

'The Law is killing 3000 people a year'

J. J. Leeming, BSc., FICE, a road engineer for 40 years and author of *Road Accidents: Prevent or Punish* and *Do speed limits work?* (published in *Motor* last September), believes that the law not the motorist is to blame for road accidents. Would the accident above have been less severe if the tree had not been there?

Many people firmly believe that *all* road accidents are caused by the wilful recklessness of motorists. An example of this is the hysteria about motorway pile-ups in the fog. The drivers were called maniacs, and stories about their speeds were accepted as the truth. On BBC1's Nationwide programme the Rt. Hon. Richard Marsh, MP—former Minister of Transport—said some of the drivers should be "put inside". When he was Minister he had spoken in a similar way about M1 pile-ups; in both cases long before there was time to study the incidents to find out if any other factors were present. He seemed to think that the drivers' guilt was automatic.

A letter to *The Times* proposed that to stop these pile-ups the police should automatically suspend the drivers' licences for a year.

The *Guardian* reported in 1966 that in one of the first—if not the first—of the roadside courts in France M. Bunarc, Prefect of the Allier Department, who presided, said to the defendants "Last year lunatic drivers killed 12,500 people on the French roads. . . ." That was the total number of road deaths in France that year, so

the Prefect was saying that drivers' lunacy caused every road death, which I find hard to believe, but the *Guardian* reported it with apparent approval.

In many cases road accidents are caused by road conditions. At an Assize Court in which a case of "killing by dangerous driving" was being taken, the judge made it clear he thought the defendant was guilty and all present took this as a matter of course, *including defence counsel*. Actually, the unfortunate man had fallen into a trap set by road conditions; this was later put right and the accidents stopped.

As they assume drivers to be always at fault, Parliament, the Judiciary, and propagandists seem to say to themselves: "It doesn't matter what we do, if it goes wrong the drivers will be at fault." So there is no need to study whether any proposed measure is likely to be effective. As long as it produces restrictions and penalties on motorists it must be right. Mr Edward Terrell, QC, has proposed that we should adopt a Highway Code "with teeth in it" and that infringements of the Code should

be treated as absolute offences and severely punished, often with automatic disqualification. Mr Terrell claims this would halve accidents, but he doesn't explain how he arrives at this figure, or whether any other country has such a measure and if so how it works.

The breath test was heralded by a rage of publicity about drunken drivers, but no one asked whether they were responsible for a large number of accidents, or whether there were other matters which could be given priority over alcohol to make a bigger impact on the accidents.

The Halt sign seems admirable because "obviously" if every driver halted at every main road there would be fewer accidents, so the sign was brought in without further ado. I call this attitude the Revenge Theory.

Evidence for the Revenge Theory

When motoring started around 1900 the landed gentry manned Parliament and the Bench. The motor was the plaything of a few eccentrics; it was smelly, noisy and it frightened the horses, and damaged the roads which

the gentry had to maintain through their rates. It was an obvious ploy to use Parliament and the Bench to suppress this abomination and raise fines to reduce the rates.

Repressing and fining the "road hogs" became a vested interest and a racket, and has gone on so long its effectiveness is taken for granted. Accidents are excuses for its continuance.

Mrs Barbara Preston—an advocate of increasing the severity of motoring law—has claimed that every introduction of more severe laws has always been followed by a fall in accidents. This may be so, but the falls are small and, like the fall in Connecticut after the crackdown, constitute minor temporary changes which did not affect the general trend. Variations such as these are inevitable, and are due to all sorts of things, including chance. They cannot be accepted as real unless they make some genuine and marked change in the trend. In all these cases there was no sign of this.

There is no real evidence behind the Revenge Theory. It rests on the *obiter dicta* of eminent men, and on ancient and strongly held prejudices.

The Remedy Theory

All drivers have inevitable human weaknesses; therefore the remedy for accidents is to alter the environment—including the roads and the vehicle—so that the driver can overcome these limitations.

Even the maddest of the lambaste-the-motorist school could not deny the driver is a human being. We are told accidents are due to selfishness, lack of consideration for others, lack of concentration, thoughtlessness and so on. There is some truth in this, but these are human failings and people show them in other activities that also involve accidents and deaths, indeed as many as occur on the roads, but nobody bothers about those. To think that we can eliminate human weaknesses on the road by savage penalties, while making no attempt to eliminate them in other activities is lunacy.

Birmingham University's study of 578 accidents on site shows that environmental defects play a large part in accidents. Defective signs were involved almost as often as alcohol—in about 10 per cent of cases—while skidding was present in about half the accidents; wilful error was a minor factor.

When accidents recur at the same place the Bench say "We are

determined these accidents must stop" and pass more severe sentences, but the accidents go on until the engineer is allowed to alter the road. Then, and only then, do the accidents stop. At one particular crossroads in Dorset there had been one fatal and three serious injury accidents in 1947 and 1948 (years of petrol rationing and low traffic); since a roundabout was built in 1949 there have been only three serious injury accidents and no fatal accidents in 21 years.

In another case surface dressing of a bend reduced the number of accidents by 13 per cent. Drivers were clearly able to deal with the curve but were led into trouble by a polished or slippery surface, which they could not see. It is often found that if a surface polishes accidents will start at places where they have been previously unknown. One stone with a very good reputation for its non-skid properties was found to polish suddenly and unpredictably after a few years' wear *without losing its rough appearance*. The punishment of drivers who had fallen into this trap delayed road engineers finding out about it.

There is a wealth of evidence of this type and the Remedy Theory is strongly supported, yet, thanks to the Revenge Theory, we allow and even encourage the accidents to go on and then we take revenge for them afterwards.

Reconsideration

We may now reconsider in the light of the Remedy Theory, in which we do not automatically blame the driver and automatically say "X was going too fast, put him inside". We ask, "Why was X going too fast, was he deceived in some way, perhaps by a defective sign, or by unclear traffic lights, or by a polished surface?"

On the motorways in fog it is difficult to judge your speed. There are no marked features by which this can be done, it is like driving in a vast car park and it is dangerous to take your eyes off the road to look at the speedometer. It may also be that the surface is slippery. That of M1, where the pile-ups occurred last year, has been unobtrusively roughened. But when Dr Mackay of the Birmingham University study team pointed out some of these things on *Nationwide*, Mr Marsh brushed them aside. But they are true and putting the victims of these traps in prison is not going to stop others from falling into the very same trap.

I have come across all sorts of traps in the course of my 40 years'

experience as a road engineer. In 1930 I was told to conduct an experiment to see if it was possible to make a perfect running surface in concrete, which at that time used to produce a series of regular slight bumps at the joints. I did get a nearly perfect surface—at high cost—but then we found that we got accidents on it. Probably at that time few would have known or bothered about these ("bad driving, old boy") but this was in Oxfordshire under Lt. Col. G. T. Bennett, the pioneer of the Remedy Theory. He studied the accidents and found they were due to a film of ice that formed at or about freezing point on an exposed position on the top of the Cotswolds. The concrete was covered with an insulating surface and all was well.

Germany has something very similar to the Terrell Plan, with a lengthy Code of Law cum Highway Code and severe penalties of up to five years' imprisonment for infringements. It is also assumed that *in every accident* one or more of the participants has broken the law. When allowance is made for differences in the populations and numbers of motor vehicles in the two countries by using the Smeed factor, we find that Germany kills twice as many people as we do. I don't say this is necessarily due to the severe laws, but this possibility cannot be lightly dismissed. So before adopting the Terrell Plan we should very carefully study the whole of the situation in Germany.

It has been claimed that the breath test has saved 2000 lives in the two years between its introduction and the end of 1969. If this is so it would mean it has saved more than the total reduction of deaths since 1967, so we must assume that safety belts and the tyre regulations and the 70 limit have *increased* the death rate. Would the Minister be prepared to cancel these? The effect of the 70 limit is doubtful, but the other two must have had some beneficial effect. But there is another source of reduction in deaths which is always, and I very much fear deliberately, ignored—road improvements. We can estimate this saving with some degree of accuracy. Between 1960, the first year in which the motorway M1 became operative, and the end of 1967 about 500 miles of motorway had been opened to traffic. This would be expected to have saved about 200 lives in 1968. About the same time the partial ban on road improvements was relaxed and a large but unknown amount of road improving was carried out. When analysed a small sample of motorways and improvements can be accurately

estimated to have saved 40 lives in 1968, so to assume that the whole of the work done would have saved 200 lives would not be excessive. Thus road works would have been expected to have saved about 400 lives in 1968 so it is most unlikely that the whole of the reduction in deaths is due to the breath test.

The recent rise in accidents has been attributed to the test losing its terrors, but is far more likely to be due to the cut in road expenditure, which of necessity falls most heavily on the work which saves lives.

As far as our evidence goes, alcohol is not a major factor in accidents, certainly not when compared with environmental factors. I am not implying the test is necessarily a bad thing or that it should be abolished, but the Remedy Theory may lead us to modify our attitude to it and if we consider the financial angle we may well have some doubts and change our priority.

We are always told money is limited. If this is so I wonder whether the vast sum the breath test has cost would not have been better spent on the development of the Maxaret or similar anti-skid devices, which may have saved far more accidents. This device can at present only be fitted to very costly cars, but if it could be fitted to *all* cars it might have an enormous effect *and* provide an excellent export. If a balance could be made we might find the test has been premature.

While the Halt sign is admirable in theory we must not forget that man is human and may fail to stop because of defects in the sign, from inadvertence, from human or mechanical failure. Then the presence of the sign may make the accident worse because a local driver on the main road will rely on it and find the car on the side road "mentally invisible", in G. K. Chesterton's phrase, so making no

attempt to avoid an accident. Practice does not always confirm theory.

The design of the sign was based on a hunch and has been found to have helped to deceive drivers, because it could be hidden by parked vehicles and because it was not at the site where the driver had to stop. When this was discovered, lines and Halt were painted on the road, but did not always help because they could be hidden by a hump in the road. Engineers pointed out these objections for years, but no attention was paid until people started to go abroad and saw the Stop signs there. The sign was changed by public demand and study has shown that this change has halved the accidents at sites with Halt signs. The objections to the sign are thus shown to be valid and the failure to listen to them must have killed many people and been responsible for many miscarriages of justice. Relaxation of Halt to Give Way has also been found not to have increased accidents, so the Halt sign was also quite often unnecessary.

The Law and Research

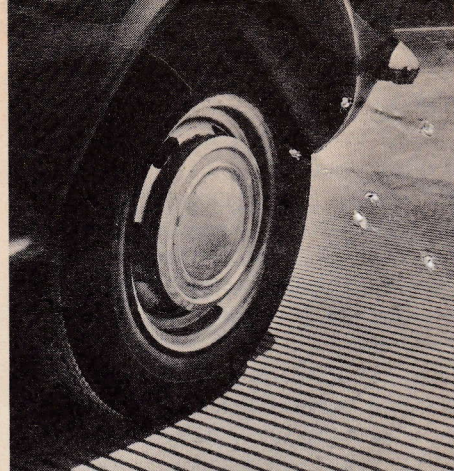
When an accident happens the police question drivers and witnesses to find out if a driver has committed any offence for which he can be prosecuted. At their complete discretion they may or may not pass on information to the engineer, who has no right to require it or to question the driver. The driver, knowing the object of the inquiry in his prosecution, naturally only tells the police what it suits him to tell them, so even if the police pass on information to the engineer much of it is misleading. He wants scientific truth, not legal truth, and there is a world of difference between these.

It is certain that in many cases the reason for accidents could be found, much earlier if the engineer was able to question the driver without the latter having to fear prosecution. There are all sorts of traps in road conditions which we cannot find out because the law prevents the necessary research. Traffic lights are as near as possible identical with those I first saw in New York and Detroit in 1921. Surely they could have been improved since then if we had really studied the matter. They are often nearly invisible, especially in bright sunshine. The Swiss idea of lights of different shapes is very promising, combined with having them brighter by day and dimmed at night. It is, of course, impossible to experiment with different types of lights because if these are not in accordance with the regulations we face the appalling prospect of not being able to punish motorists. Once again the law prevents research.



Above: a clear straight road in rural Bedfordshire? That's what it seems to the driver. Below: a few yards later and the busy A6 looms into view; and the approach is a down-slope. Only a twisted Give Way sign and faded lines warn against this Barton black spot





Below: a nasty skid like this is not always caused by reckless driving; the road may be at fault, not the driver. Concrete sections of M1 have recently been grooved, above and left, to improve tyre adhesion in the rain

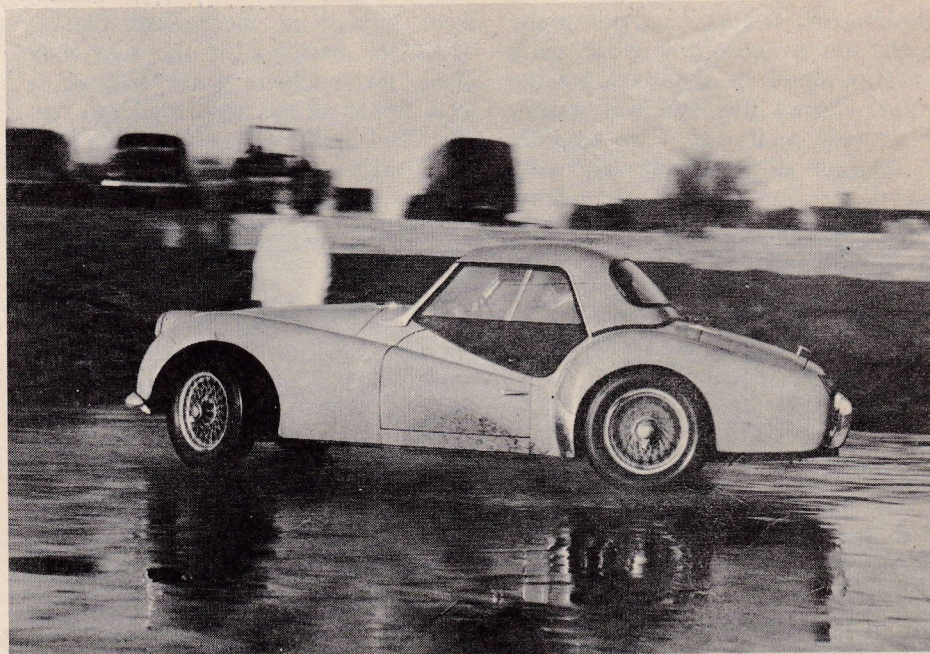
The Law and Accidents

It is often assumed that the law is designed to prevent accidents, and does so. Once again there is no evidence for this and by preventing the engineer from finding out how to stop accidents the law is playing a large part in causing them. It is probable we could halve the annual number of deaths. Professor Smeed and I arrived at this conclusion independently, though our detailed proposals were different (to my mind he underestimates the effect of road improvements). We are not making any attempt to do this because the prosecutions and publicity they get make the public happy in the belief all that need be done is being done. So there is no demand for the prevention of accidents by changes in the environment, which is the only way we can be sure of stopping them.

The law is probably the largest single factor in accident causation. It even teaches bad driving; obviously, if the driver is always at fault no one else need take any care and the young who start their road career on foot or on bicycles are then taught by the full majesty of the law that their safety depends on others. If they then carry that idea with them to the wheel when they start driving who can blame them?

The driving licence

Another way in which the law is helping to cause accidents is by the wholesale suspension of licences, often on quite frivolous grounds. It is impossible to argue against the proposition that in any human activity needing skill, constant practice and long experience are needed to get the best performance. Neither can it be said that driving is not an activity needing skill. It therefore follows that suspending a licence for any length of time must impair driving to some extent. To argue against this is to deny all human experience.



It is, of course, often argued that suspension is the best deterrent and the best punishment. There can be no denying that it is the best punishment, but the whole argument depends on the doubtful proposition of the Revenge Theory that punishment and deterrents are the best way of stopping accidents. But if, as is almost certainly the fact, most accidents are due to the driver being misled by traps in road conditions then the deterrent and punishments are not only ineffective in stopping accidents, they even help to increase them.

In any case, in view of the possibility of impairment, to suspend licences for offences which do not involve control of the vehicle (such as failure to pay tax) is quite indefensible.

The Social Effect of the Law

St Thomas Aquinas, one of the world's greatest social thinkers, said that an unjust law—which he defined as one in which burdens are imposed in an unfair and disproportionate manner—is an act of violence. Motoring law certainly comes under this

definition. It is highly disproportionate and inflicts on motorists severe penalties which are not inflicted on others for analogous acts. A glaring example is the "killing by dangerous driving" crime. When the Minister of Transport proposed this to Parliament he argued for it—with disarming candour or complete lack of tact, as you prefer—that it was notoriously hard to get convictions for manslaughter, so this new offence was needed because *motorists* were escaping punishment. He was silent on the fact that others were also thus escaping.

This is a disproportionate and unfair law because it means that an action becomes a crime because of the instrument with which it is done, and *not* because of its own intrinsic demerits. People are often killed as a result of reckless or dangerous conduct on the part of non-motorists and no prosecution follows. Yet, as the judges have now defined dangerous driving, a man may be savagely punished for having fallen into a trap set by road conditions, a trap for which

the law itself and perhaps the court trying the case, share some responsibility. This is only one instance, so if the Aquinas principle is valid the law itself is an act of violence.

There are other ways in which the law is doing grave social harm. We are always told that it is a fundamental principle of English law that a man is innocent until his guilt is proved beyond all reasonable doubt. But the whole atmosphere of the Revenge Theory, which permeates our whole society, means that a motorist enters the court already judged guilty. I am not implying the courts do this deliberately, but they are human and can hardly fail to be influenced by this universal atmosphere. Motorists realize this and plead guilty in the hope of getting a lighter sentence feeling they have little hope of acquittal; they have lost all confidence in the impartiality of the courts. The breath test has finally abolished the principle of reasonable doubt. At low blood/alcohol contents, say, between 80 and 90 mg per cent, the inherent errors in the test provide reason to doubt whether the content may be correct. This depends on a statistical function called the "standard deviation", about which there seems to be a conspiracy of silence. I understand some research has been done on it, but I cannot find out what is its result so we are led to suspect that the situation is even worse than it seems.

The test also presents us with the spectacle of the courts condemning people for the appalling offence of impairing their driving for a few hours, and then punishing them by impairing their driving, probably for a much longer time. In many cases also, the courts are accessory before the fact of the crimes they are trying because the proceedings hide from the engineer the facts he needs to enable him to analyse the circumstances of the "crime". Sometimes the crime is due to the shortcomings of the law itself.

There seems to be general agreement that part of the trouble in Northern Ireland is due to a large section of the population having lost confidence in the impartiality of the police and the courts. Motoring law in this country is heading the same way. One reason for it is the enforcement of speed limits. For practical reasons the police can only enforce these at times or places where the limit is not really needed at all, and often in places where the limit has later been relaxed without any increase in accidents.

It is the duty of the police to enforce the law, no matter how bad it is, and the responsibility lies with those who make bad laws, not with the police.

Not that the police are entirely free from some blame. They are too apt to blast off at drivers and this does not help relations. Then we frequently see reports in the Press of cases that seem to be based on pure legalism and to be quite unnecessary, and brought merely for the sake of punishing motorists.

Complaints are often made about motorists ignoring the advisory signs on motorways, but this may be due to lack of confidence in the police. This is understandable in view of the foregoing, and also because so many of the regulations the police have to enforce have no obvious reason.

I once saw a "courtesy cop" pass several people thumbing a lift on double white lines—he had obviously done nothing about them. But if I had stopped to give them a lift he would have been on to me at once.

The main principle of the motoring law seems to be to punish an innocent X to deter a possibly guilty Y. The 80 mg per cent limit does this, and the proposal to lower this limit to 50 mg per cent is quite openly based on it. Once again the innocent X blames the police and not the lawmakers. This is illogical, not human.

The Clot Factor

A correspondent recently accused me of ignoring the "clot factor" as he called it and talked about irresponsible clots who endanger our lives, in a context clearly referring to drivers. He must have been quite incredibly naive or totally ignorant of a county surveyor's job. I have spent 40 years dealing with clots of all sorts.

Study shows that the irresponsible clot driver figures in very few accidents. These happen to the normal, decent person honestly trying to do his best, but deceived by traps in the road layout, or in the words of the Professor of Psychology at Manchester University, Professor John Cohen, being "asked to exceed his physical and mental powers". The really irresponsible clots who are killing people wholesale are those who design bad signs, put up speed limits or halt signs in bad places, and prevent the engineer finding out what is wrong, or who pass bad laws because they would rather punish motorists than stop accidents.

There are a few irresponsible drivers and one may feel sympathy for those hurt by them, but that should not make us lose sympathy for the much greater number of people killed by the other irresponsibles. Is it really worth killing 10 people on the off chance of saving one life, as we are doing at present?

What can the motorist do?

The usual process of democracy seems useless; too many minds are firmly shut, but there are some ways in which the motorist might prise these open.

It is excellent news that motorists are going to sue the Minister for damages to their windscreens on M4. This could well be extended and the Minister sued in all the cases where he has failed to put right defects in road layout. It may be taken with some confidence that such a defect exists if there have been two accidents at some place within a short time, say, a year or so. If there have been three accidents in a similar time it may be taken as certain and the Minister sued. For administrative reasons this should at first be confined to trunk roads.

A very intriguing extension of this is suggested by a recent case reported in *The Times Law Report*. This was an appeal against the conviction of a company who knowingly sent out a lorry with a defective tyre which burst on a motorway: six people were killed. The company were fined and its managing director was jailed for nine months. No one could quarrel with the failure of such an appeal, but what is the real distinction between a firm sending out a lorry with a defective tyre and a Minister who refuses to put right a notorious defect in road layout which is causing many accidents? There are few road engineers who could not point to cases like this. Perhaps, then, a criminal case should be brought against the Minister in one of these glaring cases. Perhaps, also, in view of his recent outbursts, Mr Marsh has volunteered for this fascinating test case. Those "put inside" on his suggestion would no doubt be delighted to have his company. One or two cases like these would do far more to stop accidents than all the breath tests.

The other course open to the motorist is that of obeying the law with pharisaical exactness. To obey the pedestrian crossing regulation alone, as the courts have made it, would stop all traffic in the great cities and bring the country to its knees in a very short time. It would have to be done on an organized basis, all starting on one day. The law is saying to the motorist "For God's sake disobey the law to keep the country going, but by gad if I catch you at it you're for the high jump". He should call the bluff.

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The law is one large act of violence, and is killing at least 3000 people a year. We shall make no progress in stopping the accidents until the law is reformed.