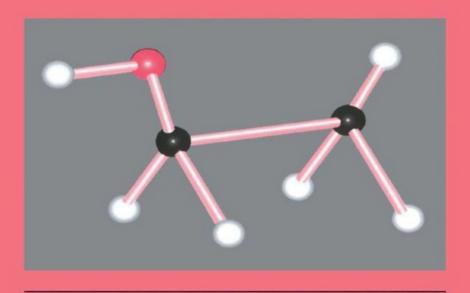
Alcohol Misuse

A European Perspective

Edited by

Timothy J. Peters



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Timothy J.Peters

King's College London, UK



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PREFACE

The risk analysis of alcohol usage is a complex topic involving economic, philosophical, political and toxicological issues. It is therefore essential to review objectively the various degrees of tissue damage consequent upon chronic alcohol misuse. At a time when various arms of the liquor industry, often disguised as Trusts, Groups, Councils and Associations, are attempting to play down these damaging effects and promote the "Beneficial Medical Effects" of usage, independent evaluation of the clinical consequences of chronic ethanol toxicity is vital. This monograph is the result of a peer-reviewing discussion group assessing a series of reports by acknowledged experts in the field of alcohol misuse. These reports have subsequently been revised and form the basis of individual chapters in this monograph.

In preparing the reports, assembling the peer-reviewing group and the preparation and publications of the final chapters the single and sole support of the European Commission is gratefully acknowledged. The concluding summary and proposed Action Plan outlines research directions necessary to investigate further the pathogenesis of tissue damage due to both 'normal' and excessive alcohol usage. Particular reference is made to both the well-known and little-known areas of toxicity, highlighting especially neglected areas of research. In addition, psycho-social problems particularly relevant to European countries are considered.

In the preparation of the monograph the wise, unstinting and invaluable guidance of Griffith Edwards, the expert administrative and secretarial skills of Rosamund Greensted and Jacqui De Groote and the help and advice of Harwood Academic Publishers are gratefully acknowledged.

Professor T.J.Peters

INTRODUCTION

Toward a European Response to Alcohol: Getting Research onto the Map

Griffith Edwards

A MAP OF SOME COMPLEXITY

If so minded, how might one set about drawing a drinking map of Europe? What would the landscape look like if instead of contour lines we marked in per capita alcohol consumption—what plateaux, valleys or mountain ranges would emerge? What symbols should we use to designate areas of great drunkenness, how should we colour in the regions where there is acute as opposed to only minimal political concern, how should we mark in the vineyards or famous breweries or distilleries, or such national monuments as the place where Father Mathew preached his first crusading sermon, Magnus Huss wrote *Alcoholismus*, or where Mendes France drank that famous glass of milk? How shall we indicate the latitudes of temperance and the longitudes of beer festivals? The idea of such a map is intriguing, but had better be left to another day.

The member states which together make up modern Europe certainly comprise a remarkably varied set of drinking terrains. For instance, in the northern areas of the continent, there are countries which have a tradition of spirit drinking, where alcohol is thrown back rather than sipped and is not usually taken with meals, and where drinking to intoxication is viewed as the probable outcome when a group of friends get together with a bottle or two of hard liquor. Per capita consumption in such countries is often quite low, but control measures are restrictive and the temperance tradition strong. Paradoxically, these are frequently the countries which support national institutes for alcohol research and which have established specialised university departments dealing with this topic.

Toward the south of Europe the situation contrasts in many ways with the northern picture. Wine is the traditional beverage, alcohol will often be taken with food or around the family table, and may be regarded as a beneficial item of diet rather than as an intoxicant. Alcohol consumption tends to be high, adverse physical health consequences are endemic, controls lax, and until quite recently governments in such countries would probably have made only small investments in relevant research.

It is also possible to designate a middle band of countries where beer is the favoured beverage, where consumption is again quite high and the few scientists who are interested in alcohol and alcohol problems are likely to lead somewhat lonely professional lives. But to describe Europe as rigidly divided into spirit, wine and beer cultures would be misleading. There are many mixed patterns, different regions or cultures within one country can display varied patterns, and the traditional modes of drinking can change rapidly in the face of trade and economic pressures, or as a result of the mysterious, intangible forces of modernisation. Young people are beginning to drink beer in Italy.

Within this total, shifting field, one fact is outstandingly certain. Across the great expanse of Europe we will still for many years be encountering immensely varied patterns of drinking which have their roots in diverse and ancient cultural and religious traditions and agricultural and industrial contexts, giving rise to different prevalences and patterns of alcohol-related problems, responded to within different social, political and administrative traditions. Europe's experience with alcohol was, is, and for the foreseeable future will be, about heterogeneity. A Finn, a Czech, or an Italian will not conjure up one and the same images when cued by such words as drink, drunk, drunkard, drinking problem, or licensing law. Politicians will see very different constraints and feasibilities cued by alcohol issues, and the media will not all be carrying the same kinds of stories about alcohol in Sweden, Poland and Spain. And meanwhile scientists across a spectrum of European countries will encounter vastly contrasting funding possibilities and career opportunities if they take an interest in drinking problems.

In brief, what even a cursory attempt to delineate a drinking map of Europe must surely point up, is that Europe is not one drinking culture, but a fantastic mosaic of drinking cultures. Perhaps in looking at alcohol we suddenly rediscover something about the deep cultural complexity of our continent. Whatever the particular problem under discussion, to talk of common cause when standing in front of that kind of map will require courage, determination, and a sensitivity toward other people's beliefs and cultures.

ALCOHOL RESEARCH: TOWARD A EUROPEAN DIMENSION

In the new Europe can we expect alcohol issues be given salience and handled intelligently and well and in the interests of the people, or left to whim and chance? If the future is left only to unfettered commercial interests, the map can be expected to evolve over the next few decades toward one high drinking plateau, with all countries drinking up toward the level of those countries which at present constitute the drinking peaks. The consequent economic, health and social costs would be shocking, with Europe seen internationally as a disaster area so far as drinking problems were concerned. Such an extreme scenario is possible but unlikely, but only an extreme optimist would texiay feel confident that Europe will develop easily and rapidly into a union which handles alcohol issues in exemplary fashion, rationally, and for the public good. WHO has promulgated a well considered European Alcohol Action Plan, but whether governments have the political will to support this plan has yet to be tested.

If Europe is to handle alcohol issues well, one of the necessary inputs to facilitate that development will come from the direct and indirect inputs of the relevant European science. The direct contribution will stem from research which describes the extent of the problem, and which confronts the public and the policy makers with the facts with price tags attached. In addition, there will be a direct contribution from research which can explain rather than just describe the patterns and shifts of drinking and drinking problems across the varied terrain. And research is needed to assess the efficacy of the policies which are being implemented. A direct contribution of another kind will come from a strong research input dealing with biological or genetic issues, and such lines of investigation will have fundamentally important clinical and public health applications.

As to the more indirect benefits to Europe which will flow from a well-founded alcohol research base, under this latter heading the strong, essential, and subtle contribution will be in terms of the impact of science on Europe's culture for decision-making. We must hope that this will be a culture where science counts. No one would be

so naive as to assume that science is ever the only input to influence public awareness or political decisions, but we should nonetheless argue for a strong voice for alcohol science in a new Europe.

In stressing the importance to the health of this continent of a European dimension to alcohol research, one should guard against any tendency toward the absurdities of some kind of continental chauvinism as a perverse substitute for old nationalisms. The European science base for alcohol matters, but European science will be a poor thing if it is not part of the wider world endeavour and tested by international standards and expectations.

WHY THIS BOOK IS SIGNIFICANT

This book represents the outcome of a European initiative, and derives from a review exercise and related scientific meeting funded by the European Commission. The authors are drawn from Finland, France, Germany, Spain, and the United Kingdom. In terms of the analysis offered above, this volume might be seen as serving European interests in ways which are both direct and indirect. Directly, it makes important contributions to description of the European situation through its chapter on consumption trends in EU countries (Chapter 1), and with the account which is given of alcohol-related social consequences within the Community (Chapter 11). The chapter on ethnic and gender differences (Chapter 2) starts in an interesting fashion to bridge description and explanation. These three chapters between them constitute a very preliminary essay in map making, but they show what is needed and what can already be said.

The highly informative set of chapters on medical complications of drinking (Chapters 3–6 and 8–10) deal in turn with nutrition, liver diseases, skin disease, HIV risks, musculoskeletal disorders, the pancreas and malignancies. Between them these statements offer persuasive evidence for the importance of alcohol issues for European clinical research and clinical medicine.

This book also, however, demonstrates the multiple sophistication of the existing European research base which is engaged with this broad array of social and medical topics. A chapter-by-chapter reading of the book confirms that we have the strong beginnings of a European scientific presence which will have the capacity to inform and influence the quality and rationality of policy and public debates on alcohol issues. Thus, as well as there being specific, direct messages and content in the individual chapters, there is a strong implicit message in the fact of the book itself. European science in this arena has noteworthy strengths, and European scientists working on this issue have the will to come together for common purpose and contribute to the wide debate on how alcohol issues should be handled. That's good news.

ALCOHOL RESEARCH IN EUROPE: A VISION FOR THE FUTURE

In its "Conclusions" section this book outlines some bold directions for the future. Several promising specific ideas for research collaboration are identified, but in addition a larger challenge is laid down. The general need for a bolstering of European support for alcohol research is emphasised and the novel suggestion made that a pan-European centre should be established along the lines of NIAAA (America's very influential national agency for alcohol research). In short, the plea in that concluding statement is that however

historically diverse our drinking terrains, we should come together to deal with common problems of pervasive European importance. This book argues cogently and with much authority for the need, direct and indirect, to put alcohol research strongly onto the European map. The editor and authors of this volume are to be congratulated on their contribution to science, debate, and the beginnings of important cartography.

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Trends in Alcohol Consumption in the EU Countries

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The EU member countries occupy top ranks in the world statistics in alcohol consumption. Large economic interests conflict with the concern about alcohol-related harm in public health. A description of current trends of alcohol consumption levels and patterns shows that a process of homogenization is slowly proceeding in the EU although differences between the countries are still large. Complex explanations are required for the dynamics of aggregate alcohol consumption and, despite the trend towards increasing homogenization, the explanations are different for different countries. Two kinds of proposals for better understanding of the dynamics in the EU are presented. First, a number of issues for improvement of the data bases are discussed. Second, a deeper analysis is called upon on processes that are reformulating the social and political environment of alcohol issue in the EU. Homogenization between countries occurs parallel with fragmentation of everyday life practices within each country, and the relationships between public agencies and citizens are being reshaped in the consumer society. Alcohol consumption and measures to promote or control it appear not only as economic or health policy issues but also as a symbolic battlefield on new social and cultural order. However, the importance of economic interests and health worries should not be overlooked.

1. INTRODUCTION

All indicators of alcohol consumption show unanimously that the EU is the region with highest alcohol consumption and, in many cases, also with highest alcohol-related harm in the world. In the 1993 edition of a compilation of statistics on world alcohol consumption (World Drink Trends 1993, p. 7), the top four countries came from the EU. Among the top 15 countries, there were 10 EU countries. Only Ireland and the United Kingdom belonged to the middle category, occupying the 20th and 21st places in the alcohol consumption statistics. Only recently, the leading position of the EU countries has become challenged, as the somewhat unreliable estimates of alcohol consumption in some

ex-socialist countries exceed the present top consumption figures of France, the leading country (see e.g. Strazdins 1994, Subata 1994, and Lehto and Moskalewicz 1994).

Consequently, alcoholic beverages are an important economic issue in the EU. Alcohol could also be an important health policy issue, although this aspect has not gained very much attention within the EU as a whole, until recently. There are signs of an emerging battle around alcohol between alcohol industry and health policy proponents in the EU. Therefore, a discussion on the changing nature of alcohol consumption as a policy issue in the EU is a necessary background for a description of trends in alcohol consumption.

After that background discussion, this paper aims at providing a brief review of statistical material on alcohol consumption, including remarks on specific features of trends in each of the 12 EU countries. Problems related to the quality of data on alcohol consumption will be separately dealt with. The dynamics of changes in alcohol consumption will be discussed. Finally, some proposals for action within the EU will be made, both on issues concerning technical problems in establishing sufficient data bases and on issues of more general political and scientific concern. In the latter point, the parallel but sometimes contradictory processes of homogenization and fragmentation of lifestyles in Europe will be touched, with implications for research as well as public policy.

2. THE ISSUE OF ALCOHOL CONSUMPTION ASABATTLEFIELD

Until recently, the issue of the level of alcohol consumption has been relatively invisible as a subject of political debate in the EU, with the exception of agricultural policy. Perspectives of health policies have been absent, not to say a word about moral policies and public order. This is contrary to the discussion around alcohol in a number of other developed industrialized western countries, where alcohol-related problems of health and public order have been constant themes in the public debate. Examples of such countries are USA and the Nordic countries, except Denmark. Within the EU, there have been relatively few efforts to provide reviews on the development of alcohol consumption and alcohol-related action in the Community and on the community level (Fahrenkrug (1987) is one of the few examples).

Recently, the situation has changed. Within the EU, the intensification of economic integration and the rise of health and social issues in the community agenda after the Maastricht summit has provoked increasing interest in alcohol issues. Most visibly, international enterprises working in the field of alcohol production and trade have mobilized themselves into an efficient lobby. One of the major goals of that lobby seems to be to prevent the level of alcohol consumption from becoming regarded as an indicator of alcohol-related harm, and consequently, as an instrument of target of preventive health policies (see Alcoholic Beverages and European Society, 1993). The opponent of the industry lobby is most often the WHO Regional Office for Europe. That office has, also recently, launched a new European Alcohol Action Plan (1993; abbreviated later as AAP). The core of that plan is exactly opposite to the views of the alcohol industry lobby. The AAP accepts the idea of the level of alcohol consumption both as a central indicator of alcohol-related harm and as a central target and instrument of preventive policies. Importantly, the European AAP is a direct continuation of alcohol-related views expressed in the worldwide WHO program "Health for all by the year 2000" (see Targets for Health for All, 1985, in particular target 17).

The standpoint of the alcohol industry lobby was neatly stated a few years ago in the foreword to the main statistical source on alcohol consumption (World Drink Trends 1992 foreword by Dr. J.J.M. Verhoek, from the Dutch Commodity Board for the Spirits Industry):

Everyone knows of countries with a low ranking for alcohol consumption in this book who suffer from more misuse than countries with a higher ranking. There is no correlation between alcohol consumption in a country and alcohol misuse there. People who use this book on that basis are fighting the wrong battle.

This view is repeated, although in a softer formulation, in the recent report by the Amsterdam Group, a main lobbying organization of the alcohol industry (Alcoholic Beverages and European Community, 1993, p. 13):

However, certain organizations and governments have suggested a number of proposals intended to reduce the total consumption of spirits, beer and wine within Europe as an alternative policy for reducing alcohol abuse.... The Amsterdam Group is convinced that such a policy will not be successful. There is little reason to expect that measures aimed at lowering total alcohol consumption will reduce alcohol abuse.

The opposite view is condensed in the following quotation from the European Alcohol Action Plan, from the paragraph titled "Strategy" (on p. 12):

A significant reduction in the health-damaging consumption of alcohol can be achieved through the combination of a population-based approach reducing overall consumption, and a high risk approach targeting high risk behaviors. The population-based approach is needed because; (i), an overall reduction results in less problems at all levels of drinking; (ii), heavy drinking and its problems are particularly sensitive to this approach; (iii), influencing perceptions of reduced levels and patterns has important long-term cultural consequences. An environment in which light drinking is the norm would exert pressure on heavy drinkers to reduce their consumption, thereby potentiating the high risk approach.

An uneven battle may be expected, the industry side being provided with quite superb material resources compared to those of the health promotion proponents. Similarly, within the EU, the alcohol-related expenditure is quite unevenly distributed. It has been estimated that the EU spends almost 2 billion pounds a year subsidizing alcohol production and export—"some 2,000 times more than it spends on alcohol-prevention and education programs" (Leonard Doyle, in The Independent, August 11, 1993). There is a lot of money in the game, and the battle is likely to go on for a long time.

It is beyond the scope of this paper to go into the details of this dispute (see e.g. Wodak (1994) for additional information). Suffice it to say that researchers are also divided in this question. In two subsequent articles in the Journal of the Royal Statistical Society in 1993, it can be read, first, that "some control policies may deter individuals from drinking at

high levels, and thus reduce the proportion of deviants and mean consumption, but it is not possible to identify these simply from their effect on average consumption,..." (Duffy 1993); and second, that "it is not very realistic to deny a connection between per capita consumption, excessive drinking and harm" (Lemmens 1993). In the research field, this dispute goes back to the "single distribution theory" by the Frenchman Ledermann (1956), and the public health perspective on preventing alcohol problems, launched by a prominent research team in the mid-1970's (Bruun et al., 1975; cf. also Edwards et al., 1994). Presently, most researchers admit the complicated nature of the link between mean consumption levels and alcohol-related harm. More detailed research is cumulating on different alcohol-related risks on different consumption levels and for different types of consequences. Still a significant number of researchers would agree with Lemmens (op. cit.) that it indeed is not very realistic to deny the connection between consumption level and alcohol-related harm.

Finally, two new aspects to the battle around alcohol within the EU should be added. First, the prolonged economic depression in many countries threatens the sales of alcoholic beverages. At the same time the competition between alcohol producers is becoming harder, thanks to the abolishment of hindrances for trade in the course of integration. Second, in a number of the countries presently applying for the EU membership, alcohol is an important issue and much of the preventive policies there are based on the idea of regulating aggregate alcohol consumption. Both of these issues make the increasing interest for policy debate around alcohol in the EU more understandable.

3. TRENDS OF ALCOHOL CONSUMPTION IN THE EU

For most of the western industrialized countries, the post-war period until the mid-1970's was a time of continuous growth of alcohol consumption (see e.g. Mäkelä et al., 1981; Single et al., 1981). A notable exception was France where the consumption level was already turned into a decline in the 1960's (see e.g. Sulkunen, 1989). That joint trend was characterized by a double process of homogenization. First, the differences in the level of consumption were diminished as an outcome of the start of a decrease in the countries with high consumption levels, and an increase in countries on low consumption levels. Second, the differences in beverage preferences were also diminished, so that in the time of increasing consumption the relative share of the traditional dominating beverage in each country went slowly down. In absolute terms, however, the consumption volumes of the traditional beverages did not always decrease. The change in drinking took place through a process of addition, rather than by substitution (cf. Mäkelä et al., 1981, p. 9). New beverages and, to some extent new drinking habits, were added to the existing ones. Neither the traditional beverages nor the old habits were replaced by newer ones in the time of increasing alcohol consumption. Of course, the exceptional case of France should be remembered here.

Since the late 1970's, the development is more difficult to characterize in simple terms. The consumption growth was practically stopped in most of the western industrialized countries. Only in Japan, Finland and the former GDR there was a significant increase in the consumption in the late 1980's. Perhaps the United Kingdom should also be joined to this group. At the same time, however, the decline in consumption continued in France, and the other Mediterranean wine countries joined France on a declining path (cf. Pyörälä 1991; see also country reports in Young People

and Alcohol in Europe, 1994). The economic depression of the early 1990's has further contributed to stabilization or even decline in aggregate alcohol consumption.

Why did the consumption growth stop in the 1980's? So far, there is no commonlyaccepted explanation. The slower pace of overall social change, the problems in eco nomic development, and long-term changes in attitudes and opinion climate, as exemplified by the rise of a health ideology in the U.S. (cf. Room 1991), have been suggested explanations. Of course, the development of consumption in each country contains many details that deviate from this broad overall description although there is a lot of movement in concert in the trends of alcohol consumption in the western industrialized countries. This issue is dealt with in more detail in a number of reviews (see e.g. Sulkunen 1983; Sulkunen 1988; Smart 1990, 1991; Edwards et al., 1994).

Data bases

Before entering a more detailed discussion on the development of alcohol consumption in the EU countries, a few words on the data bases are needed. The standard data base for international comparisons of alcohol consumption levels is the small annual publication called "World Drink Trends", formerly published by the Dutch Distiller's association, covering some 40 countries. Another important publication is the extensive "International Survey on Alcoholic Beverage Taxation and Control Policies", published by The Brewers Association of Canada, with its eight edition from 1989. Besides the consumption figures, this publication gives some background information on factors related to the development of alcohol consumption in some 25 countries. The most detailed compilation of alcohol consumption statistics so far is the "International Statistics on Alcoholic Beverages" (1977), covering the years from 1950 to 1972. It gives information also on the world outside western industrialized countries. Unfortunately, the effort of producing such a worldwide statistics has not been repeated since then. In addition to the publications mentioned above, a number of recent texts contain reviews on trends of alcohol consumption (e.g. Vanston 1990; Moser 1991).

It should be noted that practically all international data sources rely on the same original information from the countries in question. In addition to statistics concerning the volume of alcohol consumption, sales or trade in terms of liters, a number of other sources provide data on the volume of consumption in terms of monetary expenditure on alcoholic beverages (e.g. European Marketing Data, Statistics 1992 and Consumer Europe 1993).

Level of alcohol consumption

Although almost all EU member countries lie on the top of alcohol consumption statistics, there is considerable variation between the countries' consumption levels. This variation has been even larger in the earlier years. Therefore, it hardly makes sense to present a consumption curve for the EU as whole (for such an exercise, see Alcoholic Beverages and European Society, p. 31). In the recent decades, the opposite trends in wine-drinking countries with very high consumption levels, and in other countries with historically much lower consumption levels will get confused with each other within the EU in such a way that an aggregated EU consumption curve is uninformative for any purposes. Suffice it to say that for the EU as a whole the consumption peaked around 1975 at a level of 11 liters

of alcohol per capita (according to the data published in "World Drink Trends", 1992 edition). In 1990, the all-EU mean consumption was 9.8 liters per capita. The respective figure thirty years earlier, in 1960, was almost the same, or 9.2 liters. The confusing nature of these figures is evident when one remembers that the rise by mid-1970 took place solely in non-wine-drinking northern EU countries, whereas the decline since 1980 is dominated by the Mediterranean wine-drinking countries.

For a better understanding of alcohol consumption trends, a separate presentation for each country is indispensable (see Figure 1.1). The available data point out remarkably different trends in different EU countries over the post-war period. For most of the northern EU countries, a strong upward trend was indeed visible until the late 1970's. France is distinguished with its already downward trend in the 1960's. The other Mediterranean wine countries joined that trend later, beginning with Spain in the early 1970's, Italy a little later and Portugal in most recent years. The information on Greece is mostly lacking or unreliable. Germany, after having recovered from the years of reconstruction, showed stabilized consumption level earlier than many other countries. Luxembourg is a special case with its intensive contacts with neighboring countries and high foreign population.

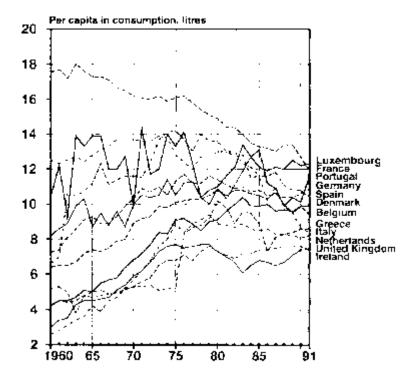
There is a lot of homogenization in consumption levels between the EU countries. In 1960, for instance, the difference between France and Britain was over 13 liters alcohol per capita. Today, that difference is. only 4.5 liters. On the other hand, the difference between Britain and Morocco, for instance, was only 4 liters in 1960 and has increased to 7 liters by 1990. Europe has come closer to Britain, or Britain has gained some distance to Northern Africa, as far as drinking patterns are concerned.

Beverage preferences

The EU countries, understandably, also hold top positions on consumption statistics by beverage type (see Table 1.1). For wine, the top four positions belong to EU countries, and among the top ten there are altogether six EU countries. For beer, the situation is very similar. The dominance of the EU countries in wine and beer consumption is well-known in the public debate. Less attention has been paid to the fact that in consumption of distilled spirits there are four EU countries in the top ten. The former GDR would have had the highest position in the spirits consumption in 1989 and 1990. Thus, for all beverage types, the area with highest consumption in the world is to be found within the EU.

One way of describing changes in beverage preferences is to use so called triangle diagrams (Figure 1.2). In that diagram, the position of each country is determined by the distribution of the country's aggregate alcohol consumption into beer, wine and spirits, in terms of liters of alcohol. In the diagram, countries where more than 50 percent of total alcohol consumption is drunk as beer will be located in the subtriangle on the top. Respectively, countries where the share of wine exceeds 50 percent are located in the bottom left triangle, and countries where beer dominates lie in the bottom right triangle. In the fourth triangle in the middle, none of the beverage types has a share over 50 percent.

The triangle is useful in illustrating changes in beverage preferences. In Figure 1.2, all EU countries except Greece are included, and information from both 1970 and 1990 has been used. The short lines, or arrows, beginning from the dot at the symbol of the country indicate the change in beverage preferences between 1970 and 1990. The interpretation of the figure is straightforward. Wine countries in the bottom left triangle have moved towards the centre and in direction of increasing popularity of beer. This is



Source: World Drink Trends 1993

Figure 1.1 Trends of aggregate alcohol consumption in the EU countries, 1960–1991.

particularly true for Spain and Portugal, but to a much less extent for France and Italy. Respectively, the beer countries in the top triangle have moved towards the wine corner. Ireland, however, has stayed on its own. The two countries in the more neutral area in 1970 were Luxembourg and Netherlands. The former has moved towards the increasing popularity of wine, whereas in the latter both beer and wines have gained in popularity. It should be remembered that the arrows are based on information for two years only, and thus do not describe movements between 1970 to 1990 in any detail. The whole truth on these movements is much more complicated than that depicted in Figure 1.2.

If one is to speculate about the further homogenization of beverage preferences in the EU countries, the information in Figure 1.2 would suggest that there is a point of convergence somewhere in the vicinity of the location of Luxembourg in the year 1970. That is, over 40 percent of the consumption would be beer, a little smaller share would be given to wine, and less than 20 percent would be left for spirits. This is, however, a highly speculative forecast. As is evident from figure 1.2, many of the EU countries would have a long way to go towards that point of convergence. It is unlikely, although not impossible, that the changes in the next twenty years would be very much larger than in the last 20 years depicted in Figure 1.2. In that case, there would still be relatively large differences between the EU countries 20 years from now.

Table 1.1 The positions of the EU countries (italics for in the top ten) in the consumption of beer, wine and spirits in 1991 (the number of countries in the statistics for each beverage type between parentheses;

Source: World Drink Trends, 1993)

	$C_{OO}(\alpha_{AB})$	CHARTE	$L(tor)(n^*m) = \epsilon_n(gr(n))$
bare 18		Section for	144
		Cza buyevskia	105
	1	Sonniers	1.56
	2	Visima	1.14
	•	Indiana.	1. 3
		Lan manage	1.3
		$H_{t}(\alpha_{t}^{*}, \alpha_{t}^{*})$	ı
	K	New Zealand	1. 1
	4)	(Largary	137
	101	A nation Koman on	1797
	1	Netherlands	w. ,
	le.	Syno	71
	÷	Perma	6°
	-1	Intrace	11
	12	Grieur	11
	98	hats	23
10a 146 i		Frais.	6
	<u>:</u>	Portogod	82
		$T_{AB} \sim \rho_0 \sigma(\alpha) \rho_0 \sigma(\alpha)$	603
	:	Balls	87
	•	Agentina	52
	b	Switcher and	29
	:	SPSTIA	<u>,54</u>
	u u	Vasiting	54
	:1	Const	32
	10	Hangary	36
		Contesto	2.5
	.1	Hrba .e	25
	÷.,	Denmers	22
	23	Nother ands	15
	25	United Kinadon	12
	 34	1-cland	Α,

Long waves and short-term fluctuations

It would be fascinating to forecast that the post-war trend of homogenization of consumption levels and beverage preferences would continue for a long time in the future. There has been a lot of discussion of really long historical waves in alcohol consumption.

Table 1.1 (Continued)

	$f^{ij}(a, m)n$	Country	Lines, of hovernee me
Sparity (40.)		Poland	4.5
	:	Horgany	3.4
	1	Cypros	1.1
	l.	Czech sslowakia	: 1
	4	Unitgrasite	.i.∎
	5	Geomany	2.# 2.7 5.7
		$N(r_{ij})/r_{ij}$	2.7
	5	Carri	
		FinaFd	2 %
	1:0	Essair	2.5 2.5
	94	Netherlands	2.3
	23	lighter t	-
	22	Linded Kingdom	
	2"	Lavering corp	- "
	25	Derne, rk	13
	31	Belgion	19
	31	Hally.	Def
	Ã0	Postnero	y

Room (1991, 151) suggests that industrialized countries have undergone during the last two centuries long waves of alcohol consumption with the periodicity of approximately three generations, or some 70 years. It is a matter of further research to find out whether the 1980's are a turning point in the long wave of increasing alcohol consumption in the western industrialized world. To talk about a long wave in terms of consumption levels might seem ungrounded in the EU as the wine countries certainly have experienced a development different from most other countries. Also, the role of the process of homogenization in the suggested long waves awaits further discussion.

It is undeniable that each country is undergoing long-term historical changes that have an effect on alcohol consumption and drinking patterns. The post-war urbanization in Western Europe has eroded rural life-forms in many countries. The variation of structure with time is different in urban waged labour compared with subsistence farming. In the modern or even post-modern consumer societies, the way of life does not much resemble the patterns in traditional industrial communities. Housing, family relations and social networks in the EU countries are today quite different from those some 30 years ago. Items that are sometimes called "the culture" or "the consciousness" of people are changing all the time. The meaning and interpretation given to alcoholic beverages, their uses and even consequences of drinking will also vary with time. It has been suggested that such cultural changes often occur on the time scale of generations rather than in shorter periods (cf. Sulkunen 1983).

The effect of historical and generational changes on alcohol consumption may be different in different countries. In many wine-drinking countries, the habit of consuming