The problem of drunken driving and traffic safety is a field of common interest to people of different backgrounds. Some of the participants in this conference come from medical or sociological alcohol research; for them drinking and driving is one of many fields for studying the effects of alcohol consumption. Others are traffic safety experts; for them drinking and driving is one of many causes of traffic accidents. Others again, like myself, come from criminal law or criminology; for them drinking and driving is one of many fields where the effects of criminal law and law enforcement on human behavior can be studied. The scientific interests of the different groups may vary, but we have one practical interest in common: the wish to create a system that minimizes the sad role of alcohol in traffic accidents. At the same time the system should not unduly infringe upon personal freedom, and it should avoid unfairness and excessive harshness. The problem is to find a reasonable balance between these sometimes conflicting goals.

I have been asked to speak on Prevention and Deterrence. Now, prevention is a very broad concept. Since I am a Professor of Criminal Law, not a traffic safety expert, I shall confine myself to the preventive effects of criminal law and law enforcement, leaving aside the perhaps even more important fields of accident prevention by making roads and cars safer, by better driver education, and so on. My lecture will focus on how the system of criminal justice can best deal with the problem of drinking and driving.

I shall start with some remarks on the theory of general prevention as a basis for criminal law. When we use the expression general prevention in this context we think of the motivating effect of the threat of punishment. This threat is expressed in the law and exemplified and made real through the activities of police, prosecutors, courts, and prison personnel. The threat may work through fear. A person who might otherwise have committed a forbidden act is restrained by the thought of the unpleasant consequences of detection, trial, conviction, and sentence. The term, general deterrence, which is mostly used in American literature, tends to focus on the effect of fear alone.

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However, the threat and imposition of punishment may have a motivating influence apart from the creation of fear. Criminal law is not only a price tariff, but also an expression of society's disapproval of a certain type of conduct -- a disapproval which may work in subtle ways to influence behavior. Most people have a certain respect for formal law as such; they do not like to be law-breakers. Moreover, the criminalization of a certain type of behavior -- for example, drunken driving -- may work as a moral eye-opener, making people realize the socially harmful character of the act.

The moral condemnation expressed through the threat of punishment may also affect the attitudes of the individual in a less reflective way. Various labels have been used to characterize these effects of criminalization, which come in addition to the motive of fear. Some speak about moral or educative effects; others of attitude shaping effects; others, again, of norm strengthening or norm reinforcing influence; and so on. Opinions vary with regards to the importance of this component of general prevention which may also be of varying importance in different cultural settings. The prestige of the law, to use an expression coined by the Polish sociologist, Adam Podgorecki (Podgorecki, 1966), may vary from country to country. Nevertheless, few, if any, would deny altogether that the motivating effect of the law has other components than simple fear. The consideration of such effects of the law calls for a long-term perspective. As the English criminologist, Nigel Walker, suggests (Walker, 1964): "The legislation of one generation may become the morality of the next." If a substantial part of the impact of the law is believed to lie in its ability to support and reinforce social norms, one would not expect rapid changes in crime rates as a result of changes in law and law enforcement. This means again that the moral effect of the law is a very difficult field for scientific enquiry and measurement.

The threat of the law cannot be seen in isolation from enforcement. A law that is not enforced does not inspire fear; moreover, laws that may be broken with impunity tend to lose their moral authority. The risk of detection (often called the certainty of punishment) is a central factor in the general preventive effect. Another central factor is the severity of punishment. However, most research indicates that the risk of detection is, on the whole, more important than the severity of the penalty. To avoid misunderstanding: What determines the general preventive effect is not the objective risk of detection and the objective level of severity, but what potential offenders think about the risk and the level of punishment -- what we call perceived certainty and severity of punishment.
Discussions and research on general prevention have been mainly concerned with the effects of certainty and severity of sanction. When one is discussing the moral effects of the criminal law, a third variable may be just as important: the perceived legitimacy of the law. The enforcement of laws that are looked upon by great segments of the population as illegitimate or excessive might provoke anger, resentment, and violence instead of the desired conformity. As examples could be mentioned the attitudes of organized labor towards anti-strike legislation, or the attitude of feminist groups towards criminalization of abortion.

I have spent some time on outlining the ideas on general deterrence and general prevention which are held today amongst most scholars of criminal law. I shall deal more cursorily with special deterrence and special prevention. By these expressions we mean the effects of the criminal sanction on the convicted offender. The offender now knows what it is like to be prosecuted and punished, and this may influence him in various ways. Prima facie it seems natural to expect that the experience of being punished would tend to strengthen his fear of the law. It may, however, work the other way. It is conceivable that he previously had exaggerated ideas of the consequences of being caught, and now draws the conclusion that it was not so bad as he had imagined. The special deterrent effect of punishment, therefore, may be positive, negative, or zero. The experience of the sanction may also have effects not related to fear. A drunken driver may, for example, be sentenced to undergo a driver improvement program or a treatment program for alcoholics. Here, too, the effect may be positive, negative, or zero.

I consider the special preventive effects of punishment as less important than the general preventive, for 2 reasons: First, special preventive effects are limited to convicted offenders. Since the risk of detection for drunken driving is very low -- I shall revert to this latter -- the convicted offenders will only represent a small part of all offenders. Second, criminological research from recent years tends to show that our choice of sanction has little impact on recidivism figures. From what I have read about the recidivism of convicted drunken drivers this seems to hold true also in this field. If you disagree with this, I have a third reason for not dealing more extensively with the special preventive effects of the sanction: this is a field where I do not possess any special expertise.
After this long and rather abstract general exposition it is time to come to our specific subject, the law of drinking and driving. General principles always have to be seen in light of the specific type of law violation in question. Practically all industrialized countries have specific penal provisions against drunken driving, but the legal techniques vary from one country to another; the same holds true for the intensity of enforcement and the severity of sanctions. The Scandinavian countries are considered to be the most severe; among them, again, my own country, Norway, represents the extreme in severity.

The traditional legal approach was to make it an offense to drive while being drunk, or while being unfit to drive because of drinking. A newer approach consists of making it an offense for a motorist to drive with a blood alcohol concentration (BAC) above a certain limit. Such so-called per se legislation was first introduced in Norway in 1936 and has later been adopted in a majority of Western countries. The BAC limit of the laws varies. Some countries have followed the example of Norway, where the limit was fixed at 0.5 pro mille (0.5 ethanol per 1000 ml blood) from the outset, and has been retained at this level ever since. Others have chosen 0.8 pro mille, or even 1.0 pro mille. I mention, by the way, that when the limit is fixed so low as 0.5 pro mille it is somewhat misleading to speak about drunken drivers and drunken-driving legislation. It is more appropriate to speak of drinking-and-driving legislation.

It has often been objected against per se legislation that people react differently on alcohol, and that a BAC which makes one driver unfit to drive does not have the same effect on others. A similar argument could be made against speed limits: one driver may be able to drive safely at a speed that would make another a danger on the road. I do not find the objection convincing. The point is that for most people alcohol consumption above a certain level reduces their ability to drive safely; that this effect increases very strongly with increasing BAC; and that BAC levels therefore give an objective indication of reduced fitness for driving, whereas clinical examinations or other evidence of the influence of alcohol consumption is of a very subjective nature. It is a matter of judgment at which level the limit should be fixed. Personally I have no objection to a limit as low as 0.5 pro mille, a limit that is well established in my country. However, when the question is whether to introduce per se legislation or not, it may be wise to start with a somewhat more liberal limit, for example 0.8 pro mille, as was done in the British Road Traffic Act of 1967.
There may be one pitfall in the per se system: It can lead to a too strong emphasis on the violation of the legal limit of BAC as such, without taking sufficient account of the degree of intoxication and the enormous differences in risk which the various levels of intoxication represent. This may lead to an excessively severe punishment of the small violations. The sentencing practice in Norway gives an extreme example of this. The general rule is that even the smallest violation of the legal limit leads to an unsuspended prison sentence of at least 21 days. As a consequence, half of all unsuspended prison sentences in Norway are for drinking and driving. Research from recent years in the Scandinavian countries has given more insight into the risk on various levels of intoxication. Large scale roadside surveys have given reliable figures for the volume of drinking and driving on different BAC-levels in the traffic, and analysis of accident cases has clarified, for example, how many drivers on each level are killed in accidents. By combining these sources of information we can obtain estimates of how the risk increases with increasing BAC. Whereas the low BAC levels strongly predominate in the traffic, the high levels have a similar predominance among the drivers killed. According to the latest Norwegian study, published in August this year (Glad, 1983), the death risk for a driver with a BAC above 2.0 is about 200 times as high as for a driver in the interval between 0.5 and 1. In Norwegian sentencing practice, however, such differences in risk are not given much weight.

The per se system in the Scandinavian countries has in recent years been strengthened by authorizing the police to make random checks through roadblocks, that is, control operations where all cars (or a random sample of the cars) are stopped and the drivers requested to make a breath test. The purpose of these random checks is, of course, to increase the risk of detection and, thus, enhance the general preventive effect of the threat of punishment. Legislation authorizing random tests was first introduced in Sweden in 1974 and the example has later been followed by the other Scandinavian countries (and some other countries as well). Especially in Sweden and Finland, such random checks have been used as an important part of the traffic safety work of the police. Such controls also provide the possibilities for giving fairly accurate assessments of the amount and distribution of drinking and driving in normal traffic.

Now let me move to the question of what effect our stringent laws and energetic law enforcement in the Scandinavian countries have had on driver behavior and on the volume of alcohol related accidents.
First, driver behavior. On impressionistic evidence it has been generally accepted in the past that driving and drinking is rare in the Scandinavian countries and that this is to a great extent due to strict legislation and effective law enforcement. In a paper almost 20 years ago (Anderaes, 1966) I summed up the situation in this way:

"A person moving between Norway and the United States can hardly avoid noticing the radical difference in the attitudes towards automobile driving and alcohol. There is no reason to doubt that the difference in legal provisions plays a substantial role in this difference in attitudes. The awareness of hazards of imprisonment for intoxicated driving is in our country a living reality to every driver, and for most people the risk seems too great. When a man goes to a party where alcoholic drinks are likely to be served, and if he is not fortunate enough to have a wife who drives but does not drink, he will leave his car at home or he will limit his consumption to a minimum. It is also my feeling -- although I am here on uncertain grounds -- that the legislation has been instrumental in forming or sustaining the widespread conviction that it is wrong, or irresponsible, to place oneself behind the wheel when intoxicated."

Such impressions do not constitute hard evidence; it could be objected that what has been described is the situation as it presents itself to middle class or upper middle class groups. How far it fits for other social groups is more uncertain. However, roadside surveys from recent years have shown that the frequency of drinking and driving in Scandinavian countries is, in fact, much lower than in most other industrialized countries.

In the United States, Canada, and the Netherlands roadside surveys at night time have found as many as 7 to 15% of drivers with BAC's above 0.5 pro mille. In Norway and Sweden, findings in similar surveys have been from 1 to 2%. Large scale roadside surveys, distributed in time and place in order to get a representative sample of all motor traffic, have shown extremely low figures of drivers under the influence of alcohol. Thus, a recent large scale Norwegian roadside survey with 72,000 breath tests (Glad, 1983) found only about 2 out of a 1,000 drivers with BAC's above the legal limit of 0.5 pro mille. Swedish surveys show similar results. It is, of course, impossible to know
for certain how much law and law enforcement have contributed to these low figures of drinking and driving. However, Scandinavians are not known as especially moderate drinkers. The total alcohol consumption is relatively low, but excessive drinking on festival occasions is quite widespread. When the combination of drinking and driving is so rare, it corroborates the impressionistic evidence on the motivating effect of the strict law and law enforcement described earlier.

Although the relative frequency of drinking and driving is very low, the total amount of such driving sums up to impressive numbers. Thus, on the basis of the Norwegian roadside study mentioned, the total number of drivers with BAC's above 0.5 pro mille was calculated to be at least 7,000 per day. The number of convictions amounts to about 7,000 per year. This means that the risk of detection is very small. For the low BAC levels this risk seems to be less than 1 in a 1,000. Obviously, this low risk of detection weakens the deterrent effect of the threat of punishment, although most drivers probably overestimate the risk.

Whereas the law seems to have been successful in minimizing drinks and driving generally, the evidence for a strong effect on accidents is much less impressive. Fifteen or 20 years ago, on the basis of official accident statistics, we believed that alcohol-related accidents were rare in the Scandinavian countries and that this was a result of our stringent system. Later discussion and research, which has been strongly stimulated by the contributions of Professor H. Laurence Ross, have changed the picture. I do not have time to go deeply into the question. Let me just mention one thing: One of the best methods of comparing the role of alcohol in motor accidents in different countries is to compare the percentage of intoxicated drivers among the drivers killed. The most comprehensive Scandinavian study of this type (Andenaes & Sorensen, 1979) included all fatal accidents in Norway during one year (1976-1977). About 30% of the deceased drivers had BAC's above 0.5 pro mille. Other studies in Norway and Sweden have given similar and sometimes even higher figures. These figures are moderate in an international perspective, and certainly lower than in the United States, but they do not stand out as something exceptional. They seem, to mention just one example for comparison, to be on about the same level as figures from the United Kingdom before the introduction of the British per se law in 1967. To avoid misunderstanding it should be added that the toll which drunken drivers take among other accident victims is much lower. Drinking and driving is much more dangerous for the driver himself than for other
users of the road. The typical alcohol accident is a single vehicle accident at night-time.

Without going into further detail it could be safely stated that the Scandinavian countries have not been so effective in combating alcohol accidents as in combating driving after alcohol consumption. How could this apparent paradox be explained? The most reasonable hypothesis seems to be this:

The threat of punishment in this case is directed not against causing a harm, as in most traditional crimes, but against a type of conduct which is considered to create a danger. The degree of danger, however, is extremely different in different cases, and it seems as if we have been most successful in deterring the less dangerous cases of violation. The law has been a success with regard to ordinary social drinkers. Most of these, probably, are people who even without such strict rules of law would have had a moderate consumption and shown some feeling of responsibility while driving, in spite of being under the influence to some extent. Motorists driving with very high BAC levels, and therefore representing a high risk in the traffic, are for a great part persons with serious alcohol problems, often aggravated by other social shortcomings. These people are poor targets for the deterrent and moral effect of the law. In short, it is reasonable to believe that the law's motivating effect is strongest among those who would have represented only a moderate traffic risk even if they had consumed alcohol in excess of the legal limit.

Another point of great practical importance deserves to be mentioned. Up to now criticism against the Norwegian practice of giving prison sentences, even for very small violations of the legal limit, has been met with the argument that any mitigation would reduce the deterrent and moral effect of the law and that no such experiments should be tried when life and health are at stake. However, available data from recent research tend to show that there is no more drinking and driving, and no more alcohol-related accidents, in Sweden than in its neighbor country Norway, despite a very different pattern of sentencing. In Sweden only high levels of BAC -- above 1.5 per mille -- lead to prison sentences. This gives us reason to believe that the effect of the prison sentence even for low degrees of BAC has been strongly overrated in the Norwegian discussions. The results of a Finnish reform in 1977 points in the same direction. This reform brought a drastic reduction of prison sentences and at the same time introduced the per se
system and authorized random checks by roadblocks. Even for high levels of BAC a suspended sentence plus a fine is now the normal sentence for a first offender. In the years following the reform the development both of convictions for drunken driving and of alcohol related accidents seems to have been favorable. The weak point in the deterrence mechanism in this field is not the severity of the sanction, but the low risk of detection.

I shall end by expressing some opinions on policy. I consider the criminal sanction an indispensable tool in the fight against alcohol related accidents. Further, I consider the per se system as the most rational and effective system, given a sensible pattern of sentencing. On the same premise I welcome the authorization of random checks in order to increase the perceived risk of detection and, thereby, enhance the general preventive effects of the law. The libertarian arguments that can be made against such checks are in my view not decisive.

It should, however, be borne in mind that the gains in traffic safety through the Scandinavian system are achieved at considerable cost, for society as well as for the individuals concerned. This is especially so in Norway, where the normal penalty is imprisonment even for the slight violations of the legal limit. As already mentioned, there are strong indications that this extraordinary severity does not have an appreciable pay-off in traffic safety.

Finally: It should be realized that the criminal law approach to the problem of drinking as a factor in traffic accidents has its limitations. We know these limitations from other fields. We can and must fight against murder and rape, robbery and theft with the arms of the criminal law, but we can never have realistic hopes of being able to eradicate crime. At best we can keep it on a tolerable level. Investment in increasing severity tends to yield diminishing returns.

The situation with regard to drunken driving is basically the same, but has its specific features. To put it in somewhat provocative terms: The moderate cases of drinking and driving can be quite effectively combated by threat of punishment and strict enforcement, but this does not mean much for the volume of accidents. On the other hand, the dangerous cases of drunken driving, with high BAC-levels, are hard to combat, since the drivers are preponderantly persons with heavy alcohol problems and little ability to react rationally to the risk of punishment. As long as we have our present drinking customs with their production of problem drinkers -- and I see no prospect of a change in this situation in a foreseeable
future -- drunken driving will continue to have a sizable share of traffic accidents. If we succeed in reducing the total volume of accidents through general traffic safety work, with safer roads and safer cars and other measures, this action will also reduce the volume of alcohol-related accidents. Perhaps more gains in traffic safety are possible in this way than by relying on severity of criminal law and law enforcement.

REFERENCES


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