

## ‘Running on Empty’: Cultural Factors and Driving Tired

M. Vick

### ABSTRACT

A small scale poststructuralist study of twelve young drivers who regularly drive long distances is presented with implications for promoting road safety. The drivers were interviewed about their experiences driving and their views concerning fatigue and safety. Interviews produced (claimed) factual information about their driving practices, assertions about their attitudes and values, and narratives of their driving experiences. Interviews revealed gaps between attitudes and behaviour. Analysis shows that they constructed themselves as good drivers, and saw close relations between being good persons and good drivers. They constructed good driving as a matter of technique rather than care. They saw their long distance drives as a job to be done, and focused on timely completion of the task. Further analysis demonstrates connections between their constructions of themselves as good drivers and of ‘the trip’, and broader cultural discourses that have implications for their responses to fatigue. The links between their constructions of themselves as drivers, good driving and ‘the trip’ allowed them to rationalize away their own risky driving and to dismiss safe driving messages. This research points to educative strategies that target the discursive processes shaping drivers’ understandings of self and driving.

### INTRODUCTION

Fatigue is recognised as a major road safety issue, particularly in long distance driving in rural Australia (Australian Transport Safety Bureau, 2004; Parliamentary Travelsafe Committee, 2001; Parliamentary Travelsafe Committee, 2005; Queensland Transport, 2004; Australia. Parliament. House of Representatives. Standing Committee on Communications Transport and the Arts, 2000). Addressing it effectively requires an understanding of the complex and diverse array of factors that lead to drivers driving under its influence.

Research studies and policy-related reviews focus largely on issues of defining fatigue (e.g., Dobbie, 2002; Parliamentary Travelsafe Committee, 2005), the salience of fatigue as a contributor to traffic crashes, including difficulties of determining the contribution of fatigue (e.g., Feyer, Williamson, Friswell & Sadural, 2001; Treacy, Jones & Mansfield, 2002; Dobbie, 2002; Royal Society for the Prevention of Accidents, 2001) and combinations of social-psychological characteristics of drivers and situational or environmental factors associated with fatigue crashes (Cummings, Koepsell, Moffat & Rivara, 2001; Smith & Trinder, 2000; Royal Society for the Prevention of Accidents, 2001; Dobbie, 2002; Travelsafe, 2004; Feyer, Williamson, Friswell & Sadural, 2001). This approach to human factors in fatigue crashes parallels the approach to ‘human factors’ in road safety research more generally (c.f., Jonah, Thiessen & Vincent, 1997; Beirness & Simpson, 1997; Williams, 2003; Dewar & Olsen, 2002; Fuller, 2002; Petridou & Moustaki, 2000). Relatively few (e.g., Australia. Parliament. House of Representatives. Standing Committee on Communications Transport and the Arts, 2000; Harrison, 2002) investigate why drivers continue to drive past the point of tiredness, despite knowing that this can be dangerous.

It is this issue that this paper seeks to illuminate. It does so by focusing on the drivers themselves, and their accounts of driving long distances. Specifically, it conducts a poststructuralist discourse analysis of interviews with a small group of drivers to explore the way they think about long distance drives, and how this makes them more rather than less likely to drive tired. It then moves beyond their own accounts to suggest how their approach to driving long distances might be shaped by cultural factors, and concludes by considering implications for policy and practice.

In the process, it seeks to demonstrate what poststructuralist analyses of road safety issues might 'look like', and what it might have to offer road safety policy and practice.

## METHOD

The paper draws on a small-scale qualitative study with undergraduates at James Cook University Townsville campus. Students whose homes are at some considerable distance from campus, and who drive home 'at least moderately frequently', were invited to volunteer for a one hour semi-structured interview about their experience of long distance driving. Interviews were conducted in the researcher's office and occupied about an hour each. The researcher explained that the interviews were concerned with how drivers who regularly drove long distances 'handled' such driving, with particular interest in questions of safety and fatigue. Guarantees of confidentiality were offered. Interviewees were advised of the overall purpose of the interview and topics to be raised, and informed that they would be asked for information about basic contextual matters (e.g., what distances they drove and how often; how long they had been licensed), for narrative descriptions of actual drives and incidents, and for comments about issues directly concerning fatigue and road safety. JCU ethics approval was secured before the research was commenced.

Six males and six females were interviewed; all, except for one mature aged female, were under 22 years. All except one drove their own vehicle. All had begun driving either at or before the legal driving age, and most considered that they were relatively experienced drivers.

## THEORY

Poststructuralist theory focuses on the discourses through which events, objects, activities and persons are defined, understood, and given meaning and value through discourse (Vick, 2006). The assumption is that individuals shape their actions within a framework of understandings and meanings made available to them by the cultures in which they live. Further, because there are usually multiple ways of understanding and making meaning of situations available, individuals mobilise only some of the possibilities available, and frequently juxtapose and shift between different - even quite (logically) contradictory or incommensurate - possibilities. Finally, these complex frameworks of meaning also include the construction of what is desirable, and it is desire, and desirability of different objects, activities and 'states of being' that provide the core motives for action; rationality, in this contexts sometimes figures as desirable, but more often enters the picture only in relation to calculating the mean for achieving desires.

In the case of long distance driving, two discursive fields are likely to be evident simultaneously: the drive itself, and the self who is the driver. As Vick (2006) argues, these are not *reflections* or *representations* of fields that objectively exist independently of the interviewees, but fields that are constituted in the very process of talking about them - they are, in effect, *spoken into existence* by speakers in their narratives.

Consequently, an initial phase of poststructuralist analysis will seek to identify and describe the diverse discourses constituting accounts of driving, with a view to understanding at least four aspects of driving tired in the context of long distance journeys. First, the two fields; that is, the interviewees' constructions of the drive itself, and their constructions of themselves as drivers. Second, the relations among their discourses (continuity/discontinuity; conjunction/disjunction; seamless consistency/inconsistency and contradictions) both within each field separately, and between the two fields. Third, what the drivers reveal as desire-able, as a way of understanding what might 'drive' them to drive in particular ways. And, fourth, those discourses which appear calculated to promote high risk driving.

A subsequent phase of analysis will seek to relate the specific discourses through which the interviewees construct the drive and themselves as drivers to more general discourses (of identity and desire, mind and body, work and play, pain and pleasure, good and bad, technical mastery, caring, and power) which form part of contemporary Australian culture. The connections between individual constructions of driving and the self, on the one hand, and broader cultural values, on the other, make it possible to identify the broader cultural discourses that sustain and fuel individual desires to promote high risk or, alternatively, safer driving. This leads in turn to a strategy for inciting drivers to mobilise the safety-promoting discourses they already use but marginalise, and to marginalise the risk-promoting discourses they presently foreground.

## NARRATIVES

The interviews produced an array of stories of long drives, including accounts of particular incidents, punctuated with commentary and statements of values and beliefs. They make visible not only the interviewees' experiences of driving and fatigue, but discrepancies between their declarative claims and their narrative descriptions of their driving practice; they also let us understand how they think about driving and about themselves as people and as drivers.

### *Preparation and departure*

Their stories suggest that most of those interviewed quite deliberately prepare for each impending drive:

*I'm packed up beforehand, then I leave straight after class. (Amy)*

*I try to get everything packed the night of the day before... drinks, chips and lollies or something. (Bruce)*

These comments focus on material preparation, but they also talked in terms of 'personal' preparation, such as getting a good night's sleep, and not going out to 'the club' the night before. While they talked about such preparation as involving deliberate decisions at some level, they also recognised that such decision making was highly routinised and almost automatic - simply 'what they do':

*It's a sort of decision not to go out, but really it's not something you really have any choice about. I know I can't do the trip if I'm tired, so it's not something I even have to think about. I just don't go out those nights. (Nathan)*

There were, of course, inconsistencies in this preparation, both between interviewees and within individuals' own practice. Thus both Amy and Bruce contrasted their usual practice with the exceptions occasions where they do go to the club the night before. And Barbara stated that she makes no special preparation:

*I just get in the car when I'm ready and go... I just grab my stuff – make sure I've got everything I need – and jump in the car and head back.*

### *Getting there*

The dominating feature in all their stories was the sense that the most important thing about the trip was getting to the other end:

*Get in the car, get there, as quick as possible, coz it's a big day. (David)*

With only one exception, there was no sense that the trip had any interest in itself or any significance other than that it stood between their departure and their destination. Anything along the way was talked about as though it was essentially incidental to the trip itself – contingencies along the way, problems to be managed. The exception was Nathan, who talked about the drive as a series of episodes marked by different types of landscape.

This focus on the end point rather than the process of getting there tied closely with their way of talking about the trip as a job to be done. While most stated that they did not find such drives difficult, all but one conveyed a strong sense of the drive as something to be endured and completed.

Thus, Amy commented about driving home ‘really buggered and half drunk’ after an (exceptional?) night at the club:

*I find that that trip is... I just don't want to do it... coz I'm already tired. It's a struggle but I'll do it.*

While some said they more or less enjoyed the drive, their enjoyment lay in the sense of achievement rather than any intrinsic qualities of the drive itself. Again, Nathan was the exception, taking evident pleasure in the subtle changes in the landscapes.

*Along the way: managing the trip*

Most made clear that they try not to make any but essential (i.e., fuel) stops. In part, they saw time stopped as so much time added to the overall trip. Some, such as Bruce in his ageing Hilux, related it to the ‘need’ to maintain steady road speed, while others, such as Amy, were conscious of being held up by slower vehicles:

*Interviewer: Do you take breaks?*

*Amy: On the drive? No way. Nup. I'm just trying to get there as quickly as possible. I overtake people and then if I was to stop then they would overtake me and I'd be stuck back behind them again.*

Amy and Sonia also observed that stopping, especially at night, was highly dangerous for them as young women.

In most cases, interviewees followed their account of their reluctance to stop with an account of why it is not *necessary* to stop. One explained that he routinely shared the driving in two to three hour shifts. All the others, however, reported routinely driving solo; even if they share the vehicle, they monopolise the driving except occasionally under exceptional circumstances – extreme tiredness or “really long trips” (David). Underpinning this is a sense of physical capacity or stamina: “I can do three hours” (Rebecca), supplemented in some cases by other factors intrinsic to the trip that counter the tendency to get tired:

*You're usually tired well before [the main stop], and you're like... you look forward to the stop, and think, 'Oh well, I'm going to stop there... Just a bit further,' you know or whatever, and count down the Ks... Towards the end it's not so bad because you're almost at your destination so you're looking forward to that. So it's not as bad. (Bruce)*

Yet all recognised their vulnerability to tiredness, and report incidents where they were “vague-ing out” (David) or “nodding off” (Rebecca). They sought to manage tiredness through a range of widely recognised ‘tricks of the trip’: changing the volume on the radio/CD/cassette player, winding the window up or down or changing the air conditioning settings, singing, nibbling chocolates or smoking an occasional cigarette; several used stimulant drinks such as Red Bull which “really pump you up” (Amy). Amy, in particular, was disturbingly inventive:

*I actually keep a notebook in the car and I get all these ideas, things I have to do... and I actually put it on the steering wheel and I write – It's only, like, one word or something – like shopping... not doing, like, a big story.*

There were exceptions to this general tendency. Nathan always broke his 1500km trip overnight; Barbara always stopped for coffee halfway if she was feeling tired; and Alex related occasions where he had pulled off the road to nap. Nathan made the point that he was quite prepared to stop rather than drive on tired, and related an occasion when he had phoned home for his father and sister to collect him and his car. Yet, like incidents in the narratives of all those interviewed, the story itself reveals that he had in fact driven well past the point of emergent tiredness before stopping: “I was so buggered I couldn't keep going.”

*Being good drivers*

Throughout, they represent themselves as responsible, intelligent, rational and conscientious drivers. Even the most obviously dangerous of them – Amy - presented herself thus through her commitment to improving her skills and judgement as a driver. This self-construction allows them to rationalise away their inconsistencies and what might appear to others as risky or dangerous practices.

Thus, Amy punctuated her account of her practice of writing notes as she drives, with the comment: “I’m sounding really dangerous now”.

‘Sounding’ immediately qualifies the recognition – it is not ‘I *am* really dangerous’, but ‘I’m *sounding* dangerous’, and she proceeds immediately to explain why the practice is in fact not dangerous as it sounds - they are “just short notes.”

Moreover, these constructions of themselves as *drivers* are linked to more general constructions of themselves as *persons*. Bruce, to take only one example, related his judgement of his driving to his more general sense of himself: “I’m a careful sort of person.”

Overwhelmingly, their sense of what constitutes a ‘good’ driver is couched in terms of skill and judgement, i.e., in technical terms. This frame of reference can be seen in Amy’s repeated comments on matters of judgement and skill, and in Nathan’s response to the question, “So would you rate yourself as a good driver?”:

*Tough question! I don’t know. I haven’t been in situations where I needed to get out of accidents, but I’ve got pretty good reaction times...*

This is a matter of technical capacity (reaction times) and the test is his capacity to react under extreme conditions (avoiding a crash). However, as he continued, he shifted away from talking about good driving in terms of technical capacity to talking about it in terms of acting with view to safety:

*... but I feel that I’m a safe enough driver, and I keep a safe enough distance between cars, and I don’t commit stupid acts... I think I’m a reasonable driver... I’m not Mark SkaiFFE [a reference back to technique] but I can do the job what I think is safely, or reasonably safely.*

Three dimensions of their construction of driving long distances interact in ways calculated to keep them driving even after they know they are tired. First, they construct ‘good driving’ in terms of technical competence. This allows them to construct themselves as ‘good drivers’, even when what they do might be adjudged unsafe by others. Second, they understand ‘the drive’ as a challenge to master by completing it in minimum time. And, third, they understand fatigue as something they ought to be able to overcome.

## CONNECTING NARRATIVES TO BROADER DISCOURSES: DRIVING TIRED AND CULTURE

The terms in which people understand the world, however, are not the inventions of individuals themselves, but are derived from the discourses available to them in the cultures they inhabit (Redshaw, 2001; Vick, 2003). There are at least five such cultural elements that appear to underpin the understandings revealed in these interviews.

First, there is the sense of invulnerability that is a characteristic of cultures of youth (Bradley & Matsukis, 2000), making it more likely that as young people they will take for granted that they *can* achieve such feats of self mastery as long sustained drives and that whatever *could* happen, will not happen to them. This also applies to a very wide range of behaviours in young people generally. What it fails to address, however, is the difference between those behaviours which are constructed as *desire-able* enough to attract young people to engage in them, despite their riskiness, and those that are not. In short, it begs the question why it is that driving past the point of tiredness on marathon road trips appears desirable enough to lead young drivers to exhibit pride in their capacity to ‘do it’.

Second, there are routines associated with ‘modern lifestyles’ which encourage packing the maximum possible activity in a given timeframe, and the minimisation of time allowed to particular activities or tasks (Harrison, 2002; Dawson, McCulloch & Baker, 2001; Randall, 2003; Royal Society for the Prevention of Accidents, 2001; Axhausen et al., 2002). This is a virtually universal condition in contemporary Australian society, and provides a context for understanding most drivers’ vulnerability to the temptation to drive tired (c.f., Harrison, 2002).

In the context of the young drivers interviewed here, the problem appears to be that the desire to maximise the time spent at home combines with the sense of invulnerability, to encourage them to ignore the risk of not getting home (or back) safely.

Third, there is the rural cultural valorisation of distance, nicely captured in the bumper sticker ‘my country, my ute, no distance too far’ (Bonner, 2004), encouraging drivers to think of long distances as ‘not *that* far.’ Fourth, there are the broad and inter-related values of mastery of ‘man’ over nature, and mind over body (Shilling, 1993), encouraging drivers to believe that they can and should control bodily weakness (e.g., as manifested in fatigue) through sheer effort of mind and willpower. And fifth, there is a widespread culture of individualism and competitiveness (Hirschman, 2003) which encourages them to strive, each drive, to at least match their previous ‘performances’ and, in some cases, to ensure that it is they who pass others on the road, rather than being passed by them. In each of these three, desire comes into play through the formation and maintenance of an identity as rural young men and women, proud of whom they are, and able to demonstrate that they do the things associated with being precisely *that sort of person*. To be who they are is, as Butler (1997) argues, to perform the behaviours associated with those identities; to fail to do so is to invite deep senses of failure as persons.

#### WHAT IS TO BE DONE?

There is a substantial body of both research and advice to drivers on countermeasures to driving under the influence of fatigue (e.g., Fletcher, McCulloch, Baulk, & Dawson, 2005; Cummings, Koepsell, Moffat, & Rivara, 2001; National Highway Traffic Safety Administration, n.d.; Australian Transport Safety Bureau, n.d.; Royal Society for the Prevention of Accidents, 2001; Smith, & Trinder, 2000, Road Transport Authority, n.d.). The primary implications from such research, and the recommendations contained in the ‘advice’ literature share a dependence on knowledge and an appeal to rationality to transform driver behaviour. As Roberts and Indermaur (2005) warn, and as Schieber and Vegega (2000) show, educational programs based on such information and advice are unlikely to be sufficient.

This diagnosis offered here of what draws the young drivers interviewed in this study into driving dangerously tired suggests some rather different strategies. The role of desire in both their narratives and this analysis points to the importance of going beyond informing drivers and urging responsible decision-making.

First, the analysis highlights ways in which those interviewed discursively constructed their sense of self – of identity or subjectivity – as people and as drivers, and notes relations between these constructions, desirable behaviours, and broader cultural discourses such as those connecting masculinity, power and the motor vehicle. This points to strategies to cut the production and reduce the circulation of those cultural values; here, the most obvious (if not easy) targets are those associated with motor car advertising (and other advertising) featuring desire-able images of high risk vehicle use. While, as Urry (2003) points out, the dominance of automotive culture in modern society is so vast and deep that an effective, broad-based assault on the production of such images of desire across the full range of sites of their production seems almost uselessly impossible, more limited attacks on strategically chosen targets offers some possibilities for medium- to long-term change.

Second, the analysis highlights complexities and contradictions in the selves these interviewees construct. Despite differences among them in terms of both values and behaviours, they all construct themselves on the one hand, and as competitive, law-breaking, risk taking drivers, and on the other, as good people, careful, committed to driving better. These ambivalences in their constructions of self open up a broadly educative or ‘re-formative’ strategy of inciting them to privilege the more ‘positive’ aspects of themselves and the desires associated with them, over those that are associated with the ‘high-risk’ aspects of their selves. And, as Cruickshank (1996) demonstrates, such strategies have a powerful ally in the growing emphasis on the importance of self esteem (c.f., Schrodter, 2003). Poststructuralist educational theory, research and practice suggests that such strategies work best not by instructing subjects in knowledge or skill, but by positioning them as critical advocates, exemplified (but not theorised as such) in Giumarra’s (2003) account of learning road safety issues through the design and production of traffic safety advertisements.

Third, the analysis highlights the importance of constructions of power and masculine values (even among the female drivers), and their relation to broader cultural constructions of power, and the domination of mind over body, and to forcing the body to continue driving even when suffering effects of fatigue. This points to strategies designed to unravel the connections between masculinity, these cultural values, and driving, and to parallel strategies for countering what Connell (2001) calls ‘the toxic effects of masculinity’ more generally. This can be done by ‘deconstructing’ dominant discourses of masculinity (such as those embodied in motor car advertisements), in relation to ‘car culture’ (Walker, Buckland, & Connell, 2000; c.f., Paulsen, 1999; Roberts & Indermaur, 2005, 376-7). Underpinning such strategies is recognition that the myths sustaining dominant constructions of masculinity are at their most powerful when they remain beneath the threshold of visibility (Vick, 2003).

Fourth, in addition to showing how drivers construct themselves, the analysis documents the ways they construct the field of driving itself. It makes visible the ways they make the body of the trip invisible to themselves – as little more than a hiatus between start and finish. It also shows how this construction of ‘the trip’ is tied to a parallel construction of it as work. Taken together, these dimensions of the analysis point to strategies of enabling drivers to ‘re-imagine’ the drive – both to recognise and attend to ‘the gap’, and to construct it as potentially pleasurable. The analysis already points to elements in their constructions of the drive – the senses of planning and of a structure – and to the degree to which the time pressure under which they drive are self-imposed. Encouraging drivers to attend to each of these aspects of the drive, focusing on a reconstruction of the trip as pleasurable in itself, rather than as work.

## CONCLUSION

Poststructuralist research into young drivers, long distance driving and fatigue has made visible the discourses through which the drivers interviewed make sense of the drive, and themselves as drivers. It shows how many of these discourses promote driving under the influence of fatigue, but also the contradictory discourses present in their narratives. It points to strategies for addressing the broader cultural production of such discourses, the drivers’ own risk-supporting constructions of themselves and of ‘the drive’, and of highlighting other discourses they already use that might promote safer driving. In doing so, the research complement existing understandings of fatigue driving, and how drivers might be encouraged to stop, rather than driving on empty.

## REFERENCES

- Australia. Parliament. House of Representatives. Standing Committee on Communications Transport and the Arts. (2000). *Beyond the midnight oil: an inquiry into managing fatigue in transport*. Canberra: The Committee.
- Australian Transport Safety Bureau. (2004). *Road safety in Australia. A publication commemorating World Health Day 2004*. Canberra: Commonwealth of Australia.

- Australian Transport Safety Bureau. (n.d.). *Fatigue: the hidden killer*. Canberra: Australian Transport Safety Bureau.
- Axhausen, K.W., Zimmermann, A., Schonfelder, S., Rindsfuser, S., & Haupt, T. (2002). Observing the rhythms of daily life: a six-week travel diary. *Transportation*, 29 (2), 95-124.
- Beirness, D.J., & Simpson, H.M. (1997). *Study of the profile of high risk drivers*. Ottawa: Traffic Injury Research Foundation.
- Bonner, G. (2004). Clean skin. *Ute Action*, March/April, 66-69.
- Bradley, G., & Matsukis, P. (2000). Identity status and youth recklessness, *Youth Studies Australia*, 19 (4), 48-53.
- Butler, J. (1997). Performative acts and gender constitution: An essay in phenomenology and feminist theory. In K. Conboy, N. Medina, & S. Stanbury (Eds.), *Writing on the body: female embodiment and feminist theory* (pp. 401-418). NY: Columbia University Press.
- Connell, R. (2001). Studying men and masculinity. *Resources for Feminist Research*, Fall-Winter, 43-57.
- Cruikshank, B. (1996). Revolutions within: self-government and self-esteem. In A. Barry et al. (Eds.) *Foucault & political reason: liberalism, neo-liberalism and rationalities of government* (pp. 231-251). Portland: UCL Press.
- Cummings, P., Koepsell, T.D., Moffat, J.M., & Rivara, F.P. (2001). Drowsiness, counter-measures to drowsiness, and the risk of a motor vehicle crash. *Injury Prevention*, 7 (3), 194-199.
- Dawson, D., McCulloch, K., & Baker, A. (2001). *Extended working hours in Australia: counting the cost*. Brisbane: Department of Industrial Relations.
- Dewar, R.E., & Olsen, P.L. (2002). *Human factors in traffic safety*. Tucson AZ: Lawyers & Judges.
- Dobbie, K. (2002). *An analysis of fatigue-related crashes on Australian roads using an operational definition of fatigue*. Road Safety Research Report OR 23. Canberra: Australian Transport Safety Bureau.
- Feyer, A-M., Williamson, A., Friswell, R., & Sadural, S. (2001). *Driver fatigue: a survey of long distance transport companies in Australia*. Information Paper. Melbourne & Canberra: National Road Transport Commission & Australian Transport Safety Bureau.
- Fletcher, A., McCulloch, K., Baulk, S.D., & Dawson, D. (2005). Countermeasures to driver fatigue: a review of public awareness campaigns and legal approaches. *Australian and New Zealand Journal of Public Health*, 29 (5), 471-476.
- Fuller, R. (2002). Human factors and driving. In R. Fuller, & J.A. Santos (Eds.), *Human factors for highway engineers* (pp. 77-98). Amsterdam: Elsevier.
- Giumarra, V. (2003). Stop, look, listen... and learn! Learning road safety issues and production design techniques through the RACV Transmission Program. *Australian Screen Education*, 30, 84-85.
- Harrison, W.A. (2002) Fatigued driving in urban areas: the role of daily activities. *Proceedings of the 2002 Road Safety Research, Policing, and Education Conference*, Adelaide. Available online at <http://www.rsconference.com/pdf/RS020022.PDF>; retrieved 5 March 2004.
- Hirschman, E.C. (2003). Men, dogs, guns, and cars: the semiotics of rugged individualism. *Journal of Advertising*, 32 (1), 9-22.
- Jonah, B.A., Thiessen, R., & Au-Yeung, E. (2001). Sensation seeking, risky driving and behavioral adaptation. *Accident Analysis and Prevention*, 33 (5), 679-684.
- National Center on Sleep Disorders Research and Office of Prevention Education and Control. (1998). *Educating youth about sleep and drowsy driving*. [No place of publication given]: National Center on Sleep Disorders Research & Office of Prevention, Education and Control.
- National Highway Traffic Safety Administration. (n.d.). *Drowsy driving and automobile crashes*. [No place of publication given]: National Heart, Lung, and Blood Institute National Center on Sleep Disorders Research.
- Parliamentary Travelsafe Committee. (2001). *Rural road safety in Queensland*. Brisbane: Queensland Parliament.
- Parliamentary Travelsafe Committee. (2005). *Driving on empty: fatigue driving in Queensland*, Report No. 43. Brisbane: Queensland Parliament.
- Paulsen, M. (1999). Deconstructing hegemonic masculinity: an approach for high school students. *Youth Studies Australia*, 18 (3), 12-17.



- Petridou, E., & Moustaki, M. (2000). Human factors in the causation of road traffic crashes. *European Journal of Epidemiology*, 16, 819-826.
- Queensland Transport. (2004). *Safe 4 Life: Queensland road safety strategy 2004-2011*. Brisbane: Queensland Transport.
- Randall, A.I. (2003). Risk never sleeps: containing the costs and risks of 24/7. *Contingencies*, May/June, 37-41.
- Redshaw, S. (2001). Changing driving behaviour - a cultural approach. *Australian Journal of Social Issues*, 36 (4), 315-332.
- Road Transport Authority [NSW]. (n.d.). *Facts about sleep and fatigue: circadian rhythm*. Available online at <http://www.rta.nsw.gov.au/roadsafety/fatigue/>; retrieved, 3 March 2003.
- Roberts, L. & Indermaur, R. (2005). Boys and road rage: driving-related violence and aggression in Western Australia. *The Australian and New Zealand Journal of Criminology*, 38 (3), 361-380.
- Royal Society for the Prevention of Accidents. (2001). *Driver fatigue and road accidents: a literature review and position paper*. London: Royal Society for the Prevention of Accidents. Available online at [www.rospa.com/cms/STORE/road%20Safety/driver\\_fatigue\\_files/ATTACHMENTS/fatigue.pdf](http://www.rospa.com/cms/STORE/road%20Safety/driver_fatigue_files/ATTACHMENTS/fatigue.pdf); retrieved 9 April 2002.
- Schieber, R., & Vegega, M. (2002). Education versus environmental countermeasures: is it really an either-or proposition? *Injury Prevention*, 8 (1), 10-11.
- Schrodter, A. (2003). KidsZone: an analysis of a road safety education website. B.Ed. Hons thesis, School of Education, James Cook University.
- Shilling, C. (1993). *The body and social theory*. London: Sage.
- Smith, S.S., & Trinder, J.A. (2000). *Sleep and driving in young adults*. Canberra: FORS.
- Treacy, P.J., Jones, K., & Mansfield, C. (2002): Flipped out of control: single-vehicle rollover accidents in the Northern Territory. *Medical Journal of Australia*, 176 (6), 260-263.
- Urry, J. (2003). Automobility, car culture and weightless travel: a discussion paper. Lancaster: Department of Sociology, Lancaster University. Available online at <http://www.comp.lancs.ac.uk/sociology/papers/Urry-Automobility.pdf>; retrieved 30 September 2004.
- Vick, M. (2003). Danger on the roads: masculinity, the car, and safety. *Youth Studies Australia*, 22 (1), 32-37.
- Vick, M. (2006). Poststructuralist theory and methodology: a complementary approach to road safety research. *Proceedings of the 2006 Road Safety Research, Policing, and Education Conference*, Gold Coast.
- Walker, L., Butland, D., & Connell, R.W. (2000). Boys on the road: masculinities, car culture, and road safety education. *Journal of Men's Studies*, 8 (2), 153-169.
- Williams, A. (2003). Teenage drivers: patterns of risk. *Journal of Safety Research*, 34, 5-15.