expressed provides the foundations for a variety of road use cultures. These subcultures are evident in the numerous interest groups around vehicles, road user groups, and the different impacts of lifestyle, life stage, peer group, age and gender on road use culture. Additionally, variation exists even within these groups as interests are further refined and individual differences are expressed. These differences can affect the way we regard and behave towards all elements of the road use system.

Much research has been and is currently being undertaken on numerous behavioural elements within road use culture. For example, understanding the sometimes apparently irrational behaviour of novice drivers has been greatly extended with research considering brain development and variable ability to assess risks and resist social pressures such as peer influence (e.g. Steinberg, 2007). What is not fully understood is how and why the car and the road becomes the stage for the exhibition of such influenced behaviour, often with tragic outcomes.

The literature reviewed in this report and the information gained from interviews with key road safety experts in the Canberra region suggest that the ability to assess risks on the road is only one factor that defines the way in which we use the road. It appears that a major determinant of road use behaviour may lie in the way in which the car or vehicle has meaning for the driver/road user and aligns that person with or distinguishes that person from others. Furthermore, one’s response to road safety initiatives may be tied to these perceptions of the parts of the road use system. Currently in the ACT, the views toward and value placed on road safety by the various societal groups are unknown. Furthermore, the ways in

which the vehicle, other road users and the road is regarded by these groups is currently unknown. Moreover, insufficient demographic data are available on those involved in serious car crashes or infringements that might reveal group interests such as occupation or location of residence. In essence, little is known about the road use culture or subcultures of the ACT. Consequently, there is a paucity of information available to inform the selection and implementation of targeted interventions aimed at reducing the ACT road toll.

Working to alter a road use culture to one which is safety oriented risks being misdirected without further understanding the factors of such a culture as they currently exist. What is required to implement a Safe System goal is a thorough understanding of road culture in the ACT, including investigation of our roads, our cars, our drivers, and our road user groups. Such cultural understanding should be sought as only part of a comprehensive program seeking to understand all relevant elements of the Safe System as it is applied in the ACT.

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