

# ALCOHOLISM, ITS SCIENCE AND MYTHS

By the Director of Yale University's Laboratory of Applied Physiology,  
a centre for studies on alcoholism,

HOWARD W. HAGGARD, M.D.

IT may seem a long call between the lady who, in candle-light, places wine glasses on mahogany and lace, and sees the cocktail shaker and the savage woman who, in the light of the tribal campfire, poured millet beer into gourd bowls. But it is not a long call, not in the survival of deeply seated social practices. There is in reality only one basic difference. The modern hostess puts a glass before her own plate and she expects a cocktail, perhaps a dividend. The savage woman, to the contrary, came in for little or no share, for, in her day, drinking was a male prerogative. The savage woman usually brewed the beverage she served but was not allowed to drink. The modern woman has shed that culinary responsibility but in an emancipation which permits her to join the men, she has gained, as always from her own feet, literally, on the problem of alcohol, and what is more, doing a little leading for her menfolk. Drinking is one of man's oldest and strongest customs, but with it there has always been recognition that in spite of the values that have given it survival, it is a custom that needs social control.

To add to the burden of the responsibility, there are few practices which are more surrounded with myth and misinformation than that of drinking. Take so trivial a matter as the history of the beverages themselves. Either wine or beer, or both, were known and used with few exceptions by all primitive peoples before they met the Europeans. The alcoholic sin committed on the savage by the European was not the introduction of alcohol. Rather, it was the introduction of distilled spirits, which contain 50 per cent alcohol but which were drunk by the savages in the amounts to which they were accustomed to drink their wine and beer, containing perhaps only a tenth as much alcohol.

Distilled spirits, and also fortified wines such as port and sherry, to which brandy is added to increase the content of alcohol above that of natural fermentation, followed the discovery of fractional distillation by which liquids of different boiling points could be separated from a mixture—a discovery which came into wide use only after the Renaissance. Distillation of wine gave brandy; beer gave whiskey; and fermented molasses, rum. Gin came through the medical channel, as a tincture of juniper berries used for ailing kidneys.

The taste of any beverage is not directly that of alcohol but of a flavouring mixed with the alcohol and water. The taste for any beverage is an acquired one in the sense of the taste for olives, oysters, and Roquefort cheese, but the acquisition is primarily conditioned by the pleasurable sensation, the euphoria, from the alcohol. In the wines and beers of native peoples, fermentation and putrefaction ran neck

and neck. The hop flavour of modern beer, the flavour of charred oak in American whiskies, and of ereosote in Scotch and Irish, are acquired tastes, and equally so is the bouquet of vintage wine. The uncultured and the alcoholic may of necessity indulge extensively in such variants as cologne, shellac, and Stermo, and because of the gratification, occasionally develop a taste for them as dogmatic in its preferences as those of the connoisseur of vintage wines.

It is alcohol and the effect of alcohol that alone give the beverages their popularity. Physiologically, the only difference between them—barring the effect of the cereal content of beer in slowing the absorption of alcohol—is the percentage of alcohol they contain. The belief that well-aged whiskey contains less fusel oil than unaged or spirit blends is a myth and so also is the supposed virulent effect of mixing drinks. The only physiological basis is that it takes at least two drinks to make a mixture and two drinks obviously contain more alcohol than one drink. The "balief" is actually a perversion to physiology of what was a social convention in the days when only a bouncer broke the dinner ritual of sherry, white wine, red wine, and port by drinking a brandy and soda with the roast. He suffered not physiological but social damage from "mixing" his drinks. Actually, there is no greater mixture of beverages than from the ingredients that go into the modern cocktail.

The serious physical ills of excessive drinking are mainly indirect. Aside from local irritation from straight liquor, with an eventual whiskey tenor voice and chronic gastritis, and the temporary functional disturbances of the hangover, the ill effects are mainly dietary. Alcohol is used in the body as a food; it liberates energy just as does carbohydrate or fat. And alcohol, next to fat, is the richest of foods. An ounce by volume yields 168 calories, hence for a jigger of whiskey, 126 calories. That is a fair figure per drink for most beverages, except beer which, because of its low content of alcohol, has fewer calories per glass. Three cocktails and a highball during an evening, say a total of some 500 calories, are a highly fattening addition to the diet of a lady who refuses the sugar for her coffee—some 40 calories—for the sake of her figure. But here the dietic effects, however painful, are wholly aesthetic. A pint and a half of hard liquor a day bring some 2,000 calories to the diet, calories that satisfy hunger and therefore curtail the intake of other food, but calories which are unaccompanied by vitamins, minerals, proteins, and roughage. There may be serious trouble ahead on such a diet.

The gratifying effects of the alcohol are not stimulation but always depression, amesthesia. Alcohol is chemically a first cousin to ether and its general action is precisely the same. Alcohol bears no relation—(Continued on reverse side)

# ALCOHOLISM

ship to the narcotic drugs which are inherently habit-forming because they quickly make themselves an indispensable part of body chemistry or to the barbiturate sleeping pills which act predominantly upon the central part of the brain to quiet emotions at their source. Alcohol depresses the brain in progressive stages. The evident depression from moderate amounts is limited to the higher areas where inhibitions, timidities, and anxieties exercise their restraining and disturbing influences. With more than moderate amounts, not only is the effect in this area increased, but it also extends deeper into the brain, and coordination of muscular movement is affected. Still more, and consciousness is obliterated in full anesthesia.

There is no inspiration in alcohol. It is only when natural talents are inhibited by self-criticism and lack of confidence, by mental hazards, that alcohol, by removing these inhibitions, gives free play to the talents. If there is no innate talent to be released, there is only impairment from the alcohol, except in personal satisfaction.

Few human beings are so fortunately endowed, reared, and surrounded as to be free of conscious and unconscious fears and anxieties. Few are so joyfully situated that they are free from monotony and resentments. Anxiety, fears, monotony, and resentment breed what may be called tension. Tension repressed is uncomfortable; indeed, it may be overwhelmingly painful. Tension is relieved by relaxation, by escape in any act or occupation which the individual finds pleasurable; engrossing, and gratifying. The same relief or relaxation can be obtained passively, certainly, and quickly from the aesthetic action of alcohol.

It is because of this passive relaxation, the social solvency given by moderate amounts of alcohol, that alcoholic beverages have played a part in human culture from days far before history and will undoubtedly continue to do so. But also in prehistoric days it was recognized that this ready and forceful aid to relaxation could be abused. The danger lay in excess. It is drunkenness that gives alcohol its dangers.

It is the social implications of drunkenness that are important; those on personal health are far less so, but they are the ones that have usually received the emphasis in instruction intended to guide young people away from the use of alcohol. It is a futile emphasis, for under the worst conditions the pathology shown in vivid lithographs on classroom walls—the liver as shriveled as an old shoe, and the lining of the stomach the colour of an English hunting jacket—rarely occurs under fifteen years of conscientiously pursued heavy drinking. Fifteen years in the

future for the youngster projects virtually into senility. In all honesty, the danger we fear not only for young people but also for the adult is not ill health but drunkenness, drunkenness that makes the father, mother, and child unpredictable strangers.

The solution of the problem of excessive drinking, drunkenness, lies in education, the development of strong social customs. Such education must be backed by full and sound scientific knowledge, supported by public interest and carried out with an honest approach. With it must go an equal effort toward that broadening and extension of self-understanding, social understanding, and adjustment to which has been given the name "mental hygiene." And finally, with it must go also the sociological advancement which minimizes the tensions of life and increases the scope of relaxations. It is a difficult job and one which has no short cut, for the problem of drunkenness is not one that comes out of a bottle; it comes out of a man and his total environment.

It is true that alcohol is a prerequisite to drunkenness but it is also true that marriage is a prerequisite to divorce. When there are conventions such as those which set up a double standard for the regard in which drunkenness is held, the strength of that standard sets the ratio of alcoholism as between men and women. In the Scandinavian countries, the ratio is 1 alcoholic woman to 22 alcoholic men; in the United States it is 1 to 6; and in England 1 to 2.

In the Old Testament drunkenness was reprovved (and there were some notable instances), moderation was commended and total abstinence was advocated by a small and rigorous minority. There have always been minorities who have believed that social customs of long survival could, on demand, be abruptly terminated. Such efforts as our own period of national prohibition, instituted in a narrow understanding of human nature, of social customs and of the part played by alcohol, may be more demoralizing than the abuse of alcohol.

Modern studies of the problem of alcohol, conceived in the understanding of the breadth of the problem, have turned attention first on the alcoholic. Understanding of him may lead to his rehabilitation, but far more important for society, it may supply the information for the first sound approach to the solution of the problem of excessive drinking. The first step in these studies has been to unravel the medical and social threads in the moral snarl to the end of viewing the alcoholic not as a moral delinquent but as a man who is ill socially and medically, and for whom society, because of its inequities, is in a measure responsible.

Much the same separation was made a hundred years ago when, from the crusade of Dorothea Lynde Dix, insanity was taken from the moral field and accepted as mental illness.

The scientist has first looked at the overall situation and made some statistical approximations. In the United States some 60 to 65 million inhabitants use alcoholic beverages, mainly in moderation. The exceptions are some 3 millions who habitually drink excessively. The definition used for excess is not in the quantity drunk but in the effect; excess exists when the use of alcohol injures the man socially, economically, maritally, or physically.

On looking closely at representatives of these 3 million excessive users, the students of the problem have found that drunkenness does not stem from a single cause but from a group of causes. There are refined and elaborate classifications, but for simplicity three categories will serve.

About 20 percent of all excessive drinkers only incidentally touch the problem of alcoholism. They are men and women suffering some deep underlying disturbance because of which, and as a chance symptom, they drink excessively. In this category falls the young man who drinks wildly and witlessly; the older man who has a manic depressive psychosis and who, in one or both phases, goes on sprees; the man who has epilepsy but who instead of having fits, gets drunk; the woman suffering from the tensions of menopause who finds relief in alcohol; and the extremely psychopathic, perhaps homosexual man who lives in a society so abnormal to him that he turns to alcohol for obliteration. Such men and women are ill, but not because of alcohol. It is useless to attempt to cure them by treating their drinking habits. The treatment they need is for the malady underlying their drinking. Their medical complaints are often long ignored in the unfortunate belief that all drunks are alike, are weak characters unable to control a practice which most men can control.

The second category of drunks, again another 20 to 30 percent, are also ill, not medically but socially. They are the men and women of low intelligence, low ambition, and narrow social interests, who find the obliteration of their drab existence by alcohol one of the few pleasures of life. They can take alcohol or leave it. They have no overwhelming compulsion. But they prefer to take it. They fill our jails.

The third category is that of the true alcoholic, and it is upon him the interest is particularly directed, for his drinking is of the sort that rests upon a behavior which can not be predicted before it has developed and therefore can not as yet be pre-

vented. This fact is saddening, for many alcoholics come from among those who are especially talented, especially lovable, and especially fine and sensitive. The characteristic features of the fully developed alcoholic are first that he can no longer drink moderately and never will be able to—one or two drinks end up in a week-long spree; and second, that he has developed a compulsion to drink that drives him to drunkenness in spite of the fact that he knows that his drinking is destroying every value that he cherishes: home, job, family. This pathetic condition rarely appears suddenly, but develops almost imperceptibly over the course of years.

Alcoholism develops, or better perhaps, is displayed, because social customs as yet put no firm barrier to occasional overindulgence in social drinking. The behavior of the developing alcoholic is at first usually indistinguishable from that of his companions, but there are omens which in themselves are not his solely but are more *of* his. He, more often than his companions, has "black-outs," that is, wakes up in the morning after a party with no recollection of what occurred after a certain time. He also far more often "sneaks drinks," that is, when preparing drinks for his guests, sneaks one or two quick ones for himself. Next, he may find he is drinking more than he intends. He wanted only a couple of drinks, but ended up drunk. This stage is that of beginning loss of control over drinking. He is not yet dependent upon alcohol; he is not driven to drink, but when he drinks, he can not stop.

It is at this stage, which may last 2 or 3 years, that a flash of insight or an inspirational understanding of wife, followed by prompt medical, spiritual, or other help, may stop the alcoholic and save him from the next and otherwise almost inevitable step. It is that of rationalization, in which by specious argument he convinces himself that drinking is good for him, just what he needs, and that he has it well under control. He now gets drunk on every occasion, but he convinces himself that he had on each of these occasions a good reason for getting drunk. At about this time he may start taking a drink in the morning to do him good—and also to stop the anxious trembling of his hand and later in the morning also to do him some more good. Such solitary drinking is a break with the age-long customs which make the use of alcohol a part of social activities. The next stage is benders—drunkenness that lasts for days or even weeks and ends often in the hospital.

What is true in dealing with the alcoholic is true also of the whole problem of alcohol. It must be approached with a deep and sympathetic understanding, with tolerance of human nature, and with knowledge of its breadth and significance.

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