

# DOES ROAD SAFETY CONCERN MEDICINE?

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The object of this article is, firstly, to discuss how far road safety is a matter of concern for the medical profession and, secondly, to suggest ways and means to ensure that applicants for drivers' licences are, in fact, fit and proper persons to drive vehicles as potentially dangerous as the ordinary motor car and the heavier motor vehicles.

## THE MALADY

### *How does Road Safety concern Medicine?*

Analysing road safety we find that it concerns 3 types of fitness: (1) Road fitness, which is the concern of engineers and road-builders; (2) vehicle fitness, which is the concern of manufacturers and motor garages, and (3) human fitness, which is the concern of the medical profession. In fact, this is why the profession exists.

In endeavouring to deal with the subject of road safety from the medical angle, we cannot exclude non-medical factors such as suggestions for the promotion of road safety which, even if they are non-medical in appearance, are essentially medical matters in the sphere of public health. For it is the doctor who is called in first in a medico-legal capacity to see if the driver is sober

and fit to drive, and it is the doctor who is called upon to give first aid to the injured on the spot or in the casualty wards or hospital theatre. Road accidents and road safety concern life and death, wounds, maiming, first aid, surgery, medicines, physiotherapy, and rehabilitation.

For factory and mine accidents and for infectious diseases, there are special public health regulations, but there are none for road safety. We cannot rely on safety belts, blood donors and surgical teams to minimize the occurrence of road accidents; preventive measures must be taken. Certain diseases affecting driving ability should therefore be made notifiable, as in other notifiable diseases affecting the public health. Road safety is a matter of public health and it is time that this was recognized. It is just as important as town planning, ventilation and sewerage which are directly connected with medicine and public health and are the subjects of legislation. Road accidents are the greatest killer and maimer and speed is an important cause of accidents. With proper preventive measures these accidents would be largely avoidable and could perhaps be reduced by as much as 85% in the first year of trial.



*Is Existing Legislation Sufficient?*

Section 41 (1) (f), (g) and (h) of the Cape Road Traffic Ordinance (1955) lays down which persons, from the medical angle, are disqualified from obtaining or holding a learner's or driver's licence, namely: Those who are addicted to narcotic drugs or intoxicating liquor, or are suffering from epilepsy, sudden attacks of giddiness or fainting, bad vision (standard is given), mental disorder or defect, or from any other disease or physical disability which is, or will be likely, to render him incapable of effectively driving and controlling a motor vehicle . . . without endangering public safety'.

Regarding a person's competency to drive a motor vehicle, 3 aspects present themselves, viz. (1) The moral aspect: Is the applicant's character such that he will drive in a responsible way with due regard to the rules of the road and the rights and safety of others? (2) The question of physical and mental fitness: Is the applicant's health and condition such as to allow him effectively to drive and control a motor vehicle? (3) The question of driving ability: Is the applicant a competent driver? Can he properly handle the vehicle? The third question is the concern of the officers appointed to examine candidate drivers.

As a profession, we are concerned with two aspects of road safety, namely, the examination of individuals with regard to their physical and mental fitness for driving, and the clean-up process after accidents. But, in view of our primary aim as a profession—the maintenance of public health—we ought to have an interest in the prevention of accidents. We are really concerned, therefore, not only with the state of health of the individual but with his moral calibre.

As regards a candidate's character, unless he is well known to the doctor who is examining him, the doctor would hardly be in a position to say anything about his character, and it is not suggested here that he should do so. But the medical profession, through its Association, could urge legislation ensuring that an applicant must show the Issuer of Licences at least 2 testimonials from reliable sources, as well as a police report about his criminal record.

A brief examination of the application forms for learners' and drivers' licences will show how inadequate they are. The applicant for a learner's licence is himself expected to answer whether he is unfit or disqualified from driving, or a drug or alcohol addict, an epileptic or mentally disordered or defective. Naturally most people would answer in the negative, and a person of questionable character would certainly not say he was unfit or disqualified. The attention of the medical practitioner is then drawn to the answers given by the applicant and he is asked to declare that he has examined the applicant and that in his opinion the applicant is not disqualified in terms of the relevant sections of the Ordinance, from obtaining a learner's or driver's licence. The medical certificate required in the application for a driver's licence is equally vague. No degree of fitness is laid down for the guidance of the doctor. The law does not state what conditions or diseases or combinations of diseases render a person unfit to drive. The matter is left to the discretion of the individual doctor.

If a doctor decides that an applicant is not fit to drive a vehicle, there is no place on the form for him to state his finding. He can only refuse to put his signature to it and there is nothing to prevent the applicant from going from doctor to doctor until he finds one who is prepared to fill in the form.

It is therefore suggested that the forms should be redesigned to enable doctors to state positive findings concerning age, state of health, diseases and the like. The form should also make provision for the doctor to state whether in his opinion, the applicant is a fit and proper person to drive, despite the presence or absence of disease or physical defect. In fact, the form should give the doctor *carte blanche* to say what he feels is relevant and proper.

It is also suggested that the medical certificate should be printed on a detachable form and that the doctor should be required to send it direct to the Issuer of Licences and not to hand it back to the applicant. Furthermore, if the doctor desires another opinion, the case should be referable to a panel of doctors—at the request of the applicant himself or at the doctor's request.

*What Degree of Health is Necessary to Driving Fitness?*

The contra-indications for driving are numerous when it comes to physical illness, but it is only when these diseases are severe that they should be considered as disabling. There are many

diseases which may gradually render a person unfit for driving, for example, diabetes and rheumatoid arthritis in their more aggravated forms. The following diseases are of special importance in this respect:

(a) Diseases of the central nervous system, especially those affecting the higher centres.

(b) Diseases of the locomotor system, especially when the effects are incapacitating, as in paralysis, rigidity, paraesthesia and amputation.

(c) Diseases which affect the senses of vision, hearing, balance, and touch and pain.

Mental and cerebral diseases are far more serious than physical diseases or disabilities. Symptomatic diseases are dangerous unless made unsymptomatic by drugs, but where diseases remain symptomatic, despite treatment, or where treatment produces symptoms, the conditions are equally dangerous. Hypertensive episodes are as bad as hypotensive faints produced by therapeutic agents. Insulin coma is as bad as diabetic coma. It is difficult to define unfitness for driving in terms of mental or cerebral disease, because these conditions often occur as temporary states. The important conditions in this respect probably are recognized cerebral or mental disease such as epilepsy, head injuries, alcoholism, etc.

*Is Speed Synonymous with Carelessness or Recklessness?*

Temporary instability or irresponsibility are examples of abnormal mental conditions that can be defined and considered in relation to road safety. Both of these states, especially the former, are generally curable with time or preventive measures, and licences could be withheld or suspended as a temporary measure. Licences should be permanently withheld from chronically unstable or irresponsible individuals, such as the habitual criminal and the drunkard, subject to special provision for the granting of licences to exceptional cases, e.g. the socially rehabilitated on the recommendation of responsible persons or bodies such as social welfare workers, the clergy, etc. Lastly, the habitual 'speed-merchant', who cannot bear to let another pass him or retain the lead against him, who races to arrive in time for a casual appointment, and who does not see that the extra minute he may save makes no difference, should have his activities curtailed. His love of speed may be due to high spirits and competitiveness, or to a warped mind. From a medical point of view, habitual speeding is a sign of mental instability and should be a reason for the cancellation of a driver's licence.

Speed is one of the most important causes of death on our roads. A person who drives a car at high speed, even on a straight, well-constructed highway, whether he realizes it or not, is forgetting two things: His own fallibility as a human being and the role of external factors such as a dog, a child, a sheep, a bird, a nervous or careless driver, or an unthinking pedestrian. A driver has no control over external circumstances. He can only attempt to control and manipulate his own car, and at high speeds his control and ability to manipulate his car is at its minimum.

*Is Third Party Insurance Wholly Good?*

Insurance, which is of great psychological significance, was originally intended to ensure compensation to injured parties when the person causing the accident was not able to meet the cost of the damage he caused. In this sense insurance is good, but there is another side to it. Insurance may give the motorist a false sense of security—he may begin to drive 'under the influence' of insurance. He knows that an accident need not lead to financial embarrassment, for his insurance company will foot the bill, and so he gives less thought to the death, destruction and grief which may follow on his carelessness or recklessness. Every man should be held responsible for the harm caused to others through his negligence.

## THE CURE

The cure for road accidents does not lie in safety belts, crash helmets, car designs, blood donors, surgical teams, and courtesy weeks. These measures are good, but are a mere drop in the ocean. The solution lies in public health measures. On the surface, town planning, sewerage installation and rodent extermination may appear to be non-medical measures, but they are in fact public health measures governed by public health regulations. Road safety falls into a similar category and I shall now try to show how the existing measures fall short or are out of date.



### *The Road, the Vehicle and Speed*

National roads are designed for a maximum safety speed of 50-60 miles per hour. However, safety does not only depend on the road and the vehicle, but on the human being behind the wheel. The average person cannot stand the strain of high speeds, except over short distances. If he is driving a long distance and is to avoid fatigue and strain, a driver must maintain a moderate rate of travel. A tired person is accident prone and so is a speeder.

In a large car, a good, moderate speed on a national highway would be that advised by the engineers, namely 50-60 miles per hour. In a smaller car, or in an old car the factor of fatigue in the driver will be increased, and for such cars the cruising speed on national highways should be accordingly decreased.

In dealing with country roads, the speed limit for each class of vehicle should be reasonably reduced.

Vehicles should be marked so as to indicate their speed class. Both driver and public would then know if a vehicle was speeding and the police could then intervene. Governors should also be used.

### *The Driver and the Vehicle*

Both driver and vehicle should be examined periodically. The results of these tests should be filed with the Issuer of Licences. Naturally, if a driver or vehicle should fail to qualify, he or it will have to go off the roads until such time as they do qualify.

A person with a physical defect, who, for example, has lost the use of, or partial use of, a limb or limbs, should undergo a special test and be permitted to drive only a specially adapted car. A special speed limit should be fixed for such drivers and their cars should carry a distinctive outward mark.

### *The Examiners and the Police*

Both civil and traffic police should know the traffic laws, even if they do not hold drivers' licences, and should be urged to report the behaviour of motorists, if they contravene the laws. In smaller towns, where there are no traffic police, the civil police often tend to become casual about traffic offences, whereas they should be more alert than the officials in larger towns.

Both examiners for driving licences and traffic policemen should pass a special driving test, and they should be subject to periodical examination. There should be two kinds of traffic policemen; mounted and pedestrian. In each case they should operate in pairs as far as possible. This would ensure that their evidence would be accepted in a court of law.

In urban areas, where the traffic is heavy, each pair of pedestrian policemen should walk their beat abreast in the same direction, but on opposite sides of a street. In this way they would both be liable to see the same incidents and could compare notes afterwards.

On highways, the traffic police should, of course, be mounted on fast vehicles but, until an incident calls for investigation,

their travelling speed should be such that they are able to notice what is going on about them, just as a London policeman is bound to pace his beat at 2 miles per hour. These policemen should also operate in pairs.

In addition to the police there should be civilian road-safety officers, consisting of men of good character appointed for their interest in road safety. They should carry a badge of office and should have at least some of the powers of traffic police. Especially in the smaller towns where there are no traffic police, a small unit of civilian officers would be of great help.

### *Alcoholism and Other Diseases*

Alcoholism and other diseases affecting driving ability should be made notifiable. With regard to the present offence of driving under the influence of alcohol or narcotics, many people evade their real liability because the doctors are sometimes unable to state what their condition was at the time they were alleged to be driving the car. The definition of the offence should be changed so that any person who has taken alcohol or narcotics in such quantity as to affect his driving ability at any time thereafter (whether soon or after a lapse of time) should not be permitted to drive a car at all.

### *Penalties*

The subject of penalties is difficult and to a large extent must be left in the hands of judges and magistrates. I should, however, like to make the following suggestions:

(a) Drivers who are continually appearing in court for offences relating to nuisances, speeding, carelessness, etc. should ultimately be declared habitually unfit for driving.

(b) A driver who is involved in an accident caused by his own recklessness, alcoholism or indifference to traffic rules, should have his licence cancelled with permission to re-apply after a period fixed by the court.

(c) A driver who is found guilty of driving under the influence of alcohol or narcotics, or who is found guilty of driving a car after having taken alcohol or narcotics in such quantity as to affect his ability to drive, should be penalized as indicated in (b) above.

A driver who is twice found guilty of either of the abovementioned offences should be declared habitually unfit for driving.

(d) A person who has been declared habitually unfit may be allowed to re-apply for a driver's licence after a stipulated period.

(e) The temporary cancellation of a licence with the right to re-apply at some future time will only be effective if my suggestions for the testing of applicants with regard to character, health and driving ability, are adopted.

We must, of course, try to retain a sense of proportion and humour, but if measures of the nature suggested in this article were adopted, the results might be profound.