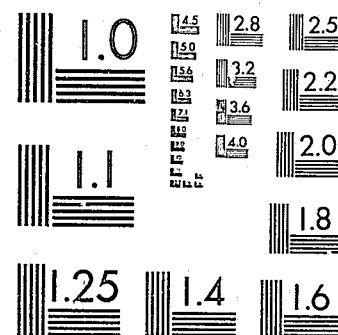


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DRINKING and DRIVING

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dr. Dato W. Steenhuis



Ministry of Justice The Hague - Netherlands  
1983

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Drinking and Driving

1. Introduction

Some time ago several daily papers carried reports of a warning by Mr Polak, the director of the Dutch Road Safety Association (VVN), about the increase in drinking and driving. To quote his words, "We are very concerned that traffic control has sunk right to the bottom of the police's list of priorities. This is a very dangerous situation. Unless there is an immediate increase in the chances of catching people committing serious traffic offences, such as drinking and driving, road safety in this country will deteriorate very considerably."

Mr Polak is not the only person concerned about the effectiveness of police action against the "alcohol danger". For some time, the Central Police Traffic Committee (CPVC) has been debating the proposed abolition of the measures to combat drinking and driving, referred to in police circles as roadside surveys. Such surveys have been held at local, regional and national level, since 1 November 1974, when the Road Traffic Act amendments entered into force; at that time they were seen as a significant new instrument with which the police could enforce observance of the Act. Previously, the law had permitted the police to stop a motorist only if they had definite grounds for believing that he or she was driving under the influence.

Eight years later, however, opinions in police circles about the value of the surveys have obviously changed: many police officers think that they are ineffective, as they generally produce few prosecutions. On average, "only" 3% of all drivers detained in such surveys in 1978 were found to have in any way infringed the road traffic regulations and of them over half had blood alcohol concentrations below 0.8%, and were not therefore prohibited from continuing their journey. Only some 1% of people examined were

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charged for having blood alcohol concentrations of 0.8% or more.<sup>1</sup> Many police officers therefore favour a further reduction in roadside surveys, and an increase in mobile patrols which produce more police reports in proportion to the number of motorists stopped.

It is clear that both Mr Polak's cri de coeur and the CPVC's debate arose from concern about the trend in drinking and driving, but all the same some reservations may be made about their assumptions. For instance, it is not known what figures form the basis for VVN's opinion that driving under the influence is rising sharply. Faults in the figures quoted by Mr Polak for the percentage of fatal accidents caused by alcohol mean that they are not altogether reliable.<sup>2</sup> Unfortunately now that the Road Safety Research Institute's research into drinking and driving habits has been stopped, no other information is available. The results of police checks cannot be regarded as reliable, as they may vary according to time and place and may be affected by chance factors. Overall, the results show only slight variations over a period of years, and in any case the CPVC debate proves that the police themselves view them as unsuccessful in terms of recorded alcohol consumption.

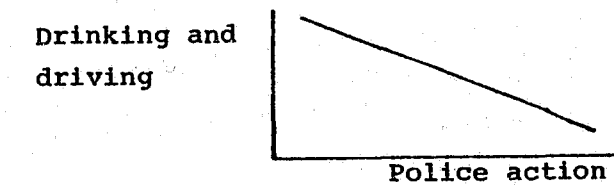
The police view is just as open to doubt as the supposed increase in drinking and driving, as it is based on the assumption that more prosecutions for infringements of the relevant section of the Road Traffic Act would reduce the amount of driving under the influence: that is, it emphasises specific prevention. But apart from the problem of whether punishment actually has a specifically preventive effect, one can justifiably ask whether police action against drinking and driving is not primarily intended as a means of general prevention, and, if so, whether roadside surveys would not be more effective for this purpose than mobile patrols.

If I understand Mr Polak correctly, he shares this opinion, but there is another question to be asked: has he been too ready to assume that there is a connection between police action and general prevention? It seems to me that the relationship between the numbers of police involved and the incidence of drunken driving is more complex than Mr Polak's argument assumes. All in all, it would seem sensible to consider in more detail the potential contribution of the police to the campaign against drinking and driving.

## 2. The presumed effects of police action

The most striking element in the arguments of both Mr Polak and the CPVC is the almost direct connection they assume between an increase in police action (more reports) and a decline in the incidence of driving under the influence, which can be demonstrated in graph form as follows:

Fig. 1 Assumed correlation between police action and incidence of drinking and driving.



In other words, the more police are employed on this work, the less people will drink and drive.

On the face of it this correlation seems to make a great deal of sense of (the kind that forms the basis for the call for more police to combat other types of crime. On taking a closer look, however, it is very doubtful whether matters are really as simple as that. The idea that police action is so significant that in certain situations it could be the deciding factor in determining

whether people commit drinking and driving offences is particularly open to doubt. If drunken driving is considered to be the product of a large number of factors for and against, then the correlation shown in the graph assumes that police action, together with other dissuasive factors, is capable of tipping the balance against driving under the influence.

There can be no doubt that this may well happen in certain cases. Anyone who has any experience of roadside surveys at night is aware that there are far fewer cars on the road while the check lasts, that the number of taxis increases, and that consequently relatively few people are charged for driving under the influence. This is presumably one of the reasons for the CPVC debate. Such surveys are so labour-intensive, however, that they are conducted only on a limited scale. The question, therefore, is not whether the police are capable of effective action against drinking and driving in specific cases - they obviously are - but whether they can maintain their efforts over a long period so that the probability of being caught, and fear of the consequences are sufficient to act as a genuine deterrent.

This seems to us very doubtful: first because of the nature of the other factors influencing people's behaviour and their relative importance in relation to notions of being caught; second because of the way in which these factors usually influence behaviour in specific situations; third because the average drunken driver perceives the chances of being caught as low, given his awareness of police action. Each of these points will be discussed briefly below.

#### 2.1 Police action relative to other factors influencing behaviour

Drinking and driving can be seen not only as the product of a number of factors for and against, but as the outcome of people's need for mobility combined with their social or other drinking habits. Both are firmly rooted in our way of life.

The importance people attach to mobility is evident from the fact that it has scarcely decreased at all in spite of very sharp rises in motoring costs and increasing traffic congestion. Alcohol has steadily become a more important part of our lives, and its consumption has risen accordingly, from 2.56 litres of pure alcohol per head of the population in 1969 to 8.57 litres in 1980, a rate of increase which is second only to that of East Germany. Both driving and drinking are strongly encouraged by intensive advertising campaigns and each is completely acceptable in itself. It is only the combination of the two that is unacceptable under the law. In view of the evidence for a correlation between alcohol consumption and accident probability (Borkenstein, Noordzij), it has quite rightly been a crime under the Road Traffic Act since 1951.

Nevertheless, there is little reason to assume that the average motorist - or rather the average potential drunken driver - is so aware of the dangers that they will influence his behaviour. Several studies have shown that people in general and individuals in particular are inclined to underestimate very considerably the dangers of driving under the influence.<sup>5</sup> Many people unfortunately still think that they have some sort of special resistance or immunity to alcohol so that their driving is impaired only at a much later stage, if at all.

As long as people think like this it will not be easy for the "Don't drink and drive" norm to win general acceptance, nor will driving under the influence be regarded as an extremely serious offence. This becomes apparent when it is compared with other serious offences: when 50 offences were put to a representative sample of 1151 people, driving under the influence came 34th on the list.

We may therefore conclude that such few dissuasive factors as exist are limited in their effect, and that the best way to uphold the norm and make it more generally accepted is to make drinking and driving unattractive, partly by means of police action.

## 2.2 Influencing behaviour

The question is, however, whether police action would in general have the desired effect, except in cases where people know that their chances of being caught are practically 100%. To answer this question, we shall discuss the ways in which police action can influence the public's behaviour.

There are two distinct possibilities.

The first is the abstract situation where people decide for themselves how they will react to certain circumstances: for example, there are still a great many people, fortunately, who have decided to pay their taxes regularly and in full. Accordingly tax evasion is not part of their behaviour pattern. In most of these cases it is doubtful if the expected reaction of the tax authorities is a significant factor; it is much more likely that their attitude derives from successfully introjected norms, or, as Toby puts it "deterrence is irrelevant to the bulk of the population who have introjected the moral norms of their society". This is not to deny that such people may not be strongly tempted to depart from their normal behaviour in a specific situation; if, for instance, they got into serious financial difficulties, the temptation to behave differently might be very great, in which case their estimate of the chances of being caught might well be a significant factor.

As mentioned above, norm introjection as yet plays a very minor role with regard to drinking and driving: perhaps the norm is too recent. Only very few people, therefore, will avoid every situation where they might be guilty of departing from the norm. To put it more simply, the number of people who do not drink or alternatively do not travel because of the danger of driving under the influence, and their estimate of the chances of being caught, is probably comparatively small. The number of people at risk - i.e. of being guilty of drinking and driving -

is therefore comparatively large, in contrast to the number of people who risk tax evasion. In other words, there can be only a few people who will never find themselves in a specific situation where they may drink and drive. The question is: how will the influence of police action, or the individual's perception of it, then make itself felt, and what is likely to happen as a result?

Our space is too limited to describe all the possible situations where the choice "to drink and drive or not to drink and drive" may present itself. Let us look instead at the case of a couple at a party who have come by car, who are both accustomed to drinking in such circumstances, and who intend to drive home afterwards in the car.<sup>1</sup> In the most favourable situation, they will agree which of them is to drive back, but that does not mean that there is no danger of driving under the influence, since there can be considerable social pressure at a party to have a drink all the same ("come on, don't be so silly") which can easily outweigh a vague notion that they might be caught. To resist this pressure, they either have to take a firm stand or to estimate the chances of being caught as high. If neither of these is the case, a process is set in motion which can easily lead to one of them being faced with a definite choice on their departure: whether or not to drive under the influence. At that point, their choice depends on such factors as their social situation, their estimate of their chances of being caught and the other options open to them.

Let us not have too many illusions about their estimate of their chances of being caught: even if they would generally consider them to be high, the influence of alcohol is such that at this point their estimate is probably significantly lower. Nor must we expect too much of the social pressure not to drive: as has been said, drinking and driving is not often considered to be reprehensible behaviour, the dangers are usually underestimated,

<sup>1</sup> Of course, there could be cases where one of them never drinks, or they travel by public transport, or stay the night with their hosts, but we are assuming that such cases are, unfortunately, relatively rare.

particularly in the small hours, and the host and hostess and the other guests have probably been drinking too. As for the other options: public transport is usually not available when parties finish, the cost of a taxi may well be a problem (and anyway, how are they to get the car home?). Unless the host and hostess are lavish in their hospitality, staying the night is not really an option, and people often have a babysitter waiting at home or are unable for some other reason to accept an offer of a bed for the night. In short, it is very probable that even people who are well aware of the chances of being caught and of the consequences will nevertheless decide in that situation to drive home.

If this is how things turn out at a party, it is clear that the dissuasive factors will have even less influence when people drink in a pub (as in the majority of drinking and driving cases) and the pressure to drink more will be greater, because of the custom of buying rounds. In that case, considerations about being caught are far outweighed by factors militating in favour of drinking.

All in all, the likely course of events offers few grounds for optimism about the influence of police action or the chances of an arrest on drinking and driving.

### 2.3 Awareness of police action

Up to now we have been regarding police action as a more or less abstract factor of unspecified value, while at the same time taking for granted that people assess it correctly. The objective, or actual, probability of being caught is unknown, though many people believe that it is not very high. It is clear, however, that those who are caught represent merely a fraction of the total number of people per year who drive with a blood alcohol concentration above the permitted maximum of 0.5 per thousand.

It is difficult to ascertain how big this fraction is, but it is certainly smaller than people think. A study of some 2000 motorists in 1975 showed that over 60% thought that the probability of being caught after drinking 10 glasses in 2 hours was less than 10%; about 12% thought it was between 10 and 25%, and 25% thought it was equal to or greater than 1 in 4.

People know equally little about the possible consequences of being detained by the police. The majority of the 2000 motorists believed that they would be sentenced to a fine, whereas in fact almost half of them would have been sentenced to unconditional imprisonment if they had been caught, under the sentencing policy in force in the courts in their area.

It can be concluded that people are quite ignorant about what the police and the prosecutors do. If this leads them to overestimate the consequences of police action, it is not unfavourable, but it does make it very difficult to alter the risk group's views through changes in the police's activities. Since the objective probability has stayed so far below the subjective probability over a large period, there is no reason to assume that raising the former will mean raising the latter as well. In any case, what reason is there to think that police action in its present form is a contributing factor to the perceived probability of being caught and thus to the incidence of drinking and driving?

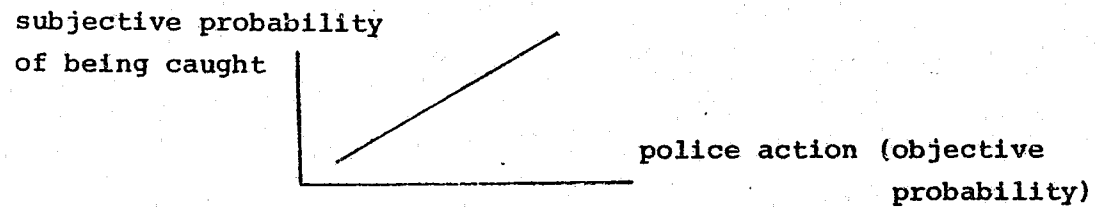
That brings us back to where we started from, and to the graph illustrating the presumed relationship between police action and the incidence of drinking and driving. We have now established that there is little basis for such a simple correlation: for one thing, perceptions of police action in abstract and in concrete terms are considerably less significant than is often assumed, and for another, it is clear that the action the police actually take has only a very limited influence on people's perception of it and the related notion they have of the chances of being caught.

All this means that the relationship will have to be reassessed. Let us discuss how that might be done.

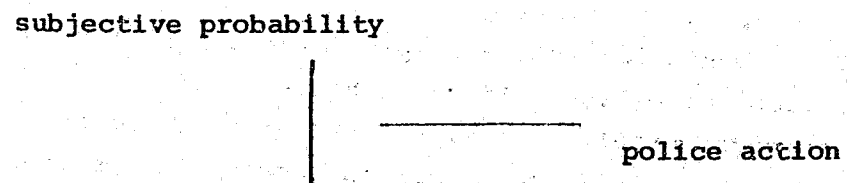
3. The relationship of police action to the incidence of drinking and driving reconsidered

First of all, we have shown that the single graph at the beginning of the article is inadequate to illustrate the relationship properly, and that an intermediate picture is required, to show the relationship between the objective probability of being caught (actually resulting from police action) and the subjective probability, i.e. what people assume it to be.

Mr Polak and those who share his views make the implicit assumption that this relationship is as shown in figure 2 below:

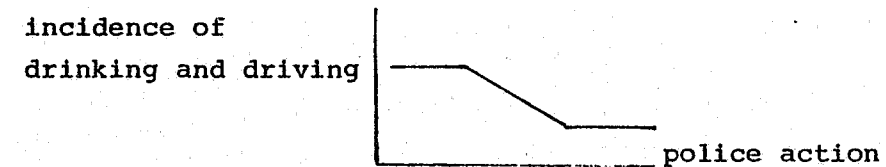


In other words, the greater the number of police officers employed, the greater the subjective probability of being caught. As we demonstrated above, however, it is very doubtful if this assumption is justified. Our impression is rather that the relationship is as shown in figure 3 below.



Here, the relationship is understood to be highly inelastic: that is, at least for the section of the curve illustrated, the value of the subjective probability does not vary with changes in the action taken by the police. It is of course possible and even probable that, if the police improved their detection rate, the curve would become elastic further up, and the subjective probability would also rise. As has been said, however, this is likely only in specific situations where the incidence of drinking and driving is reduced almost to zero. Looking at things in general and in the long term, it is equally doubtful whether enough police officers can ever be employed to reach the point where the curve would become elastic. If this is true - and it probably is - then there is little point in making the extra effort, the more so because the relationship between the subjective probability and the incidence of drinking and driving is very probably inelastic up to a certain point as well.

To sum up, it seems that the simple picture in figure 2 should be altered as shown below.



Put into words, this means that up to a certain minimum level, any intensification of police action will have <sup>no</sup> effect on subjective probability or, consequently, on the incidence of drinking and driving. The curve becomes elastic only after a given point is reached, when the incidence decreases as a result of increased police action and the consequent rise in subjective probability. Further intensification of police action may increase the probability of arrest and thus reduce the incidence even more, until a point is reached where the curve again becomes inelastic,

and, by the law of diminishing returns, increased police activity will make no perceptible contribution to a decline in driving under the influence.

Of course, the last graph does not by any means illustrate the exact course of the relationship between the two variables. It is very possible that the turning points are less definite and the changes from elastic to inelastic more gradual. Whatever the case may be, in our opinion, the picture in figure 4 can be taken to be much closer to reality than that in figure 1.

#### 4. Concluding remarks

It is tempting to follow this reassessment of the correlation between police action and the incidence of drinking and driving by a detailed examination of the practical consequences for the police and the law, but the temptation must be resisted in view of the length of this article. I should like to touch briefly on two points, however.

In the first place, these considerations would seem to give plenty of grounds to investigate in practice what would happen if police action against drinking and driving were to be reduced considerably. It would be of particular interest to observe the effects in the shorter and the longer term of a drastic reduction in the work of the mobile patrols, while at the same time continuing the roadside surveys on the old basis in the interests of general prevention. One advantage of an experiment of this kind would be that it would not require a sudden change in the entire policy to combat drinking and driving. Any drawbacks could be empirically detected and noted at an early stage.<sup>2</sup>

If they proved unacceptable the new approach would not be adopted elsewhere. It will be clear from my remarks above that I would not be very surprised at negative effects: if they do occur,

<sup>2</sup> It would be even more interesting to double the mobile patrols at the same time somewhere else, to obtain a more accurate picture of the form to be taken by the graph in figure 4.

I think they will remain very limited and will be outweighed by the savings produced by the changed police methods.

A reduction in mobile patrols would not only give the police an opportunity to devote more attention at night to matters beside drinking and driving, it would also benefit the Public Prosecutions Department and the courts. Since mobile patrols produce a relatively high number of police reports, any reduction in them would cut the influx of reports to the Department, reducing both its workload and that of the courts. Indeed it would be hard to overestimate the effect on the courts, since infringements of the relevant section of the Road Traffic Act require some 25,000 judgments every year.

It would be comparatively easy to set up and carry out such an experiment. Mobile patrols would have to be reduced in one town, while remaining at the previous level in another town of comparable size. The effects could be ascertained by repeated measurement of the incidence of drinking and driving before and after the experiment. Questioning of the drivers detained would reveal whether the new policy had been noticed and would thus indicate the possible effects on people's perceptions of their chances of being caught.

At the risk of repeating myself, I would suggest that such a change in policy would have very little effect indeed on drinking and driving provided that the roadside surveys were kept at their present level.

My second point is that the police could make better use of the opportunities for publicity created by roadside surveys, which can influence the public's views on the legal risks of drinking and driving in three ways. The first of these is the announcement of a campaign of roadside surveys which should receive more press coverage than at present. This would show a wide public



- how wide would have to be investigated- that the police are devoting their attention to the drinking and driving problem. A consistent policy on this point would, in my opinion, certainly help to raise perceptions of the probability of being caught. Publicity would naturally reduce the number of police reports further, in comparison with unpublicised campaigns, but this would be only a slight loss compared with the benefits to be gained in terms of general prevention. A great many people would be breathalysed by the police during the campaign and this personal confrontation with the probability of being caught would probably also have a positive effect on people's perceptions. Lastly, as the results of a campaign are usually reported in the press, people would then be faced once again with police activities which would also have its effects on perceptions.

I believe that there are other ways in which it is possible to influence people's awareness besides actually conducting roadside surveys: the introduction of the supplementary provisions of the Road Traffic Act in November 1974 proved that publicity as such can have a very significant influence on the public's expectations. It should therefore be possible to recreate a similar effect. One must ask if certain recent developments could not be exploited for publicity purposes: for example, the opportunity to settle with the Public Prosecutions Department out of court and the related adjustments in prosecution guidelines. The immediate effect might soon wear off, of course, but the Road Safety Research Institute has shown that it might also continue to work and exert a positive influence years later. Any opportunities to give drinking and driving more continuous publicity should also be considered.

If the effectiveness of police action is limited, there seem to be few ways apart from publicity to ensure that <sup>the</sup> "Don't drink and drive" norm comes to be accepted in our alcohol-oriented society.

Driving under the influence is a serious offence, and the most serious aspect of it is that the motorist is no longer in control of either the steering wheel or of his/her own conduct. I believe this idea should be publicised by the police.

In conclusion, my contention is that roadside surveys and publicity can do more to reduce drinking and driving than a never-ending stream of police reports.

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**END**