

Chapter 16

Cars under way

- chapter that demonstrates that traffic engineers are not as incompetent as is universally assumed.

Traffic congestion

Citizens stubbornly refuse to accept that the problems of traffic noise and congestion in their area are unsolvable. Their view is that all those other people should sit quietly at home, and not rush about like banshees. The good citizens find no solace in being told that these problems well predate the motorcar and have long plagued urban areas. But, if they had lived in earlier times, they would have found the stench of horse excrement all-pervading and the noise of the horse hoof and the rigid wheel on rough stone paving nigh on unbearable, even though the pavements were swept and spread with straw in vain attempts to reduce the effects.

The *Corpus Inscriptionum Latinarum* lists a law in ancient Rome which banned vehicles from the streets between sunrise and the 10th hour of the day. There were, of course, bureaucratic exceptions including those granted to “specific men for specific purposes.” The Jewish philosopher, Philo, who has been called the world’s first theologian, proposed one interesting solution at the time of Christ. In winning the “first theologian” accolade, he recommended, inter alia, that:

women should not venture forth when the streets are crowded, but should wait until most of the men have returned home.

As cities became places of work, new forms of congestion arose. George Sekon describes the situation in London in the first half of the nineteenth century as:¹

The big army of pedestrians who twice daily set out on the march. The morning walk conformed to a timetable. Each individual set forth at a given time. He joined others going in the same direction; at each street corner more travellers augmented the marching throng. The same scene was enacted morning after morning on all the

trunk roads that led to the city. The bridges (across the Thames) were crowded to an extent that is scarcely believable.

Early photographs from Philadelphia and New York show major congestion involving these self-same pedestrians and horse-drawn vehicles. But the best illustration is probably Gustave Dore's famous engraving of a nineteenth century London traffic jam.



A London traffic jam in the nineteenth century, drawn by Gustave Dore².

Despite the coming of the car, little changed during the next century, with the demand for urban road space always exceeding the supply. The “inspirational” management text, *The Peter Principle*, quotes the following J. B. Morton definition:³

Rush hour: that hour when the traffic is almost at a standstill.

When traffic is at a standstill, it is colloquially called a traffic jam. We gained new saccharine insights into the consequences of traffic jams in August 2004 when a truck carrying 15 tonne of jam crashed on Berlin’s A1 motorway.

Jams encompass both space and time. In Britain there have been many reports of people being caught in traffic jams for half a day. In 1964 the British openly boasted of the world’s longest queue when, in summer heat, a 56 km line of cars waited on the A30 to reach the seaside resort of Torquay. Many trippers returned home without ever reaching their destination.

By 1980 the French had yet again out-trumped the British and had produced a queue 176 km long starting at Lyon and reaching towards Paris. The Brits then began practising for a new record attempt. In 1986 queues had become so persistent at the M1/M25 junction that the authorities erected a painted sign reading⁴:

Caution - Queue one mile ahead

Britain subsequently regained the world title in 1988 when Easter traffic returning to London from the West produced a queue measured at its peak as 193 km in length. Today, the concept of a traffic queue is passé – many trips now consist of one single queue from the beginning to the end of the journey. One of the oft-repeated traffic-jam stories is of the traveller impatiently seated in a taxi caught in a traffic jam.

Traveller: “Can’t you go any faster?”.

Driver: “Of course, Sir, but I’m not allowed to leave the taxi unattended”.

A somewhat different situation occurred during the regular traffic jams on the bridge across Auckland Harbour. So predictable was the congestion that roadside vendors had established a regular business supplying breakfast to travellers routinely and lengthily halted in the morning peak. Food can be important. Travellers in outback Australia are commonly marooned for days on pieces of road isolated by flash floods. Aircraft drop in essential supplies. Such facilities were not available in Indonesia in 1986 when delays caused by damage to the trans-Sumatra highway led to five people in a stranded convoy dying of starvation.⁵

A notorious Bangkok traffic incident occurred in 1993. The following account of the event is from the U.S. newspaper *Nation* and it is told here unadorned:

Officer Lamchaengphan explained what had happened:

“25 year-old police Lance Cpl Suradej Chumnet was on traffic duty at a junction we call Hell’s Intersection when, for reasons still unclear, he suddenly threw away his baton, turned all the lights to green simultaneously, and began to dance. Not classical Thai dancing either, more like disco dancing.

Drivers were confused. They tried to interpret Chumnet’s gestures, but that unfortunately ended in chaos. A truck went through the window of a gun shop. The owner was furious and started shooting at random, but still Chumnet danced on. The toll is now 11 dead and 47 injured, and the intersection was blocked with wrecked cars for more than eight hours.”

From his bed in Huay Mental Hospital Chumnet subsequently told reporters: “Motorists are filth from the pond. They are always hurling abuse at traffic policemen, but yesterday they scolded me once too often. I hope they’ve learnt their lesson now and will be more polite in future.” He also observed: “What is all the fuss about? Everybody should dance more often. It cured my headache.”

The public sometimes unreasonably expects the building of new roads to alleviate congestion. This does provide the lead-in to some wonderful verses by Carl Yaffe, which must be sung to the tune of Gilbert and Sullivan’s *A modern major-general*:⁶

The folks in Philadelphia just have tons of gripes they love to share,
About a so-called high-speed road that runs beside the Schuylkill there;
The traffic crawls along each day from Valley Forge to Passyunk- (Passyunk?)
And no one can get off until in pothole and crevasse he’s sunk.

Chorus

If Washington were here, we’d say: “Drive anywhere but Valley Forge
You’d do as well to keep your troops behind an alley, George”:
The British would have won if Washington had had to drive to Valley Forge.

Oh, it may occur, when I conduct an urban redesigning boom,
I’ll slip and run a viaduct into somebody’s dining room;
But still in all, in planning roads and building bridges far and near,
I am the very model of a modern Civil Engineer.

Chorus

But still in all, in planning roads and building bridges far and near,
He is the very model of a modern Civil Engineer.

Not all roads are plagued with traffic jams or as heavily trafficked as the Shuykhill road, but this does not mean that there are no traffic problems. In my time with a State Road Authority, rural municipalities would frequently take me on inspections to examine problem roads urgently needing government funding, without ever seeing as much as a single vehicle.

On one inspection the traffic was so light that we had morning tea sitting in a small bus parked in the middle of the road. However, this pales into insignificance beside the town of Gregory, near Burketown in outback Queensland. In 1984 Gregory consisted of a hotel and one house and the traffic volumes were so low that the community cricket pitch was constructed as part of the pavement of the town’s one and only street.

Traffic theory

So what is the theory behind all these concerns about traffic? The principles of traffic engineering are not difficult to grasp and were recently reannounced by an expert called Jock who put them this way⁷:

1. Driving is trying to be in another space at another time,
2. Speeding is trying to be in another space all the time.
3. Parking is trying to be in the same space all the time.
4. Crashes are two vehicles trying to be in the same space at the same time.
5. A caravan is a device for moving space from one space to another.

These principles of traffic engineering must be translated into traffic regulations that drivers are required by law to obey, such as the imposition of speed limits and defining who gives way to whom. Sometimes these are logical coalescences of traffic behaviour; sometimes they arise naturally out of existing behaviour patterns. For instance, in 1906 Lord Montagu of Beaulieu wrote a small book on the art of driving⁸. He advised that “a motorist cannot go far wrong if he drives like a gentleman.” Not surprisingly, the Germans had one of the first Highway Codes. By 1916 it contained a number of cautions, such as⁹:

- * Beware of buses and taxis.
- * If children are around, slow down and take great care.

More recently and somewhat contrarily, observers of Asian cities where the car has now acquired wide ownership, have noted the following ten natural laws arising in the official vacuum created by an absence of effective traffic police:

1. A vehicle has a right to attempt to occupy any currently unoccupied piece of pavement.
2. A driver is only responsible for avoiding impact with traffic that is immediately ahead of him.
3. A driver is not obliged to give away his intentions in advance.
4. A driver's arm extending rigidly from the car window indicates that he is already proceeding in the direction of his arm and has no intention of stopping.
5. If a driver looks at another driver, he must give way to the driver he looks at.
6. If a driver does not look at another driver, he need not give way to that other driver.
7. Large vehicles have automatic priority over small vehicles.
8. Drivers under the age of the 30 are not required to brake.
9. Drivers over the age of 30 are not required to accelerate.
10. Cyclists and pedestrians must act to avoid being struck by any powered vehicle.
11. If a crash is occurs, the responsible driver is the one who lives furthest from the crash site.

Ranjit Lal, writing in *Auto India* in 1996, gave a corollary of laws 5 and 6 as c5&6. A driver must look straight ahead and not glance to either left or right.

Indeed, it would seem that in all cultures, your intention not to give way to another car is signalled by your refusal to look at that car and, in particular, at its driver.

I am a little concerned that some of my readers may have little idea of Asian cities. My worry arises from a letter I received in 1986 at the Australian Road Research Board. It came from a large British construction firm and read, in its entirety:

I should be pleased if you would forward to the above address any information you may have on South East Asia.

Perhaps the writer had just ventured across to France and realised there was a bigger world out there? Anyway, I felt obliged to reply in kind:

Thank you for your letter of 13 November 1986. Our records indicate that South East Asia is the higgledy bit in between China and India.

No further letters were received from the enquirer.

For nervous drivers, traffic is often all too much, and a *Give-way* sign might just as well read *Give-up* (there are some examples in Chapter 20). My mother and her friends would avoid just such a sign, always using the next street that had a button-operated pedestrian crossing. One of the old ladies would shuffle out of the car, push the button,

shuffle back on board, and the group's car would then slowly complete its crossing task, just as the pedestrian phase was ending.

Despite the existence of the underlying principles listed above, drivers do occasionally communicate with each other. In 1992 a Japanese researcher from Seikei University told an international meeting in Florence that his research in Japan showed that Japanese drivers communicated by flashing their headlights, emergency lights or turn indicators, blowing their horns or raising their hands.

He felt that all these signals could be misunderstood and suggested the need for formal signals based on the use of the hand and fingers. In discussion the audience felt obliged to tell him that in many Western countries the number and position of the fingers on the raised hand conveyed special messages that he should first investigate¹⁰.

Human ways

The art of traffic engineering is to both recognise the above norms and to accommodate the extremes of human behaviour. Traffic engineers must therefore succeed where all other professions have failed. I was reminded of this when visiting the plant of Transfield Shipbuilding when Transfield were bidding to build a major traffic facility in Melbourne.

They took us into a large shed where they installed the bridge of each military destroyer-class ship that they built, so that it could be tested under simulated battle conditions. We were shown the computer's response to an Excotet missile attack.

"Weren't we impressed," we were metaphorically asked, as the destroyer's system hypothetically destroyed two incoming missiles.

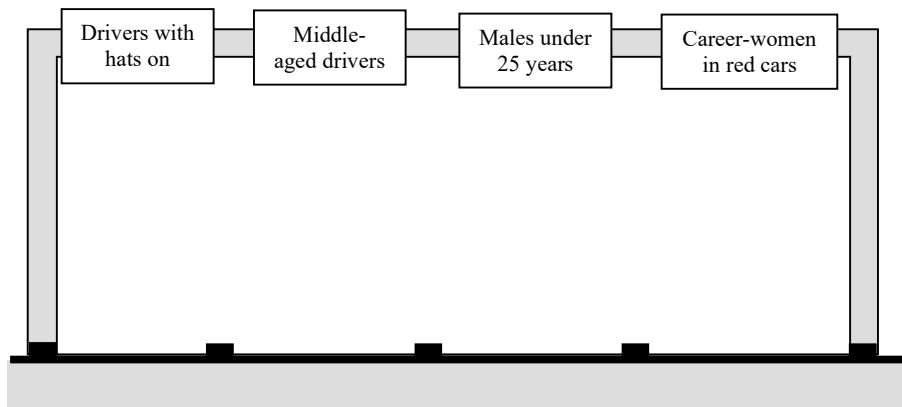
"If we could do that, our Company could surely build your traffic facility" they loudly proclaimed.

We replied: "No, not proven. In Melbourne traffic we daily face the far more difficult task of managing squadrons of slow-moving green Volvos loaded with grey-haired retirees on their way to an afternoon of lawn bowls."

The room was suddenly silent, as all within it realised the enormity of this threat to the furtherance of traffic flow in the world's urban communities. I have to confess that I own and drive Volvos and am a happy Volvo tragic.

Volvo, incidentally, were singled out by Britain's *Country Life* magazine for its poor view of its customers' levels of awareness, when it included the following instruction in its driver's manual "To stop the vehicle, release the accelerator pedal and apply the brakes." Volvo has always been very safety-conscious, and proud of their safety record. However, at one conference it was unfairly noted that the small number of Volvo crashes at night was probably due to the fact that most Volvo drivers were in bed by 9 o'clock.

Many, however, believe that the research that points so accusingly at Volvo drivers is fatally flawed¹¹. The key distinguishing feature of a cruising convoy of conservative car controllers is that they wear hats whilst they drive. The fact that many Volvo drivers also choose to simultaneously drive and wear a hat has confounded much past research. This has led to suggestions of the type shown below:



In 30 BC, Horace wrote, “The Appian Way is less fatiguing to people who travel slowly.” It is now suspected that Horace drove the Roman forerunner of the Volvo. Similarly, a poor driver is universally defined as someone who drives faster or slower than you do. As we will see in the next Chapter, there is a general ambivalence about speeding - we all wish we could but we also passionately want others to be more sensible and obey the legal limits. And most cars have speedometers that display speeds of over 250 km/h – for what purpose? and particularly as this makes it harder to read the speeds we really need with any precision. And there are drivers who have defended their speeding by saying that they were mistakenly reading the rev counter.

When social chatter within a group drifts inevitably into an analysis of traffic problems, the prime target of the subsequent combined attack is usually those fools who are responsible. At these times it is wise to pretend that one has no affiliation with road or traffic engineering.

People certainly don’t expect traffic experts to have any qualifications, probably because all citizens consider that they are more expert at traffic design and crash causation than any endorsed expert.

A good example of this occurred in 1982 when Ian Johnston - who once ran ARRB and then the Monash University Accident Research Centre - published a paper on “*Modifying driver behaviour on rural road curves*”¹². He was listed as author, with the qualifications Ph.D., B.A., MESANZ. The last lot of letters stands for Member of the Ergonomics Society of Australia and New Zealand. When the work was later referenced in a U.S. report on road signing and delineation, the “*Modifying etc*” paper now had two authors - I. R. Johnston and B. A. Mesanz.

I hope the technical jargon in this Chapter hasn’t confused you as much as it has others. For example, a Canadian traffic engineer wrote a report for a South American country that included the recommendation that: “turns should be banned from Main Street.”¹³ On his next visit he noticed that his advice had been ignored, and discovered that this was probably because its Spanish translation read: “Musical events should be banned from Main Street.”

With the general theory of traffic engineering now well established in your feverish but receptive minds, let us now look at some of the specifics of our subject.

Driving on the left or the right

People often ask for an explanation as to why different countries drive on the left or right. It's a fascinating story and is explored at length in *Ways of the World*¹⁴. However, for much of transport history vehicles travelled below walking pace, and so the question didn't matter. If you saw an oncoming vehicle that didn't look mightier or more warlike than yours, then you walked ahead, had a chat with its driver, and negotiated your joint rights of passage.

Nevertheless, Henry Erskine, who lived in England from 1746 to 1817, was obliged to note in his poem *Rule of the road*:

The rule of the road is a paradox quite,
Both in riding and driving along;
If you keep to the left, you are sure to be right,
If you keep to the right you are wrong.

The first cars had the driver sitting in the centre to accommodate the mechanics of simple tiller steering. By the turn of the century, steering location became an option. The debate as to which location to select was more about whether the driver should sit on the kerbside to better judge how to park and keep out of deep roadside ditches, or on the crown side, to better miss the occasional oncoming car. The preference for a decade or so strongly favoured the driver sitting on the kerbside and this orientation persisted longest in cars designed to be chauffeur-driven, as it also gave the owner a better view of the road ahead, and after all.....

A few countries have deliberately changed from driving on one side to the other, however many that now drive on the right - directly or indirectly - owe their traffic inheritance largely to the regulatory efforts of an invading and conquering Napoléon or Hitler¹⁴. This gave new meaning to the expression "changing sides."

National decisions to change sides have given rise to one of our most famous urban legends. Not surprisingly, it occurs in numerous forms. My favourite relates to Sweden where an overnight change in 1967 was successfully engineered with typical cool Swedish efficiency. The good Swedes all did that they were told to do and behaved en masse with unblinking synchronisation.

According to this legend, the more idiosyncratic Norwegians looked across their border and saw what the Swedes had done.

"This is good," they muttered "we must do the same. But we Norwegians are more independent and not so compliant as those Swedes. So we will adjust the process to suit our Norwegian culture".

They therefore declared that:

For the first two weeks, the cars will change over, and if that is successful and accepted by our Norwegian voters, then two weeks later, the trucks will change over as well.

Road alignment

Traffic engineers spend a lot of time worrying about the alignment of the roads they design for you. The horizontal alignment produces the curves and the vertical alignment the dips and crests. The design of road curves is an essential feature of road design for high-speed travel. However, it is embarrassing to record that for over 50 years most designs were founded on some erroneous reasoning.

The design criterion for merging a straight and a curved road was, for example, based on a method proposed in 1909 to manage the lateral swing of a railway carriage going from a straight to a curved length of track. There was a major error in the 1909 proposal and in 1932 this was then wrongly applied via a second error to road design.

Similarly, it was believed by most road designers that they were designing against vehicles skidding outwards on curves, whereas they were actually designing to minimise the discomfort that passengers felt when sitting unrestrained by seat belts on slippery bench seats. Fortunately, drivers were usually skilful enough to manage, despite the inappropriate road design, and designers eventually - and after many decades of error - began using relevant criteria¹⁵.

Vertical alignment is a curse in hilly country and non-existent in flat lands. One of its enduring curiosities occurs when a slightly sloping skyline or valley floor is assumed by travellers to be horizontal. This leads the observer to also subconsciously assume that any road at the same slope is also horizontal.

Such “flat” roads that seemingly defy gravity are remarkably common and local folklore abounds with stories of vehicles rolling up hills or along level roads. There are examples near Jerusalem, south of Rome on the way to Albano, at Hanging Rock near Bendigo in Victoria, at Electric Brae on the A719 in Ayrshire, at Spook Hill near Lake Wales in Florida, at Magnetic Hill near Neepawa in Manitoba, and on Cheju Do Island in South Korea¹⁶. The place names “Spook Hill” and “Magnetic Hill” are both geographic testimonies to human gullibility.

In 1995 a policeman in the Taiwanese city of Tamsui drew similarly on human gullibility after his parked car rolled down a sloping road and killed a pedestrian. It was not his fault, he claimed, as his car was just one of five that had recently been parked at the spot and then caused to move by mysterious haunting forces - and he wasn't referring to gravity¹⁷.

Before the motor car, steep upgrades could be beyond the power of animal haulage, but more problems were encountered with steep downgrades which lead to poorly-braked vehicles plummeting downhill out of control. It was not uncommon for trees to be felled and tied behind vehicles making steep descents.

Intersections

In today's world, many are returning to the old religions. If this trend has its inevitable impact on traffic management, our strategies will need to be widened to include the following ancient religious practices mentioned briefly in Chapter 3:

- * maintaining roadside shrines to Hermes, messenger of the Gods and patron of roads,
- * maintaining the cairns of stones resulting from each traveller placing a stone on the cairn as they pass through each cross-road,
- * ensuring that the sacred oil that travellers place on wayside shrines to ensure safe passage, does not become counterproductive by making the pavement slippery,
- * providing clean and safe storage for the meals and pets left sacrificially by travellers passing through a cross-road on the last day of the month,
- * managing the parking provisions provided for vampires wishing to lurk at cross-roads,
- * maintaining the facilities used by hangmen operating their profession at the cross-roads and removing the dangling bodies after an appropriate interval, and
- * organizing roadside burial plots for people who died in an unsavoury manner.

Before the car, intersections were certainly a place for a chat and a cup of tea (at least during daylight). They became points of traffic danger after the invention of the speeding car, and there were early attempts at a solution.

One somewhat apocryphally ascribed to a U. S. State was to require all vehicles approaching an intersection to stop, examine the approach roads carefully, sound the horn, shout, ring a bell or discharge some explosive, and then cross the intersection¹⁸.

As time passed, the reverse became true and it was quaintly argued that intersections were so dangerous that they should be driven through as quickly as possible to minimise the chance of meeting another vehicle. In 1984 a Japanese physics professor on his return from Germany formally observed in his technical report that German drivers using railway level-crossings were clearly applying this philosophy.

Germany, incidentally, also used explosives as an aid to better motoring. Dr H. Niemann of the Mercedes Benz Museum reports that in the early days of the car, shops sold small explosive devices armed with a wick. Motorists lit the wick and then threw the device out the car window in the direction of the many tyre-biting dogs that pursued early German cars. Explosives indeed have a strong link with cars as the first internal combustion engines were operated by exploding charges of gunpowder, rather than by igniting petrol.

The pleasantly-lit traffic signal is described in Chapter 20. The alternative to the traffic signal is the roundabout, or traffic circle. It was invented in London in 1897, and first applied at Columbus Circle in New York in 1905. Nevertheless, it was popularised in Britain to such an extent that the British local road system is now a huge collection of roundabouts joined together by short lengths of road. All this occurred despite an official

British report in 1925 declaring that: “the Circular system of Control, as adopted in New York, was not suitable for this country.”¹⁹ The message slowly percolated into the Colonies and in 1966 the Tasmanian Government Committee on Road Safety and Traffic Accidents reported with some pomp that:

roundabouts are an anachronism in modern traffic planning and wherever possible should be replaced by grade-separation.

The peculiar language spoken by the inhabitants of Britain also caused some problems for the roundabout. The roundabout there was called a *circus* and Salkfield’s 1927 text on *Road Making and Road Using* advised their designers that: “a Circus plan should be adopted so that all traffic is compelled to gyrate.”²⁰ It must have been a wonderful thing to see.

Regardless of whether cars drive on the left or the right, a universal rule of the road is to give way to traffic on the right. Roundabouts struggled for acceptance in right-hand drive countries as, before the use of give-way signs, the universal rule meant that traffic entering a roundabout had priority over traffic already in the roundabout. This was just one of the factors that made it so entertaining to watch cars travelling dodge-em style around the Arc de Triomphe at the Place d’Etoile in Paris.

It is well to end this part of the Chapter with the well-known epitaph:
Here lies the body of William Jay
Who died maintaining his right of way.

Toll collection

Before the car, toll roads were commonplace - it was easy to apprehend a slow-moving cart or even a carriage. The speeding car changed all that, and now toll roads need extensive systems for collecting their revenue. A story is told of a toll collector working in a “Truck only” booth on the frighteningly busy New Jersey Turnpike. When a car pulled alongside his toll window he advised:

“I’m sorry driver, I can’t take car tolls here, you’ll have to reverse out and go to the next set of booths.”

The driver replied: “That’s impossible, I don’t learn how to reverse until another four lessons.”

Toll collectors, incidentally, have many stories to tell and most have had a thesaurus of insults, received a plenitude of propositions, and been shown acres of unappealing naked flesh. Perhaps this explains their occasional hard-nosed view of life, most recently brought to public view in 1994 when a seriously-injured, major-league baseball player was being whisked to a New York hospital by ambulance. The ambulance driver had no cash and the toll operator was in not prepared to make any exceptions and refused to let the ambulance through, no matter how much its lights flashed and its sirens wailed²¹.

Notes on Chapter 16

1 Sekon, G. A., *Locomotion in Victorian London*, Oxford: Oxford U. P., 1938, p8

2 Dore, L. A. G. & Jerrold, B., *London: a pilgrimage*. Facsimile edition, New York: Blom, 1968

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- 3 Peters, L. J., *The Peter principle*, Boston: Allen & Unwin, 1986
 - 4 Datum Line, *New Civil Engr*, 8 May 1986
 - 5 Melbourne Age, Odd Spot, 3 May 1986
 - 6 From *The Pirates of Penzance*. The words are from ASCE News, July 1983, p3
 - 7 RACV Clubtalk, Apr 1991, p7
 - 8 Bentley, W. J., *Motoring cavalcade*, London: Odhams, 1953, p17
 - 9 Damase, J., *Carriages*, London: Weidenfeld and Nicholson, 1968, p120
 - 10 "Insects in the driving seat", *New Sci*, 20 June 1992, p9
 - 11 I should declare here that I drive SAAB and Volvos, so have neither bias nor driving flaws.
 - 12 Proc 11th Aust Rd Res Brd Conf., 11(4):115, 1982
 - 13 Inst Traffic Engrs 1983 Conference Papers, Paper 1-11
 - 14 Lay, M. G., *Ways of the world*, New Brunswick: Rutgers University Press, 1992, pp197-201
 - 15 M. Good, *Road curve geometry and driver behaviour*, Aust Rd Res Brd Special Report 15, 1978
 - 16 *New Sci*, 25 Feb 1995, p57
 - 17 *Far Eastern Economic Review*, "Travellers' Tales", Oct 1995, p42
 - 18 Pettifer, J. & Turner, N., *Automania*, London: Collins, 1984, p11
 - 19 Lay, M. G., *Ways of the world*, New Brunswick: Rutgers University Press, 1992, p187
 - 20 Salkfield, T., *Road making and road using*, 4th edition, London: Pitman, 1927, p17
 - 21 Melbourne Sunday Age, Sports, 14 May 1994

Chapter 17

The wayward driver

- in which the reader is calmly introduced to the perils of illicit speeding

The problem with speed

Speeding was rarely a problem before the advent of steam power. Indeed, when coaches with iron-sprung suspensions were introduced in the 18th century, they were thus understandably called “fast coaches”, as they permitted travel speeds as high as 7 km/h. This situation is further illustrated by two events from 1798. Despite the input of the Industrial Revolution, even the fastest horse-drawn vehicles at that time struggled to exceed 20 km/h. Nevertheless, a German historian travelling by coach in Scotland complained that the high speed of travel meant that he had only gained a piecemeal view of the country.

John Campbell, a future British Lord Chancellor in the same year warned against long-distance travel in the high-speed coaches, telling stories of:¹

men and women who, having reached London with such celerity, died suddenly of an affection of the brain.

Led by the work of Dr Dionysius Lardner of the University College, London, a commission of the renowned Royal Society in the 1830s found that travellers would be unable to breathe if forced to travel at speeds of over 50 km/h.

Following the railway

Once the steam railway introduced speeds well in excess of 30 km/h, it became evident that the sensing of speed had not been part of our evolutionary development. A graphic incident illustrating this occurred at the official opening of the Liverpool to Manchester rail service, one of the first English railways, in September 1830. The event was watched by a crowd of some 700 people, including such dignitaries as the Prime Minister, the

Duke of Wellington, and a leading and popular British politician, William Huskisson, MP for Liverpool and former Minister for the Board of Trade.

The train hauling the official party had halted for a water stop. Huskisson, anxious to heal his poor current relationship with the Duke, had walked along the train to the Duke's ornate carriage. As another train pulled by Stephenson's Rocket approached on the second track, a welcoming Huskisson stepped to reach up to the Duke of Wellington's carriage and its hoped for hospitably. He was in the path of the Rocket but he literally did not realise how quickly the seemingly distant device would be upon him -- indeed, upon and then all over him.

There had been plenty of time for Huskisson to avoid this calamity, but his perceptions had failed him. He had panicked, made two attempts to cross the track to the clear side, and then lunged to grasp the door of the Duke's carriage, which already overhung the rail by some 600 mm. The carriage door swung open outwards, and presented Huskisson to the oncoming Rocket, like a clay target at a trap shoot.²

His failed attempt at an official welcome and his very public death by an unperturbed Rocket caught the public eye. To prevent the unscheduled squashing of further important people, the British Parliament henceforth required trains to operate in their own separate right-of-way. A right-of-way has to be fenced and many early railways, such as the railtrack carrying minerals from Broken Hill to the ports of South Australia some 400 km distant, were christened tramways to avoid the need for lengthy fencing³.

Over time, the circumstances surrounding Huskisson's death became distorted. One archive states: "Mr Huskisson died while shaking hands with the Duke of Wellington" neglecting to mention the small matter of their hero being publically squelched to death by Stephenson's Rocket⁴.

Many years later, in 1857 Thomas Baker wrote a terrible poem - *The Steam Engine* - to commemorate the event⁵. The last four lines read:

That stroke, alas, was death in shortest time;
Thus fell the great financier in his prime:
This fatal chance not only caused delay,
But damped the joy that erst had crowned the day.

Others also feared the coming of the train. In 1832, just two years after the fatal flattening of Huskisson, Governor Martin van Buren of New York wrote to President Andrew Jackson:

Railroad carriages are pulled at the enormous speed of 25 km/h by engines, which in addition to endangering the life and limb of passengers, roar and snort their way through the countryside setting fire to crops, scaring livestock, and frightening women and children. The Almighty certainly never intended that people should move at such breakneck speed.

The first trains ran on rails, not because it made steering easy, but because it was the only way to carry the great mass of the locomotive. The pneumatic tyre had just been invented by Robert Thompson, for the first time, and if short-sighted officials had not banished it to carrying luggage carts at railway stations, the ill-fated Huskisson would have been smeared by a steam car and not by a steam train. Consequently, cars would

have been required by the British Parliament to operate on a separate, limited-access right-of-way independent of the road and street system. Thus the freeway would have been invented from day one.

The tyre, incidentally, was later reinvented by a veterinarian named John Dunlop. It made the car practical and also gave motoring one of its great humorous icons when Michelin introduced the rotund and tyre-enrolled *Michelin Man* in 1898, shown in many subsequent manifestations on the following page.

The human lack of an inherent ability to perceive speed led, incidentally, to many early passengers being killed as they dismounted from moving trains at platforms or rode on the exterior of carriages and were hit by tunnel portals and signal gantries. Henry Walter, the Locomotive Superintendent who had helped commission the first railway between Melbourne and Geelong, was killed on the inaugural journey, as he lent out of the engine cabin to wave to cheering bystanders and was struck by a part of Cowies Creek bridge.⁶

The speed perception problem persists today, with children having to learn speed perception through experience and therefore being poor judges of traffic safety until their teenage years. Our lack of an evolutionary knowledge of speed also led Aldous Huxley to remark that it was the only truly modern pleasure.

Speed limits

Chapter 12 described the effect of the Red Flag Act on British travel in the latter part of the 19th century, and the efforts of the British car enthusiasts to have the speed limit raised. The speed limit of 3 km/h in towns and 7 km/h in the countryside were reluctantly raised to 30 km/h in 1903.

Drivers thought that any restraint on their speed was little more than bureaucracy in perfidious action. As Sachs noted⁷:

Driving fast was pleasurable because it entailed a risk: it enticed with the sweet poison of danger.

Speeding drivers were known as “scorchers”, and one wrote under this nom-de-plume to the *Horseless Age* in 1902 explaining:

There are few people who want a slow automobile after having ridden in a moderately fast one.

Despite his earlier efforts to have the police raise speed limits, Karl Benz strongly opposed drivers speeding in his cars and in 1901 bluntly refused to make speed-enhancing changes. He said that he did not wish to⁸: “frivolously risk the lives of drivers as well as of people moving about the streets.”



Collage of Michelin men. Drawings used with permission of Michelin.

Such attitudes did not impress potential customers and led to the other shareholders of Benz & Cie forcing Karl out of a controlling position and importing a team of French engineers more attuned to the need for speed.

Incidentally, no such inhibitions bothered Ferdinand Porsche who joined Daimler in 1905 and took the company to many racing successes over the next 18 years. He would probably be stunned to learn how popular the fast cars bearing his name are on the island of Guernsey that had more Porsches per capita than any other part of the UK, despite the tiny island having a speed limit of 60 km/h.

Benz' concern had some justification as it is not difficult for a car to out-speed its impact-protection capabilities or its driver's response time. This first became a matter of wide public concern when ten contestants were killed in a Paris-Madrid car race in 1903.

Encouraged by a strong anti-car feeling among most of the citizenry, the police were delighted to apprehend and prosecute speeding drivers. The cartoon shown on the following page is indicative of the attitudes of the time. Speeding motorists and the police were therefore unhappy bedfellows. For instance, a major early service of the British automobile clubs was to have uniformed officials by the roadside, ostensibly to give directions, but known by all to actually signal that the police on the lookout for speeders were in action on the road ahead. In this context, the Automobile Association (AA) was founded in 1905, based on a cycle patrol that had been organised by a couple of London car dealers. The AA employees would cycle along roads looking for police traps, and then standing innocently upstream wearing distinctive armbands.

On the other hand, when Lord Montagu issued his *Thirty-nine Rules for Driving* in 1906, they included⁹:

Rule 33. Make friends with the local police.

Rule 34. Don't swagger about the speed of your car. The police will probably hear of it.

By 1910, the anti-speed lobby were forced to resort to pleading for speed limits "to protect Blind pedestrians"¹⁰.

Finnish research showed that the two groups giving least support for speed limits were - surprise, surprise - owners of high-powered cars and members of right-wing political parties. A year later in 1983 another study indicated that men tend to drive more slowly as they grow older, whereas as women speed up as the years pass. I have, in recent years, personally concluded that the young, on the other hand, always drive too quickly and without due regard for their elders.

Speed detection and prosecution

Initially, any illegal speeds were not all that great. For instance, an early Melbourne police report describes how the officer initially pursued the offender on his police bicycle but failed to close the gap and so abandoned his bike and successfully chased the speeding car on foot. A better version of this story comes from a 1907 Sydney newspaper report:

The motorist had been travelling at 20 km/h. The constable had told the court that "I was riding an unmarked police bicycle down Liverpool Street when the motor vehicle roared past blowing out the flame of my bicycle lamp. I pursued the driver on foot because it was too dangerous to proceed without a light. I caught the driver when he slowed down to change gears." The magistrate then said "Heavier penalties will be necessary if we are to stop this irresponsible and dangerous practice of speeding, particularly after sunset."



MOTORING PHENOMENA—AND HOW TO READ THE SIGNS

A cartoon - "Motoring phenomena - and how to read the signs" - from Punch in 1905 and reflecting the early days of motoring.

Text centre and clockwise:

Regard this with suspicion; Should the hair of your driving coat suddenly stand erect; always unclutch on spying any suspicious figure; these exercises are good for the police; keep a sharp lookout for new fauna; beware footprints of this description.

How did the constable estimate the speed of the car as it “roared past”? Early speed detection measures typically revolved around a trio of policemen. The first dropped a handkerchief when passed by a suspected speeder, and the second standing a measured distance downstream began his stopwatch upon seeing the fluttering handkerchief. If the car went past in less than the pre-calculated safe time, the officer of the watch signalled to a third colleague who stepped forward and apprehended the speedster.¹¹ In 1905 the police in Nice were equipped with special swords which enabled them to puncture the tyres of any vehicle that failed to obey their demands.

A more exciting variant of the handkerchief and sword techniques was developed in Canada where the police calculated the distance a car driven at the legal speed would take to stop. The two groups of policemen were separated by this precise distance. When the handkerchief fluttered, the downstream group threw a heavily-spiked log across the road. Law-abiding drivers would then safely stop and speeding drivers, deservedly and at the very least, had their tyres torn to shreds. It was the various secondary aftermaths of this on-the-spot penalty that quickly discredited the scheme

German traffic police used a related technique in the late 1930s. When they apprehended a reckless driver, they were instructed to deflate all his tyres, and then watch while he reinflated them with a hand pump before “accompanying them back to the station”¹².

A debatable descendent of the methods surfaced recently in Finland¹³. Police in Oulo had tried to control speeding cars by deflating their tyres by either throwing spiked mats (called *stingers*) in front of the offending car, or by simply shooting the tyre. Neither method proved satisfactory and in 1996 they began using 1.5 m long harpoons attached to the front of the police car. These devices called *carpoons* were poked into the tyres of any speeding car that refused to stop of its own accord. Radio transmitters were placed in the harpoon tip in case a vehicle sped off, despite being harpooned. Police-chief Piipponen commented that the method should be satisfactory as: “it works with whales and they are a lot bigger.”

In the late 1930s, Germany also introduced auto-vigilantes into Berlin. Citizens in “auto-watch” cars would catch up to and then pull alongside speeding drivers, at which time they would display a large sign to the offending driver, indicating the correct speed that should be adopted.

The measure must have been ineffective, as the speed of drivers on the German autobahns is now legendary. The inevitably-black Porsches and Mercedes flashing by in the inner fast lane is the memory most tourists hold of their tremulous venture onto an autobahn. German drivers were challenged momentarily in May 1987 when a South African counterpart was booked for travelling at 244 km/h in a 100 km/h zone. He explained that his engine had been misfiring and he had been using the throttle to fix the problem. At that speed, it sounds more like he was adjusting the after-burner!

Many small communities in the American South have been notorious for using cunningly-concealed speed signs and local police to supplement their revenue by booking “speeding” out-of-towners and then offering them the choice of an on-the-spot fine or a night in the unsavoury local jail.

An opposite practice is observed in many jurisdictions prior to elections, when traffic police are instructed to stop booking any potential voters. The practice reaches an art form in France in the approach to a presidential election, to such an extent that elections from 1945 onwards can be detected in the French national crash statistics.

David Letterman's *Book of Lists* includes a list of excuses given by people apprehended for speeding in Georgia, USA. They include:

- * I'm on vacation.
- * I was going down hill.
- * Its not my car.
- * I'm almost out of fuel.

My favourite is:

- * But I always drive like this!

The head of the NSW Police Department reported that he received 192 000 excuses for traffic violations in 1988.¹⁴ The most unusual was possibly the man charged with negligent driving after his car had left the road at high speed and caused extensive property damage. He explained that he should be considered innocent as he was merely reacting to his girl friend's advice that she had been diagnosed as having a bad case of V.D.

An oft-repeated story is of the driver who pleaded that his licence permitted him to speed on some highways - along the bottom of his form were the words: "tear along the dotted line."

The police are not always cold-hearted law enforcers when it comes to speeding. However, the softhearted are not well regarded. In 1994 a Swedish policeman was reprimanded and demoted when his superiors found that he was dropping the recorded speeds of drivers he detected speeding, as he felt the penalties were too harsh¹⁵.

Similarly, in the same year a candidate for sheriff in a middle-sized U. S. town attacked his opponent, the incumbent sheriff, for prosecuting speeding citizens on a Sunday morning. The candidate argued that people rushing to arrive at church on time had a perfectly proper reason for speeding¹⁶. Certainly, in God's own country his argument might have some relevance?

Perhaps the most unusual speeding sentence was imposed by a Saudi court on a speeding British motorist in 1984. His penalty consisted of¹⁷:

- * 6 hours jail,
- * a \$120 fine,
- * having his head shaved, and
- * paying the barber \$4.

Not all speeding is deliberate. Heavily laden trucks can lose control on long, steep hills. An admirable modern technique is to provide "arrester lanes" in such circumstances. These lanes allow out-of-control vehicles travelling down the hill to move off the road and on to a diversion track covered with sufficient loose sand or stone to be able to bring them to a controlled stop. The lanes are often used in spectacular fashion by uncontrollable trucks, and so officials are frequently dismayed to find families happily picnicking on the flat ground at the entrance to the ramps.

Car racing

The first conventional car race was held in 1895 over a 1200 km route from Paris to Bordeaux and back. Only nine of the field of forty-six completed the race. The fastest competitor by far was Emile Levassor, who averaged 25 km/h in his Daimler-Phoenix. His longest stop was 22 minutes and at Bordeaux - after 22 hours - he did not even leave the car but sat for ten minutes drinking a glass of champagne. Immediately upon finishing the race after almost 49 hours of driving, Levassor and the Marquis de Chasseloup-Laubat lunched together at Gillet's. The Marquis reported that:¹⁸

he took with great relish a cup of bouillon, a couple of poached eggs, and two glasses of champagne.

Although Levassor finished 6 hours ahead of the second car, he was disqualified on a technicality. During a race in the following year, his car hit a dog and crashed. Levassor was seriously injured and died about four months later.

In 1903 Henry Ford built two racing cars, the 999 and the Arrow, which reached peak speeds of close to 150 km/h. Both were steered with a tiller. After test driving one at full speed, he described the new sensation by saying that¹⁹: "going over Niagara Falls would have been but a pastime after a ride in this car." For a driver, Ford hired a professional cyclist, Barney Oldfield, who had never driven a car before. After a week's training, Oldfield entered his first race - a 5 km event that he won by almost a kilometre. A few days later Henry Ford founded the motor company that still carries his name.

The first transcontinental motor race in the U. S. was held in 1904. To commemorate a victory by Oldsmobile, Vincent Bryan wrote the well-loved lines:

Come away with me, Lucille,
In my merry Oldsmobile,
Over the road of life we'll fly,
Autobubbling you and I,
To the church we'll swiftly steal,
And our wedding bells will peal,
You can go as far as you like with me,
In our merry Oldsmobile.

Notes on Chapter 19

1 Mountfield, D., *The coaching age*, Hale: London, 1976, p63

2 Garfield, S. *The last journey of William Huskisson*. London: Faber & Faber, 2002

3 Bond, J., *The hazards of life and all that*, Bristol: Inst Physics Press, 1996, p55

4 loc cit, p121

5 loc cit, p184

6 Snell, E, *The life & adventures of Edward Snell*, Melbourne: Angus & Robertson, (Edited, 1988), c1852, p368

7 Sachs, W., *For love of the automobile*, Berkeley: University of California Press, 1992, p112

8 loc cit, p123

9 Bentley, W. J., *Motoring cavalcade*, London: Odhams, 1953

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- 10 Brown-May, A. "The highway of civilisation and commonsense: street regulation and the transformation of social space in 19th and early 20th century Melbourne". Australian National University, Urban Research Program, Working Paper 49, April 1995, p15
- 11 Any driver seen to be using an electronic calculator was disqualified.
- 12 Montgomery, J. A., *Eno: the man and the foundation*, Westport: Eno Foundation, 1988, p103.
Based on article and photo in New York Times, 6 Nov 1938.
- 13 World highways, "Skid marks", Sep 1996, p82
- 14 Melbourne Age, 9 Sep 1989, Weekender, p9
- 15 World highways, "Skid marks", Apr 1994, p74
- 16 Gibson, T. 1994, "Recognition for the law", Traffic Technology International, p28
- 17 Walk, 3(4):3, March 1984
- ¹⁸ Sachs, W., *For love of the automobile*, Berkeley: University of California Press, 1992
- 19 Ford, H., *My life and work*, London: Heinemann, 1922, p50

Chapter 18

Help is on the way

- in which traffic signs and their meanings are meticulously catalogued, codified, and clarified.


Direction signs

Before considering the linguistic theory of road signs, it is wise to contemplate a little of their history. When transport was more slowly paced, towns lit fires and rang bells at dusk to attract travellers to their hostleries. As coaching became more common, strip maps were published and direction signs became more frequent.

These coaching signs were often placed at the same height as the coach-driver's eye, which meant that they could be three metres off the ground. This provided some problems to Louis Loder, an early Victorian road engineer, who was trying to navigate through the darkened countryside in an abandoned gold-mining area. Spying an unreadably-high coach sign, and desperate to find his way, he stood perilously on the shoulders of a teetering colleague, lit a match, and read the sign.

"What does it say?" his supporting colleague asked.

Loder replied, giving an answer that was dangerously misinterpretable¹:

To Buggery 

Buggery is a Victorian land feature. In the late 1880s a team of surveyors was mapping the Victorian Alps. They were unhappy with how they were being treated by Head Office and so named two topographic features The Governor's Balls and Mt Buggery. In subsequently endorsing the maps as the official record, Head Office quickly noticed The Governors's Balls and deleted the last word so that the map then read "The Governor's". The name continues to this day. So pleased was Head Office with defeating the surveyors' ploy that it completely failed to see Mt Buggery and so its name became official, although still used by locals it has slowly disappeared from subsequent map reprintings.

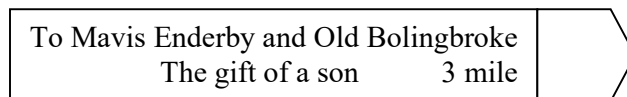
The Loder story is not unique. In the U.S., Carl Fisher was a famous early automobile dealer who established the Indianapolis Speedway and helped create Miami out of a mangrove swamp. He tells of his signing experience whilst driving in Indiana at about the same time as Loder:²

We were overtaken by darkness before we could return, and then it started to rain. We came to a road which forked three ways. None could remember which way we had come. We couldn't read the sign posted at the fork. All that was left was for one of us to climb the pole and get close enough to the sign to read it. On my second attempt climbing the pole, I got to the sign, lit a match, and before the wind and the rain put it out was able to read:
Chew Battle Axe Cut Plug Tobacco.

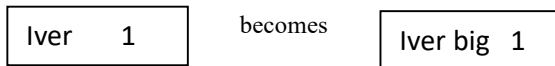
Any traveller knows that direction signs are installed to both aid lost travellers and to simultaneously challenge their persistence and their intellectual abilities. But the citizens sometimes strike back. In Lincolnshire in England there are two towns with the unlikely names of Mavis Enderby and Old Bolingbroke³. Their common direction sign:



receives the frequent graffitied addition:



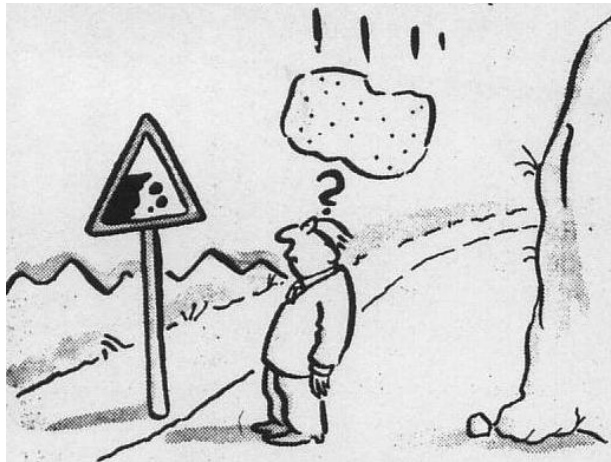
Closer to London, the wit gets a little coarser and we find:



Semiotics, anyone?

Before any reader devotes any further effort to understanding this Chapter on traffic signs, be warned that modern traffic signs might well be a bad thing. One analyst suggested that drivers are essentially predators who forage on lesser species and that signs warning of pedestrians or animals on the road ahead might well whet the predators' appetites, rather than induce greater safety.⁴ Recall that a similar theory was advanced in Chapter 17 to explain some road crashes.

Semiotics is the study of signs and languages, and includes a behavioural analysis of a driver's response to traffic signs. This linguistic explanation is necessary in order to explain Andrew Dyson's black cartoon shown opposite. Semiotics could be the subject of an entire book - but thankfully not this book. Our less ambitious task is to use some examples to assure any sceptical reader that the existing traffic signs in their street are indeed based on careful research.

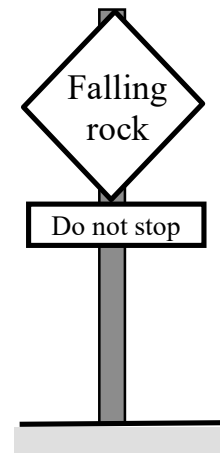


(a) (b)

Trouble at Falling Rock.

(a) *Death of a semiotician*, by Andrew Dyson⁵: *Melbourne Age*. Some have suggested that there are two questions for the soon-to-depart semiotician. Even if he determines what the sign means, does he know what is going to hit him? Might that rock be a falling cow?

(b) *A dynamic variant of the falling-rock sign.*



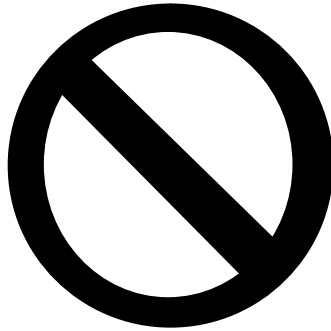
The falling rock sign does indeed attract more than its share of interest. Fortunately for the safety of pedestrians and animals, many potentially predatory drivers have trouble with either symbols or words. Portion (b) gives another version that relies solely on words, whereas Dyson's cartoon relied on symbols, although his bystander failed to understand the symbol.

It is interesting to study symbolic signs in more depth. Perhaps the best recognised of all symbolic signs are the various hand and finger arrangements used around the world - although in different countries the gesture may use one or two fingers or a thumb, the disrespectful meaning is never in doubt. Symbolic signs must be carefully chosen. My old organisation, ARRB, funded research aimed at testing the ability of people to understand such signs⁶. The most significant finding was that only 11% of elderly people recognised the *Youth Hostels* symbol. Tests of a proposed sign intended to indicate "*Workmen ahead*" was seen by many as, instead, indicating that they would soon encounter people selling newspapers at the roadside. An extensive research background is needed in order to understand and appreciate such subtleties.

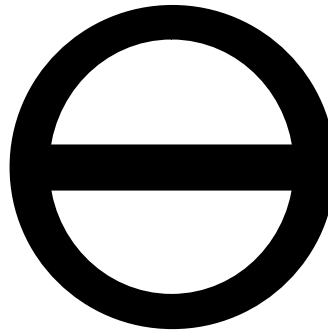
Symbolic signs may be difficult to interpret, but they do appeal to people's imagination. Citizens of the State of Vermont for a time toyed with a symbolic sign to indicate to unsuspecting motorists that tourists might be found standing on the road ahead, variously looking at signs showing birds in spring, mountains and waterfalls in summer, leaves in autumn, and cross-country skiers in winter. No suitable sign could be found and the attempt was abandoned. Vermont might still welcome your suggestions - personally, I had always thought that a garishly coloured shirt identified most tourists.

My wife and I once wandered through Vermont on a road trip from Québec to Boston. When we asked at one village for directions towards Boston we were told: “Don’t go there, its full of flat-landers.”

A good universal example of a symbolic sign might be the diagonal stripe (left below) which is intended to mean: ‘*don’t do what the sign is otherwise telling you to do*’. Or the minor 45 degree rotation which produces (right above) the horizontal stripe meaning “*no entry*”.



don't do it



no entry

One can sense the symbolism of a diagonal slash across your intentions. The *no entry* sign is thought to have originated from European feudal practice of tying a blood-red ribbon around a shield when the lord of the land wished to indicate to outsiders that they should not enter his territory. As suggested in “u” on page 230, subjects in tests often interpret it as indicating that there is a mail box ahead.

Citizen impact

In the 1970s, ARRB conducted an obtuse experiment on the conspicuity of symbolic signs, using quiet streets in the placid Melbourne suburb of Kew. The test signs were comprised of flat discs painted black, grey, or white. A local graffitist who painted meticulous and elegant drawings of cats and dogs on the discs continually confounded the experiments. This immensely confused the results, and caused other locals to take the discs, presumably to place in their private art collections. The artist reappeared around Stow-on-Wold in the Cotswolds in 1997, erecting symbolic signs warning of penguins, sharks, dead fish, and road officials. One such official described the signs as “excellent works of art”⁷.

Altering signs can be intellectually challenging. Morris Bishop collected some achievements together in the early 1950s⁸. He gave his source as:

There’s a little old fellow and he has a little paintpot,
And a paucity of brushes is something that he ain’t got,
And when he sees a road sign, the road sign he betters,
And expresses of himself by eliminating letters.

Examples of the old fellow’s letter removal and/or addition technique are shown below.

Through Road	24 hour service	Men at work in entrance
rough Road	24 hour vice	Men at work in trance

Slow Down Bridge One Way	10 t bridge ahead	right east bound tunnel
Slow Down Brid e On Way	10 t brid e ahead	Frightened beasts abound in tunnel

Traffic light ahead	Gas and oil	rest rooms
Traffic slight ahead	Gasp and boil	Queerest rooms

Graffiti workers are not always so inoffensive in their work. In 1987 ARRB asked a Dutch firm - BAS etc - for information about some new signs that they had been promoting. The following reply was received:

Enclosed we send you our leaflet Sluggy-30 and a picture of another Slug-type we developed. Unfortunately, this was not our greatest success. The local authorities were very willing to buy such gentle traffic signs, but for reasons of great damage, all traffic signs and street furniture must now be of concrete or stainless steel. This was for us the reason to stop this project for the Dutch market. If in Australia people are more gentle and peaceful, maybe you can save this project.

The opposite of the symbolic sign would be the blunt words of the:

Wrong way Go back

sign used on motorways to give an obvious message to drivers. Such signs are needed as drivers who miss a motorway entrance have a penchant for finding alternative access onto the motorway via an off-ramp, or - having missed their off-ramp - attempt to leave the freeway via the next on-ramp. I hope you are following this.

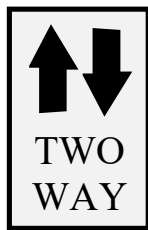
Anyway, having succeeded in ignoring the *Go Back* sign and entering the motorway via an off-ramp, they then find themselves travelling along the motorway in the wrong direction. This is such a frequent occurrence on the German autobahns that such drivers are officially called "ghost drivers" and as soon as one is detected, the traffic radio warns

of its presence.⁹ The story is told of one burger who was driving happily down the E35 with his wife when he hears the message:

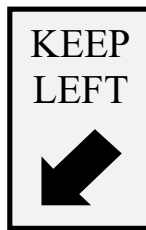
“Caution, one ghost driver on the E35”.

He turns to his beloved Frau and says smugly: “They’ve got that wrong! Look ahead, there’s at least twenty of them coming towards us.”

A long-time colleague, John Metcalf, had a wicked sense of humour. At a time when road agencies were being threatened with corporatisation and privatisation, John doodled through a serious corporatisation meeting to produce a list of how traffic signs could be hired out to sponsors. His list was sneaked away during a lunch break and can therefore be presented in its full glory on the following page.



a. Singles bar



b. International Socialist Party



c. Tetleys



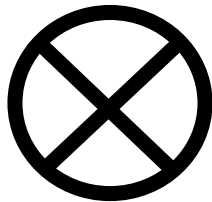
d. New and used models



e. Buy Kraft



f. Watch Jim Swaggert's TV Church, KLVOM at 9



g. No kissing



h. Fannie's Escort service

The real, subliminal purposes of many common traffic signs are disclosed to the unsuspecting public (J. B. Metcalf et al).

Jim Bryant was one of the ARRB staff working in the sign area. He was thus a semioticist (if the word puzzles you, return to page 220). Jim is fondly remembered for calling the ARRB office from a riverside road where he was measuring the traffic.

“Would you please send over some lunch, writing papers, and pencils?” he asked. When queried as to what had happen to the supplies he had taken that morning, he replied “Oh, they’re on the backseat of the car.” When further asked why he couldn’t use them and save someone a long trip, he replied quite casually: “Well, the car rolled into the river about 15 minutes ago and I’ve just finished sitting here watching it sink.”

Lest this story reflect disproportionately on Australian researchers, it is appropriate to note the elucidating words of a French expert in the same field who wrote in 1986:¹⁰

This work can thus be considered a dialectic enrichment which presents an evaluation of the heuristics of the articulation between cognitive research developed from semantic memory studies and diagnoses seen from a traffic engineer’s point of view.

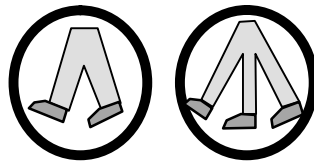
Signs are made by real people and one of the larger-than-life sign makers was Francis XXX. I first met Frank when I was arranging a technical tour to South East Asia in 1976, following a conference we were running in Kuala Lumpur. Frank telephoned me and asked if I would mind if his company also ran a post-conference tour for delegates. I hesitated:

“Won’t there be some conflict between the two tours?”

“Of course not” said Frank “mine’s not a technical tour”.

This view of life was subsequently confirmed as Frank and his firm became increasingly famous for their Xmas cards. Each year’s card contained a colour photograph of the numerically small staff, the men in sporting gear and the alleged female staff members invariably sufficiently naked to display their admirable bodies. My own favourite was the 1983 edition taken “while training for the Americas Cup at the Royal Eltham Yacht Club” (Eltham, you won’t be surprised to learn, is 30 km from the nearest piece of yachttable water). The series sadly ended in 1992.

The two-legged pedestrian sign shown below has caused many to contemplate when a three-legged one might be used. Popular answers are (1) on the Isle of Man, (2) near a Russian nuclear installation, and (3) outside a Rolf Harris concert.¹¹



A variation to the normal pedestrian-crossing signs.

A collection of favourites

We all have our collection of our favourite road signs. Let me share with you my own special signs, collected together on the following pages. My special favourite is *e*, which comes to mind whenever any unfailingly ugly city car-park comes into view. As runners-up, the negativism of *v* & *x* is also appealing. Dilemma signing, as in *i to n*, occurs too frequently for it to be accidental. Rather, it provides more evidence of the art of traffic engineering.

Martin Lee's example in *o* from Québec indicates the real problem the locals have with their desire to use purer French than the French, and to incidentally give a distinct advantage to those that do speak French (does "*sens unique*" mean one-way street?). Which brings to mind the excuse of the driver stopped by a policeman for going the wrong way down a one-way street: "What's wrong Officer, I am going one way aren't I?"

Long after France agreed in the interests of safety to use the word *STOP* on Stop signs, the Québécois still used "*Arrêt*", and "*Keep right*" had to be written "*Serrez à droite, s'il vous plaît*" with a subsequent major drop in the visibility distance of the now-cluttered sign. In January 1993 the Province finally relented and declared that *STOP* was now a French word. From then on either of the words *Arrêt* or *Stop* could be used on a *STOP* sign, but not both¹².

However, reality must always win and the prize for the best sign of all must go to the following sign seen in South Africa in 1994. What can be said except that there must be many very envious small South African dogs, when they see how easy it is for small cars.



Sign warning trucks to look out for amorously-inclined cars. Photo taken by Bruce Cochrane in South Africa in 1994. Used with his kind permission.

Live children

DEAD SLOW

Speed limit

a. Burnaby, British Columbia.

Bump Handicapped Pedestrians
5 MPH

b. Fort Lauderdale, Florida

Please walk backwards

c. Marine Parade, Singapore

No Parking Day or night
(or any other time, for that matter)

d. Local frustration

Please park prettily

e. Pennyroyal, Launceston

No Parking This Side

Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

f. Calgary

Western Suburbs
Crematorium

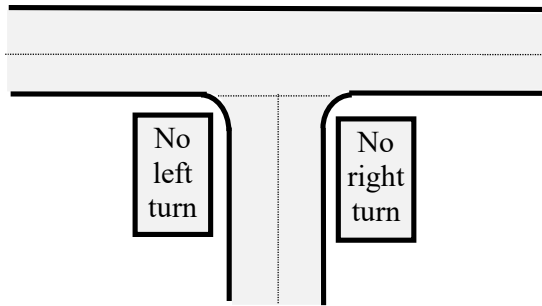
Fireplace ahead

g. Altona, Vic.

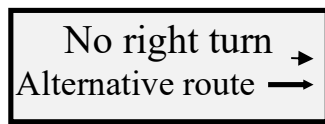
Cemetery Rd

No Exit

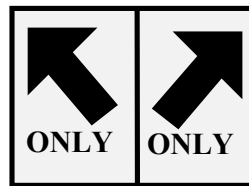
h. Perth, Tas.



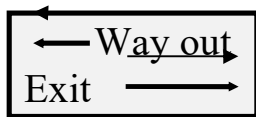
i. Sydney, Wollongong, Wellington, NZ, & Pilgrim St, London



j. British dilemma sign



k. Nightmare



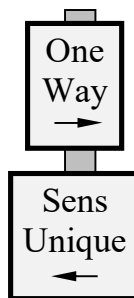
l. British dilemma sign



m. Ocean, NY



n. Tempe, Arizona



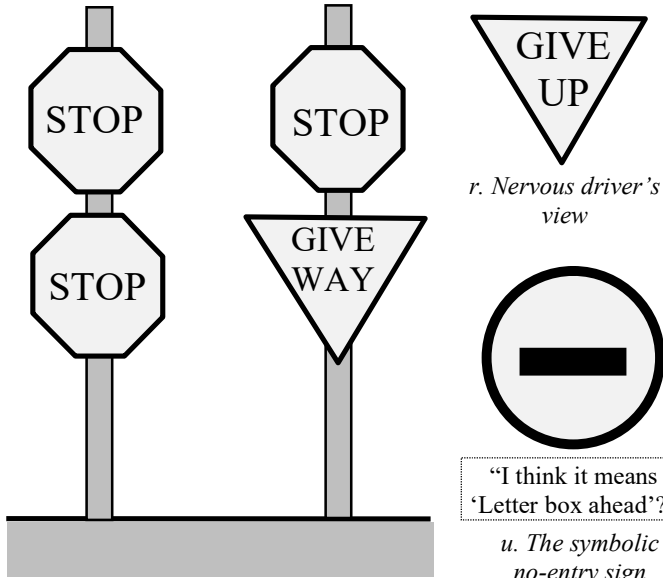
o. Québec City



p. Silver Spring, Md.



q. "Stop-happy" signing in a small US town.



r. Nervous driver's view

"I think it means 'Letter box ahead?'"

u. The symbolic no-entry sign

s. If this means Stop, what does one sign mean?
 t. Classic case of sign over-use.

This is not
US89

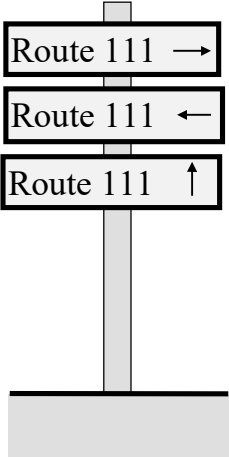
v. Santa Monica

Phuket
 ← →

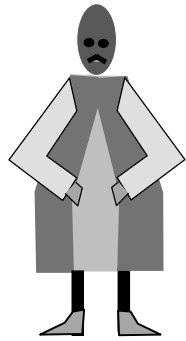
w. Airport sign, Thailand

This road does **not**
 lead to either
Townsville or Cairns

x. Australia



y. Corning, USA



Caution when
Flashing

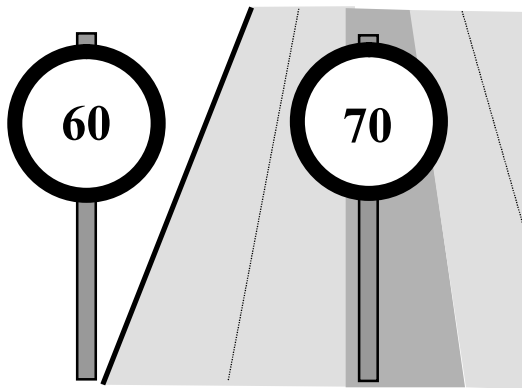
z. Lancaster, Pa (words only!)

Unlawful to throw
snowballs at vehicles or
occupants

A. Calgary

Beware -
hitchhikers may
be escaped
inmates

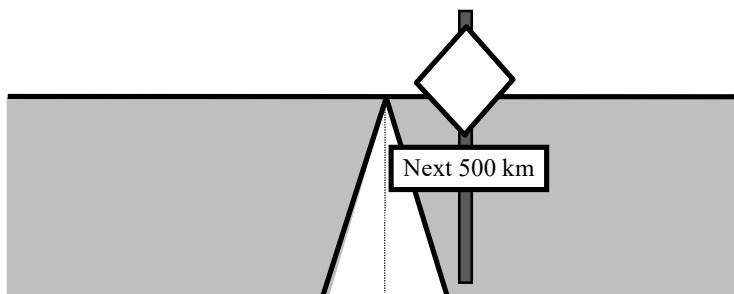
B. USA



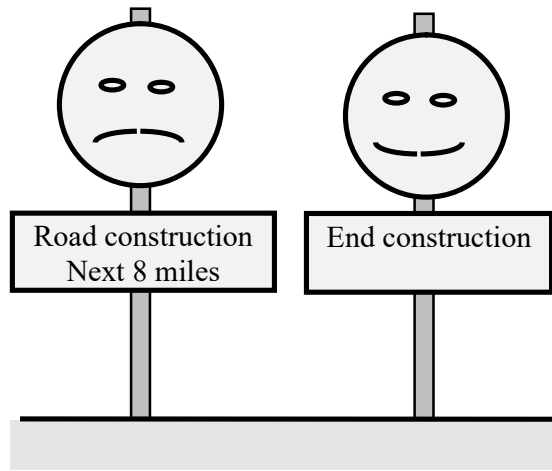
Learning
curve
ahead

D. Academic

C. Liverpool Rd, Kilsyth, Victoria, 1993



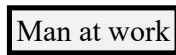
E. Australian desert



F. Interstate 96, Michigan



G. Yellowstone, Wyoming



H. At beginning of 5 km of roadworks on Route 13 in Laos.



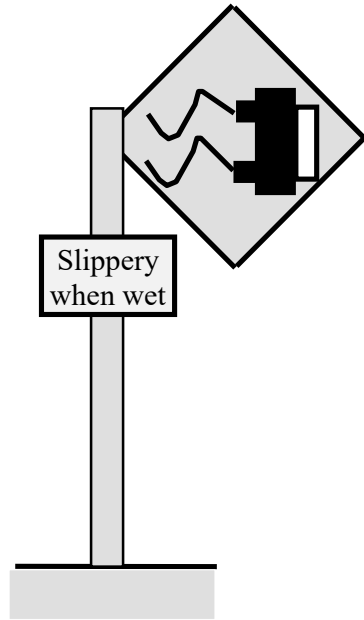
I. Monopoly player

Road unsafe
when under
water

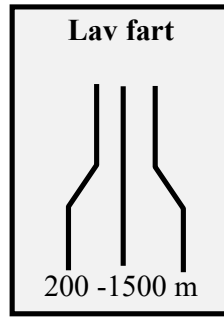
J. Memphis

Slow
Grape juice on road

*K. Pashos to Limassol
Road, Cyprus.*



L. Saskatoon



*M. Denmark - the words
mean "slow travel".*

Liverpool
Maternity Hospital
(no accident cases)

Toilets
Hornets

Toilets
2 t load limit

Cattle →
← Pigs

N. Britain

Accidents are prohibited
on this road

O. China (Grand Trunk Rd)

Known sources are: a¹³; b, f, m, n, p, v, y, z, J, L - National Lampoon's True Facts, pp 65, 14, 93, 13, 20, 37, 50, 45, 20, 20; c¹⁴; d, e, k, l, x, B, - author; g - Kloot, G.; h - Weekend Australian, p20; i^{15,16}; j, l, N - London Times 1974¹⁷; o - Lee, M.; q, s¹⁸, t¹⁹, w²⁰; v, A - Morrall, J.; r, p202; u, p222; C²¹; D²², E²³; F - AASHTO Quarterly, c1986; G²⁴; H²⁵; I²⁶; K²⁷; M²⁸, N²⁹

Signs in real life

There are many good tales surrounding the responses of indignant drivers told by a policeman that they had disobeyed a traffic sign. Here are a few:

Policeman: Didn't you see the red arrow?

Innocent driver: I didn't even see the red indians!

Policeman: Didn't you see the Stop sign?

Innocent driver: Sensible people don't believe everything they read.

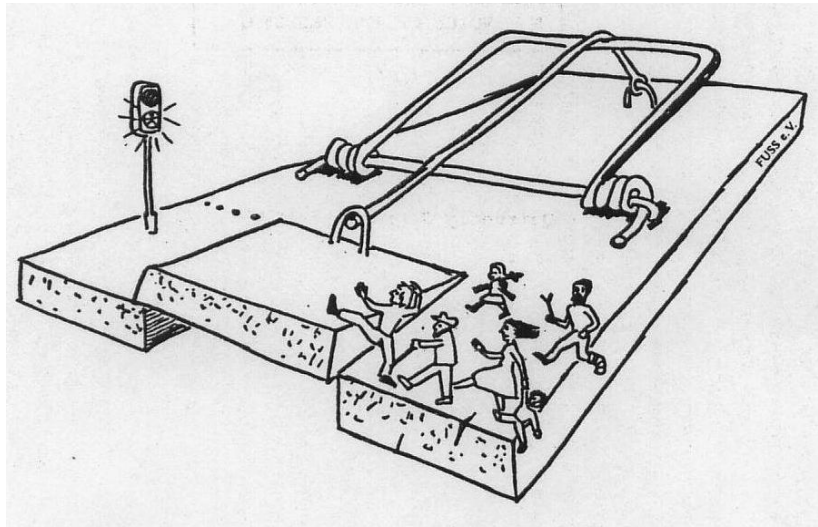
A related story concerns the policeman who spotted a lady knitting as she drove.

Drawing alongside, he wound down his window and shouted: "Pull over, Madam".

She called back: "No, it's a cardigan, actually."

The police are, of course, themselves immune to the traffic restrictions under which we mere mortals must labour. In most jurisdictions, speeding police cars and ambulances kill more people than are ever saved by the high speeds enjoyed by the drivers of these vehicles. In 1985 a city in western Canada wished to open a new bus route through a park. Not wanting cars to use this pristine route and thus disturb the tranquility of the park, in the middle of the road the City cunningly dug a deep pit which was too wide for cars to straddle but just narrow enough to accommodate the wider spacing of bus wheels. Pieces of old axle were embedded in the concrete base of the pit to calvinistically ensure that any errant car was sufficiently punished for its transgression. To thoroughly warn drivers, the relevant municipal by-law was posted in detail – necessitating quite small print unreadable from the road – at each of end of the bus-only route.

Your scribe, in town at the time as a visiting road expert, had - when asked by the media - impolitely and publicly suggested that the scheme might not be a total success. He was proved right on the very first morning when the local police chief, in his new car, deemed that mere city bye-laws and - unwittingly - the laws of geometry and physics did not apply to police officers. He thus drove down the bus-only route, his car plunging uncompromisingly into the pit. The trap was filled in that same afternoon. The scheme is one that lives deep in our psyche, as the following cartoon from a pedestrian advocacy journal indicates.



The Mouse Trap. Fussgängerschutzverein, Berlin ³⁰

The placement of signs is another hoary chestnut. We have all encountered numerous signs located with a deliberate perversity of purpose, seemingly to prevent rather than assist drivers to see them

Following complaints about visual clutter caused by signs, a survey in Melbourne of the criterion used for placing signs showed that the major factor influencing sign placement was the availability of enough roadside space to squeeze in just one more sign. Now, a driver can read about three words a second so, to be effective, six-word signs would need to be about 50 m apart. Thus, the de facto policy was clearly producing some very inefficient signing³¹.

There are also the advertising signs beside the road to consider. In 1933 Ogden Nash wrote:

I think that I shall never see
A billboard lovely as a tree.
Indeed, unless the billboards fall
I'll never see a tree at all.

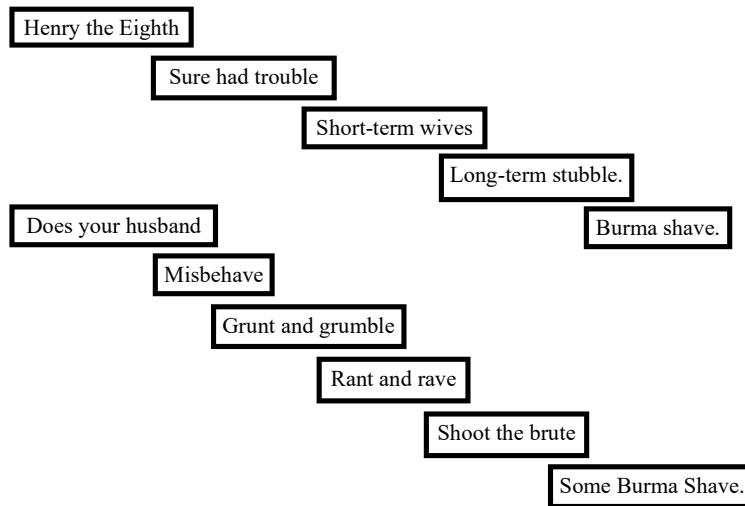
Incidentally, the verse is a parody of Joyce Kilmer's infamously bad doggerel, with Nash replacing "poem" by "billboard". Kilmer has a rest area named after him on the New Jersey Turnpike, which is about what his poem deserves. Nash was clearly worried about roadside advertising for he also wrote:

Beneath this slab
John Brown is stowed
He watched the ads,
And not the road.

The battle between advertising and scenery has raged every since, with strange arguments on both sides. Sometimes it is difficult to see which side is which. For instance, in October 1994 the Queensland Transport Minister, David Hamill tried to limit roadside advertising because of its impact on aesthetics and because it could distract a

driver's attention. By January 1995 his Government had sold a million dollars worth of advertising space along its freeways. The verbally nimble Hamill replied that these advertisements would be too discrete to distract any drivers³².

Roadside advertising is usually crass, ugly, unneeded and eminently forgettable. A rare exception was the wonderful Burma Shave series created in the U.S.A. in 1925 by Allan Odell, son of Burma Shave's founder. The series consisted of up to six small signs about 50 m apart and which, when read in sequence, produced an amusing advertising jingle. The signs were discontinued in 1963. Favourites from Pennsylvania were:



Road markings are another form of traffic sign. When working in the steel industry in the 1970s I had received a letter from an inventor whose letterhead read:

The true meaning of joy: Jesus first, others second, yourself third.
 Economics, ecology, education, environment, engineering.

His God-given invention was to fill discarded drink cans with concrete and then half-bury them on their sides in the pavement edge line. They would be planted at about a metre spacing and the inventor thought their half-exposed metallic ends would reflect headlights by night and sunshine by day. They would also provide an auditory reminder to drivers about to unintentionally leave the road. At the time, it was easy to can the particular idea, but the concepts of the reflective “catseye” and the audible line-marking now have wide acceptance.

Notes on Chapter 18

- 1 Anderson, W., *Roads for the people*, Melbourne: Hyland House, 1994, p154
- 2 Borth, C., *Mankind on the move*, Washington: Automobile Safety Foundation, 1969, p189
- 3 Rees, N., *Graffiti lives, O. K.*, London: Unwin, 1979, p41
- 4 J. of Irreproducible Results, 1987, p8
- 5 Melbourne Sunday Age, Agenda, 15 Aug 1993, p6

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- 6 Cairney, P. T. & Sless, D., "Evaluating the understanding of symbolic roadside information signs", *Aust Road Research* 1982, 12(7): pp97-102
 - 7 London Times, 15 Oct 1997, p11
 - 8 The roadside littérateur, by M. Bishop, in Cohen, J. M., *More comic and curious verse*, Harmondsworth: Penguin, 1956, p198
 - 9 In German, the term is also a clever pun.
 - 10 Road safety in the developing road transport system. In *The Way Ahead: a liber amicorum* dedicated to Professor Erik Asmussen. Proc. International Seminar Recent Developments in Road Safety Research. The Hague. SWOV, 1986, p29-42
 - 11 Somerville, P., "Green Blues", *Aust Cyclist*, Oct-Nov, 1993, p41
 - 12 Flynn, R., 1993. "Roads report", *Roads & bridges*, March, p6
 - 13 *Far Eastern Economic Review*, "Travellers' Tales", 2 Nov 1989, p41
 - 14 loc cit, 5 May 1994, p36
 - 15 *New Civ Engr*, 29 June 1989, p19
 - 16 Road Constn Authority, *Interchange*, 16(1), p2, Feb 1989
 - 17 Bentley, N., *The Shell Book of Motoring Humour*, London: Joseph, 1976
 - 18 Smith, W. S., 1949, "Road signs, signals, and markings: what do they mean?" *Traffic Quarterly*, April, 149-152
 - 19 Grandel, J., "Field accidents, Investigating the technical defects causing motor vehicle accidents", SAE 850434: Feb 1985
 - 20 *Far Eastern Economic Review*, "Travellers' Tales", 15 May 1994, p43
 - 21 *Melbourne Herald Sun*, 3 Sep 1993, p28
 - 22 Veley, B. in Coffman, E. & Jensen, D., *Accounting: the lighter side*, New York: McGraw-Hill, 1984
 - 23 *Case, Bulletin*, 12 Nov 1991
 - 24 *Far Eastern Economic Review*, "Travellers' Tales", 20 Oct 1994
 - 25 loc cit, 13 April 1995, p38
 - 26 *Australian Business Monthly*, June 19993, p16
 - 27 Hinkley, E., *Highways and transportation J*, Jan 1988, p36
 - 28 *World highways*, "Skid marks", April 1994, p74
 - 29 *Melbourne Age*, 10 Aug 2002
 - 30 *Voice of the Pedestrian*, 3/4, 1987
 - 31 Lay, M. G., *Ways of the world*, New Brunswick: Rutgers University Press, 1992, Chap 21
 - 32 *Australian, Melba*, 11 Jan 1995, p9

Chapter 19

Ways and means

- a chapter which describes the mathematical tricks used to add perversity to traffic signals.

Traffic signals were introduced in London in 1868 to assist Members of the British parliament to cross Bridge Street on their way to Parliament House. The signal used semaphore arms by day, supplemented at night by red and green light from gas-powered lamps. When the arms were raised or the light was red, traffic was obliged "to stop clear of the crossing." The colour convention was taken from the signal system first used for shipping and by then in common use in railway practice. The parliamentary signals were not an instant success. They were blamed for scaring a troop of cavalry into confusion and for the death of two policemen. In 1869 an explosion killed the policeman lighting the gas lamps.

Not surprisingly, only a few signals lit by kerosene were in use by 1911. Why 1911? Well, in that year an English visitor to the fair city of Melbourne reported what he had seen to the *Autocar* magazine¹.

At the principal intersections the traffic is jointly regulated by a tramway official and one or two policemen. The tramway official stands in the centre of the road armed with a couple of flags. When he waves a green flag traffic goes from north to south and vice versa; when he waves a white flag it goes from east to west and vice versa. If it rains hard, these gentleman retire to the nearest shelter.

Meanwhile, technology had leapt across the Atlantic to Toledo, Ohio where traffic signals were introduced in 1908. They consisted of two semaphore arms, one with a red kerosene lamp at its end and the word STOP written along its length, and the other similarly equipped with green and GO. The signal was operated by a policeman who, in a major advance over the London system, blew a warning whistle before pulling the levers connected to the semaphore arms.

Traffic control towers became urban landmarks in the 1920s. Probably the most famous was an elaborate iron structure some four stories high at the intersection of 5th

Avenue and 42nd Street in New York. J. C. Furnas described it as “ a Parisian pissoir high on four skinny legs.”² Traffic-control officers stood on its balcony, observed the traffic flow, and directed its course by activating large semaphore arms.

Signals that automatically detect the presence of relevant traffic were developed during this time. One memorable invention required an approaching driver to blow the car’s horn in order to activate the signals. Imagine the subsequent cacophony.

Technically, signals that react in real time to the presence of traffic are called *dynamic* systems, however the definition does not encompass the application illustrated below. In fact, the situation in the photograph had had an earlier brush with reality in 1921 when New York City required its traffic police to be bedecked with red, yellow and green signal lights attached to the front of a special police-issue vest. When an intersection needed signals to control the traffic, up marched a policeman and stuck his chest out.



An illustration of a dynamic traffic signal system³. Photo: Melbourne Age.

Automatic signals using more passive means of vehicle detection were introduced in Melbourne in 1928 and were immediately attacked by the police, who saw their livelihood threatened. The first automatic signals were introduced in Sydney in 1933 on a three-month trial. Bob Filmer, the representative of the suppliers, Automatic Telephones, promised the city that he would frequently check that the signals were operating according to specification.

As he stayed continuously on location beside the control box over many days, the suspicion mounted that he was more assuring rather than checking their operations. Many years later he later revealed that he had concealed a switch in his coat pocket which he had manually operated to cover the many defective detectors encountered during the “proving” trials⁴.

Filmer's problem has had its modern day equivalents. When a new rail link was opened in southern Australia in 1995, it was found that the level-crossing barriers were not working. Rather than delay the opening, fleets of six cars were assigned the task of each driving in leapfrog fashion to a level-crossing ahead of the train and manually operating the warning system. It was a perilous process, as when - inevitably - a car failed to arrive in time, the train continued through the now-unprotected crossing.

A few human problems with drivers were also noted in the *Sydney Morning Herald's* coverage of the first day of the 1933 Sydney operations.⁵

* First, there was the elderly woman driver who stopped her car in the middle of the intersection and went to seek information on the meaning of the new device.

*Second, there were the male drivers who assumed that the absence of any policeman meant that they could ignore the signals altogether.

The suppliers overcame these and other concerns by taking the relevant Cabinet Ministers to dinner that night at Sydney's leading restaurant.

Today, the Sydney system operates well, helped in part by an extensive video surveillance system used to rapidly detect, diagnose and cure traffic incidents. So good was the video system that - well in advance of today's more ubiquitous systems - it was used to track thieves fleeing from a jewellery store. The traffic control room was able to follow the thieves and direct the police to a convenient apprehension location.

The detection systems are set to accommodate the responses of the average driver. When the first traffic signals were introduced into the town of Lewis in the Outer Hebrides in 1995, the local newspaper - the *Weekly Telegraph* - reported that the signals had had to be readjusted as the town's unhurried drivers were finding that the normal green time of about 60 seconds was insufficient for them to respond to the signal, cease their conversation, restart their cars, and then amble through the intersection.⁶

One of the great puzzles of modern traffic engineering is the meaning of the red and green lights when displayed on traffic signals in Italy. Eric Newby explains it in this way⁷:

The green in Naples is interpreted as a licence to kill.... When the lights turn green it is still not safe for pedestrians to cross... as motorcyclists and drivers will still continue to roar (through the intersection), whatever colour the lights are.

The red light has a unique significance,... it is regarded as a suggestion that perhaps drivers might consider stopping. If however they do stop, then it is practically certain that those behind will not have considered the possibility of them doing so and there will be a multiple collision, with everybody running into the vehicle in front. (Thus) it is equally dangerous for drivers and pedestrians to proceed when the green light announces that they can do so.

The Neapolitans would feel happy in Bangkok, where a third pedestrian signal has been suggested such that the pedestrian phases there would now read⁸:



In the 1970s I was associated with a venture to install new traffic signals in Manila. My colleagues supplied the software and a Japanese group the hardware. The globes in the signals had the same socket fitting as globes used in Japanese domestic lighting. This had caused no problems in Japan. In Manila, however, it meant that most signal sets were lightless by morning.

The meaning of the yellow phase of a traffic signal still remains a mystery to many, including traffic policemen and magistrates. In most jurisdictions it means stop if you can safely do so, otherwise continue on through the intersection. Many are reluctant to employ the first option.

Luccano de Crescenza, the Neapolitan author of a book on Neapolitans tells of a citizen asked to explain the significance of the yellow light in Naples, given that the inhabitants clearly ignored the red and the green.⁹ The reply was “The yellow? It doesn’t mean anything. It’s used to brighten the place up.” In another country, a female driving student, when asked what she would expect to see after a yellow signal, replied: “Some fool man trying to beat the lights.”

My sister-in-law is famous in our family for her excuse when stopped by a policeman for driving through a flashing red stop sign. “But officer, I went through between flashes” she offered, leading to new potential charges arising from calculations as to just how fast she must have been travelling to achieve this alleged feat.

Americans on the West Coast in particular have flirted with the idea of allowing drivers to pass through a red signal light, if the driver considers it is safe to do so. Pedestrians and cyclists have not been too enamoured of the idea, and in his film *Annie Hall*, Woody Allen remarks: “I wouldn’t want to go to Los Angeles where the only cultural advantage is being able to left turn on red.”

Many citizens think that they could make the current traffic systems work better. In my experience these well-intentioned folk are rarely coherent or civil and are usually very difficult to deal with – particularly when the foolishness of their ideas is pointed out with an engineer’s normal precision and brevity. Fortunately, you can usually see traffic enthusiasts coming at a considerable distance and pass them on to an unsuspecting colleague. They abound in the traffic signal area, and here is a typical example from a letter received from an inventor in 1990:

I am the inventor of the stronger natural working ***, for any use at all. However, I don’t like to give my plans to people. Instead, recognise that I am the man of today, not tomorrow. In studying road crossings, it is clear that cars and pedestrians are currently allowed to go from any direction to any direction. The cost of my solution is \$5 million. Would you like to see a video?

I resisted the temptation to see the man of today’s video.

Notes on Chapter 19

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 - ³ Melbourne Age, 25 Feb 1985, John Krutop, photographer
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 - 5 14 Oct 1933
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Chapter 20

Wandering by the way

- a guide to safe and easy car travel in exotic lands, and other well-known lies

Gratuitous advice

Perhaps the most famous of all travel stories about cars, at least amongst bureaucrats, relates to the driver hopelessly lost in thick fog.

“Where am I?”, he shouts to a passing pedestrian.

“You’re in a car” comes back the immediate reply.

The fact that this reply is polite, prompt, accurate, concise and totally useless, immediately allows the traveller to deduce that he has arrived at Whitehall (or Washington DC or Canberra or Ottawa or Brussels, depending on who is telling the story).

A more socially-oriented version of the story was reported in Melbourne in 1840, just four years after the town was founded.¹

A traveller asks a road worker “Where does this road go?”

The worker replies: “I don’t know. I find it here when I come to work in the morning, I leaves it here when I go home at night. Where it goes in the meantime, I don’t know.”

A similar but reversed version concerns the fire-engine despatcher who receives a call to urgently send fire fighters to a burning house.

“Where’s the fire?” the despatcher asks.

“In the bedroom” comes the reply.

“No, no, I mean you must tell me how we get to your house” begs the despatcher.

The bewildered caller implores “Well, I sincerely hope you come in your shiny red fire engine - and you won’t miss the house, it’s the one that’s half burnt down.”

A related Irish story tells of a traveller in Ireland who asks a local the way to Killarney. The Irishman replies: “Begorra, if I was going to Killarney, I wouldn’t be starting from here.” Another piece of folk-lorish Irish travel advice includes the instruction:

Two miles before you get to the signpost for Killarney, take a right turn and you'll be missing the worst of the troubles.

Both these responses arise in many various forms, and having usually been given directly to any of your friends who have been to Ireland.

Indeed, before the car, travellers could always stop and ask for advice. Thus the early guide books were mostly about useful travel phrases in foreign languages and how to stay healthy in unfamiliar climes. The first travel guide book in English was written by a Dr Andrew Borde in 1547. He avoided giving phrases in Hungarian, which he said was a mixture of corrupt Italian, corrupt Greek and Turkish. A former Carthusian monk, he recommended taking nutmeg to curb sexual desires whilst travelling.²

Bill Spreitzer of General Motors was in a group visiting Japan for the first time. Desperate to ride the Shinkansen "bullet train" but with only half a day to spare, they had estimated that they could travel from Tokyo for an hour or so as far as Fuji. Bill ordered return tickets to Fuji.

"Which train will you be catching back to Tokyo?" asked the ticket clerk.

Thinking aloud and somewhat metaphorically Bill said "Well, we'll need 15 minutes to use the toilets at Fuji Station before we begin the return journey."

The astonished but ever-helpful clerk replied "But sir, you do not need to go to Fuji Station to use the toilet, the ones here at Tokyo Station are perfectly clean."

Many share Spreitzer's view that the journey is more important than the destination. As Robert Louis Stevenson once said "I travel not to go anywhere, but to go. I travel for travel's sake."

A Melbourne "travel directions" story concerns a Glen Waverley man who in March 1990 ordered a pizza to be delivered to his home. As it was raining, the lady delivering the pizza drove into the property and up to the front door. Handing over the pizza, she asked for advice on a quicker way back to her base. The man gave her directions, emphasising the need to make an early left turn.

A little confusion then arose. It had been intended that the delivery van would back out of the property, drive down the road, and then turn left. The delivery lady took the instructions somewhat more literally and continued along the driveway, turned left at the rear of the house, and plunged into the domestic swimming pool. The customer was unaware of any of these latter developments until his daughters complained that a pizza van was floating upside down in their pool. The driver survived but the remaining undelivered pizzas were too chlorinated to be passed off as pizza submarino³.

A favourite story amongst automobile clubs providing breakdown services for motorists is of the call to attend to a car with water in the engine. On arriving at the address they find the car floating in the family swimming pool.

A navigation error of a different kind contributed to a fatal misadventure in New York City in 1995 when a car plunged six storeys down a lift well in a car-park. The critically injured driver had not realised that the flashing sign had been indicating that the lift had yet to arrive⁴.

The perils of travel

Lost drivers are a good source of local amusement. My favourite story concerns the driver stopped on a U.S. freeway.

“Are you lost?” asks the highway patrol, anxious to clear the road.

The motorist quizzically replies “No, but this road’s sure going in the wrong direction.”

Then there is the tale of an English driver who set off from Kent to drive some 500 km to Durham. When he was stopped by police for driving slowly on the M25 ring road around London, he explained that he had been driving on the M25 for the last ten hours and had still not seen a sign for Durham. Police estimated that by this time he was probably on his fifth circuit of London and less than 30 minutes drive from his home. Incidentally, the M25 probably shares with California’s Route 66 the roading distinction of having inspired a hit song - Chris Rea’s 1989 *The Road to Hell*.

One way to avoid these blunders is to return to the proven practices of yore. A hundred years ago, travel by car was neither commonplace nor well accepted. To manage the situations that might arise if a motorised journey were to be undertaken, the State of Tennessee required that a week’s notice be given of any impending car trip⁵.

Long car-trips often demand that the driving task be shared, to reduce fatigue and the risk of falling asleep at the wheel. In the 1980s, four of my colleagues at ARRB were driving overnight from Melbourne to Sydney. They arranged to each drive for three hours. When the third driver was reaching the end of his shift at around 3 a.m. in an unfamiliar part of New South Wales, he noticed that fuel tank was nearly empty and was relieved to see the lights of a fuel station on the other side of the road. He did a U-turn, filled the fuel tank, and woke the fourth driver to take over.

Initially, the new driver was not totally alert and so 90 minutes and 150 km were to pass before he began paying attention to the direction signs, expecting to see indications of the outskirts of Sydney. It took him a couple of sets of signs to realise that he was travelling away from Sydney and not towards it. The third driver subsequently entered a spirited defence of his failure to either point the car in the right direction again or to tell driver 4 of the need to do so. As he said, “Any fool would have”

A related set of urban legends are represented by the 1989 experience of a Mr Savage who was driving from Queensland to Victoria with his wife Annette⁶. She was asleep in the back of the car when he stopped for fuel late at night. He paid for his fuel and drove off, not realising that Annette had left the car to use the toilet. On her return, the car was gone.

There was no mobile phone in the car. A quick-witted woman, Mrs Savage telephoned the radio station to which her husband was listening. The station continued to broadcast the message, until Savage finally “heard” it some 75 km down the highway, and manfully faced the prospect of shamefacedly returning for his marital cargo.

In one of his Lake Wobegone stories, Garrison Keilor in 2001 told a similar story of a Minnesota farmer.⁷ Unlike Mrs Savage, the Minnesota wife had no broadcast solution

and the farmer didn't discover his omission until he arrived at his home. Flustered and embarrassed, he left his wife to her own devices and took to the roads again, waiting three days before mustering enough courage to once again arrive home.

Returning to the issue of driver fatigue, many were mightily relieved in 1995 when Britain's House of Lords took up the topic. The solution that emerged from the Lords' debate was articulated by Lord Campbell of Croy who said with the courage for which that House is justly famous⁸:

A most effective preventer of sleep is a continuously chattering passenger. That assistance is often provided gratuitously by a spouse. Might not a simple and inexpensive recording of that chatter be used when the driver is alone?

Baroness Miller of Hendon extended the concept with the quip: "Perhaps one needs one's mother-in-law?" Of course the tapes could be short continuous loops as British spouses would presumably be immune to the repetitious nature of the chatter.

Having finally arrived at a destination, the next step is often to find accommodation for the night. In 1458 William Wey produced a post-Crusades travel guide for visitors to the Holy Land⁹. He recommended that his readers go to St Mark's Church in Venice and, for 3 ducats, buy their own bed, mattress and bed linen for their 13-day tour. Similarly, he suggested that they should also take their own poultry to obtain fresh eggs. On their return to Venice by galley, they would be able to sell the bed plus attachments back to the original vendor for 1.5 ducats. He also gave some useful Greek phrases that the traveller should learn by heart:

- * Tell me the way.
- * Give me that.
- * Woman, have you good wine?
- * How much?

Travellers remained in incoherent need. A nineteenth-century book of French phrases for English travellers included Gallic versions of the following useful expressions:¹⁰

- * My sprocket is strained.
- Is there never a candle in this hotel?
- Landlord, have you any dry beds?

Notes on Chapter 20

¹ Port Phillip Herald, 10 July 1840, p4

² Parsons, N. 2007. *Worth the detour*. Stroud: Sutton, p120

³ Melbourne Herald, On the Spot, 20 Mar 1990

⁴ The Australian, 24.5.95, p9

⁵ *J. of Irreproducible Results*, 1987, p8

⁶ Melbourne Age, 14 Jan 1989

⁷ Keillor, G. *In Search of Lake Wobegon*, New York: Studio Pres, 2001

⁸ via TBT trucking magazine, mid-1995, Gus de Broto's Info File

⁹ Jusserand, J. J., *English wayfaring life, XIVth century*. London: Unwin, 1901, p395-6

¹⁰ Hare, K., *Roads and vagabonds*, London: Etre & Spottiswoode, 1930

Chapter 21

Waylaid

- a chapter which was originally intended to explore the role of the road in assisting the animal kingdom.

Tales of the toad

Roads are used for more than travel, so perhaps this is a good spot to record a few of those uses. For some unfathomable reason, the examples given will display an unnatural emphasis on toads.

In the 1970s, authorities in both Britain and Queensland had become increasingly concerned with the number of toads being killed on their roads by cars and trucks - in Britain because they have a curious affection for the pop-eyed creatures, in Queensland because their cane toads (*Bufo marinus*) are so large as to create a traffic hazard.

In 1982 the British Wildlife Society advocated the installation in Gloucestershire of signs reading "Slow down, toads crossing". These signs were perversely ignored by the toads. Indeed, in 2001 a survey by the RAC found that many drivers thought the sign referred to a busy French restaurant. Previously the British Flora and Fauna Protection Society had calculated that in 1986 some 20 tonnes of eye-popped toad had been squashed beneath the wheels of cars and trucks.

"Why did toads persist in so dangerously sitting on roads at night?" researchers were asked. The answer was that male toads enjoy watching female toads pass by, giving them the toad equivalent of a wolf-whistle, and - with any encouragement - then proceeding with the noble task of perpetuating their species. Both male and female toads had realised that the clear and open expanse of a pavement was the ideal spot to undertake this work, despite the occasional interruption from passing cars adding a discordant note to the rhythm of their labours.

When I first brought this to the attention of my Main Roads Department client in Queensland, instead of a fee I was given the decidedly unhandsome Cane Toad award shown in below.



The author's hard-won Cane Toad award.

Rudyard Kipling must have stumbled on this strange mating ritual as it explains his otherwise mystifying couplet¹:

The butterfly upon the road,
Preaches contentment to the toad.

Despite the erection of *Toad Crossing* signs, the toad issue raged unabated, spreading throughout the world as we then knew it and to such an extent that in 1989 T. E. Langton organised a “*Toad Tunnel Conference*” at Rendsburg in Germany. The proceedings ran to some 202 pages and were, mysteriously, issued by AOC Polymer Products of Sheffield in England. Just what was the chemical industry doing with all those dead toads?

There is no real mystery about the underlying English fixation with toads and cars. That epic historical novel *Wind in the Willows*, translated from toadish in 1908 by Kenneth Grahame, described an earlier Toad (of Toad Hall) as:

Toad the terror, the traffic-queller, the Lord of the lone trail, before whom all must give way or be smitten into nothingness and everlasting night. [Toad drove] as if in a dream, all sense of right and wrong, all fear of obvious consequences, seemed temporarily suspended.



Toad – dressed by Coalport – during a visit to the author’s bookcase.

Lesser creatures

Many animals regrettably suffer untimely deaths on the road. In the 1970s a Californian artist - Craig Stecyk - cruised the highways looking for dead animals. He would gut the carcasses and fill their pelt with a bronze casting. The fur-covered bronzes were then glued to the road surface in exactly the spot where the corpse was found, as a memorial to the dead beast and as a warning to motorists².

A friend who is an expert on the properties of timber recounted one of the most untimely of all animal road-deaths. He had just finished varnishing and polishing the front porch of his house. The result looked mirror-perfect, until the neighbour’s troublesome cat ran across the porch, became stuck, rolled a few times to try to release itself, and then became hopelessly glued in situ, in a nose-down position. The infuriated

porch-owner tried to knock it free, using a convenient length of timber. The cat quickly expired, due to a combination of asphyxiation, glue sniffing, and concussion.

As the animal had already been the cause of frequent neighbourly disputes, the porch owner thought it best to make it appear that the cat had been the victim of a speeding car. He put the its expired but varnished body on the road outside the neighbour's house and drove over it a few times with his car. Unfortunately the flattened and still-sticky cat-corpse preferred to attach itself to his tyres and car-body, rather than to the road surface. Whilst, for the second time, he was attempting to disengage the remnants of the cat from his property, the neighbour returned home.....

Another animal-on-the-road incident contributes a further story. A famous political leader becomes intensely unpopular and decides to tour the countryside seeking votes. His car strikes and grossly mutilates a large pig wobbling across the road. The politician sends his driver to the nearby farmhouse to make amends and to recompense the owner of what had clearly been a most valuable piece of ham. More than an hour later the driver returns, happy but exhausted.

“What took you so long?” the politician asks.

“Well, the farmer gave me beer after beer, the wife gave me a hearty meal, and the daughter insisted on making passionate love to me.”

“Good god,” said the politician “what on earth did you tell them to receive such a reward?”

The puzzled driver replied “Well, all I said was that I was your driver and that I'd killed the pig.”

The only animals to master the car and its paved road have been the stoic holy cattle of India. Like cud-chewing statues, they exist stationary and unscathed amongst the chaotic traffic of any Indian city or highway. As Aparna Asolkar whose poetic style have already encountered in Chapter 7 rhymed in the Nagpur Times in 1984:

Solid cattle block the way,
They stay like that throughout the day,
And face the frenzied traffic there,
Turning not a single hair.

The road-death score is at least leavened by those animals whose size ensures that any car that strikes them will also be seriously damaged. The elephant is so large that, in Africa, even contact with a hardened pile of elephant droppings has caused motoring fatalities. Kangaroos in Australia and moose in Canada are examples of animals whose mere presence can create major traffic hazards.

To diminish the number of moose-induced driving fatalities, Canadian National Parks officials installed moose silhouettes along the roadside to warn drivers of the potential hazard. However, the silhouettes proved so realistic that motorists were creating a traffic hazard by stopping to photograph them and attempt to see the rest of the herd. To solve this secondary problem, the officials decided to erect signs reading “Caution, Moose silhouettes ahead” before each set of silhouettes. The thought does cross the mind that the Canadians might have finished up with one set of signs too many.

The more callous Australian response to the same issue was to attach large “bull bars” to the front of vehicles driving in kangaroo country, to minimise the effect of kangaroo

impact. The appalling ugly and brutal bars soon became a fashion statement and were being attached to urban vehicles that would never see a kangaroo. Their only practical effects were to increase fuel consumption and visual pollution, and heighten the risk of serious injury if a pedestrian were struck. Nevertheless, they continue to adorn city vehicles.

Animals in game-parks have become notorious for wreaking revenge for their long-term inconvenience on the cars of hapless short-term tourists:

- * monkeys have dissembled most of the external fitments on cars,
- * baboons have removed all luggage from external roof racks,
- * elephants have refused to move from the front of cars unless supplied with the entire picnic hamper on the backseat, and
- * birds have shown an ongoing taste for car aerials and the rubber blades of windscreen wipers.

At the other extreme, spiders would regularly wreak deliberate havoc with the switches in the old-style traffic signal control boxes.

One of the best stories in this area concerns bears in Yosemite National Park in California in 1997³. To avoid bear incursions, tourists were being requested to store their food out of sight in the boot (or trunk) of their car. A pair of tourists did as advised. However, the bears were not fooled by this minor deception. They peeled back the rear window, removed the rear seat, grabbed the food, and then sat on the roof of the car to devour their new-found lunch in scenic splendour.

When my wife and I lived in Bethlehem, Pennsylvania, in the early 1960s the local papers carried a wondrous story of a truck driver happily hauling a load of explosives. Whilst passing through our region, he looked in his rear vision mirror and saw that the tarpaulin covering the explosives was on fire. Noting that he had not yet entered the residential area, he pulled his truck to a rapid halt on a verge beside a high fence shielding a heavily-treed property. He then deserted his now-blazing explosives truck and ran for some far-distant phone box.

The contents of the truck soon exploded with far-reaching consequences, demolishing the high fence that surrounded a privately-run exotic zoo which gave Pennsylvanians a chance to see poisonous snakes, savage tigers, indeed it displayed any creature that provided a frightening threat to man and child. The blast had not only destroyed the perimeter fence but also the walls of most of the enclosures. The green and passive Pennsylvanian hills were now alive with a rapid injection of potentially fatal animal activism. People needed no inducement to stay indoors - if the tiger didn't get you, the python would. Within a few days the stunned and disoriented animals were all accounted for, but it took months before many citizens returned to the streets.

Perhaps all this leads into The Gorilla Story. A traffic policeman stops a car with a gorilla sitting in the passenger seat. He admonishes the driver:

“What you are doing is very dangerous and probably illegal. Take that gorilla to the zoo immediately, and be grateful that I didn't charge you with an offence.”

Next day he is patrolling the same street at the same time, and spots the same car going past with the same gorilla in the passenger seat. He stops the car again and says :

Policeman: “Didn't I tell you yesterday to take that gorilla to the zoo?”

Driver: “Yes, and he enjoyed it so much that today I’m taking him to the aquarium.”

And so we are left in this discussion of animals and transport with only their role in shaping pre-modernist psycho-philosophy remaining to be explored before the whole text can be seen in its proper post-Marxist context. Clearly, the oft asked and underlying fundamental question “*Why did the chicken cross the road?*” cannot be answered without a proper consideration of the many factors raised in this study:

- * What were the abutting land uses?
- * Did they include an approved chicken-generator?
- * What right-of-way provisions applied?
- * What was the condition of the pavement surface?
- * Was street lighting in operation?
- * Were animals legally permitted on this stretch of road?
- * Was crossing by any creature legally possible, in the absence of a properly marked and installed crossing?
- * Was there an approved chicken-attractor, with a licence to operate at the time in question?

These are not easy questions, nor do they have the slightest suggestion of humour or whimsy attached to them. They are therefore not a proper way to end this chapter. A better ending may appear in the next edition.

Notes on Chapter 21

1 Pagett, M. P. in Rudyard Kipling, *Complete Verse*, Doubleday: New York, 1989

2 Marsh, P. & Collett, P., *Driving passion - the psychology of the car*, New York: Cape, 1986, p148

3 Melbourne Age, 25 Nov 1997, pC1

Chapter 22

The best way out

- in which the author at last finds a suitable way to end this hard road.

Let us jointly end our time together by recalling that famous story which you thought had, incredibly, been overlooked. Jack was always driving through red lights, to the distress of his workmates.

“Why do you drive this way?” he is asked.

“Well, that’s how my brother Jim taught me to drive - ‘never stop on the red’, was his motto” Jack replies.

“No, no!” Jack is told by his worried workmates “you must stop on the red and drive through on the green.”

Jack shudders at the thought and explains “But if I did that, Jim might be coming down the cross street and you know how fast he drives.”

But I jest at least once too often. **Ways** are curiously and perhaps perversely dear to my heart. And I do suspect that I share this perversion with others, or at least with Cullen Gouldsbury who wrote in his *From the outposts*:¹

We love each whisper of the wind, each rumour of the road -

Each frowsy goatskin slung behind, and every knotted load,

Each red-brown village framed in smoke among the feathered maize,

Even the belt of scrub that cloaks **the glories of the ways**.

And along with Robert Frost,²

The woods are lovely dark and deep,

But I have promises to keep,

And miles to go before I sleep,

And miles to go before I sleep.

Notes on Chapter 22

1 1914. Republished in 2007 in paperback by Kessinger

2 Stopping by woods on a snowy evening, 1923, New Hampshire

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