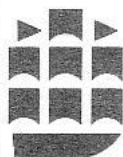


**Reprinted
from**

**THE
BRITISH
JOURNAL
OF
ADDICTION
to alcohol
and other drugs**



E. & S. Livingstone

Production, Consumption and Recent Changes of Consumption of Alcoholic Beverages

Part II. Changes in the Consumption of Alcoholic Beverages in the 1960s

Pekka Sulkunen

Finland

Summary

If the use of alcohol is divided into two types, the traditional and the new, the significance of the latter type may be stated to have increased, also relatively, during the decade of the 1960s. This is revealed particularly in the increase in the consumption of beer in industrialized countries with a low consumption level and in traditionally wine-drinking countries. Also the use of wine is becoming more general in other than the traditional wine-drinking countries. The consumption of hard liquors is rising slowly in almost every country. The rise in the consumption level is explained best by the starting level and in addition, to some extent, the rise in the income available for spending by households.

In a previous article (Sulkunen, 1975), alcohol consumption was divided on the basis of an analysis of production and marketing in the liquor industry into two types, the traditional and the new. The purpose of this division was to facilitate interpretation of the correlations between the production of different types of beverages and the natural conditions required to produce them.

In the following, I shall make use of this division in considering the changes that have taken place in the consumption of alcohol in the 1960s.

Quantitative changes in the level of consumption in the 1960s

During the 1960s the consumption of alcohol underwent a marked increase throughout the world. If we assume that the quantities of alcoholic beverages produced each year correspond approximately to the amounts consumed the same year, we have an estimate of the changes taking place in the consumption level. From Table 1, we can see that the world production of beer rose from 1960 to 1968 by 41 per cent, of wine by 15 per cent and of distilled liquors by 40 per cent. This implies an increase in the average consumption of 100 per cent alcohol per capita from about 2.2 liters to about 2.4 liters a year, or approximately 9 per cent. The European per capita consumption would have increased on the average from about 8 liters to 9.5 liters of 100 per cent alcohol in eight years. This means an increase of 17 per cent in the consumption level from 1960 to 1968 (see Table 2). It should be noted, that the estimate of average consumption contains in this case two serious sources of error. One of these is connected with the definition of the average alcoholic content of beverage types (see Table 2, note) and the other with the fact that the production statistics concern only a part of the world (the statistics do not make it altogether clear what countries have been left out of the total sums), whereas the population figures apply to the world as a whole. Therefore the per capita consumption figures given here and in Tables 1 and 2 are liable in themselves to be misleading. (As they refer to distilled liquors and total consumption, the figures are presumably slightly too high.) This does not, however, affect the truth that consumption has increased.

Table 1. *The development of the production of alcoholic beverages in the world as a whole and in Europe*

Year	Wine		Beer		Distilled alcoholic liquors converted into 100% alc.		Population (millions)
	million hectoliters	liters per capita	million hectoliters	liters per capita	million hectoliters	liters per capita	
Whole world*							
1920 ¹	164	9.1	129	7.1			1810
1930 ¹	158	7.8	168	8.3			2013
1960 ²	247	8.3	404	13.5	20.2	0.7	2983
1962	285 ³	9.2	444 ⁴	14.3			3100
1968	283 ³	8.1	568 ⁴	16.3	28.2 ²	0.8	3490
Europe (excluding USSR)							
1920 ¹	147	44.7	118	35.9			329
1930 ¹	130	36.5	156	43.8			356
1960 ²	187	44.0	191	44.9	6.1	1.4	425
1962	215 ³	49.3	210 ²	48.4			434
1968	204 ³	44.8	269 ²	59.1	9.3 ²	2.0	455

*Data on the production of distilled liquors and wine in the USSR in 1920 and 1930 are lacking.

The volumes of alcoholic beverages (ISIC 313101) are converted to 100 per cent alcohol and for this reason the figures given in Source 2 have been multiplied by 0.80. See also the following table.

Sources: ¹Voionmaa, Tapio: "An international survey of the production and consumption of alcoholic beverages". The proceedings of the twenty-second international congress against alcoholism. Helsinki 1939.

²UN The growth of world industry 1969.

³FAO Production yearbook 1971 and 1967.

⁴Produktschap voor Gedistilleerde Dranken: Hoeveel alcoholhoudende dranken worden in de wereld gedronken 1964, 1971.

Table 2. *Alcoholic content of intoxicating beverages consumed in the world as a whole and in Europe in 1960 and 1968, and the consumption of absolute alcohol per capita.*

	Alcohol, millions of hectoliters*			Total	Consumption of 100 per cent alcohol per capita, measured in liters
	in wine	in beer	in distilled liquors		
Whole world					
1960	24.7	20.2	20.2	65.1	2.2
1968	28.3	28.4	28.2	84.9	2.4
Europe					
1960	18.7	9.6	6.1	34.4	8.1
1968	20.4	13.5	9.3	43.2	9.5

*Wines are assumed to contain 10 per cent alcohol by volume, beer 5 per cent and distilled liquors an average of 80 per cent in all countries.

Sources: See Table 1.

Rise in alcohol consumption
per capita 1970/1962

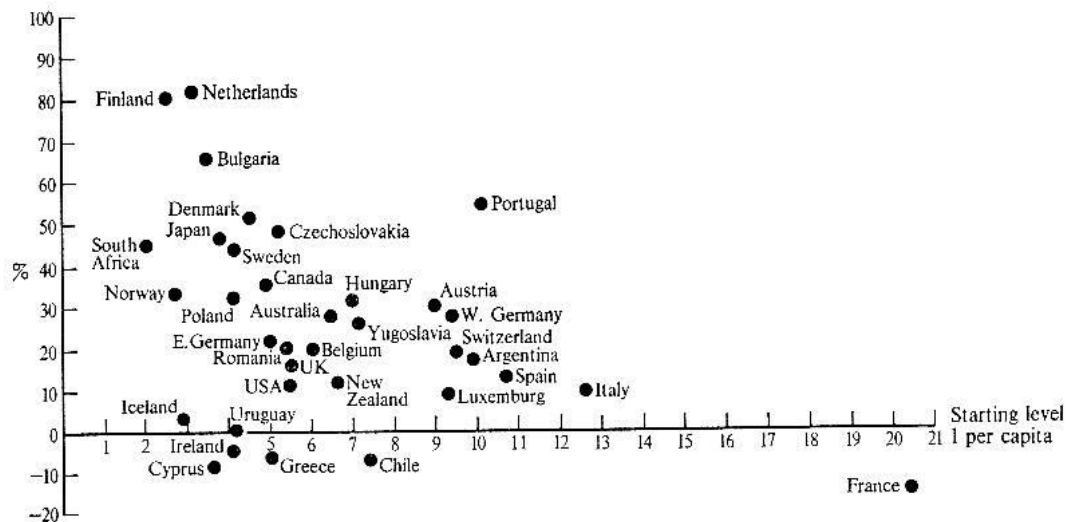


FIG. 1. Changes in the per capita consumption of alcohol in certain countries, 1970/1962, calculated with reference to the starting level.

The Countries marked by rings have been placed in the figure in the absence of accurate consumption for the years 1962 and 1970 on the basis of information applying to other years. In the estimates, it has been assumed that the percentage of change in successive annual periods has remained the same unless information to the contrary has been available.

The consumption data relative to the countries marked in parentheses are uncertain either because they are available only for a few years or are otherwise incomplete.

Source: Produktschap voor Gedistilleerde Dranken 1962-1970.

A rising level of consumption was thus a universal phenomenon in the past decade. In only three countries, France, Ireland and Cyprus, did the consumption level drop somewhat, according to accurate estimates, during this period. An examination of the figures indicating a rise in the consumption level by individual countries reveals that during the 1960s quite interesting changes took place also in the regional distribution of alcohol consumption. It appears that the rise in the consumption level was more rapid in countries where the starting level, that is, the per capita consumption of alcohol, was relatively low in 1962, whereas the increase in the rate of consumption was slower in countries where the starting level was higher (Fig. 1). This means that the regional differences in the level of alcohol consumption are diminishing fairly rapidly and consistently at the same time as the consumption is generally on the rise as the countries with a low consumption level approach at varying rates the level of the wine-drinking countries of southern Europe.

Mechanically interpreted, it might even be concluded from Fig. 1 that consumption has a tendency to approach some upper limit between 13 and 20 liters per annum, after which it tends to drop by itself. This interpretation might be based on the assumption that, on the average, people cannot tolerate or do not want to drink more, for example for either physical or psychological reasons - in other words, that when such a limit in average consumption is passed, people either

measure partly one and the same process ($r = 0.35$), namely industrialization. Similarly to the index of alcohol consumption, the process of industrialization measured as percentages tends to be relatively more rapid in the agricultural areas and slower in countries where the rates of household consumption and industrial employment originally were high. In many highly developed countries such as Sweden, Netherlands, Austria and Switzerland, the rate of industrial employment has even decreased during the 1960s due to automation, increasing office work and services.

Secondly, the rise in alcohol consumption has been most rapid in the Scandinavian countries, and the Netherlands, Czechoslovakia, Japan, and Bulgaria. These are all, with the exception of the latter, relatively developed industrial countries. Therefore we can conclude that the relative rate of industrialization in the 1960s and the rate of increase in alcohol consumption have not been statistically associated if individual countries are held as the units of observation. This does not mean that urbanization, which is often connected with industrialization, could not be a factor in *some* countries and in some sub-populations. But I take this result as indicating that there has not been a mechanical or direct causal relationship between the general rate of household consumption or industrial employment and alcohol consumption in the observed countries during the last decade.

On the other hand, it would seem that at least the consumption recorded in statistics is generally greater in industrialized than predominantly agricultural countries (Table 3). This circumstance may be partly explained by the fact that in agricultural countries a smaller proportion of the actual consumption appears in the statistics. All in all, these statistics do not consistently support the assumption that an increase in the size of the industrial labour force necessarily in itself lead to an increase in consumption. The higher level of consumption indicated statistically as prevailing in industrial countries is perhaps more apparent than real.

Table 3. *Annual per capita consumption of alcohol, 1970-1971, and the proportion of the inhabitants engaged in agriculture in certain countries.*

Per capita consumption in liters	Proportion of the manpower engaged in agriculture		
	under 30 per cent	30 per cent or over	total
less than 5 liters	6	13	19
5 liters or more	19	8	27
total	25	21	46

Sources: 1. ILO Yearbook of labour statistics 1970, Tables 2 A.
2. Produktschap voor Gedistilleerde Dranken 1972.

The table includes data from all the following countries:

Algeria, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, Cuba, Cyprus, Czechoslovakia, Denmark, England, Finland, France, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxemburg, Mexico, Morocco, Netherlands, New Zealand, Norway, Paraguay, Peru, Poland, Portugal, Romania, South Africa, Spain, Surinam, Sweden, Switzerland, Tunisia, Turkey, United States, Uruguay, USSR, Venezuela, West Germany, Yugoslavia.

Qualitative changes in consumption

In seeking the quantitative determinants of the worldwide rise in alcohol consumption looking at the correlations with industrial progress, we are confronted with difficulties. At least the statistical-ecological approach used here does not produce a clear picture of the underlying developments. In the main, we can only note that it is the starting level that is most clearly connected with the rise in consumption.

In a previous article (Sulkunen, 1975), the ties of various types of beverages to possible drinking cultures and traditions were considered and the conclusion was drawn that beer, specifically, appears to be a "traditional" beverage to a lesser extent than other types of beverages. If the growth of consumption in the 1960s could be divided into components according to beverage type, this observation would be further strengthened. The consumption of beer and distilled drinks has increased more rapidly than that of wine. In the countries where the level of consumption has risen most, beer has contributed most to the rise (Finland, the Netherlands, Bulgaria, Canada, the German Democratic Republic). These were countries, moreover, where the consumption of alcohol was still relatively low at the beginning of the 1960s.

However, the percentile increase in the consumption of wines and distilled liquors has been marked in these countries on the whole, though the increase in the consumption of wine, in particular, has been slight in absolute terms because its consumption is low in comparison with other types of beverages.

The strengthening of the position of beer compared with other types of beverages is obvious, however, also in countries where wine is the prevailing alcoholic beverage and where the consumption is exceptionally high, too (France, Italy, Spain, Portugal, Argentina, Chile). In these countries, the consumption level did not on the whole rise very markedly, at least, during the period of the survey. However, the consumption of beer and to a lesser extent also distilled liquors has increased even appreciably. In France, for instance, beer and distilled liquors have somewhat replaced wine as far as quantitative consumption is concerned. Thus new kinds of consumption appear to be developing, along with new traditions, also in wine-drinking countries, with new types of beverages taking on an enhanced significance.

The rise in the level of consumption is not, however, due in all countries to any general spread in the use of beer. In certain countries, those at an advanced stage of industrialization in particular, where the consumption of beer has long been exceptionally heavy, the increase in the rate of consumption has become concentrated on other alcoholic beverages. In the United States, England, New Zealand, Belgium, Australia, the German Federal Republic, etc., the increase in consumption has involved hard liquors and wines especially. In the sphere of "beer cultures", therefore, new drinking habits have been adopted vigorously during the past decade.

With respect to the world consumption of alcohol, there thus appears two lines of development, taken quantitatively and qualitatively. First, the regional differences in the quantitative level of consumption are lessening because consumption is increasing more markedly in countries with a low level of consumption. Second, the structure of consumption is being levelled down in that in countries with a low level of consumption (of which many have been fairly pronouncedly

spirits-drinking countries) mild beverages are gaining wide favour more rapidly than strong ones. In industrial countries with a high consumption of beer, the use of wines and hard liquors is becoming general; in wine-drinking countries with a high consumption level, again, beer and hard liquors are gaining in popular favor.

There is, of course, no reason to separate these processes from the general economic and social developments in the world during the 1960s. They are presumably related quite closely to both structural changes directly involving the production and marketing of alcohol and other changes taking place in social and cultural life. A number of these processes might be mentioned:

First, it seems clear that habits in the use of alcohol have rapidly taken on an international aspect and the share of new-type consumption has increased. This has been influenced by the progress made in the fields of communication and travel as well as by the increase in other cultural contacts. A part is further played probably by the process of economic integration on an international scale; and this means, for example, an increase in the pressure generated by the supply of wine elsewhere besides the wine-drinking areas proper on account of, among other things, the relative overproduction of wine.

Second, it should be noted that the rise in the general consumption level has evidently steered consumer demand also and quite particularly to alcoholic beverages – and within this sector to more expensive brands than ever, to foreign brands satisfying individual needs for luxuries. This explains the growing demand in the Nordic (Scandinavian) countries for superior wines.

In many countries, the government has actively striven within the frame of alcohol policy to bring about a change in consumption habits by steering them from hard liquors to light beverages. This has meant, for instance in Finland, a shift of emphasis to the promotion of beer and wines, although, it is true, the consumption of distilled liquors has increased, too.

Like many durable consumer goods and cosmetics, alcoholic beverages are susceptible to the influence of advertising on the market. Furthermore, the alcohol industry in most countries is quite clearly in a monopolistic competitive position – a position, in other words, where competition is not waged by adjusting prices but by sales-promotional means. This has presumably had its effect on both the general rise in the consumption level and, in particular, the increase in new types of consumption.

In addition, mention should be made of countries where the alcohol legislation has been liberalized and the availability of alcoholic beverages thereby improved. In certain countries, the real prices of alcohol have decreased. In some cases this trend has released blocked demand and created a new general frame of mind more favorably disposed toward alcoholic beverages.

References

- BEER, WINE, and SPIRITS: Beverage differences and public policy in Canada. The Report of the alcoholic beverage committee. Ottawa 1973.
- CAHALAN, D., CISIN, I. and CROSSLEY, H. (1969). *American drinking practices*. New Haven.
- BERGMAN, J. (1913). *Den svenska nykterhetsrörelsens historia* (The History of the Swedish Temperance Movement). Stockholm.
- HUITFELDT, B. and JORNER, U. (1972). *Efterfrågan på rusdrycker i Sverige* (The Demand for alcoholic beverages in Sweden). Stockholm.

- INTERNATIONAL LABOUR ORGANIZATION OF THE UNITED NATIONS: Yearbook of labour statistics 1970. Geneva.
- MÄKELÄ, K. (1973): Väestön alkoholinkäyttö vuosina 1968, 1969 ja 1972 (The Use of alcoholic beverages among the general population in 1968, 1969, and 1972). Helsinki.
- ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (1971): National accounts statistics 1953-1969. Paris.
- PRODUKTSCHAP VOOR GEDISTILLEERDE DRANKEN: Hoeveel alcoholhoudende dranken worden in de wereld gedronken? 2e-10e uitgave. Schiedam 1962-1971.
- SULKUNEN, P. (1975). Alkoholijuomien tuotannosta ja kulutuksesta. Kansainvälinen tarkastelu (On the Production and consumption of alcoholic beverages. An international survey). *British Journal of Addiction*, **70**, 347-355.
- UNITED NATIONS (1961). Demographic yearbook 1960. New York.
- UNITED NATIONS (1966). Statistical yearbook 1965. New York.
- UNITED NATIONS (1971). Statistical yearbook 1970. New York.
- VOIONMAA, T. (1939). An international survey of the production and consumption of alcoholic beverages. The proceedings of the twenty-seventh international congress against alcoholism. Helsinki.