

## PAPERS AND ORIGINALS

**Alcoholism: a medical or a political problem?\***

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*British Medical Journal*, 1979, 1, 367-371

In 1948 the World Health Organisation included alcoholism itself, as distinct from alcoholic psychoses and acute alcohol poisoning, in the International Classification of Disease. Eight years later the American Medical Association declared in a formal statement that alcoholism was a disease, and in 1960 Jellinek<sup>1</sup> published his influential book *The Disease Concept of Alcoholism*. These events were the culmination of a long campaign, dating back to Thomas Trotter<sup>2</sup> at the beginning of the nineteenth century, to convince the medical profession and the public that habitual drunkenness was not simply a vice. Its success owed more to humanitarian sentiments and disenchantment with the efficacy of moral exhortations than to any evidence that alcoholism exhibited the defining characteristics of disease in general, but, even so, that success was ultimately almost complete. For the past 20 years the "disease concept" has been everyone's official dogma, with medical organisations, alcoholics themselves, and well-meaning people speaking on their behalf all urging governments and employers to accept and act on its implications.

**Alcoholism as a disease**

Some of these implications are well recognised. Alcoholics must not be blamed or punished; they are sick and therefore entitled to the extensive privileges of that role. Doctors must accept them as patients without waiting until they present with delirium, dementia, or cirrhosis. And in countries like our own where the state has assumed exclusive responsibility for health care the government must provide adequate facilities for their treatment and rehabilitation. Other implications are less obvious because they are the unspoken assumptions we habitually make of any disease. Because we have come to regard alcoholism as a disease we assume that the treatments we use are more effective than anything laymen might have to offer, and that "early

\*First presented as the Morison lecture at the Royal College of Physicians of Edinburgh on 2 November 1978.

detection" would make them more effective still. Much of our research is based on the assumption that there is some crucial difference, either in their psychological make-up or in the way in which they metabolise ethanol, between those destined to become alcoholics permanently incapable of drinking in moderation and the rest of us whose drinking is enjoyable and harmless. And when the condition continues to spread unchecked—as is happening now—everyone assumes that the problem is one for the medical profession to solve. It is up to us to pull up our socks, develop more effective treatments, and make greater efforts to detect cases at a sufficiently early stage, though the government may also be blamed for not having had the foresight to provide additional consultant posts and more regional alcohol units.

In many ways the practical consequences of this concept of alcoholism have been beneficial. Public attitudes to alcoholics, and the way in which they are treated, are far more humane than they were a generation ago. In many countries, though not yet in the UK, the expensive and futile practice of sending drunkards to prison for a few weeks several times a year has ended. Treatment facilities are far more widely available than in the past, and, as a result of the research that has been carried out over the past 20 years, we now understand alcoholism much better and have managed to dispel a few of the many prevailing myths about it.

**Increasing incidence of alcoholism related to consumption**

Unfortunately, our new knowledge is making it increasingly clear that most of the assumptions of the "disease model" are unjustified and act as a barrier to a more intelligent and effective approach to the problem. In almost every country capable of producing reliable statistics the incidences of alcoholism and the innumerable medical and social ills to which it contributes are all steadily rising. In Scotland there were 732 admissions to hospital for alcoholism and alcoholic psychoses in 1956. This figure had risen to 2755 by 1966 and to 4388 by 1976, a sixfold increase in 20 years. Indeed, twice as many men are now admitted to Scottish psychiatric hospitals with a diagnosis of alcoholism as with any other single diagnosis. Mortality from cirrhosis is also rising steadily. So is the number of convictions for public drunkenness; in England and Wales they rose by 28% during 1969-75 and in Scotland by 91%.<sup>3</sup> These indicators of a steadily rising incidence of alcoholism are accompanied by a steadily rising consumption of alcoholic beverages by the population as a whole. Indeed, for the past 20 years consumption has been rising rapidly throughout the world. Per caput consumptions and rates of increase vary considerably from one country to another but the steady upward trend is almost universal. In the UK, for example, annual per caput consumption rose between 1959 and 1974 by 47%

for beer, 124% for spirits, and 284% for wine.<sup>3</sup> The relation, if any, between this rising consumption and the rising incidence of alcoholism and the many medical and social ills associated with it is obviously of crucial importance.

The available evidence strongly suggests that the two are closely linked. Schmidt<sup>4</sup> showed that in the UK during 1954-73 the correlation between our rising per caput consumption and our rising mortality from cirrhosis was 0.98. A similar relation has been found in Canada and other countries, and on the rare occasions when consumption has fallen—in the United States during the early years of prohibition and in Paris during the two world wars—mortality from cirrhosis has fallen dramatically. The relation is just as striking for variation with place as it is for variation over time. In 1972 the correlation between the mortalities from cirrhosis and per caput consumptions of 20 different countries was 0.94.<sup>4</sup> Indeed, so close is the relation that a country's mortality from cirrhosis may be used as a fairly reliable indicator of its alcohol consumption if the latter is unknown.

Although other manifestations of alcoholism do not show so close a relation to overall consumption as mortality from cirrhosis, they almost invariably increase when consumption rises and decrease when it falls. The relation is illustrated by the results of two recent surveys, one in England and one in Scotland. The English study<sup>5</sup> was based on two consecutive surveys, in 1965 and 1974, of the adult population of the same London suburb. Comparison of the results suggested that the average weekly consumption of alcohol in the suburb had risen by 47% over the nine years. This striking rise in consumption was accompanied by an 87% rise in hospital admissions for the treatment of alcoholism and by a rise in the scores of survey respondents on an "index of alcohol-related problems" (composed mainly of indicators of physical dependence or "loss of control"). A few subgroups, however, reported lower consumption in 1974 than in 1965, and these obtained lower problem scores in 1974. The Scottish study<sup>7</sup> was a comparative survey of the cities of Aberdeen, Ayr, Glasgow, and Inverness. The city with the highest per caput consumption of alcohol (Inverness) had the highest incidence of alcohol-related offences, the highest hospital admission rate for alcoholism, and the highest mortality from cirrhosis. The city with the lowest per caput consumption (Ayr) also had the lowest incidence of alcohol-related offences, the lowest hospital admission rate for alcoholism, and the fewest deaths from cirrhosis.

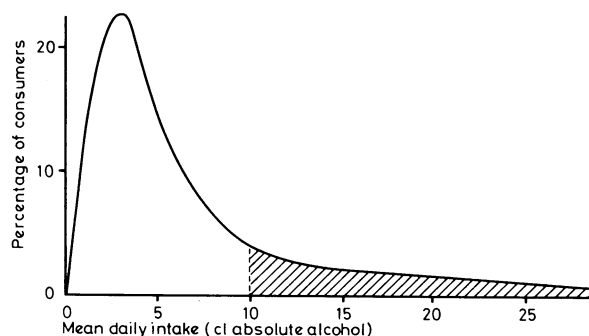
#### GENETIC FACTORS IN ALCOHOLISM

During the 1950s and 1960s much research was done in an attempt to show that those who became dependent on alcohol and incapable of drinking in moderation differed in some way from their fellow men, either in their personality structure or in the manner in which they metabolised alcohol. The results were meagre. Although there is evidence that genetic factors play some part in disposing people to become alcoholics<sup>8</sup> and strains of mice have been bred with very different susceptibilities to becoming physically dependent when exposed to alcohol, the putative abnormality predisposing some people to alcoholism remains elusive. The fact is that ethanol is a drug of dependence like heroin or amylobarbitone and differs from them only in that much larger quantities have to be ingested for much longer before physical dependence develops. Clinical and experimental evidence suggests that the critical amount varies from one person to another but is of the order of 15 cl (120 g) of ethanol a day (equivalent to seven or eight pints of beer or half a bottle of spirits) for at least several months, compared with 20-30 mg a day for a few weeks in the case of heroin. In other words, what determines whether a person becomes dependent on alcohol is how much he drinks and for how long, rather than his personality, psychodynamics, or biochemistry.

#### ESTIMATING CONSUMPTION

There is no practicable way of finding out precisely how much alcohol most people drink, but consumption may be estimated in two ways: by asking a random sample of a population how much they drink or what they have drunk in the past seven days; or, in places in which all sales of alcoholic beverages have to be recorded with the name and address of the buyer, by calculating how much alcohol different members of the population buy in a given period. Whichever method is used the distribution of consumption in a population is always continuous, unimodal, and skewed, with a small minority responsible for a high proportion of the total consumption. In a

recent survey of Scottish drinking habits,<sup>9</sup> for example, 30% of all the alcohol drunk in a typical week was consumed by 3% of the population, virtually all of them male. In fact, as Sully Ledermann<sup>10</sup> was the first to point out, the shape of the consumption curve closely approximates to a logarithmic normal curve. A log normal distribution is so called because it takes the form of a normal distribution if plotted on a log scale, and like an ordinary normal distribution its shape is defined by its mean and standard deviation. Ledermann claimed, and Bruun *et al*<sup>11</sup> subsequently confirmed, that in practice the standard deviation or dispersion of the consumption curve varies little from one population to another, or from time to time in a single homogeneous population, and may therefore be treated as a constant. Partly for this reason and partly because in practice it is almost impossible for anyone to drink more than about 60 cl of alcohol a day for any length of time, if the average consumption of a population is known the proportion of its members drinking more than a given amount per day may be estimated with reasonable accuracy from that figure alone. For example, if a population were known to have a mean annual consumption of 25 l of alcohol per person and the dispersion of the consumption curve were assumed to be typical it could be calculated that 55% of that population would be drinking more than 10 cl of alcohol a day.<sup>12</sup> If the mean annual consumption of the population were to fall to 15 l per person, however, and the dispersion remained unchanged only 9% of the population would be drinking more than 10 cl a day (see fig); and if the mean annual consumption were to fall to 5 l a year only 2% would still be drinking more than 10 cl a day.



Hypothetical distribution of alcohol consumption in population with mean annual per caput consumption of 15 l (after de Lint, 1975). Nine per cent of the population would drink over 10 cl of alcohol a day.

#### THE LEDERMANN HYPOTHESIS

The claim that there is a fixed relation between average and excessive consumptions has come to be known, after its originator, as the "Ledermann hypothesis." Surveys of alcoholics attending for treatment in various parts of the world, most of whom have evidence of physical dependence on alcohol, show that most admit to a previous daily intake of at least 15 cl (120 g) of alcohol. The Ledermann hypothesis implies that if one takes this, or some other, arbitrary level of consumption as the point beyond which drinking becomes harmful then the proportion of any population at risk of becoming physically dependent and harming themselves in other ways may be calculated from the average consumption of that population. It also implies that the number of excessive drinkers is disproportionately sensitive to changes in average consumption. In other words, the number of excessive drinkers will not only rise when average consumption rises and fall when average consumption falls but in proportionate terms will rise or fall more than the change in average consumption. For example, if average consumption were to rise by 67%, the proportion drinking more than 10 cl a day would rise by 122%.

Although some of Ledermann's statistical assumptions have been rightly criticised<sup>13</sup> and it would in any case be naive to expect anything so complex as human behaviour to obey any mathematical law precisely, it seems in practice to be true that in most populations the distribution of alcohol consumption corresponds roughly to a log normal distribution, and that the dispersions of these distribution curves are all rather similar. It seems, therefore, that Ledermann was right in suggesting that the proportion of a population drinking excessively is largely determined by the average consumption of that

population. The reason for this probably lies in the social nature of most drinking. When, for whatever reason, a person's consumption rises his behaviour towards others also changes. He is more likely to offer a drink to friends visiting him at home or to buy another round of drinks in a public house. As a result his friends' consumption also rises, and because they may feel obliged to repay the debt there are further repercussions affecting other people as well. Ledermann originally called this the "boule de neige" effect, and Skog<sup>14</sup> has developed mathematical models to illustrate the mechanisms concerned. In addition, changes in drinking habits that spread in this way ultimately lead to changes in social attitudes to drinking and in the availability of commercial outlets, which in turn have further effects on consumption.

### Results of treatment

I have already referred to those most innocent and dangerous of all medical assumptions: that when patients improve it is because of the treatment they have received, and that however effective or ineffective medical treatments may be they are at least more effective than anything laymen could provide. These assumptions, which are made by alcoholics and politicians as well as by doctors themselves, played a large part in the corporate decision to regard alcoholism as a disease, influencing both those who led and those who responded to the long campaign to establish it as a bona fide disease. Unfortunately, the evidence that has accumulated in recent years suggests that they were probably unjustified.

There is no doubt that many alcoholics drink much less and do much less harm to themselves and other people after treatment than before. In many series a third or more of those receiving treatments as varied as apomorphine conditioning and group psychotherapy have succeeded in remaining abstinent throughout a follow-up period of two years or longer, and others have regained the ability to drink in moderation whether or not that was the aim of treatment. Most treatment programmes for alcoholics, however, admit only a proportion of those referred, and these comparatively favourable results owe much to a judicious choice of subjects whose motivation and social stability suggest that they are likely to do well. There is also evidence from various sources that similar improvements may be effected in other ways and may occur, if not spontaneously, at least without any deliberate therapeutic intervention. For various practical and ethical reasons it is difficult to compare a treatment regimen against no treatment at all; but whenever two forms of treatment have been compared in an adequately designed trial the simpler regimen has almost invariably proved to be as effective as the longer or more intensive one. A three-week admission to an alcoholism unit seems to be as effective as a three-month admission,<sup>15</sup> and outpatient treatment just as effective as inpatient treatment.<sup>16</sup> The most damning evidence of all is provided by a recent study at the Maudsley Hospital in London.<sup>17</sup> One hundred married men referred to an alcoholism clinic were randomly assigned to two alternative regimens. Half were offered the full range of therapeutic facilities possessed by an unusually well-staffed clinic—that is, regular appointments with a psychiatrist for themselves and with a social worker for their wives, sedative drugs to cover withdrawal and disulfiram (Abstem) tablets thereafter, an introduction to Alcoholics Anonymous, and admission to an inpatient alcoholism unit if necessary. The other half were simply told, in a suitably solemn manner and in the presence of their wives, that they must stop drinking completely and that responsibility for doing so rested entirely with them. A year later there was no significant difference in drinking behaviour between the two groups, although 60% of both had improved.

Even if someone else repeats this trial in a few years' time and succeeds in showing that treatment does give better results than straightforward advice it seems clear that the efficacy of contemporary medical treatments of alcoholism is limited and that esoteric and expensive regimens are no more effective than quite simple ones. Nor is there any evidence that non-medical treatments are any better. Attempts by psychologists to treat alcoholism as a form of learned behaviour along behavioural lines have not yet borne fruit, and there is no evidence that the counselling offered by social workers and local councils on alcoholism is any more effective than medical regimens, though it often has the merit of being less pretentious and much cheaper. The self-help organisation Alcoholics Anonymous is often credited with having enabled more alcoholics to stop drinking than doctors have ever done. The claim may indeed be true but there is little evidence to substantiate it, and the consistent refusal of AA

branches to keep any records, even the names of those who attend their meetings, means that their efficacy has never been adequately assessed.<sup>18</sup>

### Effects of legislation on alcoholism

In any enterprise where things are going badly for no obvious reason it is a sound principle to re-examine basic assumptions before deciding that the solution to the problem is simply more resources and more determination. Clearly our efforts to combat alcoholism are going badly, and of all the assumptions on which those efforts are based the assumption that alcoholism is a disease, or at least is best regarded as a disease, is the most fundamental and has the most pervasive implications. It has led both the medical profession itself and informed laymen to assume that the answer to the problem is to provide treatment facilities for alcoholics in hospitals and other medical institutions, and to try to identify the psychological or metabolic abnormality that prevents them from drinking normally and safely like other people. At present neither of these assumptions appears to be justified. Evidence that alcoholics differ from other people except in the amount they drink remains scanty and inconclusive. Medical treatment seems to be largely ineffective, and the number of alcoholics needing treatment is rising so fast that it is difficult to envisage any therapeutic facilities, medical or otherwise, coping effectively with them. There is good evidence, on the other hand, that people become dependent on alcohol in the same way as they become dependent on heroin—by drinking more than a critical amount for a sufficiently long time—and that the number of people drinking more than this critical amount is largely determined by the average consumption of the population as a whole.

There is also extensive historical evidence that the drinking habits of a population are sensitive to legislation altering either the price of alcoholic beverages or their availability, and to a lesser extent to changes in social attitudes to drinking.<sup>19</sup> In Britain, for example, beer consumption dropped sharply when the duty, first imposed in 1643, was tripled in 1690. The same happened when the tax on malt was tripled in 1791 and when the opening hours of public houses were restricted by the Defence of the Realm Act of 1914. Conversely, the reduction in duty introduced by Gladstone in 1880, coupled with the nation's rising prosperity, caused beer consumption to rise to nearly one pint per person per day in the latter part of the nineteenth century. The consumption of wines and spirits is equally sensitive to changes in taxation. The 1751 Act "for more effectually restraining the retailing of distilled spirituous liquors" and the Disorderly Houses Act of 1752 produced a dramatic reduction in gin consumption. So did the restrictions on the manufacture of spirits imposed by the wartime food controller in 1917. The Methuen Treaty with Portugal in 1703, which allowed Portuguese wines to be imported cheaply, was effective in persuading the leisured classes to drink port instead of the claret they had drunk in the seventeenth century, and consumption of French wines did not recover until the customs duty was reduced by the Cobden Treaty of 1860.

### EFFECT OF ECONOMIC CONDITIONS

Changes in legislation and in general economic conditions have probably been the major cause of the dramatic increases in consumption that have taken place throughout the world in the past 25 years. Between 1960 and 1970, for example, per caput consumption of alcohol rose in 24 of the 25 developed countries studied by de Lint.<sup>12</sup> (The one exception was France, whose consumption was still the highest of all in 1970 despite a 12% fall in the previous decade.) This period was, of course, a decade of steady economic expansion and rising prosperity, and it is probably important that the increase in consumption was greatest in countries like Holland, Finland, West Germany, and Ireland, whose general standard of living increased the most during that decade, and least in countries like Italy, Portugal, New Zealand, and Britain, whose economies were less robust. At the same time there was a general trend to a relaxation of controls on the sale of alcoholic beverages and to either a decrease in taxation or a failure to compensate for the combined effects of rising incomes and inflation on effective levels of taxation.

This fall in effective taxation has been particularly pronounced in the UK. The price of a bottle of whisky as a percentage of the average wage earner's "disposable income" (the residue of earned and unearned income after deduction of taxes and statutory contributions like National Insurance) has fallen steadily from 48% in 1950 to 20% in

1970 and shows a linear relation with rising consumption over that period.<sup>20</sup> The change is shown even more dramatically by changes in the prices of alcoholic beverages relative to those of staple foods. Between 1950 and 1976, for example, the length of time a male manual worker had to work to pay for a pint of beer fell by 48%, from 23 minutes to 12; the work time to pay for a bottle of whisky fell even further, from six and a half hours to two, a 68% reduction. The time needed to pay for a large loaf, on the other hand, actually increased during this period by 22%, from nine minutes to eleven.<sup>19</sup>

The position may thus be summarised very simply. The consumption of alcoholic beverages is rising steadily and producing an alarming increase in hospital admissions for alcoholism, convictions for public drunkenness, and deaths from hepatic cirrhosis. It is also contributing indirectly to many other medical and social ills including road traffic accidents, industrial accidents, and industrial inefficiency generally; suicide and attempted suicide; crimes of violence from assault to baby battering, rape, and murder; and deaths from carcinomas of the respiratory and upper gastrointestinal tracts.<sup>11</sup> The medical treatment of alcoholism is of limited efficacy, as is the treatment of most of its secondary consequences. The same is probably true of the counselling methods used by social workers and voluntary organisations. Above all, there is no realistic prospect of any of the caring professions, individually or corporately, being able to cope effectively with the disability and suffering caused by alcohol abuse in the foreseeable future, even if the human and material resources available to them were to be greatly increased. There are sound reasons, however, for believing that all the consequences of alcohol abuse would be reduced if total population consumption could be reduced; and that, within fairly broad limits, total population consumption could be reduced by legislative changes to increase the price or restrict the availability of alcoholic beverages. The conclusion seems inescapable. Until we stop regarding alcoholism as a disease, and therefore as a problem to be dealt with by the medical profession, and accept it as an essentially political problem, for everyone and for our legislators in particular, we shall never tackle the problem effectively. The medical profession and the caring professions in general are just as incapable of dealing effectively with the harm and suffering caused by alcoholism as the medical services of the armed Forces are incapable of dealing effectively with the harm and suffering caused by war.

### Alcoholism as a political problem

It will not be easy to persuade either society in general or our elected representatives to regard alcoholism as first and foremost a political problem. Indeed, the obstacles are so formidable that even Bunyan's pilgrim might have been dismayed at the prospect. We will all as individuals resent any increase in the price of our favourite alcoholic drinks and any restrictions that make their purchase or consumption more difficult. Nor will we readily accept that our own moderate drinking habits are potentially harmful either to ourselves or to other people. The alcohol industries will strongly resist any measures that threaten their sales and will use their considerable political influence to that end, as the tobacco companies have already done. Politicians will be reluctant to pass legislation that they know or suspect will be electorally unpopular. They may also be reluctant to do anything that affects their own drinking habits, and there are sound reasons for suspecting that as a class their consumption is high. The disease concept of alcoholism may be out of tune with the facts and a serious obstacle to rational solutions, but it has the great attraction of embodying assumptions that are convenient to almost everyone concerned. It allows us all to drink happily, secure in the belief that normal people like ourselves do not become alcoholics; it allows the alcohol industries to do their best to persuade us to drink more without any suggestion that this is dangerous; and it allows politicians to avoid electorally unpopular decisions. Even alcoholics stand to gain: they are offered treatment for their "illness" and by implication reassured that it is not their fault that they became ill and that it is someone else's job to get them better.

Sooner or later we as a society shall have to face the unpalatable facts that are now confronting us. We may put off doing so for some time yet, but the longer we wait the harder the task will become and the higher the price we shall eventually have to pay. Alcohol consumption in Britain is still lower than that in many industrial countries, particularly winegrowing countries like France and Italy. It is also lower than it was one hundred or even three hundred years ago. The situation France began to face for the first time in the 1960s provides some indication of the magnitude of the damage alcohol eventually inflicts on a nation's health, and also of the scale of the vested interest

in maintaining its alcohol-based culture unchanged that a society may develop. In 1969 Brésard<sup>21</sup> estimated that half the general-hospital beds in France were occupied by people suffering from alcohol-related conditions and that over 40% of the country's total expenditure on health care was for the treatment of such conditions. A few years before, however, Bastide<sup>22</sup> had found that 88% of Frenchmen believed that wine was "good for one's health" and that 48% regarded it as quite acceptable to drink two litres every day. Jellinek<sup>1</sup> had also estimated that a third of the French electorate were partly or entirely dependent for their livelihood on the production, processing or distribution of alcoholic beverages.

### NEED FOR EDUCATION

Although we have sound reasons for believing that a substantial increase in the duty on all alcoholic beverages and the restriction of off-licence sales would be more effective in reducing the ill health and suffering caused by alcohol abuse than anything the health departments might ever propose, potentially unpopular legislative changes of this kind would need to be accompanied by far more extensive educational campaigns than those currently being mounted by the health education units. The fate of prohibition in North America and the scale of smuggling and illicit distilling in Britain in the eighteenth and nineteenth centuries are reminders of the dangers of pushing legislation too far in advance of public opinion. A sustained campaign will be needed to educate both schoolchildren and adults and to alter the community's entrenched attitudes to so-called normal drinking as well as to drunkenness and alcoholism.

Most of these facts and the ideas derived from them have been familiar to those working in this field for several years, but they are not yet known to most members of the medical profession, still less to the general public. This is partly because in this country, unlike France or Sweden, alcoholism itself, as distinct from its innumerable sequelae, has been treated almost entirely by psychiatrists in separate psychiatric hospitals and the knowledge they have acquired has not filtered through to other medical disciplines. To many doctors alcoholism is still largely a working-class problem that results in public drunkenness, injuries of varied kinds, and delirium tremens. Indeed, so tenacious is this image of the derelict Irish labourer that I suspect that we are putting our telescope to our blind eye and do not want to acknowledge the true facts. In reality, alcohol consumption by the professional and managerial classes is high, in some recent surveys<sup>5-6</sup> higher than that of manual labourers. It is true that middle-class drinking does not often result in court convictions (except for drunken driving) or public drunkenness, but it does great harm to health, careers, and marriages none the less.

The Registrar General's mortality tables for England and Wales in 1970-2 show that many of the occupations with the highest mortality from cirrhosis are professional or managerial.<sup>23</sup> Publicans head the list with a mortality 16 times the national average and are followed by ships' officers, insurance brokers, restaurateurs, journalists, and medical practitioners, all with a mortality from cirrhosis at least three times the national average. Although many physicians still believe that cirrhosis is likely to develop only when massive drinking is combined with a deficient diet the facts do not support this convenient assumption. Experiments with baboons<sup>24-25</sup> have shown that ethanol itself is capable of producing the entire spectrum of alcoholic liver disease in the absence of any nutritional deficiency. Moreover, the studies in France of Pequignot *et al*<sup>26</sup> suggest that a regular daily alcohol intake as low as 60 g in men and a mere 20 g (not much more than one pint of beer or one glass of wine) in women is sufficient to cause hepatic damage. A regular daily intake of more than 80 g of alcohol (about five pints of beer or a third of a bottle of spirits) is associated with a fivefold increase in the incidence of cirrhosis, and a daily intake of more than 160 g with a 25-fold increase. Nor, of course, is the damage restricted to the liver. In the medical profession more careers are probably ruined by alcoholism than in any other way. In Scotland doctors are admitted to psychiatric hospitals for treatment of alcoholism two or three times as often as members of other professional and managerial occupations,<sup>27</sup> and the same is probably true in England.

### Conclusions

I am well aware that some of the things I have said could easily be misunderstood and even more easily misrepresented. I am not suggesting that psychiatrists or doctors in general

should give up trying to help alcoholics to stop drinking. We have to continue trying to do so, and even asking for more resources in order to do so, but we must stop pretending, and allowing others to pretend, that this is the answer to the problem. Nor am I suggesting that we should all become teetotallers, though it is worth reflecting that if ethanol were a newly synthesised substance the Committee on Safety of Medicines would almost certainly not allow it to be administered to human beings. Although it is difficult to show objectively, few people doubt that alcohol has genuinely beneficial effects in many circumstances, particularly on social occasions when some impairment of cognitive and motor abilities is unimportant. It helps us to relax and to enjoy ourselves. It often makes us better company, and sometimes enables us to perform better when anxiety might otherwise overwhelm us.

It is precisely because alcohol gives so much pleasure to so many people as well as causing so much harm that any decision to restrict consumption has to be a political one. Only society as a whole can decide how much damage and suffering it is prepared to tolerate for the sake of how much enjoyment. But the appropriate decision can be made only in the light of an adequate knowledge of the facts, and a major government-financed campaign lasting for a decade or more will be needed to achieve this: to convince the man in the street that it is dangerous to drink more than, say, 80 g of alcohol a day and to teach him how many grams there are in a pint of beer or a double whisky.

I have not mentioned the many parallels to be drawn between drinking alcohol and smoking cigarettes, partly because they are fairly obvious and partly because there are also many important differences. Alcohol is not nearly so addictive as nicotine, but once dependency has developed its harmful effects are far more extensive and more rapid in onset. Nor is there any possibility, as there is with tobacco, of separating the harmful constituents from the desired ones—there will never be a safe bottle of gin. Nevertheless, important lessons may be learnt from the attempts of our profession to discourage people from smoking cigarettes. We have learnt how long it takes to make any appreciable progress, how spineless ministers can be, and how strongly commercial empires defend their profits. But we have also learnt that if we are sufficiently determined and sufficiently patient we are eventually able to change public attitudes and people's behaviour. If our evidence is sound and we set an example by our own conduct we have the power to change the drinking habits of our society. I have argued that it is no longer appropriate to regard alcoholism as a medical

problem, but the onus is still on the medical profession to take the initiative in changing an increasingly intolerable state of affairs.

I am grateful to Dr Griffith Edwards for his wise comments on the original draft of this lecture.

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(Accepted 24 November 1978)

**ONE HUNDRED YEARS AGO** At the recent Lancaster Assizes, a woman named Mary Whiteside was tried on a charge of poisoning her husband, Robert Whiteside, at Alton, on the 28th of last June; and also upon the charge of forging a certificate of the death of her sister, Ann Weighill, in order to obtain money from the Prudential Life Assurance Office. It appeared that, on January 21st, 1878, the prisoner bought a packet of vermin-powder, of which the chief ingredient was strychnia; and on January 26th, her little boy, aged two years, died. In April 1878, she bought another packet of the same powder; and three days afterwards, another of her children died. On June 28th, she bought a third packet; and on the evening of the same day, her husband died. He was employed as a gardener, and returned from his work about half-past five. He drank a bottle of nettle-beer, and afterwards ate a hearty meal of tea, bread-and-butter, and gooseberry-tart. For some little time, he continued perfectly well, and amused himself nursing the baby. Suddenly, he was seized with excruciating pain, was convulsed, and in a few minutes died. Mr Edmund Eccles, surgeon, who was called to see him, found life extinct; and, somewhat imprudently, gave a certificate stating that the cause of death was sunstroke. All the three members of the family who died had been insured in the Prudential Life Office. It is not wonderful, therefore, that suspicion was aroused. An order was given that the body of Robert Whiteside should be disinterred, and a *post*

*mortem* examination was made by Mr Edwin Moore of Preston. The viscera were handed over to Dr J C Brown, the County Analyst. Both these gentlemen, and also Dr A J Bernays of London, after hearing the symptoms, were of opinion that death had been caused by strychnia, although none could be detected by analysis. It must, however, be remembered that decomposition was far advanced when the examination was made. It was contended for the defence that strychnia could not have been administered to the deceased, either in the nettle-beer or in the gooseberry-tart, without making them so intensely bitter that he would have refused to partake of them. After deliberating for two hours, the jury returned a verdict of "Not Guilty." The minor charge does not seem to have been followed up. But it is very strange, to say the least of it, that the prisoner should have been able to insure the life of her sister, Ann Weighill, without her knowledge. Indeed, the agent acknowledged that in effecting such an insurance he failed in his duty, as he was bound to see the persons whose lives he accepted. Certainly, such an irregularity should not pass unnoticed by the Prudential Life Office. As regards the charge of poisoning, the result of this case is very unsatisfactory in a medical point of view, both in respect to the haste with which the certificate was given in the first instance, and in respect to the difficulties which attended the analysis of the viscera. (*British Medical Journal*, 1879.)