

## **Cross-Cultural Approaches to the Study of Alcohol**

# World Anthropology

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MOUTON PUBLISHERS · THE HAGUE · PARIS

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# Cross-Cultural Approaches to the Study of Alcohol

*An Interdisciplinary Perspective*

*Editors*

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DWIGHT B. HEATH

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Distributed in the United States of America and Canada  
by Aldine Publishing Company, Chicago, Illinois  
ISBN 90-279-7809-3 (Mouton)  
0-202-90029-0 (Aldine)  
Jacket photo by Dwight B. Heath  
Indexes by John Jennings  
Cover and jacket design by Jurriaan Schrofer  
Printed in the Netherlands

## *General Editor's Preface*

Anthropology looks at species-wide variations in human behavior. The first lesson the student of anthropology learns is that geographically-related differences in physical type do not correlate with behavioral differences. Rather, the differences we find among populations are environmental and cultural. Alcohol use is so widespread in the species that even if it were not considered by some to be a "problem," it would be an excellent test case of the interrelationships between cultural and physiological/psychological factors in human behavior. Precisely because in many societies alcohol use is an important social problem with emotional overtones, it is in the interests of policy as well as science to get the species-wide, cross-cultural perspective that anthropology provides. That is the purpose of this book which grew out of — and had the advantage of discussion in — an international conference related to a worldwide Congress.

Like most contemporary sciences, anthropology is a product of the European tradition. Some argue that it is a product of colonialism, with one small and self-interested part of the species dominating the study of the whole. If we are to understand the species, our science needs substantial input from scholars who represent a variety of the world's cultures. It was a deliberate purpose of the IXth International Congress of Anthropological and Ethnological Sciences to provide impetus in this direction. The *World Anthropology* volumes, therefore, offer a first glimpse of a human science in which members from all societies have played an active role. Each of the books is designed to be self-contained; each is an attempt to update its particular sector of scientific knowledge and is written by specialists from all parts of the world.

Each volume should be read and reviewed individually as a separate volume on its own given subject. The set as a whole will indicate what changes are in store for anthropology as scholars from the developing countries join in studying the species of which we are all a part.

The IXth Congress was planned from the beginning not only to include as many of the scholars from every part of the world as possible, but also with a view toward the eventual publication of the papers in high-quality volumes. At previous Congresses scholars were invited to bring papers which were then read out loud. They were necessarily limited in length; many were only summarized; there was little time for discussion; and the sparse discussion could only be in one language. The IXth Congress was an experiment aimed at changing this. Papers were written with the intention of exchanging them before the Congress, particularly in extensive pre-Congress sessions; they were not intended to be read aloud at the Congress, that time being devoted to discussions — discussions which were simultaneously and professionally translated into five languages. The method for eliciting the papers was structured to make as representative a sample as was allowable when scholarly creativity — hence self-selection — was critically important. Scholars were asked both to propose papers of their own and to suggest topics for sessions of the Congress which they might edit into volumes. All were then informed of the suggestions and encouraged to re-think their own papers and the topics. The process, therefore, was a continuous one of feedback and exchange and it has continued to be so even after the Congress. The some two thousand papers comprising *World Anthropology* certainly then offer a substantial sample of world anthropology. It has been said that anthropology is at a turning point; if this is so, these volumes will be the historical direction-markers.

As might have been foreseen in the first post-colonial generation, the large majority of the Congress papers (82 percent) are the work of scholars identified with the industrialized world which fathered our traditional discipline and the institution of the Congress itself: Eastern Europe (15 percent); Western Europe (16 percent); North America (47 percent); Japan, South Africa, Australia, and New Zealand (4 percent). Only 18 percent of the papers are from developing areas: Africa (4 percent); Asia-Oceania (9 percent); Latin America (5 percent). Aside from the substantial representation from the U.S.S.R. and the nations of Eastern Europe, a significant difference between this corpus of written material and that of other Congresses is the addition of the large proportion of contributions from Africa, Asia, and Latin America. "Only 18 percent" is two to four times as great a proportion as that of other Congresses;

moreover, 18 percent of 2,000 papers is 360 papers, 10 times the number of "Third World" papers presented at previous Congresses. In fact, these 360 papers are more than the total of ALL papers published after the last International Congress of Anthropological and Ethnological Sciences which was held in the United States (Philadelphia, 1956).

The significance of the increase is not simply quantitative. The input of scholars from areas which have until recently been no more than subject matter for anthropology represents both feedback and also long-awaited theoretical contributions from the perspectives of very different cultural, social, and historical traditions. Many who attended the IXth Congress were convinced that anthropology would not be the same in the future. The fact that the next Congress (India, 1978) will be our first in the "Third World" may be symbolic of the change. Meanwhile, sober consideration of the present set of books will show how much, and just where and how, our discipline is being revolutionized.

The conference on alcohol was held in conjunction with one on the use of another common drug which resulted in a companion volume, *Cannabis and culture*, edited by Vera Rubin. In this series are many other volumes related to these topics, on mental health, religion, and medical and psychological anthropology; on food; on youth, urbanization, ethnicity and identity problems; and on the variety of cultures of the world as seen traditionally in a process of change.

*Chicago, Illinois*  
*April 1, 1976*

SOL TAX





## *Foreword*

Man is an animal who creates pleasure and suppresses pain for the mind that is inseparable from his body. As Gustav Eckstein reminds us in his book *The body has a head* (Harper and Row, 1970), we have been carried away with our rhetoric of psychopathology and have created an insoluble dichotomy. To which we would add, the mind and body exist in a culture, unique and peculiarly its own by virtue of its history, language, customs, and institutions. We customarily carve up the study of man into disciplines which ignore the fundamental interrelations of all his parts, external and internal, his habitats, and his ornaments. Therein we falter, like the blind wise men looking at the elephant, each from his own peculiar vantage point, and each mistaking the leg or a trunk for the whole being.

The Conference on Alcohol Studies and Anthropology was an attempt to bring this whole man/woman back together again. With our support, Drs. Everett, Waddell, Heath, et al. drew together scholars from a number of areas, some of whom talk to each other only peripherally through uncomfortable distance in journal articles far removed from their usual fields. Their express purpose, which I am sure you will agree has been achieved when you have had an opportunity to peruse the papers that grew out of the Conference, was to apprise people who were often laboring in relative physical isolation from one another, though not necessarily distant in the community of their ideas or conceptual frameworks, of what progress had been made in the anthropological studies of alcohol-related behavior during the past decade.

It gives me great pleasure to read the work of old friends and col-

leagues — for that work has influenced much of my own thinking — and to see it brought up to date. At the risk of singling out a few of these, and I should say that the quality of all these papers is quite impressive, I would like to point out briefly where I think the cultural study of alcohol has been heading.

Although anthropology has always taken relativistic positions on the value systems expressed by various cultures, its “value-free” posture has never gone undebated. When Horton’s paper first appeared, psychoanalysis was in full bloom, and many of its tenets seemed to offer great promise for giving structure to what were often chaotic results from transcultural comparisons. The emphasis in this approach was largely, although not wholly, upon the limitations of human beings as people, looking systematically at what had been viewed heretofore as quirks of personality. Although Field later pointed to some severe limitations in Horton’s work, the general perspective of emphasis on personality has persisted in both psychiatry and anthropology, and has only lately shifted towards examining what aspects of behavior are functional (promotive) or dysfunctional (harmful) in a given situation for a particular person of peculiar ethnolinguistic background.

It interests me, though I do not necessarily agree with his premises, that in his article Barry speaks of the “Cultural benefits of alcohol,” those positive uses of the beverage which go a long way towards explaining why man has been a drinker for so many thousands of years and will undoubtedly continue to be so. In our concern for the ill effects of drinking alcohol, we are generally quite overbalanced in the direction of condemnation and judgment of the drinker who violates the social norms. The fact of the matter is that people drink for perfectly valid reasons, social and personal (and no construction of drinking practices in a particular locale could be complete); and these reasons have no reference to the uses which these practices serve.

We have recently been adapting many of the principles of the work that has been carried out in cross-cultural comparative studies into a national philosophy for the prevention of alcoholism in America. We are not so immodest as to say that drawing attention to the norms for drinking-related behavior will, or should necessarily, modify these practices. What we have in mind is to stimulate open discussion of current codes of behavior. For, unlike a number of other cultures, ours is profoundly ambivalent about the use of alcohol. There is no consistency or consensus about what is functional behavior, although we have many unwritten agreements by which we ignore the difficulties engendered from the dysfunctional behavior surrounding alcohol

usage. What we have in mind is not a drinking code of Hammurabi. It is not to be imposed either from above or by any one faction upon another. Rather, I envision a measure of mutuality including frank interchange among people of different descent about the respects in which they can agree, and agree to disagree, about the customs which stem from their cultural heritages. We used to speak of a "melting pot," but, as Glazer and Moynihan pointed out, we have come to recognize that customs retain a tenacious persistence into the second and third generations and beyond, and we need to come to some better understandings about our differences.

It is clear that, in order to spread abroad information about alcohol, its physiological effects, and the consequences of its use, a greater effort in education for all ages is necessary. This is, I think, a direct consequence of my presumption that there must be open interchange about the issues of alcohol-related behaviors. The presence of Jan de Lint's excellent paper in this collection reminds me, as de Lint is wont to do, that an educational campaign, however necessary, is hardly sufficient basis by itself for a national governmental prevention policy on alcoholism. The urgency of examining the economics of the market for alcoholic beverages; the regulation of their sale, usage, and effects of various strategies of regulation; and the resultant drinking practices has become increasingly compelling. Epidemiology, sociology, anthropology, and economics all have important contributions to make to the understanding of these phenomena.

Throughout this volume there are frequent and warranted calls for a better theoretical underpinning for such studies, both at the broadest philosophical and at the microenvironmental levels. I am reminded of the famous French writer who remarked of a fellow artist, "*Chose merveilleuse — un homme qui pense avant décrire!*" Wonderful to behold, the scholar who sets his task into an explicit design. To which I would add that there is an important place for such thoughtful, purposive work in understanding our national postures towards helping people, how our social interventions succeed or fail, and what lessons we can abstract and adapt from other societies and our own subcultures to a more general application.

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*Director, National Institute on Alcohol Abuse and Alcoholism*



## *Preface*

Since its inception, the Smithsonian Institution's Center for the Study of Man has had a strong interest in getting anthropologists and other human scientists to look at worldwide social problems. It has felt that such research ought to be undertaken by human scientists from every country on earth. The results should then be exchanged and become a part of the wisdom and knowledge available to guide the efforts of policy-makers in every nation.

In 1972 a conference on human scientists and worldwide social problems was held in Cairo, Egypt. Anthropologists and others from twenty countries were present. They strongly supported the Center's position and urged that it begin organizing a series of conferences to assess some of the contributions which have been made in understanding pressing social problems.

As a result the Center began to talk with funding agencies concerned with specific problems to see if they were interested in getting an international anthropological/human-science point of view. The National Institute on Alcohol Abuse and Alcoholism was one of the organizations which expressed an interest. With this encouragement, the Center began to consult with a number of human scientists doing research on alcohol to get the names of individuals who might help in organizing a conference. As a result three anthropologists, Michael Everett, Dwight Heath and Jack Waddell, were selected to organize the conference and edit the papers.

Labor was divided as follows: the editors, in conjunction with the Center, selected the participants and planned the program; the Center undertook all of the administrative work, with the exception of some

typing and reproduction done on a subcontract with the University of Kentucky after the conference.

The conference itself lasted from August 28-30, 1973, and was held at the Center for Continuing Education in Chicago, Illinois. Immediately following the conference, the organizers made a presentation to the International Congress of Anthropological and Ethnological Sciences, also meeting in Chicago.

The volume that has resulted from the conference owes much to many people: to Sol Tax and Sam Stanley for their role in bringing the agency and the human scientists together, to Bill Douglass for seeing that preparations for the meeting were coordinated and run on schedule, and finally to Valerie Ashenfelter for her masterful articulation (with able assistance from Judy Crawley Wojcik) of all the needs and demands that are inevitable in any successful scientific meeting.

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## INTRODUCTION

### *Alcohol Studies and Anthropology*

This volume is an outgrowth of the Conference on Alcohol Studies and Anthropology, jointly organized by the editors, that was held at the University of Chicago, August 28-30, 1973. Part of the IXth International Congress of Anthropological and Ethnological Sciences, the conference was sponsored by the Smithsonian Institution's Center for the Study of Man, with funds provided by the National Institute on Alcohol Abuse and Alcoholism, National Institute of Mental Health.

There has been one specific goal for both the conference and this volume, namely, to assess interdisciplinary contributions toward the cross-cultural study of alcohol use, in both behavioral and physiological terms. Our central purpose is not that of adding to the already voluminous literature on alcohol studies, nor is it that of merely adding further descriptive and substantive material to the existing body of knowledge in this area. A cursory review of alcohol literature reveals that a component of major significance is conspicuously absent — a perspective on cross-cultural variation. Anthropological contributions in this regard have been unsystematic and sporadic, while those of other disciplines have not utilized an appropriate cross-cultural framework.

The selections included in this volume are the combined works of anthropologists, psychologists, sociologists, physicians, psychiatrists, and pharmacologists. Hence, the volume preserves the character of the conference by addressing itself to the interface between the cross-cultural perspective of anthropology and other disciplines interested in alcohol studies. The selections of the book largely follow the sequence of topics as they were discussed at the conference and, like the conference, the articles seek to assess and evaluate the past and current

## 2 Introduction

role of cross-cultural perspectives in alcohol research as well as to suggest new research orientations.

Alcohol is probably the most ancient and widespread psychoactive substance in the world. It is a naturally occurring substance wherever free-floating carbohydrates are available and thus is widely known and used. Clearly, there are alcohol uses related to health, nutrition, entertainment, religion, law, and a variety of other social activities. Since the uses of alcohol vary so widely while the occurrence of alcohol is virtually universal, it is essential that an assessment and evaluation of the relationship between alcohol studies *per se* and the cross-cultural perspective of anthropology be undertaken. In this volume we hope to contribute to this assessment and evaluation.

Anthropologists interested in alcohol research are the beneficiaries, over many years, of a very large and diverse collection of studies on alcohol from a variety of perspectives. But this literature includes very few contributions by anthropologists, and these contributions have been only sporadic and highly individual in both character and quality. The result is that a number of people who utilize and have an interest in the literature on alcohol are not familiar with the contributions of anthropology. Similarly, a number of anthropologists who occasionally contribute to our understanding of aspects of alcohol and drinking are not familiar in depth with the enormous range of relevant work that has been done on these subjects by scholars of other disciplines. It is this awareness of a need for a greater amount of interdependence between anthropologists and those of other disciplines that makes the issues proposed in this volume so essential to pursue.

The volume differs from the conference in that the conference, rather than emphasizing the presentation of formal papers, stressed round-table discussion by a limited number of invited participants. The volume brings together a few of the keynote papers that were presented at the conference to stimulate discussion. To these are added a number of selections submitted subsequently by some of the participants in the Chicago conference. We have incorporated the individual selections for their evaluative merit as well as for their descriptive content. The main emphasis is not intended to be on ethnographic data. The emphasis instead is on (1) the variety of ways that drinking behavior can be observed, described, analyzed, and interpreted; (2) what the cross-cultural perspective of anthropology has contributed to alcohol studies; and (3) what alcohol studies conducted in other disciplines have contributed to this cross-cultural perspective.

Part 1, "Pioneering Works and Their Reassessment," provides an

opportunity to share in the retrospective evaluations of two scholars who look at their earlier works and critically reassess them from the vantage point of the present. Ruth Bunzel, whose work in two Middle American communities, Chamula in Mexico and Chichicastenango in Guatemala, was one of the first anthropologists to give us a detailed and somewhat comprehensive ethnographic report on drinking. Her paper, published in 1940 in the journal *Psychiatry* (a significant location itself), was also a fairly rigorous example of the method of controlled comparison with special attention to social organization, child training, and psychoanalytic interpretations of culture.

Professor Bunzel reflects on this early but significant piece of research. She characterizes her research in terms of what she had set out to do, what she felt had been accomplished, and the feedback which she has had in the decades since her work. Her experience was like that of most anthropologists who have written about alcohol (with very few exceptions), in that research on alcohol was an unforeseen by-product or spin-off of work which had not been done with drinking as a focus of study. Rather, as Bunzel reflects, she was looking at human behavior in the holistic sense of the traditional ethnographer and found, quite adventitiously, that alcohol was important to the people in those two communities and that it provided a convenient handle for understanding some aspects of what was going on in each community. It is noteworthy that most of what has been done by anthropologists on alcohol up until the past few years has had the same kind of secondary character.

Margaret Bacon was part of another pioneering work, a large-scale cross-cultural study in which she collaborated with two other psychologists, Herbert Barry and Irvin Child. This is the Bacon, Barry, and Child cross-cultural study best known for the theory of dependency conflict to explain drunkenness. In that project a series of hypotheses about drinking and drunkenness were tested by statistical correlation of forty-nine specific variables within a worldwide sample of 139 societies. In the second selection in Part 1, Bacon not only reviews the strengths and shortcomings of that research project but, more importantly, emphasizes a number of statistically significant correlations that were revealed in that study and that have not been subjected to subsequent investigation.

Three cardinal points seem to stand out in the reassessment of Bunzel's and Bacon's pioneering studies. First, most of the anthropological literature on the subject of alcohol to date has been of an almost incidental or coincidental nature. In those institutions where alcohol

is the focus of both intensive and extensive research, anthropologists have played a relatively minor role. This is true not only in the United States but in other countries where such institutions exist. Second, with very few notable exceptions, most of them recent, those anthropologists who have written about alcohol have usually done so as only a small part of research which was focused on other topics. Finally, anthropological studies of alcohol are concerned not only with the problem aspects of drinking, which tend to be focused on by a great number of sociologists, physiologists, and psychologists, but also with the more normal customary range of alcohol use. Thus, much of the alcohol literature written by anthropologists is phrased in terms of ideal patterns. This leads to the not too surprising conclusion that more data are needed. But, as both Bunzel's and Bacon's reviews reveal, we particularly need more data on the range of variation among individuals in any given population, in terms of groups by age, sex, and a number of other variables that may very well be significant, but which have been virtually ignored until now. This seems important whether studies are of the controlled comparison type (Bunzel) or of the more global type (Bacon, Barry, and Child).

Part 2, "The Ethnographic Data Base," is concerned with the data pool generated by cross-cultural alcohol studies. It is not intended to focus on anecdotal comparisons of drinking practices in first one culture and then another. Clearly, such a strategy would be counterproductive in evaluative terms. Instead, the intent of the selections is to provide a semiglobal survey and review of the kinds of data extant, a discussion of some of the trends that the data suggest still need pursuing, and recommendations as to how to go about getting these data, a topic which is dealt with in greater depth in Part 6.

Several salient points are raised in the selections found in Part 2. First, the existing ethnographic literature on alcohol use is rather rich but not altogether complete. Moreover, the history of anthropological interest in drinking indicates that it is only recently that investigators have made any effort to integrate this wealth of disparate data. Thus, the selections provide a combination of anthropological perspective, ethnographic overview, and specific ethnographic reporting. Our main concern here is the manner in which these rich yet fragmentary sources of ethnographic data on human alcohol use can be integrated.

A second point underscored by the selections is that there is a need to relate a general, common interest in alcohol to the field research of those specifically concerned with drinking behavior. The real question of course is: can ethnographers make their data more relevant to

others who might have a particular interest in using such information? This is critical because, as Dwight Heath points out in the first selection in Part 2, in the past only a portion of the ethnographer's field research has focused on collecting data on drinking, and the data were usually only parts of a larger ethnographic report dealing with the total cultural or social unit.

The third point derived from this selection of articles is that the kinds of information to be found in the cross-cultural literature on alcohol use are quite varied. The literature reveals a substantial amount on ceremonial drinking, the manufacture of various kinds of intoxicating beverages, the social rules and the regulation of drinking behavior, and the cultural norms and meanings of alcohol use that are operative in particular societies. In addition, much of the ethnographic literature emphasizes the integrative functions of alcohol, which makes it of special interest in relation to notions of problem drinking. Heath's summary provides a perspective on the kinds of interests that have captivated ethnographers and cross-cultural researchers in the area of alcohol studies. Clearly, this kind of historical perspective is indispensable for an assessment of the kinds of information yet needed in particular problem areas of alcohol research.

Trends in the history of the development of anthropological interest in alcohol studies clearly indicate that only recently has there been any kind of collective concern by ethnographers and anthropologists, theoreticians and those interested in applied problems, about pressing research problems and how these can be most strategically attacked. Mac Marshall, in the second selection in Part 2, provides a valuable review of *kava* and alcohol research in Oceania, suggesting future research possible in that area. Salme Ahlström-Laakso makes it quite clear in her selection that we need to do much better in (1) recording and documenting variations in drinking habits and the meanings associated with them within a population, social unit, or national boundary, and (2) in not assigning a false sense of homogeneity to groups and to populations in either culture-specific or survey-oriented research. Joan Ablon and Frances Ferguson, in the two remaining selections in Part 2, provide examples of how ethnographic researchers interested in alcohol studies can relate to culture-specific research. Both studies emphasize the significance of dealing with variations within a specific cultural context.

In Part 3, "Historical Approaches," Larissa Lomnitz notes in her documentary and ethnographic study of 400 years of Mapuche drinking that longitudinal studies of changing patterns of drinking and alcohol

usage are also needed. Further, in addition to holistic and diachronic studies of cultures and societies, life histories of single individuals are urgently needed to underscore the necessity of accurately representing the ranges of variation in drinking styles. The selections by Ade Obayemi and Alfredo Velapatiño Ortega are similarly ethnohistorical although they do not deal with as great a time depth as Lomnitz.

For a long time, it was thought that beverage alcohol, ethanol, had the same effect on people all over the world, regardless of its particular form and despite variation in cultural context. This provided for anthropologists an illusionary security in the notion that alcohol is a fairly uniform substance that produces fairly uniform physical effects, a position which clearly supports a focus on cultural and psychological drinking variables rather than physiological ones. Increasingly, this comfortable view is being challenged by metabolic research on alcohol use.

Part 4, "Physiological and Biomedical Aspects of Alcohol Consumption," is important to this volume for two reasons. First, alcohol is a substance which bridges both biological and social life, and this necessitates a biomedical perspective. Second, a number of recent studies purport to show that there are ethnic differences in the ability to metabolize alcohol. Clearly, these issues are relevant to a cross-cultural evaluation of alcohol studies.

The initial selection in Part 4 by William Madsen focuses largely on the false dichotomy perpetuated in the nature/nurture controversy and reminds us of the significance of considering biological and cultural factors simultaneously. The same perspective was shared at the conference by physiologist Leonard Goldberg of the Karolinska Institute of Stockholm, who viewed alcohol in an epidemiological context. Such a view considers that man, as a biological organism, consumes alcohol, an agent of action, in a social and physical environment. Thus, in order to adequately understand the physiology of alcohol consumption, it is necessary to refer not only to alcohol as a substance which can produce physiological responses but also to the environment in which it is consumed. For example, the peak of blood alcohol concentration, the maximum effect that an individual drinker can expect to get from a drink of alcohol, will be dependent upon the specific type of beverage imbibed, the drinker's emotional state, and the pattern of intake. Quite obviously, all of these are going to be dependent upon cultural background. Thus, in order to analyze the effects that a given single dose, even a uniform dose, of alcohol has on an individual, his culture as well as the amount of alcohol consumed must be considered.



Goldberg also stressed that anthropologists should be aware of the effects which alcohol has on the central nervous system. There are a number of these, but from an anthropological perspective the most important one is probably its ability to affect the processing of cognitive data. The human cortex is bombarded by an extraordinarily large amount of sensory input each minute. Some sort of selective mechanism must operate in order to insure that all the data are not processed at once and that certain selections can be utilized for making decisions and taking action. One of the effects of alcohol is to blur this decision-making process.

Obviously, alcohol also affects behavior itself. Goldberg's own studies show that people who regularly drink alcohol do so to achieve a specific level of blood alcohol content; that is, over a period of time, anyone who continuously drinks alcohol will attempt to achieve a certain maintenance level of intoxication, which, of course, differs from person to person. Moreover, there is a quantitative difference in the amount of alcohol and the effect of alcohol that one can expect from different beverages. Distilled beverages produce a higher blood alcohol content than many beverages, *EVEN* when the absolute amount of alcohol ingested may be the same.

The second selection in Part 4 is a reprint (the only one in the entire volume) of a controversial but important study by a Canadian team of researchers dealing with differential alcohol metabolism among Anglos, Indians, and Eskimos. It is significant both from its implication that there are racial differences in alcohol physiology and from the standpoint of methodology employed. The paper, presented at the conference by J. A. L. Gilbert, a physician at the Royal Alexandria Hospital, provoked a spirited discussion led by Dr. Eugene LeBlanc of Addiction Research Foundation of Ontario, in which some of Gilbert's findings were challenged. First, it was noted that medical students were hardly a random sample and probably not representative of the white population. Moreover, it is hard to imagine that hospital patients constitute a random sample of Eskimo or Indian populations. Second, Goldberg noted that the very high rate of alcohol metabolism in the Anglo sample was much more akin to alcoholics which he had tested rather than to average Anglo individuals which he had also tested. Third, it was noted that a genetic difference need not be invoked since there was no attempt to estimate the variation within each of the samples. Despite these difficulties, the study by Gilbert and his colleagues is a seminal effort in the investigation of alcohol metabolism, an opinion also expressed in the final selection in Part 4 by Joel Hanna,

who provides a physical anthropological perspective of the same issues raised by Fenna, Mix, Schaefer, and Gilbert.

These selections in Part 4 focus on three major problems in alcohol studies. The first is that biological variability within populations has not been studied. It is known from a number of studies that we can expect metabolic variability due to age, habitual consumption, self concepts of alcoholism, and sex. Surprisingly enough, there are no studies which compare men and women in alcohol tolerance. Second, there are a number of recent alcohol studies now being published which have not been adequately evaluated, especially in political terms. Some concern should be expressed about the use of these studies for political action. It is suggested that when such studies are completed, the ethics of their publication, in the absence of adequate controls or adequate review, be looked over more carefully. Finally and perhaps most important, even if there are demonstrable metabolic differences in alcohol tolerance between populations, the cultural significance of these differences and intrapopulation metabolic variation is yet to be established.

Part 5, "The Current Status of Cross-Cultural Theories," deals with cross-cultural theoretical approaches to drinking. The selection by Herbert Barry, III, reviews the dependency theory of Bacon, Barry, and Child, a theoretical strategy that relates both drinking and drunkenness to feelings of inadequacy and strivings for dependency. According to this theory, drunkenness is, thus, a behavioral way of achieving dependency. An alternative approach provided by Richard Boyatzis represents the theoretical position of David McClelland's work on alcohol and power. This perspective stresses that through drinking the drinker, whether social drinker or alcoholic, alleviates feelings of powerlessness by becoming intoxicated, by assuming a psychological state where he or she deludes himself into feeling godlike or omnipotent. These two psychological theories are similar in kind to other culture stress and social deprivation theories such as Horton's anxiety thesis, where alcohol is defined as a mechanism of stress reduction.

In the third selection of Part 5, James Schaefer critically subjects psychological stress theories to cross-cultural testing. The selections by Barry, Boyatzis, and Schaefer are examples of the predominant role that psychologists have played in the field of theory building in relation to drinking behavior, virtually to the exclusion of other behavioral scientists. The various theories evolved by psychologists from cross-cultural data deserve critical examination, but alternative or complementary theories seem to be lacking. Several key points can be made in

this regard. The first is that theories of drinking have been overly unitary or monotypic. In other words, there has been an attempt to explain complex and diverse kinds of behaviors in rather simplistic terms. However, those who developed these theoretical constructs point out that their theories have really received more attention than they originally intended, perhaps because of the paucity of other theory building in this field.

A second point is that present psychologizing theories are of such a nature that the behavioral phenomenon in question can be explained equally well by resort to any of the various alternative theories. The theories do not appear to be very strongly distinguished from one another since both behavior A as well as the opposite behavior, non-A, can be explained adequately by each of the approaches. By attempting to explain virtually anything and everything in abstract motivational terms, these theories are reduced to explaining very little. Because of this difficulty, these theoretical notions are not especially useful in guiding social planners, clinicians, and legislators in their work within social institutions and agencies and with individuals who encounter problems with their drinking behavior.

As a third point it can also be stressed that these theories, in addition to having been developed by psychologists, have been developed by American psychologists, which may account for the ethnocentric, perhaps American, trap of thinking in dichotomizing, "either-or" terms. Instead of forcing one theory to the detriment of another, collaborative and complementary theoretical strategies should be explored to explain the phenomena in question. The selections by Jan de Lint and Margaret Sargent call for a broader, more pragmatic theoretical base upon which this collaboration in building complementary theories might take place.

By way of a critical summary, there may be a need for more micro-theory at this point. A stage of macro-theory does not yet seem possible, and perhaps case-specific intracultural theory building might be more appropriate, as both de Lint and Sargent imply. There is clearly a link between theory building and method, but theory and method are frequently separated as though they are not related, when in fact the crucial theoretical question is: what kinds of methods should be employed to test specific kinds of theories? Moreover, the ethnocentric, Western approach to theory building for explaining drinking behavior may be inadequate. It can also be argued that there is the tendency to use theories whose terminologies derive from physics, hydrology, and sometimes abstract psychodynamics rather than theories which might focus on social as well as cultural phenomena where direct behavioral

observations would be brought more into play.

Part 6, "Methodological Considerations and Data Collection," is concerned with the various kinds of methodological and data acquisition strategies that have been developed by investigators and utilized within a cross-cultural context or which have had some kind of potential for cross-cultural application.

The first selection is a critical review and evaluation of clinical approaches to the study of alcohol by Joseph Westermeyer. He discusses a variety of methodological tools which have been utilized in medical and clinical settings, including questionnaires, psychometric devices, genetic techniques, blood alcohol levels, cirrhosis measures, monitored alcohol ingestion, and a number of others. It should be noted that clinical approaches tend to exhibit two major kinds of weaknesses: they tend to focus on alcoholism rather than drinking *per se*; in addition, it is sometimes quite difficult to control for sampling problems within clinical environments.

Martin Topper, in the second selection in Part 6, discusses techniques developed from cognitive and linguistic methodology that provide a means of getting at culture-specific data on drinking behavior. Topper, along with a number of other anthropologists, is working in the area of computer-modeled decision-making processes, one context of which is the "ethnography of the day." A key tool in this approach is the "verbal action plan," a set of sequential-action protocols with decision criteria specified at decision nodes. The focus of this particular kind of methodology is the character of cultural knowledge and how this relates to bio-environmental aspects of human existence.

Since the tendency has been for anthropologists to apply their research skills to non-Western or exotic "primitive" tribal or peasant societies, it seems appropriate that students of our own society should ask what anthropologists might contribute to a study of current concerns about drinking behavior in modern contemporary society. Donald Cahalan, in the third selection, points out a number of specific areas of data, derived largely from quantitative survey research, to which anthropological methods of data gathering and analysis might fruitfully be applied.

The last selection in Part 6, by Mark Keller, is a brief report about the documentation and information services available at the Center of Alcohol Studies, Rutgers University, which would be valuable for cross-cultural research on alcohol and behavior.

The various selections in Part 6 demonstrate that interdisciplinary research is necessary and desirable in the area of alcohol studies.

Several ways of expediting cooperative research are possible. One way would be to produce research proposals and projects as joint cross-disciplinary ventures. This would demand that all the individuals in the project, regardless of their particular disciplinary affiliations, be trained in the use of similar methodologies, for example, quantitative techniques. However, institutional reward systems frequently do not support this kind of multidisciplinary research.

Since the main concern of this volume is to evaluate the cross-cultural contributions of anthropology to alcohol studies, the basic issue seems to be whether that contribution should be uniquely anthropological in approach, or whether anthropology should focus on cross-disciplinary kinds of concerns. It may be that a particular subdiscipline of anthropology, such as medical anthropology, could provide a kind of two-way interaction between these two concerns.

In weighing and evaluating the various methodological strategies relevant to alcohol studies, each of these approaches should be viewed against the other in comparative perspective. Dual research strategies with both cross-cultural or hologeistic and biological components are possible. There are strengths and weaknesses in both paradigms. On the other hand, an analytic paradigm which focuses not on large-scale cross-cultural comparisons but instead on intracultural variations in particular social systems, might be a more appropriate strategy for certain kinds of research.

There are several critical issues evident in the selections comprising Part 6. Perhaps the most significant one is that some kind of meaningful link-up between method and theory is necessary. But whether this research should concentrate on substantive theoretical issues — e.g. the link between drinking and interpersonal conflict — or whether it should focus on methodological innovation and sophistication, is a difficult question to resolve. The two are certainly not mutually exclusive, but they clearly present the researcher with different kinds of problems.

Another crucial concern is how the division of labor and cooperation necessary for cross-disciplinary research can best be implemented. The precise relationship of anthropology to other disciplines involved in alcohol studies remains to be clearly defined and put into some kind of workable research framework.

A major concern emerges out of the discussions about method and theory, namely, the whole issue of the uses to which alcohol method and theory are put. Most discussions of method and theory focus on academic intellectual concerns, theory building, causality and explanation, and such, but very infrequently do they focus on problems of

practice and application. The area of educational, therapeutic, and rehabilitative alcohol research and application is yet to be clarified in terms of its relationship to the theoretical and methodological preoccupations of alcohol investigations.

Selden Bacon's concluding remarks at the Chicago conference provided the stimulus for this concern about "theories for whom and theories for what?" It is a major concern of this volume. At least three categories of groups have interests in alcohol: academic disciplines (anthropology, psychology, sociology, etc.), alcohol action groups (treatment programs), and research groups and institutions. All three have their own perspectives, policy statements, and needs; as a result, alcohol studies are a very complicated field of endeavor. What are the relationships between these divergent interests and perspectives? As Selden Bacon pointed out, no one group's needs are paramount over those of the other two, but all three can benefit directly from a cross-cultural perspective. The major problem in bringing together the many diverse perspectives interested in the cross-cultural approach is that of terminology and communication. Also, an idealized theory that seems suitable for anthropological needs may be somewhat impoverished in biomedical terms. This is a critical issue in view of the obvious need for interdisciplinary research involving human biology and sociocultural systems.

There are critical questions to be answered if, in fact, anthropologists are to make any kind of cross-cultural contribution to alcohol studies and if they are to learn anything FROM alcohol studies. What are the purposes of talking in cross-cultural theoretical and methodological terms within an anthropological context or any other scientific framework? What is the quality of the academic products resulting from the kind of multidisciplinary endeavor referred to above? What does anthropology have to gain from cross-disciplinary research enterprises, and what is it that anthropology can contribute to other disciplines in this regard? What kinds of perspectives, what kinds of new sources of data and information, what kinds of understanding with regard to human alcohol use and its linkages are likely to come from such efforts? How do we evaluate or critically assess the relationship between the various disciplines involved in alcohol studies? What is the output of cross-disciplinary alcohol research in terms of its advantage for the development and maximization of human resources and potential? Clearly, demonstrable linkages between theoretical and methodological notions and the whole issue of human problems stemming from alcohol must be confronted in practical, applied terms for their cross-cultural

value in therapy and in building awareness and understanding.

It appears that several new perspectives in alcohol studies are beginning to develop, namely, awareness of a broader cross-cultural conceptual framework, recent methodological innovations, new data and resources, current research projects and funding policies, and the need for cooperative research strategies. New information and sources of information in the following areas are still very much needed by a variety of scholars involved in alcohol studies: anthropological research on behavioral, psychological, and semantic problems; biomedical research on metabolism, racial and ethnic differences in physiological responses to alcohol, and nutritional problems; European research projects and data; and bibliographic and documentation resources.

The multidisciplinary perspective of the conference, reiterated in this volume, is important for anthropology and alcohol studies in these various areas because it generates (1) stimulating new data, ideas, problems, and research designs and techniques; (2) increased awareness of diverse disciplinary interests and enthusiasms; and (3) a challenge to develop much needed cooperative efforts and effective channels of communication.

It is hoped that this volume will help to assess and evaluate current and future cross-cultural alcohol research and help to stimulate greater collaboration between anthropologists and representatives of other disciplines in the developing field of alcohol studies.





## PART ONE

### *Pioneering Works and Their Reassessment*



## *Introduction*

The major purpose of the Chicago Alcohol Conference, as originally conceived, was to evaluate what anthropological studies have contributed to our understanding of alcohol, and incidentally to discern what studies of alcohol have contributed to anthropological perspectives. In that connection, it seemed fruitful to review the history of studies that deal with beliefs and behaviors concerning alcohol in non-Western societies, and in cross-cultural perspective. (One review, organized in chronological sequence, appears in the following section of this book; another review, organized in terms of categories that predominate in the international literature on alcohol written by psychologists, psychiatrists, sociologists, physiologists, social workers, and many others who are concerned with a variety of different perspectives, is forthcoming elsewhere.)

Although a few scattered and generally superficial descriptions of drinking and its regulation among populations remote in space and time have appeared throughout preceding centuries, there was little systematic attempt to characterize in any detail such alien behavioral and attitudinal patterns or to show how they related to other aspects of the way of life of which they were a part. In terms of anthropological approaches to alcohol studies, pioneering efforts are not remote in time, nor has their value diminished to the point where "historically important" is a euphemism for "outdated." In fact, this is one realm of social investigation in which some of the pioneers not only survive but are still active, and in which the approaches and insights which characterized their early contributions remain vital and relevant today.

One such pioneer is Ruth Bunzel, whose 1940 paper (see the Heath

bibliography in this volume) is not only one of the earliest comparative studies of drinking in cross-cultural perspective, but is also still one of the most complete. She used what has since come to be called "the method of controlled comparison," and showed how different patterns of drinking and drunkenness are shaped by different patterns of child rearing, sex roles, religious beliefs, and a host of other sociocultural variables in two Mesoamerican Indian communities. She integrated psychoanalytic interpretations with ethnographic reporting to yield insights into drinking and drunkenness that still seem relevant to those communities and that are more convincing than many other kinds of analysis and interpretation that have been imposed on data from other groups in the thirty years of anthropological contributions since then. She sought not only to delineate the positive functions of such behavior, but also to understand the social and economic problems that it caused.

As a personal note, it must be mentioned that it is characteristic of Dr. Bunzel that she was hesitant when first approached to participate in the conference, noting how long it was since she had written the paper comparing Chamula and Chichicastenango, and stressing that she had not really intended to study alcohol then nor had she done so in the ensuing years. When she was finally convinced that we wanted specifically to learn about how and why she had written that paper, and what its reception over the years had meant to her, she agreed to take part in the conference. The paper printed here was edited from a taped transcription of the conference session, and graciously approved by her.

The other "pioneering approach" discussed here is the cross-cultural correlational method of alcohol studies. The method itself was introduced by Donald Horton in 1943; although his work became an immediate classic, the method was sharpened in terms of definitions, ratings, indices, and more sophisticated integration of psychological theory by Margaret Bacon and her colleagues, Herbert Barry and Irvin Child. Bacon's paper, printed here, served not only to trace the history of cross-cultural studies of alcohol and their misinterpretation, but also to focus attention on a number of significant correlations that have been virtually ignored to date and that may well provide important leads for further research.

Like her colleague, Bacon chafed a little at the label "pioneer," wondering about the image of the bonnet and oxcart that hardly seemed pertinent in terms of contributions that are not yet ten years old. It is clear, however, that in terms of research, pioneering is more a matter of imagination than seniority, and in this sense Bacon's con-

tribution has been substantial. It promises to be even more so in coming years, in view of her current efforts to prepare a field guide for the study of alcohol, as a partial means of assuring that more, and more comprehensive, data are collected on the subject by nonspecialists who have some familiarity with societies that have not been thoroughly studied. It is only on the basis of the accumulated corpus of fragmentary ethnographic descriptions that the hologeistic method came to be feasible, and her dedication to expanding "the universe of societies" about which we have useful data may have long-range value in making such studies easier and more valid. With all of its limitations, this method of research may come as near to approximating "laboratory conditions" and allowing systematic study of the correlations of variables as does anything that is feasible in the study of human populations.

In summary, with reference to alcohol studies and anthropology, "pioneering works" are not only close to us in time, but they are also still immediately relevant in terms of methods, kinds of data, interpretations, and implications for action. This does not mean that little progress has been made, but that we are fortunate in having had sound and fruitful guidelines offered (however unintentionally) by insightful and imaginative people. The range of topics dealt with at the conference and in this volume fit well with the primary concerns of Bunzel and Bacon — not so much to understand alcohol, as to try to understand human behavior, which sometimes involves, and is affected by, alcohol.



# *Chamula and Chichicastenango: A Re-examination*

RUTH BUNZEL

I have not revisited either of the two Middle American communities in which I worked several years ago. Nor did I plan to re-study them, although it would be an interesting experience. And I haven't pursued alcohol, alcoholism, or drinking habits as a special research area since then. My original paper happened quite accidentally as a by-product of general ethnographic studies in the two geographic areas. The two research projects were separated by several years, during which time I was in New York and during which time my point of view changed somewhat because of involvement with the 1937 Columbia seminar of psychiatrists, psychoanalysts, and anthropologists. This experience prompted me to look at things quite differently in my subsequent research.

When I was in Guatemala, I did not perceive alcohol or drinking as special problems to be investigated. It just seemed that patterns of drinking were the familiar ones associated with Mexican fiestas. If I had been a little more concerned with drinking as a research problem, as I did become very much later, I would have approached my study quite differently. For example, I would have focused on who drinks, how often, and other things.

In the Mexican village of Chamula, everybody drank whenever they had the opportunity. So there was no problem conducting a detailed drinking study. And in Chamula the drinking pattern was so completely different from anything that we experience in our own society, where we have some knowledge about alcohol use, that it immediately attracted our attention. Here were two societies — Chamula and Chichicastenango — within the same culture area that had completely different

drinking patterns. It seemed to me that we had to deal with these differences and look for their cultural context.

Although I have turned to other things since this study was done, my basic concern has always been consistently the same from the time I first went down and studied pottery making. Years later, when someone asks me, "Oh, are you still studying pottery?" I can say, "Look, I've never studied pottery. I was studying human behavior, and I wanted to know how potters felt about what they were doing."

I feel the same way about alcohol. I have never studied alcohol; I have just studied people and their drinking habits as seen in their cultural contexts and the influences behind these habits. This is really what has been my consistent preoccupation, throughout all my years, even after I began dealing with Chinese political habits and behavior. It is not politics that I studied, but human behavior in its cultural context.

I have very little to add to the paper on Chamula and Chichicastenango, except to mention the sorts of things I might have done differently had I gone into the research as a study of drinking. I think I would probably have given the paper a different title if I had been a little more sophisticated. But, again, this was something I did not consider at the time.

The principal point of my study is that drinking, or alcoholism, or whatever you want to call it, is not the same thing in different cultures. It is quite a different entity in Chamula from what it is in Chichicastenango. We cannot deal with drinking in these two cultures as one thing. Alcoholism plays an entirely different role in the lives of the people in the two cultures. An entirely different etiology of drinking is apparent in each of these different areas. That is the major point that I tried to make. Drinking fulfills quite different roles. Principally, in Chichicastenango, drinking is a release from the extreme pressures of surrounding cultures. It is also a way of dealing with the anxieties provoked by these external pressures which, of course, lead to more anxieties in a sort of feedback relationship. In Chamula, however, drinking performs the function of lubricating social relations at a very basic level; you cannot enter into any kind of relationship with another person without first establishing the pattern of sharing a drink. This pattern could be due to infantile experiences.

I want to emphasize again how drinking fits into a much broader context, not leading into studies of alcohol *per se*, but into a concern for human behavior. Since it is a rather extreme form of human behavior, the differences in the ways in which people use drinking as a mechanism show up very clearly.



# *Cross-Cultural Studies of Drinking: Integrated Drinking and Sex Differences in the Use of Alcoholic Beverages*

MARGARET K. BACON

Cross-cultural studies of drinking which have made some attempt at the quantification of variables across a sample of societies have been relatively few in number. The pioneer study making use of this method in the field of alcohol studies was, of course, that of Donald Horton (1943). Horton's monograph was a landmark in a number of different respects. Not only was it the first cross-cultural study of drinking, but it was also a pioneer effort to make a quantitative test of an hypothesis regarding human behavior in a cross-cultural setting.

It is perhaps of some historical interest to note that Horton was not primarily interested in the problems of alcohol. His interest was chiefly methodological. His concern was to test a psychological hypothesis in a sample which consisted of societies, rather than people, as units of variation. His work grew out of his contact with the now famous group of learning theorists who were at Yale University in the late 1930's — Miller, Dollard, Sears, Mowrer, Hull, Marquis, etc. It was also a direct consequence of the founding of the Human Relations Area Files by Murdock. The idea that psychological hypotheses might and should be tested against a universe of the world's peoples, as well as within the population of a single cultural group, received great impetus at that time.

The main hypothesis that Horton chose to test in his cross-cultural study was based on the widespread, popular, clinically supported belief that one of the psychological effects of alcohol consumption was the reduction of anxiety — and that anxiety reduction might therefore be a widespread motive for drinking. If this were true, then it would be expected that societies whose members generally experienced high levels of

anxiety might exhibit a higher frequency of drunkenness than societies where the anxiety level was low. In his search for measures of anxiety which might be cross-culturally valid, Horton chose, as is well known, two measures of subsistence insecurity and one of acculturation. These were chosen simply as possible sources of anxiety which might be operative in a sample of preliterate societies and which might also be subject to rough but reliable quantification on the basis of the ethnographic descriptions available in the cross-cultural files. Horton did not intend to suggest that inebriety was specifically related to anxiety about food, as has been implied by some subsequent researchers.

The point can be made then that Horton's work stands as a landmark not only in the field of alcohol research but also in the field of cross-cultural studies in general. Horton's monograph preceded by ten years the now classic study of child training and personality by Whiting and Child (1953) and the area of research stemming from this publication.

Following Horton's study there were no further cross-cultural studies of drinking for nearly two decades. Then in the late 1950's, the second Yale cross-cultural study of drinking was undertaken by Bacon, Barry, and Child, hereafter referred to as the B., B., and C. study.

In the early 1960's, Field (1962) published a cross-cultural study based on a re-analysis of Horton's data and including some of the unpublished ratings of the B., B., and C. study. It should be noted that Field's analysis was not concerned with motives for drinking but rather with possible social organization correlates of sobriety — i.e. social controls of drinking.

The B., B., and C. study was published in 1965 (Child, et al. 1965a, 1965b; Bacon, et al. 1965a, 1965b; Barry, et al. 1965). Since then, McClelland and his colleagues (1966, 1972) have published cross-cultural studies relating ratings of drinking and insobriety from the B., B., and C. study to the word content of translated folktales. These studies have been utilized in the development of a theory relating drinking to the need for power in males.

The 1965 B., B., and C. study was undertaken with several purposes in mind. It was hoped that (1) it might serve as a representative survey of drinking practices as they were reported in the then existing literature of preliterate societies in all areas of the world, and (2) it might provide quantitative comparative measures of various aspects of drinking customs which were felt to be widely present and significant as variables. In brief, the intent was to codify, collect, and roughly quantify a large amount of data on drinking customs in a broad sample of cultural groups, and to make these data available for the testing of hypotheses by other

research groups and as a background of cultural variation against which to view the customs of any single group. Another goal was to test an hypothesis regarding relationships between dependency conflict and consumption of alcoholic beverages. Other more incidental aims were largely methodological. The reliability and validity of Horton's findings were checked and certain inadequacies of his procedure were corrected. In Horton's study all ratings were made by Horton alone. As a consequence, there was no check on the reliability of the rating and no control over the possible effects of experimenter bias. The B., B., and C. study sought to correct these methodological defects by making use of two independent raters who made their judgments on ethnographic material extracted verbatim from the original source with all identifying data removed. The ratings were thus done "blind" and could not have been influenced by other incidental knowledge held by the rater, or by any bias held with respect to the hypotheses being tested.

Horton's study was based on 57 societies. The B., B., and C. study involved 139 societies including Horton's original 57. Horton's sample consisted simply of all those societies which had been processed in the cross-cultural files at Yale at that time and which contained sufficient information to make a rating on drunkenness. The B., B., and C. sample was determined by a number of considerations. It was decided to include the Horton sample for purposes of validating his measures of drunkenness along with the new B., B., and C. ones. It was also decided to include as many societies as possible from earlier studies of child rearing so that it would be possible to test the interrelationships of variables of socialization with those of drinking behavior. An attempt was made to choose a worldwide sample and to include only societies that were independent units. A further limitation was encountered in terms of the adequacy of the material on drinking. The resulting sample achieved most of these objectives but was inadvertently somewhat overweighted with regard to the inclusion of African societies.

The results of the B., B., and C. study seem to have been interpreted by the academic community largely in terms of the dependency-conflict hypothesis. There are, however, certain other findings of the study which seem to be of equal significance and there are other data still in the process of analysis. Both of these areas warrant some discussion.

In the original design of the study, information was sought for a total of forty-nine different variables related to the use of alcohol. These covered, for each society, the general aspects of the drinking custom, such as the availability of alcohol, the extent, frequency, quantity, and duration of drinking what and by whom. Information on the contexts of drinking

was sought, i.e. religious, ceremonial, household, solitary drinking, etc. Behavior associated with drinking was also noted: sociability, exhibitionism, hostility, rule breaking, extreme behavior, etc. Summary ratings were also made regarding overall consumption of alcohol, frequency of drunkenness, degree of the problems, efforts to procure alcohol, and the attitudes of the society towards drinking and drunkenness, etc.

In considering these findings it should be kept in mind that quantification, in this as in other cross-cultural studies, consists of ratings on a comparative rather than an absolute scale. Thus, a rating of four for, say, frequency of alcohol consumption means that the consumption of alcohol by the typical adult in that society is judged to be about average (on a seven-point scale) for the sample on which the study is based, in this case 139 societies.

The available ethnographic material was, as might be expected, often insufficient to make a reasonably confident rating on all of these variables. When the data were insufficient no rating was made on that variable; when a given variable was rated on fewer than twelve societies it was eliminated from the subsequent analysis.

The final body of data nevertheless consisted of thousands of ratings and the methods of data reduction seemed to be in order. It was decided, therefore, to apply factor analysis to those variables which had been rated by both judges in at least 50 of the 121 societies where the consumption of alcoholic beverages was reported. Nineteen alcohol-related variables met this criterion. When the intercorrelations of these nineteen variables were subjected to factor analysis, four independent dimensions of variation in the use of alcohol were revealed. In descending order of importance these four dimensions were: (1) the Integrated Drinking Factor, (2) the Inebriety Factor, (3) the Hospitality Factor, and (4) the Quantity or General Consumption Factor. These four factors accounted for 80 per cent of the total variance.

The discovery of these four basic dimensions of variation in the use of alcohol across a sample of 121 different cultural groups throughout the world makes this finding seem of very considerable significance. It raises the question of the existence and nature of such dimensions for future exploration and elaboration. It provides the beginning of a cultural frame of reference against which to view the drinking practices of any given group.

The delineation of the Integrated Drinking Factor<sup>1</sup> provides an excellent example of the significance of such findings. The meaning of this fac-

<sup>1</sup> The precise definitions of this and all other variables investigated are given in Section V of the B., B., and C. study (Bacon, et al. 1965b).

tor is fairly clearly indicated by the listing of the variables with the highest loading on it, namely, (1) the extent of ritualization of drinking, i.e. the extent to which each act of drinking is surrounded by restrictions as to time, place, material apparatus, way of drinking, etc.; (2) frequency of drinking and quantity consumed in a religious context; and (3) frequency and quantity of public or ceremonial drinking, i.e. drinking related to culturally standardized recurrent rites, ceremonies, celebrations, or assemblies of general social significance and of a public nature, including family ceremonials of public importance such as weddings, name-giving, funerals, work parties, etc.

The emergence of this factor as a dimension of alcohol-related behavior in a sample of societies provides a statistical verification of the significance of this variable which has hitherto been based on intuitive case study methods. For example, Snyder, in his study of Jewish drinking (1958), clearly depicted the manner in which drinking is interwoven into the ceremonial customs of this group. He suggested that the association of alcohol with these socially meaningful activities might be a significance factor in reducing or preventing alcohol-related problems. Similar case studies of drinking in other cultural groups have also made use of this concept or its variations (Bales 1962; Glad 1947; Lolli, et al. 1958). Whether or not this variable demonstrates the interrelationships suggested by these writers, its importance as a factor in drinking behavior is verified by cross-cultural analysis.

The interrelationship of Integrated Drinking with other variables is also revealed by this analysis. One of the most striking relationships is found to be with the presence or absence of drinking in aboriginal times. It seems reasonable to assume that the integration of drinking customs into cultural traditions would be to some degree a function of time. It would be expected, for example, that Integrated Drinking would occur more frequently in groups accustomed to drinking in the aboriginal period than it would in groups where drinking developed only after contact with a dominant culture. The cross-cultural findings strongly confirm this prediction. Of the forty-nine societies with aboriginal drinking, thirty-seven were rated as having Integrated Drinking and only three as definitely lacking it. Of the thirty-five societies which are listed as drinking after contact but not aboriginally, Integrated Drinking was rated as present in only three, and in two of these the ratings were below average.

Integrated Drinking may thus be viewed as a cultural adjustment to drinking, an adaptation that has occurred through time. Consistent with this view is the finding that societies high in Integrated Drinking are also found to have a highly organized and stratified social structure and a

subsistence economy which permits the accumulation of food. These features appear to be characteristic of a relatively settled and organized culture. It seems logical that cultural integration of drinking customs would be more likely to occur in this type of society than in one less stable and less well organized.

Societies high in Integrated Drinking also tend to be those which show high cultural pressures toward responsibility and obedience, either during the childhood training period or in adult life. They also show a low expectation of achievement. This pattern of socialization pressures has also been found to be characteristic of societies whose economy permits an accumulation of food.

The interrelationship of Integrated Drinking with other variables of drinking behavior is also important. Societies high in Integrated Drinking show the following characteristics: generalized approval of drinking, widespread participation, and a high rate of alcohol consumption. It would be expected that in societies where drinking is highly integrated with ceremonial and social life, most of the members of the society would drink and there would be generalized approval of drinking. The fact that such societies also rank high in the rate of consumption of alcohol is interesting and not entirely expected. This finding indicates that a high rate of consumption does not necessarily mean that alcohol is essentially disruptive of social life. A high rate of alcohol consumption is apparently entirely compatible with a pattern of alcohol use which is linked with the positive values of the group. This finding is contrary to the generally accepted belief in our society that a high rate of consumption of alcoholic drinks is, almost by definition, socially threatening.

The variable, Approval of Drunkenness, is also highly correlated with Integrated Drinking. This is of special interest. It would seem logical that a society which ranked high in Integrated Drinking might disapprove of drunkenness as potentially disruptive. However, the finding here suggests rather that societies high in Integrated Drinking are generally accepting of drunkenness. In other words, Snyder's finding (1958) that Jewish customs of drinking unite a strong tendency toward Integrated Drinking with a strong disapproval of drunkenness is not repeated in a larger sample of societies. These two variables are not necessarily linked in this way. The finding is rather that societies with a high ranking in Integrated Drinking usually show a general approval rather than disapproval of drunkenness. The presence of Integrated Drinking certainly does not presuppose the existence of a disapproving attitude toward drunkenness.

The relationship between Integrated Drinking and actual frequency of drunkenness, quite apart from attitudes of approval or disapproval,