SOCIAL, CULTURAL, AND LEGAL INFLUENCES ON ALCOHOL-IMPAIRED DRIVING: COMPLIANCE IN AUSTRALIA, THE UNITED STATES, AND NORWAY

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Summary. Factors that contribute to control of alcohol-impaired driving are examined within the framework of general deterrence (control in response to a fear of punishment) and general prevention (control through internalization of moral inhibitions and socialization of preventive habits). Differences among Australia, the United States, and Norway in social norms, attitudes, and behaviors surrounding drinking and driving suggest that Norway has progressed farthest toward general prevention, while Australia relies more on general deterrence. Both general deterrence and general prevention are relatively weak in the United States.

While alcohol-impaired driving has long been considered a serious offense in Scandinavian countries, it is only during the past decade that the American and Australian criminal justice systems have given major priority to drunk driving. From 1981 through 1985, American state legislatures passed 478 new laws directed toward controlling alcohol-impaired driving, largely through institution of tougher penalties (National Commission Against Drunk Driving, 1985). Similarly, a recent wave of legislation in Australia has instituted random roadside breath testing of drivers throughout the country, and generally tightened drinking-driving laws.

It is often assumed that the threat of punishment is the primary mechanism by which a law may cause individuals to avoid a proscribed behavior. General deterrence is the term used to describe this direct effect of a law on people who otherwise might engage in the behavior. Andenaes, an eminent Swedish jurist, has argued that laws also serve an educative and socializing function, thereby controlling behavior through what he terms general prevention (Andenaes, 1952). Andenaes (1977) suggested several mechanisms by which general prevention might work, including compliance out of the respect many people have for formal law, an increased awareness of the harmful effects of the behavior as a result of knowing that the behavior is unlawful, and a shift in moral attitudes in response to the strong statement of public disapproval represented in the law (pp. 53-54).

Tough drinking-driving laws are enormously expensive to a society in terms of demands on police, courts, and jails. Yet, there is little solid evidence that specific laws reduce the incidence of alcohol-impaired driving. In an influential review, Ross (1984) found that across many countries, causal analyses testing the effects of new laws on crash statistics showed, at best, only small and temporary gains. These findings suggest that perhaps stable deterrence is not attainable within the limits of police practice in a democracy.

This conclusion was challenged by John Snortum in two 1984 review papers. In the first paper, Snortum (1984a) argued that causal analysis was especially
vulnerable to Type II errors, that causal analysis generates an unnecessarily narrow definition of what constitutes scientific evidence, and that the focus on deterrence underestimates the conceptual task of law makers in formulating policy based upon diverse forms of evidence. He suggested the value of considering the weight of "circumstantial evidence" that bears on the issue, including the pattern of differences between the U.S. and Scandinavia, whereby the Scandinavians have a much lower proportion of alcohol-impaired drivers and at the same time apparently have a clearer knowledge of drinking-driving laws and a stronger moral commitment to these laws than do Americans.

In the second paper, Snortum (1984b) developed a broad framework of control variables that might be assessed in a "contextual analysis" of drinking-driving control in Scandinavia and the U.S., including legal, technical, psychological, and cultural variables. He identified several important distinctions which tend to be obscured in any policy assessment that is too narrowly focused upon deterrence as measured by interrupted time series analyses: (a) law as an independent variable versus law as dependent upon culture, (b) law as an intervention (simple causation) versus law as in interactive (simultaneous causation), (c) the "fear component" versus the "moral component" of the law, (d) institutional controls (police and prisons) versus informal controls (peer pressure and role models), and (e) external versus internal controls.

The research reported here follows from the theoretical analyses of Snortum, and is directed toward comparing attitudes and behavior across countries using a survey instrument specifically designed to allow cross-cultural comparisons, and assessing evidence for general deterrence and general prevention in the context of different configurations of laws and cultural values. Additional details on the international comparisons are provided by Berger, Snortum, Homel, Hauge, and Loxley (1989) and Snortum, Hauge, and Berger (1986).

National probability samples were used in 1983 to survey 1000 drivers in the United States and 1012 drivers in Norway. The U.S. survey used random digit telephone methods, while the Norwegian survey used face-to-face interviewing. A core of about 40 questions probed knowledge of the laws pertaining to drinking and driving, attitudes and opinions, perceptions of risk, group norms, and self-reported violations. A baseline of usual consumption of the preferred alcoholic beverage on a given occasion was obtained, along with consumption at the last drinking occasion away from home, and mode of transportation home from the occasion. A crude estimate of alcohol impairment, based on body weight and the number of drinks consumed, allowed a rough comparison of BAC in baseline conditions and driving conditions.

The U.S. survey was replicated in 1986, again with random digit telephone methods, but this time 1800 drivers were included in an expanded survey. In 1988 face-to-face interviews were conducted with 1504 drivers from the four largest Australian states. The sampling procedures in Norway and the U.S. are described by Snortum, Berger, and Hauge (1988), and the sampling procedures in Australia are described by Loxley, Homel, Berger, and Snortum (1989).

Considerable caution is appropriate as we interpret the data from the three countries. Differences in procedures and possible response errors limit the precision of the comparisons. Nonetheless, the remarkable differences between the countries are consistent with other information on behaviors surrounding drinking and driving.
Self-reported violations in the three countries

Drivers who said they had not drunk alcohol in the past year were dropped from the analyses. Abstainers accounted for 25% of the Australian sample, 37% of the 1986 American sample, and 15% of the Norwegian sample, leaving 1132, 1133, and 864 drivers, respectively, who drink at least once a year.

Self-reported violations were considerably higher in Australia and the U.S. than in Norway. Nearly one third of Australian and American drivers compared to only 8% of the Norwegians admitted driving in the past year "while slightly intoxicated." Similarly, only 1 out of 50 Norwegian drivers who drink admitted to driving in the past year after four or more drinks, compared to about 1 out of 4 Australian and American drivers. This pattern is consistent with data from random roadside checks. A sample of Norwegian drivers between 10 PM and 2 AM found only 1% above the limit of .05% BAC (Christensen, Fosser, & Glad, 1978). Based on a sample of U.S. drivers on Friday and Saturday nights between 10 PM and 3 AM, Wolfe (1986) estimated that 8.3% of American drivers at or above .05% BAC. Comparable national data are not available from Australia, but a sample in the city of Adelaide between 10 PM and 3 AM found as many as 9 or 10% over the limit of .08% BAC (McLean, Clark, Dorsch, Holubowycz, & McCaul, 1984).

General deterrence and general prevention

Berger et al. (1989) examined three indices of general deterrence: (a) knowledge of relevant laws, (b) perceived likelihood of detection, and (c) expected severity of actual penalties. Knowledge of per se laws and BAC limits was much greater in Australia and Norway than in the U.S., with American drivers responding near chance levels. Drivers in the three countries did not differ in their assessment of the risk of arrest for a driver who had been drinking. Americans were especially cynical about the fairness and effectiveness of their legal system in dealing with alcohol-impaired driving. A majority (58%) of Americans compared to 41% of Australians thought a smart lawyer could probably get them off most drinking-driving penalties, and 41% of Americans and 29% of Australians felt that fewer than half of first offenders receive penalties required by law. Evaluation studies have shown that in fact American courts often do fail to impose mandated penalties (e.g., Ross & Foley, 1987). These questions on enforcement were not asked in Norway because the Norwegian researchers felt they did not apply. Indeed, a Norwegian study of convicted drivers found that 100% had their license revoked for at least a year, and 85% were sentenced to prison (Christensen & Fosser, 1980).

Australians were more likely than Americans to rate the consequences of the penalties they thought they would actually receive as "hurt badly" or worse, 54% vs. 47%. Similarly, when asked for the reasons why they might cut down on drinking before driving, Australians were much more likely than Americans to mention fear of arrest as a primary reason (39% vs. 15%). Consistent with these indications of general deterrence in Australia, Homel (1988) found that following implementation of random breath testing in New South Wales, most drinkers took steps to reduce driving after drinking.

Moral inhibitions and social norms against alcohol-impaired driving are key aspects of general prevention as conceptualized by Andenaes (1952).
Respondents were asked directly whether they felt it was morally acceptable for them to drive after four drinks. A strong majority of Australians (78%) and Americans (71%) said this behavior was definitely wrong, but virtually all Norwegians (98%) held this view. Norwegians also showed the highest levels of control, by a wide margin, on several measures of perceptions of social norms. Although Norwegians were most likely to drink to high levels of intoxication, 75% of Norwegian respondents reported that at drinking occasions away from home almost all drivers abstain from alcohol. In contrast, only 10% of Australians and 6% of Americans reported such high levels of abstention.

Although Australians show the highest levels of self-reported driving while "slightly intoxicated," there is clear evidence that general deterrence is operating. Australians are knowledgeable about relevant laws, fear of arrest is often given as the main reason for avoiding driving after drinking, and a majority of Australian drinkers believe that they would actually receive substantial penalties if arrested for alcohol-impaired driving (Berger, et al., 1989). Likewise, Homel (1988) found that following implementation of massive random breath testing in New South Wales, most drinkers took specific steps to reduce driving after drinking, and cited fear of arrest as a reason.

General deterrence is apparently weaker in the United States. Despite much less exposure to heavy drinking away from home, American drivers report driving while intoxicated nearly as often as the Australians. Poor knowledge of relevant laws among Americans is consistent with a wide-spread cynicism about the effectiveness of the threat of legal punishment.

General prevention appears to be operating at a lower level in Australia and the U.S. than in Norway. While most Australians and Americans feel it is morally wrong to drive after heavy drinking, the consensus is far weaker than in Norway. Similarly, social controls are much stronger in Norway, where normal behavior at drinking occasions is for the driver of a group to abstain from drinking.

Our data are consistent with the view of Andenaes and others that laws can play a role in promoting general prevention. Norway has had the toughest drinking-driving laws and penalties for many years, providing ample opportunity for the laws to influence social norms. Yet, it is also true that laws reflect the norms and aspirations of a society. We believe that international comparisons provide a useful perspective on the complex relationships between laws, perceptions, and behavior.

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