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PARADIGMS OF SOCIAL RESEARCH ON ALCOHOL AND DRUG USE AND DEPENDENCE

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Abstract

Social research has a double role in drug studies: as a descriptive source of information for public debate and policymaking, and as a contributor to general scientific knowledge about the etiology of drug use and dependence. Five paradigms of current social research in the field are described: ethnographic research; survey interviewing and research; social psychological questionnaires and experiments; social and health indicator studies; and policy, cultural and historical document-based studies. Three current trends in the social research literature are noted: a tendency for studies to draw on more than one paradigm; a greater emphasis in study designs and analyses on time and change; and a trend toward bringing drug phenomena which have been studied separately -- licit and illicit drugs, drug use and drug dependence -- into a common analytical frame.

Social research has a double role in alcohol and other drug studies. On the one hand, the descriptions of the patterning of attitudes, behavior and responses to drugtaking yielded by social science research methods serve as a necessary basis for informed public debate and policymaking. This role of social science research as an intelligence service for public policy is easily understood and accepted. Less obvious is the second role of social research: to contribute to our general scientific knowledge about the meaning, patterning and etiology of human use of psychoactive drugs. This second role is often not only less obvious but also less politically palatable, since the research findings sometimes raise questions about the assumptions on which prevailing policies are based. As Gusfield (1) and others have argued, this means that social science knowledge is often potentially subversive of the status quo.

In this presentation I will first describe some of the diversity of paradigms in current social research in the drug field, and then consider some emerging commonalities in these diverse approaches. For each paradigm, a characteristic epistemology, set of methodologies and roster of research questions will be outlined, along with the applications of the paradigm in drug studies. It should be noted that while particular paradigms are historically associated with a particular social science discipline (e.g., ethnography with anthropology), nowadays the paradigms are often used by

scholars from a range of disciplines. Of course, the descriptions of the paradigms offered here are of "ideal types" of research approaches, and give only a sketchy overview of the variation in a vast research literature.

ETHNOGRAPHIC RESEARCH

Research in this tradition tends to emphasize gaining and interpreting an insider's perspective on a particular cultural frame. The frame can be a culture or society, in traditional ethnographic practice, or a subcultural fraction of a society, in modern practice. The perspective is often functional: how behaviors or beliefs which seem irrational to an outsider make sense and fit together for an insider. The research material typically consists of field-notes of observations and informal interviews with knowledgeable informants. Informants are usually chosen purposively, rather than with any idea of statistical representativeness of the population. The analysis of the material is typically qualitative and interpretative, illustrated with salient quotations or reports of observations.

In classical ethnographic studies of village or tribal societies, material on drug use and attitudes was usually reported, if at all, simply as one dimension of a holistic description of the culture. More recently, a substantial tradition of studies has grown up using ethnographic methods to focus on the place of drugs in a culture, or on particular subcultures of drug users. Thus, for example, there are ethnographic studies of the drinking culture in English taverns (2), of the subculture of heroin use among San Francisco prostitutes (3), and of the peyote religion among North American Indians (4).

The strength of ethnographic research lies in its sustained attention to the cultural level: to the matrix of shared beliefs and norms within which individuals operate. Ethnographic methods have proved to be indispensable tools for studying small societies or subcultures and deviant groups. Such studies have thus been particularly important in the literature on illicit drugs, where use is often concentrated in hidden groups and subcultures.

SURVEY INTERVIEWING AND RESEARCH (5)

In this tradition, a sample of respondents are asked the same series of questions in a highly structured format, with the respondent often being asked to make a choice among precoded answers. This approach emphasizes offering the same stimulus to each respondent, so that the responses are given in as closely comparable a framework as possible. Sampling theory is usually employed to ensure that the sample is representative of the underlying population, which may be all or part of the general population of some geographic area, or may be a special population "captured" in school, in a treatment institution, a jail, etc. Usually, upwards of several hundred respondents are sampled as isolated individuals, and the analysis focuses on the relation between different individual characteristics in the sample (e.g., of the individual's gender with his/her attitudes toward marijuana legalization). Modern survey research had its primary origin in public opinion polling of individual citizens on attitudes and intentions in connection with elections and politics. It has also been widely used to study reported behavior and experiences. Originating in industrialized societies with strong individualistic traditions, survey research techniques have also been used, sometimes in adapted form and not always with full success, in other societal circumstances (6). Like ethnographic studies, survey research typically treats the respondent as an informant, but the emphasis is on information on respondent's own attitudes, behaviors and experiences, while in ethnographic studies the emphasis is often on information concerning others or the culture at large.

Survey research traditions of studies on tobacco, alcohol, psychopharmaceuticals and illicit drugs have developed somewhat separately. Most studies ask about attitudes to use and frequency of use, and often also about reasons for use or nonuse and about policy attitudes. Alcohol studies typically ask also about amount of use and about the experience of social or health problems from use, and sometimes about responses to others' problematic use (7). The narrower range of questions in most illicit drug surveys reflects the technical problem of needing to ask separately about several classes of drugs, and also that use of the drugs is societally presumed to be in itself the problem (8). Recently, reflecting the influence of psychiatric epidemiology, alcohol and drug surveys have also started asking questions diagnostic of drug dependence and other items of psychiatric nosology (9).

Classically, the report of a survey study has included a description of the sampled population's attitudes and behaviors on the topic of interest, and a set of cross-tabulations describing variations in the attitudes and behavior in demographic subgroups. Survey data is now commonly also subjected to multivariate analysis, which tests the relative contributions, overlap and interactions of different variables in accounting for the variation in an attitude, behavior or condition.

Survey studies have become a commonplace guide to patterns in general population and in various special populations. The expense of conducting a survey usually dictates that a single survey will serve a number of research purposes, frequently including both etiological and descriptive agendas.

SOCIAL PSYCHOLOGICAL QUESTIONNAIRES AND EXPERIMENTS

As in survey research, social psychological studies typically use a standardized procedure or questionnaire to collect data from each respondent in a uniform manner. In experimental studies, the conditions of the experiment are usually varied one at a time, to test for the effects of that variation, all else being held constant, on a research subject's state, behavior or verbal responses. Social psychological questionnaire studies collect data and conduct analyses by methods much the same as those used in survey research. But it is typically a "subject" rather than a "respondent" who is providing the data, and this shift in terminology signals a more distant relation between the researcher and the subject; the research situation is defined in terms of the research subject's responses being externally monitored and measured. Accordingly, there is an emphasis on minimizing measurement error, for instance by eliciting responses to several questionnaire items for each topic, and using standard psychometric techniques to derive an aggregate score on the topic.

The focus in experimental and other social psychological studies is usually on testing a general theoretical formulation about human behavior by analyzing the relationships between stimulus and response or among the measured characteristics of the subject. Particularly in experimental studies, description is beside the point, and the standard of proof concerning etiology is more stringent than in ethnographic or survey research analyses. But who in particular is included in the sample of subjects has often not been a major concern, and studies have often used convenience samples of college students or other special populations. The generalizability of such a study's findings in other human populations often remains an open question.

Experimental social psychological studies have made strong and often surprising contributions to alcohol studies. Using the "balanced placebo" design, which separates expectancy effects from biological effects of alcohol, experimenters have shown that many disinhibitory effects of alcohol are partly or wholly attributable to the subject's expectations about the effects (10). This

tradition of cognitively-oriented research is not as strongly developed for other drugs, for which the experimental paradigms have been more behavioristic. There has been much social psychological questionnaire research on alcohol and other drugs among schoolchildren and college students, usually focused on developmental and social-learning perspectives (11). In such terrain, the survey research and social psychological traditions often become indistinguishable.

SOCIAL AND HEALTH INDICATOR STUDIES.

The two further paradigms considered here have in common that the data they use is commonly collected by others and for purposes other than research -- for instance, as a byproduct of tax collection, law enforcement or treatment efforts. The two paradigms differ particularly in the analytical methods applied to the data. One paradigm focuses on the quantitative analysis of case records or of health or social statistics. While the data often include quite large numbers, there is considerable variation in the level of detail and of aggregation at which the analysis is conducted. Sometimes the data is available only in a highly aggregated form: the litres of absolute alcohol sold in a state, for instance, or the number of deaths from drug overdose in a city. Analysis of such data is performed also at an aggregate level, correlating patterns across populations or across time (12). Where data is available at the level of the individual case -- for instance, death certificate information on causes of death, gender, age and so on -- analysis can be carried out also of interrelations at the individual level. Where the case-level data available is extensive, the analytical techniques are similar to those used in multivariate analysis of survey research data.

Work in this paradigm draws on a variety of disciplinary traditions, including epidemiology, econometrics, and ecological analyses in sociology. Particularly where individual-level case records of morbidity or mortality are being analyzed, the epidemiological case-control methodology of comparison with matched nonmorbid cases is often applied. Since the researcher typically has little connection with and control over the conditions of data collection, studies in this tradition are often particularly concerned about the meaningfulness and validity of the data and of the patterns found. But, by its nature, the data does not lend itself easily to an interpretative analysis attuned to the cases as thinking and feeling beings.

Aggregate statistical series in drug studies typically are drawn from one of three sources: from taxation or trade records for aggregate consumption of licit drugs; from police records for drug-specific criminal offenses and for seizure-based estimates of consumption of illicit drugs; from health system records for drug-related morbidity and mortality. While the most obvious use of such data is in the description of current patterns and trends, the application of sophisticated statistical methods such as autoregressive time-series analysis has increased their usefulness in etiological research. Data series of health and social statistics have become a particularly important component of policy analyses of "natural experiments", studying the effects of legislative or other identifiable social change on patterns of use and problems. Such analyses have been prominent, for example, in recent tobacco (13) and alcohol (14) studies.

POLICY, CULTURAL AND HISTORICAL DOCUMENT-BASED STUDIES

These studies, undertaken in a broad range of disciplinary traditions, take as their raw material what might be called "prepared cultural products": documents, electronic records, etc. Two main styles of analysis are applied to the material: a quantitatively-oriented content analysis, coding characteristics of the material in a reproducible way; and interpretative analysis, drawing variously on

historical, literary and ethnographic traditions. Analyses in the quantitative style often resemble analyses in the previous paradigm, although commonly with a non-individual-level unit of analysis. Examples include the content-analysis studies of representations of smoking, drinking and drug use on television programs. Qualitative analyses are usually in the form of case studies of a single case or a small number of aggregate-level cases -- societies, cities, organizations, etc. Where multiple cases are considered, the analysis may simply be in parallel, or may be explicitly comparative. Examples include case studies of the decriminalization of marijuana (15), of the social history of alcohol controls, consumption and consequences at a societal level (16, 17), or of the rise of a temperance movement in a particular society (18). Part of the researcher's expertise is often seen as lying in his or her command of archival or other data sources. Researchers working in a frame of social history, which has become prominent in studies of alcohol (19) and to some extent of other drugs, share with ethnographic researchers a commitment to interpretative analysis, which can communicate the mentality and emotions of those studied.

EMERGING TRENDS

What I have attempted in these sketches is to give a cross-sectional view of major paradigms in the current research literature. Let me now add some comments on ways in which this schematic picture is in the process of being complicated by current trends. One trend is toward more frequent combining of two or more paradigms in the same study. Recent quantitative analyses of health and social statistics, for instance, often draw on relevant historical work in interpreting their findings (20). Ethnographic studies nowadays often include a survey-research component (21). Perspectives and instruments from the experimental social psychology tradition are finding their way into alcohol survey research (22). To a considerable degree, this trend reflects the maturing of social research in the field, with researchers moving beyond a specific methods-expertise into a broader career commitment to alcohol and drug studies as a multidisciplinary substantive field.

A second trend is towards a stronger emphasis on the time dimension. This is by no means a totally new phenomenon. There are, for instance, longstanding examples of ethnographic studies which escape the "ethnographic present", longitudinal studies in survey research, and time series analyses of health statistics. But each of the paradigms has been enriched in recent years with an added attention to temporality. In several recent ethnographic studies, senior investigators have been able to draw on their own fieldwork experience with a locality to describe social changes over as many as four decades (23, 24). The lengthening tradition of survey research studies has created new possibilities for trend analysis of survey data (7). Autoregressive time-series techniques have give a new power to analyses of aggregate time-series data (12). The increased attention to time and change is increasing the relevance of social research to policy discussions and actions. Policymaking is, after all, about change, and if we wish to understand change, we must study change.

A third trend is towards bringing different phenomena of drug use into a common analytical frame. Increasingly, licit and illicit drugs are both included in a study's frame. Whereas the literature used to be split between studies of drug use and studies of drug dependence or addiction, increasingly dependence is being studied as simply a part of a continuum of use. This breaking down of longstanding segregations in the research literature will allow many fruitful cross-fertilizations to emerge. But it may prove troubling to the policy status quo, since it is likely to illuminate underlying commonalities of behaviors which are socially defined in starkly differentiated terms (25).

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