

'Spinning Our Wheels': The Inability of Traffic Policy to Change Driver Behaviour

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During the twentieth century, road-traffic authorities' loss reduction policies have relied on three essential elements to reduce road deaths: human behaviour, the road and the vehicle.² Within the triumvirate of traffic safety there have been huge investments to improve roads and vehicles, and to the third aspect a significant portion of the resources have attempted to influence driver behaviour. Despite this focus on the driver, motoring attitudes have changed little in the course of three motoring generations. By examining the changing traffic death reduction policies of Australia, Britain, Canada, New Zealand and the United States over the last two centuries, this paper will argue that reduction in traffic deaths has been a direct result of improved roads, vehicles and safety restraints, which have accommodated higher road speeds, rather than encouraging 'safer' driving practices.³

'Two in a month—it's not in the manual anywhere because it's not meant to happen this way. It's a huge tragedy', said Glyn Milner, the principal of Maffra Secondary College in Victoria, Australia.⁴ Milner had responded to the media after the tragic car crash and subsequent death of thirteen-year-old Jake Helem. At the same school only a month prior, seventeen-year-old Sam Kaska was killed in a similar crash while riding in the back of a utility truck (ute).⁵ In the interim between the two deaths, school officials had conducted education programmes that alerted students to the dangers of riding unrestrained in the rear trays of utes. Despite the school's concerted education programme, Jake Helem still died when joyriding with his mates.

Buried in the back pages of the same issue of the *Herald Sun*, artist Brian Tanti attempted another tack in an effort to put 'road trauma' back into the limelight. On 30 September 1955, 'speed demon' actor James Dean died in a head-on car smash. On the fiftieth anniversary of Dean's death, Tanti launched t-shirts and caps scripted with Dean's California speeding ticket, which he received only two hours before his death. Tanti 'wanted Dean's memory to be a reminder to young people' that speed kills.⁶ By using the depiction of Dean's ticket, Tanti hoped that motorists would both alter their driving behaviour to become safer and realise that no one is immune from the devastation of road crashes.

The historical writing of the motor-car's impact in Australia, Britain, Canada, New Zealand (NZ) and the United States (US) remains in its infancy. The majority of the texts that do exist concern themselves with the changes that the motor-car has brought to space and place, particularly in cities. Although some of the work touches on traffic safety, a few of the texts have looked at one aspect or another of traffic safety policy and the controls used to reduce traffic smashes. In Britain, William Plowden examined politics and the changing legislation in response to the problems created by the motor-vehicle.⁷ In the US, Alan Irwin, Joel Eastman and Jameson Wetmore have examined traffic safety in the past four decades.⁸ Irwin provides a comparison between the automotive catastrophes in the United States and Britain, the often ensuing court battles and the safety initiatives that eventuated. Traffic safety histories in Britain, Canada and New Zealand have yet to be written, although graduate students are beginning to make inroads.⁹ In Australia, the writings of John

Knott, Jennifer Clark and to a certain extent Graeme Davison have contributed to this seminal work.¹⁰

Before the mid-nineteenth century, few road rules governing the movement of traffic existed; those that did exist remained discretionary. The first tangible laws and regulations divided the roadway and required traffic to drive on the left or right; today, however, the laws, regulations and requirements of driving are so complex that new drivers can invest several years before becoming a competent driver. Despite this plethora of driving requirements that keeps most people safe, most of the time, many sedate, serene and skilled people become selfish, snarling and snapping 'road hogs' when they sit behind the wheel of a vehicle.

This transformation is best personified by Disney's short film *Motor Mania*. In the film, the cartoon character Goofy plays a 'Jekyll and Hyde' role as Mr Walker and Mr Wheeler. It is this transformation from that of law-abiding, walking citizen to risk-taking, dangerous motorist, as portrayed in the film, which continues to stultify traffic safety initiatives. By examining the changing loss reduction policies in the five above-mentioned countries over the last two centuries, this paper will argue that reduction in traffic deaths has been a direct result of improved roads, vehicles, safety restraints and medical practices, which have accommodated higher road speeds, rather than encouraging 'safer' driving practices.

During the twentieth century, traffic smashes have maimed, injured and killed more people than soldiers killed in battle—in every motorised country in the world.¹¹ Over the course of mechanised transport's history, authorities have worked to balance mobility, on the one hand, and acceptable traffic deaths, on the other. Throughout the history of the motor-car, and the century leading up to its appearance, loss-reduction policies ostensibly moved to curb the number of traffic deaths, but in doing so authorities appeased the prevailing ideas of the time. Consequently, road speeds increased because wealthy car owners who had pioneered motoring successfully swayed the political system; during the succeeding decades the majority of voters took to motoring and continued to sway the political process in motorists' favour.¹²

In the century before the motor-car made an appearance, mechanised transport received a terse and unwelcome reception. After centuries of wood, wind and water as power sources, public fear

surrounding modernity prevented steam engines from travelling on Europe's roadways; as a result, entrepreneurs built their own.¹³ Owing to this political decision that reflected public concerns regarding modernity, railways began to appear on the landscape. Yet even these met with their detractors. 'Rail travel at high speed is not possible because passengers, unable to breathe, would die of asphyxia,' claimed Dr Dionysus Lardner (1793–1859) of University College, London.¹⁴

As political, cultural and social changes in Britain during the first half of the nineteenth century made way for the full impact of the Industrial Revolution, people began to grasp the tremendous benefits of both high-speed travel and machine-powered industrial and agricultural processes. After a gestation period of steam-powered transport, authorities cautiously allowed steam locomotives to travel on roadways,¹⁵ although in the last half of the nineteenth century officials subjected traction engines to draconian laws that became known as the 'Red Flag Law'. Importantly, those who operated the

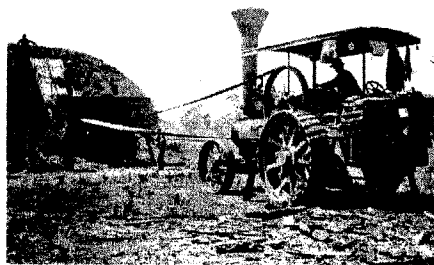
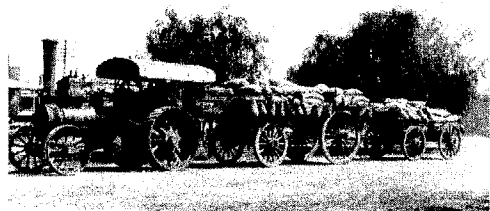


FIGURE 1 – TRACTION ENGINES USED FOR CARTAGE AND POWERING AGRICULTURAL PROCESSES. ABOVE: POWERED BY TRACTION ENGINE. WYLLIE'S THRESHER TEAM IN OPERATION, WHITFIELD DISTRICT, VICTORIA. SOURCE: STATE LIBRARY OF NSW – 01242R. BELOW: DONALDSON'S STEAM TRACTION ENGINE AT 'PINE VALE' ['PINEVALE'] WITH WHEAT WAGONS, TEMORA, NSW, CIRCA 1910. SOURCE: PICTURE AUSTRALIA BCP 02980.



machinery remained skilled working-class men.

The Act required that several workers attended the machine while in transit. The first carried a red flag to warn other traffic, a second assisted other horse-drawn vehicles if the animal(s) became agitated, and a third monitored the wagons and the load; also, driving speeds were limited to less than five miles per hour (mph) (Figure 1).¹⁶ For working-class drivers, traffic infractions sometimes brought stiff penalties. In April 1903, Mr Curtis Bennett, magistrate of Marylebone, UK, convicted Henry Allendale of furiously driving an omnibus. At the trial, the police constable testified that Allendale had attained speeds of 'at least ten mph'. The magistrate sentenced him to one month of hard labour. It had been Allendale's second offence.¹⁷ Few, if any, wealthy motorists ever received a similar penalty.

In 1896, British politicians amended the legislation, which recognised that wealthy motorists now used steam locomotives for personal transportation. Motorists rejoiced because light locomotives could now travel at maximum speeds of fourteen mph—almost three times previous limits.¹⁸ No doubt, trains, trams and bicycles had paved the way for acceptance of higher road speeds.

Before the appearance of the motor-car in the years between the 1880s and the turn of the century, two-wheeled 'velocipedes' flourished as a form of personal transport.¹⁹ The bicycle, combined with the pneumatic tyre (1888), introduced high speeds on to roadways; for the first time the speed of travel rested with the individual.²⁰ Unlike horses, trains or trams, the speed was not limited by biology, governing bodies that imposed strict regulations or limiting mechanisms. Still, the bike's interlude between the train and motor-vehicle proved short. The aggressive speeds often exemplified in the behaviour of young males agitated fears of modernity as the twentieth century approached. The bicycle failed to prepare societies for the 500 per cent increase in urban road speeds that occurred in the forty years between 1890 and 1930.²¹ Despite its short time as the fastest road vehicle, the bicycle appeared to only erode any favourable public attitude toward high speed. Some media representations cast it as the harbinger of death. The following image appeared in an early-1894 edition of *Melbourne Punch*.

The image suggests two public beliefs that late-twentieth century road-traffic either lacks or has shed: the belief that 'speed merchant' behaviour was that of a demonic criminal outside of 'normal' society;



DEATH ON THE WHEEL.
THE TERROR OF OUR STREETS.

(February 1, 1894.)

Not with noise and roar
The Demon on you steals,

But silent and swift on pneumatic tires
Comes this dread Death on Wheels.

FIGURE 2 — DEATH ON THE WHEEL. THE TERROR OF OUR STREETS. NOT WITH NOISE AND ROAR / THE DEMON ON YOU STEALS, / BUT SILENT AND SWIFT ON PNEUMATIC TIRES / COMES THIS DREAD DEATH ON WHEELS. SOURCE: MELBOURNE PUNCH, 1 FEBRUARY 1894, IN SUE FABIAN, MR. PUNCH DOWN UNDER: A SOCIAL HISTORY OF THE COLONY FROM 1856 TO 1900 VIA CARTOONS AND EXTRACTS FROM MELBOURNE PUNCH, GREENHOUSE PUBLICATIONS, RICHMOND, VIC., 1982, 110.

and that women and the elderly were at greatest risk from this new menace—even the heroic behaviour of men could not save vulnerable road users. According to academic Jennifer Clark, this idea persisted well into the third quarter of the twentieth century.²² Other road users were not the only ones at risk from cyclists' speeding. In 1896, Joseph Bishop warned that moving against the wind at high rates of speed could result in the physical deformation known as 'bicycle face'.²³

By the first decade of the twentieth century, attention on motor-vehicles increased significantly and the public demanded regulation to control the fast driving behaviour of motorists. In 1903, Britain again revisited its working-class 'locomotives on highways' legislation due to 'motorphobia'—the fear of motor-cars.²⁴ Britain enacted *specific* motor-car legislation that imposed a speed limit of twenty mph, required drivers to be licensed and obliged motorists to display

prominent number plates on their vehicles.²⁵ Other countries, states and provinces followed Britain's lead, but legislation was either stalled or ineffectual because wealthy motorists were drawn from the same social class as politicians; moreover, motorists' intricate knowledge of the power structure allowed them to create a formidable lobby group.²⁶

In the years immediately before World War One (WWI), in response to a deteriorating relationship between motorists and the wider community, many governments were successful in implementing motor-car legislation. Like the madman in 'Death on the wheel', the deviant motorist became an outsider and was labelled as a 'speed merchant', 'scorcher' or 'road hog' (Figure 2).²⁷ The former two were borrowed from the bicycle and reflected peoples' inability to produce new terminology or cope effectively with the motor-car. Once people labelled the deviant motorist as the outsider, police and motoring groups came together in the fight against a common enemy.²⁸

As a 'play toy' of the wealthy, the motor-car received considerable media coverage. Even before the nineteenth century rolled into the twentieth, the motor-car claimed New Yorker Henry Bliss as its first victim.²⁹ Consequently, in the years before WWI motor-vehicles outraged the public, not because of crashes, but in response to the noise which sometimes frightened horses, and the audacious speeds that exacerbated cities' perennial dust problems. The public demanded controls.

In 1902, Mr Flatman, member for Geraldine, New Zealand, stated: 'I consider that every local body should be allowed to pass by-laws regulating the speed of motor-cars travelling through their district.'³⁰ Two years later, PROTECTION, in a letter to the editor of Australia's *Argus* newspaper, stated that country roads should be closed to motor-vehicles, arguing: 'Even the quietest of farm horses fail to grow accustomed to the puffing and trumpet-blasting road monster that now claims full right of the road.'³¹

By the mid-part of the first decade, public outrage flared when on the rare occasion a pedestrian became a traffic fatality. This public backlash arose despite the fact that horses, trams and bicycles killed on average one or two people a day in most large cities. In 1906, a Melbourne motorist struck and seriously injured cyclist, Mr Robert Adams. The motorist fled, and a letter to the editor of *The Age*

newspaper labelled the culpability of the driver's uncaring behaviour as the villain. RED C. stated that 'the particular car swooped through Elizabeth-street on Tuesday night like a devastating war chariot, and left an unoffending citizen crippled in its wake.'³² Overwhelming public anger insisted on regulation to control these new terrors that vied for public road space.³³

Motor-car Acts, in tandem with expanded police powers, resulted as a cost-effective first step in assuaging the growing 'motorphobia'. These first tools, however, quickly proved inadequate to control deviant motoring behaviour. First, most police organisations did not begin to motorise until the end of WWI; even then, most beat-constables remained on foot until after World War Two (WWII). Secondly, motorists challenged most traffic prosecutions in court and possessed the resources to hire legal counsel. For the officialdom, the expert legal defence hired by motorists made pursuing a conviction for a traffic offence both financially expensive and time-consuming. By the late-1920s, consequently, the lower courts became clogged with traffic cases.³⁴

Last and most importantly, by the outset of the 1920s the public attitude that a traffic offence was nothing more than a 'technical offence' once again became the norm amongst road users.³⁵ This belief had existed when horses predominated as a form of transport. In mid-1912, for example, Constable Horace Wrigglesworth of the Victoria Police stopped Harry Caddy for racing with another horse-and-cart on St Kilda Road in South Melbourne; Wrigglesworth asked Caddy why he was racing with the other driver, to which Caddy replied: 'it's the first time I have raced along here for a long time.'³⁶ As a result of the attitude that speeding remained—more or less—a victimless crime, driving behaviour often deteriorated, particularly at night, on good roads and when little other traffic was present. Senior Australian police officials reported in a 1910 memo 'that all serious Motor car accidents have occurred where the Streets are broad, and apparently clear of traffic.'³⁷

Throughout the first decades of the twentieth century, motoring organisations such as the Automobile Club of Australia, Britain's Royal Automobile Club, Canada's Automobile Association and others lobbied state, provincial and federal governments to build better roads.³⁸ Most motoring fraternities purported that poor roads caused traffic crashes. With legal, regulatory and policing procedures well

on their way to being in place, road building constituted the second aspect in accommodating drivers' desire for faster road speeds.

Introducing motor-transport into a centuries-old road network designed for much slower modes of transport had never worked. In some parts of the world centuries-old roads remain and fail to accommodate motor-traffic because buildings have remained located right on the edge of the road. 'No one can doubt that the roads were never made for motor-cars,' retorted Mr Soares, member for Devonshire, Barnstaple, during England's Motor-car Bill debates in 1903.³⁹ Over the course of the twentieth century, the physical infrastructure of the roadway changed dramatically to facilitate motor-cars. The introduction of traffic regulations aimed to prevent different road users from clashing, and to improve road conditions;⁴⁰ the use of physical barriers, signs, road markings and traffic lights physically represented these traffic regulations. These mechanisms moved to reduce traffic deaths by separating different road users in time and space. Raised kerbs and footpaths, for example, separated wheeled-and foot-traffic by relegating pedestrians to the footpath.⁴¹ Pedestrian behaviour, however, stubbornly and staunchly opposed the abolition of their perceived right to travel along the roadway, as they had done for centuries. Yet, as roads improved, so too did the speed of traffic.⁴² Not surprisingly, pedestrians remained the hardest hit during the first half of the twentieth century.

In the early-1920s, the world's motoring cities implemented by-laws that required pedestrians to walk along the footpath, cross at street corners, and if not, cross at right angles to the kerb.⁴³ Canadian F C Biggs, the Minister of Public Works for Ontario, epitomised the reasons for confining pedestrians to the footpath when he stated that 'cities [must] wake up and ask pedestrians to cross the street at street intersections and not anywhere they have a mind to hop off the sidewalk.' If city officials did so, traffic 'accidents' would be reduced by ninety per cent.⁴⁴ Indeed, the *status quo* two decades earlier had changed significantly. The idea that, 'a pedestrian [had] just as much right to walk in the middle of the road as he [did] to walk on the footpath' as stated by Sir Samuel Gillott, Victoria, Australia's Chief Secretary, no longer applied.⁴⁵ Political moves to confine pedestrians to the footpath met with resolute opposition.

The change in road traffic policy provided ample fuel for a political battle that would last well into the third quarter of the twentieth

century. In the US, grass-roots political movements aimed at changing pedestrians' behaviour launched intensive media campaigns. They labelled those who did not follow the new road rules as simpletons. In predictable fashion those lobbying for the pedestrians countered, asserting that, in fact, it was motorists' behaviour that led to traffic smashes. From the campaign to reduce pedestrian deaths, the term 'jaywalker' originated. In the state of Kansas, the word 'jay' ridiculed a dull-witted person, unable to grasp the rules that were put in place for their own protection. Almost immediately, world motoring authorities adopted the term in an attempt to stem the rising body count as motor-cars literally cleared streets of ambling pedestrians. In another attempt at protecting pedestrians, American cities employed the good will of Boy Scouts to assist people to safely cross the street.⁴⁶



FIGURE 3 — SAFETY FIRST—FIRST LESSON — SOURCE: MELBOURNE PUNCH, 1 MARCH 1923, 6.

Changing pedestrian behaviour required several decades. The acquisition of hazard perception skills remained a learned skill. Like children, the pedestrians that witnessed the revolutionary transition from horse-drawn vehicles to the monopolisation of roadways by motor-cars also acquired these skills over time, and often by trial and error. Alerting pedestrians to the fact that the roadways had changed and were now a dangerous place became authorities' first challenge. Like children, certain cognitive skills remained undeveloped in our ancestors and only through education did they learn these skills. Several reasons exist for children being more susceptible to traffic collisions. First, children's peripheral vision is only 120 degrees as opposed to an adult's 180 degrees. Second, they cannot accurately judge the speed of a vehicle in the same way they can judge the speed of a moving animal, for example. Third, once in motion, children tend to remain in motion—thus the child following the ball out into the roadway as in 'Taking care of Bobby' (Figure 4). Finally, even if

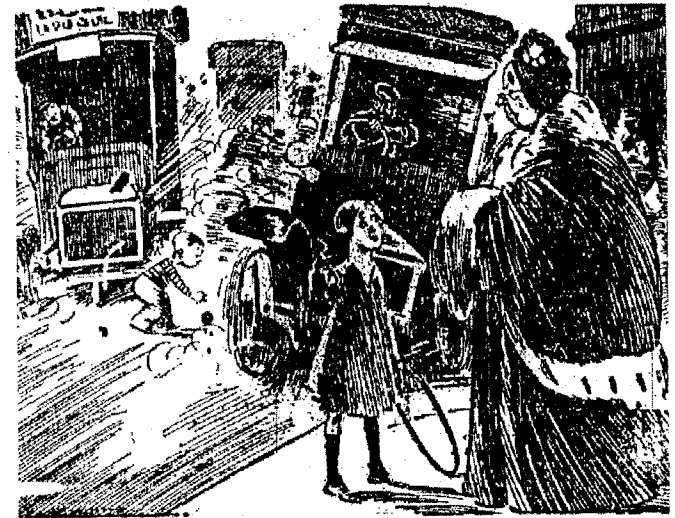


FIGURE 4 — TAKING CARE OF BOBBY:
 OLD LADY—'WHAT ARE YOU DOING HERE, LITTLE GIRL?'
 LITTLE GIRL—'TAKIN CARE O' ME LITTLE BRUVVER, MUM?'—PASSING SHOW,
 LONDON. SOURCE: THE LONDON [ONTARIO] FREE PRESS, 15 JANUARY 1920, 1.

children are hidden from view of the motorist but can see the vehicle, they tend to believe it will stop.⁴⁷

At the outset of the twenty-first century, pedestrian deaths comprised fifteen percent of the traffic death toll.⁴⁸ Of that percentage, a significant majority remained children under fourteen years old and seniors.⁴⁹ Concerted education programmes, like the Ontario Safety League's Elmer the Safety Elephant, taught school children about the dangers of roadways.⁵⁰ Britain's Road Research Laboratory conducted studies in the mid-1960s, which indicated that pedestrians often misjudged the distance between themselves and a vehicle if it travelled at higher speeds or if it was a smaller vehicle such as a motor-cycle.⁵¹ Like children, pedestrians in the years between 1920 and 1960 were forced to learn new hazard perception skills consisting primarily of judging motion relationships.⁵² With a 500 percent increase in road speeds in only a few decades, many failed to learn the necessary skills in time.

After WWII, mass-motorisation arrived *en bloc*. Two world wars had utilised transportation technology and subsequently improved its

ELMER SAYS:

Look
all ways
before
you
cross
the
street.



ELMER SAYS:

Play
games
in a
safe
place
away
from
traffic.

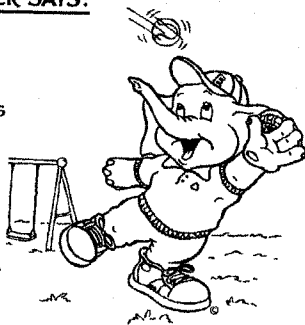


FIGURE 5 – WALK SAFE, RIDE SAFE, PLAY SAFE! A SAFETY MESSAGE FROM ELMER AND YOUR FRIENDS AT ONTARIO SAFETY LEAGUE. SOURCE: THE ONTARIO SAFETY LEAGUE, ELMER THE SAFETY ELEPHANT, 2006, WWW.OSL.ORG

reliability. Despite an increase in traffic regulation, improved roads and education programmes, crash rates soared.⁵³ In Britain during WWII, war casualties amounted to 370,000 persons; but road-traffic carnage, primarily attributed to the blackouts during bombing raids, amounted to 588,000 casualties.⁵⁴ Lord Snel during parliamentary debates stated: 'I sometimes think that the animals, and especially dogs, are acquiring a traffic sense almost more quickly than some human beings.'⁵⁵ Governments had recognised the high cost of motorised transport two decades earlier, when authorities began to amass crash statistics (Figure 6).

Still, traffic deaths increased in the post-WWII years. Few seemed concerned as mobility, moving to the suburbs and having a family took precedence. In 1949—'the worst year in the history of the Province'—George H Doucett, the Minister of Highways in Ontario, issued a personal plea for Canadians 'to take this problem of highway safety seriously to heart'.⁵⁶ A year earlier, Victorian politician Clive Stoneham pondered aloud what place traffic carnage held in the scourge hierarchy of war, disease and poverty.⁵⁷ Road traffic deaths had become unacceptable. Pedestrian behaviour had been altered and they now more or less remained on the footpath, although this



FIGURE 6 – YOU'RE A BETTER MAN THAN I AM, HUNKA TIN. THE FIGURES ON THE NEWSPAPER HELD BY THE FIGURE OF WAR STATE THAT 19,000 PEOPLE WERE KILLED, AND 450,000 WERE INJURED BY MOTOR-CARS IN THE UNITED STATES OF AMERICA IN 1924. SOURCE: THE LONDON [ONTARIO] FREE PRESS, 14 MAY 1925, 6.

required substantial enforcement.⁵⁸ Traffic officials' loss reduction policy once again targeted driving behaviour.

As a result of traffic crashes, driver education became the panacea to correct the ailing attitudes of motoring behaviour during the middle decades of the twentieth century. No longer was the deviant motorist simply the outsider; now the behaviour of many contributed to the problem. In Britain, a 1945 Road Safety Committee report indicated that ninety percent of traffic smashes resulted from driver error.⁵⁹ Although not an outsider, the proverbial 'nut' behind the wheel remained an easy scapegoat. During the second quarter of the twentieth century, the idea that traffic crashes could be significantly reduced through improved driver behaviour persisted.⁶⁰ American and Canadian governments spent huge amounts of money on high school driver education programmes in the immediate decades following WWII. Officials and motoring organisations wrote large theoretical tomes that directed courses;⁶¹ governments provided

huge sums of money for the production of instructional films. At many high schools, obstacle courses simulated the demands of urban driving, without the risk. In 1968, the state of Michigan, USA informed the public that it had enrolled almost every novice in driver education programmes. Yet the following year traffic crashes among young drivers increased almost ten percent. Subsequent studies substantiated the report and even suggested that some driver education programmes produced negative effects.⁶² Driver education, it seemed, changed neither the attitudes nor the behaviours of new drivers in their quest for speed.

In the second half of the twentieth century, with pedestrian behaviour controlled and greater numbers of vehicles, occupants became the road group most susceptible to death.⁶³ As driver education programmes mounted in numbers, so too did fatalities. Authorities lost faith in this avenue of loss reduction policy; they turned their attention to the vehicle. Now the vehicle became a liability in the bid to reduce road carnage. In the late-1940s Dr WH Haddon, Jr, an epidemiologist, applied the methods of his discipline to the problem of car crashes. He deduced that there were in fact three collisions that occurred upon impact, not just one: the crash of the vehicle; the crash of the occupants with the interior of the vehicle; and finally, the internal organs crashing against the chest cavity. Borrowing from the work done in aviation by H DeHaven, Haddon proposed that safety restraints be installed and used in motor-vehicles; however, he was decades ahead of his time.⁶⁴ The use of safety restraints required a change in the attitude of the motoring industry and a modification of driving behaviour; disregarding Haddon's advice, professionals and lobby groups turned their criticism toward the vehicle and behaviour of auto manufacturers.

Automotive companies, well into the third quarter of the twentieth century, experienced little government intervention in the building of their vehicles. Upon analysis, however, it appeared that thousands of vehicle occupants sustained injuries, maiming and deaths owing to the minefield of protruding buttons and knobs that littered the inside of motor-cars. Children lost eyes during hard braking when their faces slammed into radio dials. Drivers became impaled on the steering column during minor crashes. Passengers sustained fatal lacerations and smashed bones when thrown into the windscreen or the vehicle's unforgiving hard interior. Ralph Nader's *Unsafe at any*

Speed (1965) took particular issue with General Motor's Chevrolet Corvair, manufactured in the United States.⁶⁵ The release of Nader's book garnered public support, which forced governments to begin regulating the automotive giants. Interestingly, auto manufacturers in the quarter century after the mid-1960s continually insisted that vehicle safety features were both expensive and unwanted by the motoring public. Big business resisted change.⁶⁶

Two primary factors led to the enormous traffic carnage experienced by motorised countries at the end of the 1960s and both had a negative impact on driving behaviour. Between the 1940s, when automatic transmissions were introduced, and the 1980s, when electronic fuel injections revolutionised fuel economy, auto manufacturers repackaged the same product again and again.⁶⁷ Consequently, speed and, to a lesser extent, styling became the selling features. The culture of drinking or 'one for the road' sat firmly in the fast machine of mobility's passenger seat; together, speed and the unrestrained inebriated driver pushed road-traffic's body count to alarming and unacceptable levels.⁶⁸ Dr Seymour Charles, President of Physicians for Automotive Safety, argued in the late-1960s that the behaviour of the industry remained irresponsible.⁶⁹ Its advertising displayed a derisory attitude toward the United States' road-traffic slaughter, and consequently it forfeited any right to claim expertise on the topic of traffic safety:

[T]he auto industry is sick and, for all the humor, when a manufacturer has a product that kills 50,000 people a year and injures 5,000,000 more, [then] has the arrogance to name those products Wildcat and Fury and Marauder, and to boast with untold millions in advertising that his product has an almost neurotic urge to get going, that manufacturer cannot possibly be trusted in matters of safety, and surely, surely, they are foreclosed from blaming the nut behind the wheel.⁷⁰

Authorities began to shift their focus from that of influencing driver behaviour to that of the manufacturer. Influencing the decision-making processes of manufacturers appeared a less daunting task than altering the driving behaviours of millions of drivers, at any given time, in any given situation and in any given emotional or psychological state.⁷¹ In 1970, Australia's alarming road toll

peaked at 3,798 deaths and 100,000 injuries, with a third of those admitted to hospital. Numbers in other motorised countries also reached unacceptable levels in the closing decades of the twentieth century. British, Canadian, American, Australian and New Zealand governments and their authorities went into damage control.⁷²

At the outset of the 1970s, the Organisation of the Petroleum Exporting Countries (OPEC) oil crisis signalled the end of economic prosperity. North America's domestic automotive industry struggled to build smaller, fuel-efficient vehicles now demanded by the motoring public—foreign manufacturers, hitherto shunned, profited from America's glut of big 'gas guzzlers' that would 'pass everything except a gas station'. In other words, North America's muscle cars possessed the capability of triple digit speeds, but in exchange for high speeds the vehicles sacrificed fuel economy. Many claimed that these smaller cars were unsafe, a trend the industry would later capitalise on with the sale of four-wheel drive vehicles.⁷³ Despite the economic recession, which stalled implementation of vehicle safety features, these ideas now existed in the public realm. Over the next three decades consumer behaviour changed and hitherto shunned vehicle safety features became a selling feature. Despite an awareness of driving risks owing to the creation of automotive safety features now available, a high number of motorists' driving behaviour deteriorated because they believed a safer vehicle minimised the risk of death.⁷⁴

At the outset of the 1970s, Canada and Australia took the initiative and implemented both compulsory use of safety restraints and tougher anti-drink driving laws. By the outset of the 1980s, public education programmes together with concerted police enforcement effected a positive change in motoring behaviour. The downward trend of traffic deaths continued into the early-1990s and then levelled out. In Victoria, Australia, traffic deaths moved from an all-time high in 1970 of 1,061 and dropped to a low of between 400 and 450 between the 1990s and continued into 2000. Once again, however, in exchange for 'buckling up' and tougher anti-drink driving laws, motorists received a continued improvement in roads and travel times. For most, this convenience translated to faster speeds.

By the end of the 1980s and early-90s, in combination with safety restraints, late-model vehicles became substantially more crashworthy. Automotive manufacturers produced safer cars with collapsible steering columns, padded dashboards, head restraints and

energy absorbent crumple zones. Further, anti-lock brakes, airbags and good crash testing results became selling features; Volvo and Rover set the standard.⁷⁵ Despite these advances in traffic safety, between the early-1990s and 2005 the number of traffic deaths remained somewhat static. Authorities labelled this phenomenon the 'Rebound Effect'; in essence, people with safer vehicles sped, failed to maintain an adequate following distance, and often refused to give the right of way.⁷⁶ Again, human behaviour eroded the full benefits of vehicle safety features. In the 1990s Dr Evans, the president of the International Traffic Medicine Association, sarcastically announced that the airbag now killed fewer people. Drivers now realised that this

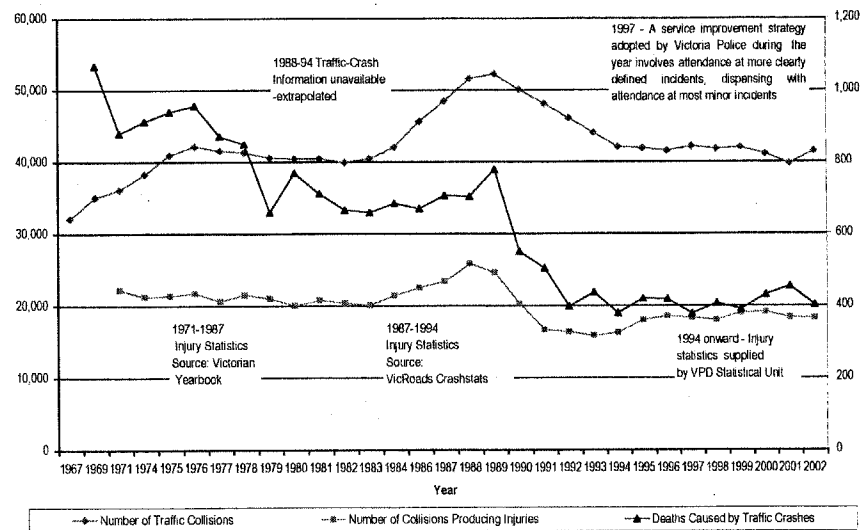


FIGURE 7 — CRASHES, INJURIES AND DEATHS ON VICTORIA'S ROAD 1967–2002. SOURCE: VICTORIAN YEARBOOKS, VICROADS CRASHSTATS, VICTORIA POLICE STATISTICAL UNIT.⁷⁸

added safety device sometimes failed to prevent death in the event of a traffic crash.⁷⁷

At the outset of the 1990s—using Victoria as a case study—deaths dropped significantly. The number of crashes and injuries, however, remained relatively unchanged (Figure 7). Better enforcement, intensive road safety advertising campaigns and grass roots movements all paid dividends.⁷⁹ The major contribution, however, was

safety restraints. At the outset of the 1990s, the Monash University Accident Research Centre (MUARC) reported that approximately ninety percent of Victorian motorists now wore their seatbelt.⁸⁰ Other countries that implemented seatbelt laws twenty years previous also reported high seatbelt use.⁸¹ After a generation of growing up with seatbelt laws, children, it seemed, influenced the behaviour of older generations—some who had vehemently and resolutely opposed the laws at the outset of the 1970s.⁸² Those who resisted the use of seatbelts often stated that they would be unable to escape from the vehicle during fire or submersion in water.

It has been asserted that if all the traffic injuries, deaths and maimings were brought together and occurred at the same time, in one space and place, in any given year, the event would be a national catastrophe. But the slaughter that plagues our roadways occurs over a twelve-month period peppering hundreds of thousands of kilometres of roadway.⁸³ One of motoring societies' best kept secrets, however, remains that crash and injury rates have changed little since the mid-twentieth century.⁸⁴ Many believe they have a 1 in 70,000 chance of dying in a traffic smash, when the reality is ten times that number.⁸⁵

Psychologist Soames Job labels this 'won't happen to me' phenomenon 'Optimism Bias'.⁸⁶ Larry Laudan, on the other hand, asserts that the disproportionate amount of media coverage that tornadoes, shark attacks and terrorist attacks receive contributes to people's belief that they are more likely to die from these rare events, as opposed to suicide, terminal disease or a car crash.⁸⁷ Motorists' 'Optimism Bias' is supported by the fact that both of the opening newspaper stories of Jake Helem and Sam Kaska, and Brian Tanti's traffic safety campaign failed to receive front page newspaper coverage—rather, the stories of death and carnage were relegated to the back pages.⁸⁸ Indeed, both disproportionate media attention and 'Optimism Bias' make a contribution to the poor driving practices that lead to traffic crashes. Yet human behaviour remains much more complex.

Another factor that negatively affects driver behaviour is biology. Driving at high speeds is a learned skill; human eyes and perception are designed for maximum speeds of twenty or thirty mph—a fast running speed. Unlike the cheetah that is capable of running speeds of sixty mph, humans possess limited ability to travel at speed. Another factor affecting driving behaviour is the design of the brain into two

cortices. Psychological studies have concluded that each is responsible for distinctly different tasks.⁸⁹ The left side of the brain is responsible for language, rational thinking and keeps track of time; the right side, alternatively, is responsible for intuition, perception of overall patterns and structure, and 'seeing where things are in relation to other things and how parts go together to form a whole'.⁹⁰ Unsurprisingly, both sides of the brain are responsible for safe driving; however, the right side of the brain—the side which disassociates us from 'artificial' time—often takes over when we drive owing to its ability to cope well with traffic's spatial patterns. Most have experienced arriving at a point in their travels and not remembering a significant portion of their journey. The constant number of traffic crashes in the last half century supports the hypothesis that human biology remains a limiting factor in driving behaviour.

Since the advent of mechanised transport, higher rates of speed have been consistently pursued, on land, on water and in the air. Like James Dean in the opening story, heroes stand out and are remembered because they flirt with danger, violence and aggression.⁹¹ Consequently, 'cool' triumphs over both 'good and evil'.⁹² Therefore, 'identification with heroic figures occurs early in life. Later, although we may not remember them, these identifications may still affect our behavior.'⁹³ And in motoring societies people still hold the cultural ideals of their great-grandparents, where competition and public aggression against convention have remained the traits of heroes. Driving then becomes an activity which is competitive and an outlet for aggression.⁹⁴ It requires little more than 'opening up' the throttle and steering the vehicle.⁹⁵

The inside of the vehicle becomes their environment and it is this environment that motorists control. Through the car, drivers 'suspend the laws of nature'.⁹⁶ By driving aggressively, average people gain a sense of power and overcome their perceived 'average-ness'; from this exhilaration of speed and energy average people, for a brief time, step outside the mediocrity of their life that is often associated with 'good'. Since their inception motor-cars have represented social status, and by owning a motor-car and driving fast, a driver exerts power over another by usurping road space.⁹⁷ The vehicle becomes an extension of the self.

In addition to feeding what Freud labels our id, the motor vehicle exists as an extension of our personal space. It is in our homes where

we express our deepest and rawest emotions; the home provides a comfort zone. The vehicle too provides personal space, but one that is confined and intensified. Car owners further personalise their vehicle by adding accessories such as fuzzy die, bumper stickers and 'mag' tyres. Their car too becomes a safe haven for expressing emotions, which are often anger, selfishness and frustration.⁹⁸ Criminologist T C Willett asserts that drivers become more themselves when they drive; consequently, people predisposed to anger, aggression and selfishness display these emotions in their driving.⁹⁹ More often than many would like to believe, drivers disregard any measure of road safety and allow both arrogance and emotion to guide their vehicle.

This hypothesis is supported by the increased number of road rage cases at the end of the twentieth century. Officials attribute these acts of motoring, involving aggression, danger and violence, to the pressures of modern society such as traffic congestion, consumerism, social demands and perceived lack of time. Road rage evolved from the long tradition of 'stepping outside' to settle a grievance by fist fighting. 'Optimism Bias', disproportionate amounts of media attention, our need to emulate our heroes and feed the id remain human liabilities that have contributed to the constant number of traffic smashes in the last half of the twentieth century.

By the mid- to late-1990s, people's complacent attitudes underscored the fact that traffic deaths had reached levels which failed to provoke any serious public outcry, suggesting that some primitive need of the human psyche was fulfilled by accepting the risks of driving. Traffic safety now fell under the wide umbrella of 'risk management' and 'loss-reduction policy'. In light of the disproportionate number of deaths, professionals and authorities turned their energies to modifying the behaviours of young drivers—the driver group furthest removed from any sense of mortality and consequently most at risk. Like Dr Haddon's idea of safety restraints that took a quarter of a century before being implemented, two decades passed before graduated driver licensing (GDL) came to fruition after first being proposed at the outset of the 1970s.¹⁰⁰ Similarly, the first airbag—patented in 1952—appeared on luxury vehicles at the end of the 1980s.¹⁰¹ New Zealand's GDL led the way in 1987, and other countries, states and provinces followed its lead.¹⁰² In 1994, the province of Ontario, Canada implemented a bold GDL with zero blood alcohol content (BAC) during the probationary stage and

two driving tests—the first to obtain a probationary licence and the second to earn a full licence.

As 2005 closed, Victoria searched to overhaul its GDL for young drivers; the difficulty, however, lay in the individual components: mobile phone restrictions, zero BAC, passenger and night-time restrictions have been proven to control novice driving behaviour in combination, but scientific uncertainty about the best combination remains.¹⁰³ For the Victorian government and others, this ambiguity provided opportunity for them to continue the incumbent political process of 'fence sitting'.

CONCLUSION

In the nineteenth century, the fear of modernity prevented steam engines from operating on roadways. This fear brought about the genesis of railways. After a time and under strict control, steam-engines travelled on roadways; *working-class* 'licensed' drivers operated both road and railway locomotives, making draconian laws and regulations possible. During the first decades of the twentieth century motoring legislation came about owing to 'motorphobia', but despite political battles, middle- and upper-class motorists mostly benefited from the imposed regulations.¹⁰⁴

As the number of motorists rose in the second quarter of the twentieth century, so too did the desire for speed. As roadways improved, allowing for higher vehicle speeds, authorities targeted the behaviours of pedestrians. When motorists began running into each other at alarming rates at the mid-point of the twentieth century, politicians and lobby groups fruitlessly attempted to modify motorists' behaviour. Realising their futility, they attacked the behaviour of auto manufacturers. After decades of political battles motorists drove crashworthy vehicles in the last years of the twentieth century. These vehicles, in combination with airbags, safety restraints and improved medical practices, have reduced traffic deaths; yet, crash and injury rates have remained constant since the middle of the twentieth century, indicating that driving behaviour has changed little.¹⁰⁵

Despite the inability to change motorists' behaviour, officials in the last quarter of the twentieth century have once again turned their attention to educating the young driver. Teens and seniors have equally high crash rates on a 100 million kilometres driven

comparison. What would eventuate, though, if energies were directed to change the driving behaviours of the 'Babyboomer Generation', who will soon be vintage sexagenarians?¹⁰⁶

Most road safety policy simply accommodated higher road speeds and maintained the *status quo*. In other words, loss-reduction policies worked to maintain traffic deaths at an acceptable public level. Unquestionably, road-traffic over the course of the last century has claimed fewer lives. From an approximate high of twelve deaths per 100,000 kilometres driven in the 1920s, to a low of less than two at the outset of the twenty-first century, more people are surviving traffic crashes.¹⁰⁷

Not surprisingly, crash victims consume a huge portion of any country's health care resources. I would argue that traffic, in fact, is more dangerous now that 'crashworthy' vehicles spare us from death. Yet, despite the injuries, the maiming and the deaths caused by motor-traffic, this tremendous cost, it seems, has become part of our 'cultural mosaic'.¹⁰⁸

As I finished the re-write on this article, I received a late-night telephone call from my Mom in Canada. She informed me that three days earlier, Tara McDonald, my vivacious fifteen-year-old niece, had received critical life-threatening injuries. She lay in a coma; life support systems kept her alive. In the early hours of 23 July 2006, she had been struck by a charter bus while driving a three-wheeled all-terrain motorcycle. Perhaps the helmet she wore will save her life; Mitchell Blake, the helmet-less, eighteen-year-old male passenger may not be so fortunate.¹⁰⁹

On Saturday 30 July 2006, like her grandmother who died thirty-eight years earlier in a car wreck during Safe-driving week¹¹⁰ and after whom she was named, Tara 'Marilyn' MacDonald passed away owing to the injuries she received in the crash.¹¹¹ ❖



THIS ARTICLE IS DEDICATED TO TARA (LEFT) AND MARILYN (RIGHT), GRANDDAUGHTER AND GRANDMOTHER BOTH KILLED IN TRAFFIC SMASHES.

TARA MARILYN MACDONALD—7 JANUARY 1991—30 JULY 2006. SOURCE: 'OBITUARY', *WINGHAM ADVANCED TIMES*, 2 AUGUST 2006, 18.

MARILYN JEAN CAMPBELL—28 DECEMBER 1943—11 DECEMBER 1968. SOURCE: 'FUNERAL HERE FOR ACCIDENT VICTIM', *WINGHAM ADVANCED TIMES*, 19 DECEMBER 1968, 6.

ENDNOTES

- 1 The author would like to thank the readers of this article for their feedback. It is much improved owing to their suggestions and insights. Also, I would like to thank fellow historian Kelly Chaves for reading the article, providing feedback and helping to shape the final product.
- 2 'Deaths' is emphasised to highlight the point that few injuries or disfigurements are ever reported in the media. Further, 'accident' is used only when quoted by others. 'Accident' is often used to abdicate participants from responsibility for their actions; it implies that driver behaviour is part of the human condition. See R F Soames Job, 'The road user: The psychology of road safety', in Jennifer Clark (ed.), *Safe and Mobile: Introductory Studies in Traffic Safety*, Emu Press, Armidale, NSW, 1999, 38. 'Trauma' is also avoided due to its misappropriation from the medical profession.
- 3 It is acknowledged that after the 1970s, primarily as a result of the Vietnam War, advances in medical technology also made a huge contribution to the reduction in traffic fatalities.
- 4 Shelly Hodgson and Anthony Dowsley, 'Second death stuns town: Recurring nightmare', *Herald Sun* [Melbourne], 29 September 2005, 3.
- 5 Hodgson and Dowsley; Andrea Petrie and Martin Boulton, 'Teenager faces charges after crash kills brother: Second road tragedy hits school', *The Age* [Melbourne], 29 September 2005, 5.
- 6 Jane Metlikovec, 'Speed message from the grave', *Herald Sun*, 29 September 2005, 25.

- 7 William Plowden, *The Motor Car and Politics* 1896–1970, Bodley Head, London, 1971.
- 8 Alan Irwin, *Risk and the Control of Technology: Public Policies for Road Traffic Safety in Britain and the United States*, Manchester University Press, Manchester, 1985; Joel W Eastman, *Styling vs. Safety: The American Automobile Industry and the Development of Automotive Safety, 1900–1966*, University Press of America, Lanham, Mass., 1984; Jameson M Wetmore, ‘Redefining risks and redistributing responsibilities: Building networks to increase automobile safety’, *Science Technology and Human Values*, vol. 28, no. 3, 2004. See also Daniel M Albert, *Order out of chaos: Automobile safety, technology and society 1925 to 1965*, PhD thesis, University of Michigan, 1997. In a forthcoming book, Peter Norton examines the traffic safety policies in 1920s United States’ cities that aimed to reduce pedestrian deaths: Peter Norton, *Whose street? Jaywalkers versus jaydrivers*, *The Car in History: Business, Space and Culture in North America*, The University of Toronto, 2005.
- 9 See Stephen James Davies, *Ontario and the automobile, 1900–1930: Aspects of technological integration*, PhD thesis, McMaster University, 1987.
- 10 John William Knott, ‘The “conquering car”: Technology, symbolism and the motorisation of Australia before World War II’, *Australian Historical Studies*, vol. 31, no. 114, 2000; John William Knott, ‘Speed, modernity and the motor car: The making of the 1909 Motor Traffic Act in New South Wales’, *Australian Historical Studies*, Vol. 26, no. 103, 1994; John William Knott, ‘Road traffic accidents in New South Wales, 1881–1991’, *Australian Economic History Review*, vol. 34, no. 2, 1994; Clark; Graeme Davison and Sheryl Yelland, *Car Wars: How the Car Won Our Hearts and Conquered Our Cities*, Allen & Unwin, Crows Nest, NSW, 2004.
- 11 Knott, ‘Road traffic accidents in NSW’, 80; James B Jacobs, *Drunk Driving: An American Dilemma*, The University of Chicago Press, Chicago, 1989, 16.
- 12 See An Act to amend the Law with respect to the Use of Locomotives on Highways 1896 (Ch. 36), UK; An Act to amend the Locomotives on Highways Act 1903 (Ch. 36), UK; *Report of the British Royal Commission on Motor Cars*, vol. XLVIII, Command Papers 3080, Government Printer, London, UK, 1906; Clive Emsley, “‘Mother, what did policemen do when there weren’t any motors?’ The law, the police and the regulation of motor traffic in England, 1900–1939”, *Historical Journal*, vol. 36, no. 2, 1993, 364; Rick Clapton, *Intersections of conflict: Policing and criminalising Melbourne’s traffic 1890–1930*, PhD thesis, University of Melbourne, 2005, 33–124.
- 13 *Parliamentary Debates*, vol. 126, Government Printer, UK, 1903, 1459. For wood, wind and water, see Wolfgang Schivelbusch, *The Railway Journey: Trains and Travel in the 19th Century*, Anselm Hollo (trans.), Basil Blackwell, Oxford, 1977.
- 14 Chris Fountain, ‘Famous last words: A collection of inaccurate forecasts about technology that have been made through history’, *Institute of Public Affairs (Australia)*, vol. 49, no. 1, 1996, 46.
- 15 Traction engines travelled slowly, but farmers and industrialists adopted these during the mid-nineteenth century. These machines often powered large farm implements or industrial processes such as threshing machines, flourmills or power looms. Also, they transported timber, coal, grain and other freight.
- 16 An Act for further regulating the Use of Locomotives on Turnpike and other Roads for agricultural and other Purposes 1865 (C. 83), UK; An Act for regulating the Use of Locomotives on Turnpike and other Roads, and the Tolls to be levied on such Locomotives and on the Waggon and Carriages drawn or propelled by the same 1861 (C. 70), UK.
- 17 ‘Re: Furious Driving—Henry George Allendale’, *The Times*, 18 April 1903, 5. See also Clapton, *Intersections of conflict*, 55.
- 18 An Act to amend the Law with respect to the Use of Locomotives on Highways 1896 (Ch. 36), UK, s. 4.
- 19 For a discussion, see *Bicycles Down the Years* [videorecording], Curriculum Branch, Ministry of Education at Channel 7, 1986; Jim Fitzpatrick, *The Bicycle and the Bush: Man and Machine in Rural Australia*, Oxford University Press, Melbourne, 1980.
- 20 Geoffrey Blainey, *Jumping Over the Wheel*, Allen & Unwin, St Leonards, NSW, 1993, 1–6.
- 21 Rick Clapton, “‘Keeping order”: Motor-car regulation and the defeat of Victoria’s 1905 Motor Car Bill”, *Provenance: The Journal of Public Record Office Victoria*, no. 3, 2004, 7.
- 22 Jennifer Clark, ‘Moral motoring: Road safety for Christian gentlemen 1896–1970’, *RoadWise*, vol. 10, no. 4, 1998, 4–11.
- 23 Joseph B Bishop, ‘Social and economic influence of the bicycle’, *The Forum*, August 1896. Quoted in Stephen Kern, *The Culture of Time and Space 1880–1918*, Harvard University Press, Cambridge, Mass., 1983, 111.
- 24 Knott, ‘Speed, modernity and the motor car’, 230.
- 25 For a discussion of Britain’s motoring regulation, policing and motorist’s response, see Emsley, “‘Mother, what did policemen do...?’”. See also Sean O’Connell, *The Car in British Society: Class, Gender and Motoring, 1896–1939*, Manchester University Press, Manchester, 1998. Some countries implemented competency testing, but the 1906 British Royal Commission concluded that these were ineffectual. See Report of the British Royal Commission on Motor Cars, vol. XLVIII, Command Papers 3080, Government Printer, London, 1906, 34.
- 26 For a discussion in Australia, see Clapton, ‘Keeping order’; Knott, ‘Speed, modernity and the motor car’, 221–241. Canada enacted legislation in 1903 and revised this in 1912. See Davies, ‘Ontario and the automobile’; John C Weaver, *Crimes, Constables, and Courts: Order and Transgression in a Canadian City, 1816–1970*, McGill-Queen’s University Press, Montreal, 1995, 175. New Zealand attempted several times to implement federal legislation, but was stalled by motoring interests until 1924. See John McCrystal, *100 Years of Motoring in New Zealand*, Hodder Moa Beckett, Auckland, 2003; TTN Coleridge, *Our Motoring Heritage*, Wright & Carman, Wellington, 1973; New Zealand’s parliamentary debates under subject heading ‘Motor-car’, in years 1896, 1902, 1905 and 1912.
- 27 Dean Wilson, *On the beat: Police work in Melbourne, 1853–1923*, PhD thesis, Monash University, 2000, 367–73; Davison and Yelland, 144.
- 28 Clapton, *Intersections of conflict*, 96–120.
- 29 Clyde Haberman, ‘100 years of death on the road (Henry Hale Bliss first person killed by a car)’, *The New York Times*, 14 Sept 1999, so pA23(N) pB1(L).
- 30 *New Zealand Parliamentary Debates*, vol. 122, Government Printer, Auckland, 1902, 145.

- 31 'The motor car scare—To the editor of the Argus', *The Argus*, 10 November 1904, 10.
- 32 'Motor car speed: Cyclist run down at a city crossing: Callous conduct of motorist', *The Age*, 12 December 1906; 'Motor car speed in the city: Mr. Adams's condition serious: The yellow car not found', *The Age*, 15 December 1906, both in VPRS 3181/P0/75. RED C., C. RED, is a play on words. The author is so angry that s/he is 'seeing red'.
- 33 'Motor traffic: Necessity for regulation', *The Argus*, 6 January 1905, 5.
- 34 Martin L. Friedland, Michael Trebilcock and Kent Roach, *Regulating Traffic Safety: A Survey of Control Strategies*, Law and Economics Programme, Faculty of Law, University of Toronto, Toronto, 1987, 21; Nigel Walker, *Crime and Punishment in Britain: An Analysis of the Penal System in Theory, Law, and Practice*, Edinburgh University Press, Edinburgh, 1968, 32. Friedland et al. indicate that two thirds of the Magistrates' Courts' time in Ontario, Canada is devoted to traffic offences. In Britain, Walker asserts that two out of three people found guilty are traffic offenders. See also Martin L. Friedland, Michael Trebilcock, and Kent Roach, 'Regulating Traffic Safety', in Martin L. Friedland (ed.), *Securing Compliance: Seven Case Studies*, University of Toronto Press, Toronto, 1990; Emsley, 'The Law, the Police and the Regulation of Motor Traffic'.
- 35 Mr Walter Long (Member for Bristol South and The President of the Local Government) labelled a speeding offence a technical offence during the motor-car debates in mid-1903. *Debates*, UK, vol. 126, 1450.
- 36 Summons: Furiously Driving a Horse Attached to a Vehicle Along St Kilda Road, 11 August 1912, VPRS (Victoria [Australia] Public Record Office) 807/P0/448.
- 37 Memo Inspector Edward Davies to the Chief Commissioner; Re: Opinions about speed limits for motor cars, 3 October 1910, VPRS 807/P0/388/File G1188.
- 38 These national organisations also had associations at the state, provincial and regional level, which further increased their ability to influence the political processes.
- 39 *Parliamentary Debates*. vol. 126. UK, 1461.
- 40 Road Research Laboratory, *Research on Road Traffic*, HMSO, London, 1965, 324.
- 41 For various factors involved in pedestrian safety see: Road Research Laboratory, 324–97.
- 42 Social Development Committee, Report upon the inquiry into speed limits in Victoria, Parliament of Victoria, Melbourne, 1991, 171.
- 43 'Warning "jaywalkers": Traffic officers busy', *The Argus*, 1923, 8.
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- 45 *Debates*, vol. 110, Legislative Council and Legislative Assembly, Government Printer, Victoria, 1905, 1146. Stated during the 1905 motor-car debates.
- 46 Norton, Whose Street?.
- 47 For children and traffic safety see *The New Children in Traffic* [videorecording], American Automobile Association for Traffic Safety, 1991.
- 48 In the United States, see Jacobs, 17. In Australia, see Road Safety Committee, *Walking safely: Inquiry into the incidence and prevention of pedestrian accidents*, Victorian Government, Melbourne, 1999.
- 49 American Automobile Association, *Sportsmanlike Driving*, McGraw-Hill, St Louis, 1965, 167.
- 50 The Ontario Safety League. 'Elmer' the Safety Elephant, www.osl.org, accessed 10 August 2006.
- 51 Road Research Laboratory, 397.
- 52 Ian Johnston, Human factors in road accidents, Transport Panel at The Road Toll symposium, Institution of Engineers Australia, 19 June 1984, Queensland Division Technical Papers 25, 1984, 1–5.
- 53 For a discussion of higher road speeds owing to better road conditions see: Social Development Committee, *Inquiry into speed limits in Victoria*, 177.
- 54 Bill Luckin, 'War on the roads: Traffic accidents and social tension in Britain, 1939–45', in Roger Cooter and Bill Luckin (eds), *Accidents in History: Injuries, Fatalities, and Social Relations*, Rodopi, Atlanta, 1997, 244.
- 55 Luckin.
- 56 'Ontario motor vehicle accident toll recorded all-time high in 1949', *Farmer's Magazine*, April 1950, 47.
- 57 Quoted in Jennifer Clark, 'The past: Hit and miss', in Clark, 1.
- 58 Road Research Laboratory, 342.
- 59 Irwin, 95.
- 60 Curtis Billings, 'The nut the holds the wheel: A primer for motorists', *Atlantic*, October 1932, 439–441; D W Elliott and Harry Street, *Road Accidents*, Allen Lane, London, 1968, 11.
- 61 See, for example, American Automobile Association, *Sportsmanlike Driving*, Kingsport Press, Kingsport, Tenn., 1948; American Automobile Association, *Teaching Driver and Traffic Safety Education*, McGraw-Hill, New York, 1965; E A Huxtable, *Australian Driving Manual*, McGraw-Hill, Sydney, 1969.
- 62 D R Mayhew, H M Simpson and A Robinson, 'The safety value of driver education and training', *Injury Prevention*, 8, no. Suppl II (2002); Job, 23.
- 63 Davison and Yelland, 150. In the United States, see Clay McShane, *Down the Asphalt Path: The Automobile and the American City*, Columbia University Press, New York, 1994; James J Flink, *The Automobile Age*, The MIT Press, Cambridge, Mass., 1988; James J Flink, *The Car Culture*, MIT Press, Cambridge, Mass., 1975.
- 64 For a discussion, see Irwin, 48–51; Carol W Runyan, 'Introduction: Back to the future—Revisiting Haddon's conceptualization of injury epidemiology and prevention', *Epidemiologic Reviews*, vol. 25, no. 1, 2003, 60–64.
- 65 Ralph Nader, *Unsafe at any Speed: The Designed-in Dangers of the American Automobile*, Grossman, New York, 1965.
- 66 For a full discussion, see Eastman.
- 67 Radial tyres originated in the 1960s, but these proved not to be a huge selling feature.
- 68 For a discussion of drink-driving in Australia, see Davison and Yelland, chapter 6; House of Representatives Standing Committee on Road Safety, *Report on Road Safety Generally*, E E Darling (ed.), Commonwealth of Australia, Canberra, 1984. In the United States, see Jacobs. For general discussion see Claude Got, 'Alcohol and road accidents', in *Road Safety, First and Foremost A Matter of Responsibility*, European Conference of Ministers of Transport, Hamburg, 1988.

- 69 Jameson Wetmore, 'Are car crashes dangerous? Redefining responsibilities for automotive safety in the 1960s', unpublished paper, Arizona State University, 2005.
- 70 Paul W Gikas, 'Crashworthiness as a cultural ideal', in David L Lewis and Laurence Goldstein (eds), *The Automobile in American Culture*, University of Michigan Press, Ann Arbor, 1983, 327–339.
- 71 Jacobs, 22–24.
- 72 Royal Australasian College of Surgeons, *Road Trauma: The National Epidemic*, Road Trauma Committee and Life Insurance Federation of Australia, Sydney, 1980, 7 and 10.
- 73 In Canada and the US, these are referred to as Sport Utility Vehicles (SUVs). See Katherine Kizilos and Andrew Heasley, 'High and mighty', *The Age*, 29 September 2005, 13.
- 74 For example, people are less inclined to look after their health when they possess the knowledge that advances in pharmaceuticals and medical technology will cure many illnesses that previously would have been fatal. Similarly, motorists drive more aggressively when their vehicle is equipped with anti-lock brakes, airbags, power steering and other safety features. See Victoria Transport Policy Institute, *Rebound Effects: Implications for Transport Planning*, Victoria Transport Policy Institute, 9 May 2005, www.vtpi.org/tadm/tadm64.htm, accessed 1 October 2005.
- 75 Irwin, 55.
- 76 Victoria Transport Policy Institute.
- 77 Victoria Transport Policy Institute.
- 78 Although these statistics are for the state of Victoria, they can be extrapolated to Australia and other countries in the world. Owing to problems of traffic crash statistic reporting—a plethora of non-standardised reporting systems, lack of centralised data collection agency, the sheer number of government organisations involved in traffic crashes, and innumerable other reporting issues—traffic crash statistics are problematic at best. The above statistics were gleaned from a number of sources; even then, the numbers suggest a general trend. See Jacobs, 'Introduction'; Martin L Friedland, Michael Trebilcock, and Kent Roach, 'Regulating Traffic Safety' (165–81), in Martin L Friedland (ed.), *Securing Compliance: Seven Case Studies*, University of Toronto Press, Toronto, 1990.
- 79 Mothers Against Drunk Driving (MADD)—probably the most successful movement—was founded in the United States by Candy Lighter after her son was killed in a traffic smash. See Jacobs, xv–xvi.
- 80 K Diamantopoulou, D Dyte and M Cameron, 'Seat belt wearing rates in Victoria: 1994', Monash University Accident Research Centre, 29 September 2005, www.monash.edu/muarc/reports/muarco89.html, accessed 1 October 2005.
- 81 Canada also implemented seatbelt laws at the outset of the 1970s, and reported approximately a ninety percent usage rate in the 1990s. See Transport Canada, 'Results of Transport Canada's June 1999 survey of seatbelt use in Canada', 3 September 2005, www.tc.gc.ca/roadsafety/tp2436/cl9907/menu.htm, accessed 1 October 2005.
- 82 New drivers who obtained their licences after seatbelt use became mandatory—coupled with intensive public service announcements—came to view seatbelt wearing as a 'normal' part of driving. Consequently, when in the car with their older relatives these new drivers applied subtle pressure to 'buckle up'.
- 83 Elliott and Street, 11.
- 84 Davison and Yelland, 162.
- 85 Larry Laudan, *The Book of Risks: Fascinating Facts About the Chances We Take Every Day*, John Wiley & Sons, Brisbane, 1994, 14.
- 86 Job, 32.
- 87 Laudan, 14; Jacobs, 26.
- 88 The stories that did make the front pages were the building of an education centre on Thailand's Phi Phi Island in honour of Troy Broadbridge who was killed during the 2004 tsunami, Australia's new anti-terror laws, and lobby groups' bid to ease stem cell cloning laws. This trend has existed since the 1920s. For this trend in the United States, see McShane, 129. For other indicators of the cultural depth of this problem in Australia see Sue Hewitt, 'L is for 'liquored': Drunk Dad gives son driving lesson', *Herald Sun*, 2 October 2005, 8; Kevin Healey, 'Street racing movie reckless, says TAC: Ban hoon movie', *Herald Sun*, 2 October 2005, 11.
- 89 Betty Edwards, *The New Drawing on the Right Side of the Brain*, Penguin Putnam, New York, 1999. See Chapter 3.
- 90 Edwards, 44.
- 91 Kurt Möser, 'The dark side of "automobilism", 1900–1930: Violence, war and the motor car', *The Journal of Transport History*, series 3, vol. 24, no. 2, 2003, 238–258. Möser argues that the use of the motor-car in racing and other events that drew large crowds contributed significantly to a collective mood that prepared Europe for war. As he points out, scholars have previously noted this connection between violence and the motor-car.
- 92 For discussion, see Dick Pountain, *Cool Rule: Anatomy of an Attitude*, Reaktion, London 2000.
- 93 Lou Benson, *Images, Heroes, and Self-perceptions: The Struggle for Identity—From Mask-Wearing to Authenticity*, Prentice-Hall, Englewood Cliffs, NJ, 1974, 22.
- 94 C D Robinson, 'Police and traffic law enforcement', in Kerry L Milte and Thomas A Weber (eds), *Police in Australia: Development, Functions, Procedures*, Butterworths, Sydney, 1977, 339.
- 95 For wider Australian context of cultural representation and symbolism of the motor-car see Knott, 'Speed, modernity and the motor car'; Knott, 'The "conquering car"'.
96 Benson, 214.
97 Benson, 207–222.
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- 100 Daniel R Mayhew and Herb M Simpson, 'Graduated driver licensing: Safety program effective in reducing crashes', *TR News*, no. 229, November–December 2003, 3. See also R A Warren and H M Simpson, *The Young Driver Paradox*, Traffic Injury Research Foundation, Ottawa, Canada, 1976.
- 101 Irwin, 152.
- 102 Mayhew and Simpson, 'Graduated driver licensing', 4.

- 103 Victorian Government, 'Young Driver Safety and Graduated Licensing: Discussion Paper', Ministry of Transport, Melbourne, 2005. In Ontario, those young drivers who participated in the government sanctioned driver education program reduce the learning phase of their licence from one year to eight months. Reports have indicated that drivers who participated in the thirty-five hour course have higher crash rates than those that did not. Further, a report compiled by the Ontario Government in the 1990s has not been released to the public. Studies of driver education in the middle decades of the twentieth century support the claim that driver education fails to modify driver behaviour. See Job, 37.
- 104 Knott, 'Speed, modernity and the motor car', 223. In the United States, see McShane, 189.
- 105 Davison and Yelland, 162.
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- 109 Mitchell Blake survived the collision. He was released from hospital a week after the smash, but required extensive facial reconstructive surgery as most of the bones in his face were broken during the impact.
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'All beauty must die': The Aesthetics of Murder, from Thomas De Quincey to Nick Cave

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ENGLISH WITH CULTURAL STUDIES

Nick Cave's Murder Ballads album, possibly the most controversial piece of work in his oeuvre, is rarely (if ever) considered as a serious artistic work which significantly engages with any literary or aesthetic tradition. With the intention of redressing this erroneous perception, this paper develops a comparison between Cave's album and a series of essays ('On murder, considered as one of the fine arts') by the Romantic author Thomas De Quincey. De Quincey's essays are used to position Cave's ballads in their historical and intellectual context, taking into consideration the links (in relation to the sublime and the aesthetics of murder) between Romanticism and contemporary culture.