Book Reviews

Ramifications of Work Experience

Work and Personality. An Inquiry into the Impact of Social Stratification. MELVIN L. KOHN and CARMI L. SCHOOLER, with the collaboration of Joanne Miller, Karen A. Miller, Carrie Schoenbach, and Ronald Schoenberg. Ablex, Norwood, N.J., 1983. xviii, 389 pp. $38.50; paper, $17.95. Modern Sociology.

During the past 20 years large-scale sample surveys in the United States and many other Western industrial societies have provided detailed information on how family background, education, and other variables influence the life chances of individuals. The research shows that these processes are quite similar across industrial societies and allows us to state, in probabilistic terms, the likelihood that the child of, say, a skilled craftsman will become a salaried professional. They also give insight into the relative importance of ascription and achievement in the status attainment process.

Understanding why we see such stability in social stratification outcomes, both over time and across societies, is another matter. Why is it that we see strong patterns of status persistence across generations? For example, why do the children of the upper middle class have a much higher probability of retaining that status than the children of blue-collar workers have of reaching it? One research tradition looks to macro social structure, concentrating on the rules under which the game is played. A second looks at how individuals' attitudes, values, beliefs, and orientations to self and society that may affect the chances of social mobility are determined. Kohn, Schooler, and their collaborators have written a book in this latter tradition.

The authors' hypothesis is that "the structural imperatives of jobs . . . affect workers' values and cognitive functioning." Drawing on work originally begun with Kohn's *Class and Conformity*, the authors argue that the intellectual, physical, and social demands of jobs lead workers to generalize those experiences outside the workplace. Demonstrating this requires a fairly complex chain of research. First one must show that jobs do differ in their demands. Then it must be shown that jobs have an effect net of whatever characteristics workers brought to the jobs in the first place. That is, since selection to occupations is hardly random, it is necessary to show that workers *change* as a result of occupational experiences. Finally, it is necessary to show that the impact of jobs on workers' cognitive functioning translates into specific behaviors and choices—that the process is not entirely intrapsychic.

The bulk of the analysis reported here is based on two surveys done ten years apart. The first involves a national sample of more than 3000 men representative of the male labor force over 16 years of age in 1964. A follow-up survey on one-quarter of these men who were 55 years old or younger at baseline was done in 1973. Subsampling permitted the researchers to obtain interviews with the wives of those men who were married at the time of the 1973 interview. The second survey is a careful replication of the first, with great care being given to obtaining parallel measures of occupation and a broad range of psychological variables. The data set is unique, not only because of its longitudinality and the quality of its measures but because of the sample of wives.

In many ways, the most important aspect of this study is measurement. The authors have done a superb job of measuring what is relevant about occupations. They evaluate the substantive complexity of jobs, the degree of security associated with them, the physical and intellectual demands they make, how closely workers are supervised, the worker's location in a hierarchy of control, and other variables. These measures are carefully thought out and explicated. The same care and attention to detail went into the construction of the many psychological variables including measures of values, alienation, authoritarianism, self-confidence, and anxiety and several measures of intellectual functioning. The majority of these measures were constructed with the use of confirmatory factor analyses and take advantage of the repeated measures in the data, thus allowing for a distinction between random and systematic sources of measurement error.

Turning to the actual analyses of these data, we are faced with a rather unusually organized book. The authors chose to present us with a sequential record of their research. Thus the first four chapters are somewhat revised versions of papers that first appeared from 1969 through 1976. In general, the analytic methods in these papers are not optimum for the questions they attempt to answer, largely because they are based on the first survey rather than the longitudinal set. Though these chapters have some historical interest, their inclusion introduces a degree of repetitiveness that is both confusing and annoying.

As noted earlier, one of the key analytic tasks in the book is to show that occupational demands have an impact on a wide variety of psychological variables, particularly intellectual flexibility and values. With longitudinal data it is possible to estimate the stability of psychological variables and job characteristics over time, the cross-lagged effects of one class of variables on another, for example how 1964 job characteristics affect 1973 psychological functioning, and contemporaneous reciprocal effects, that is, how job characteristics and psychological functioning simultaneously affect each other. The authors contend that both cross-lagged and contemporaneous reciprocal effects lend support to their hypotheses. They use state-of-the-art methods of structural equation modeling to carry out the tests. The basic approach is based on Joreskog's LISREL (Linear Structural Relations) model, which permits one to model reciprocal effects and deal with measurement error at the same time. Since we know that measurement error seriously affects these kinds of estimates, taking it into account is crucial.

Estimating reciprocal effects requires the analyst to make specific and untestable assumptions about causal effects that are a priori set to zero. (In more formal econometric terms, one must choose instrumental variables to identify the model.) Chapter 5 of the book, which attempts to show how the substantive complexity of work and intellectual flexibility interrelate, is by far the most convincing example of this kind of analysis. The assumptions are plausible and the results are convincing. In the following chapter, the authors attempt to expand their model substantially, including 14 measures of job structure and eight measures of self-conception and social orientation. The model is an extravaganza of reciprocal relationships, pushing the LISREL model far beyond anything else that has appeared in the literature. Un-

fortunately, the authors have not provided enough technical detail to enable one to judge the quality of the results. Nor do they spend enough time telling the reader what the results mean. The basic numerical results are presented in tabular form, but they are discussed in rather general terms. It would have been more useful to triple the amount of space devoted to the explication and justification of these models, perhaps at the cost of the redundant material at the beginning of the book.

After reporting the results of their basic models, the authors go on to a number of extensions and replications of them. Space does not permit a detailed discussion here, but the material on women, the development of scales of substantive complexity of housework, and a discussion of attempts to replicate the basic model in a number of other societies are all quite informative. In many ways, these extensions are the most interesting aspect of the book since at least some of the material has not been published elsewhere.

Each chapter of this long book ends with a careful discussion of the various unresolved issues and possible sources of error in the analysis, and the book itself ends with a similar discussion. The authors' candor is admirable, and they themselves raise each of the following issues, among many others, which I think cast some doubt on the validity of their results. First, although much is made of the value of the longitudinal design it is important to understand that the sample ranges in age from 26 through 65 at the time of the second interview. Ideally, to study how job conditions affect psychological functioning, one would study a cohort of young people as they enter the labor force. In the present case, we have estimates based on men who are in their first years in the labor force and men who are about to leave it. One has to believe that the impact of job conditions on men who have been working for 30 years is different from their impact on new workers. Thus the coefficients in these models are "averages" across potentially quite different situations.

A second issue has to do with the interpretation of reciprocal effects in models of this kind. A feedback loop does not imply that change must be going on at all times. The authors write, on occasion, as if they have estimated dynamic models, but they have not; indeed, their models assume a system in equilibrium.

The models they estimate are extremely ambitious, to say the least, and one has to question the stability of some of the results, given the rather tenuous assumptions used to obtain causal estimates in some cases. At times, it appears that results have been achieved by testing prior models to see if particular coefficients are statistically zero, then using that information to obtain results for more complex models. This is not a desirable procedure.

The work reported in this book is important and pathbreaking. The principal authors, Kohn and Schooler, have mounted a tenacious long-term attack on problems that have almost defied solution. Their analyses use the most sophisticated statistical methods available and are generally well done. Still, the issue is not closed. Though all the evidence points to the basic validity of the hypothesis—occupational experiences do affect how people think about themselves and the world around them—the specific coefficients in most of these models cannot be taken as gospel. The data from this study, though certainly better than anything else currently available, are not optimal for the task at hand. One would prefer data on a single cohort at labor force entry with far more frequent measurement.

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Ethics in Neuroscience

Ethical Questions in Brain and Behavior. Problems and Opportunities. DONALD W. PFAFF, Ed. Springer-Verlag, New York, 1983. viii, 158 pp. $19.80.

For most of its history, with the exception of studies in the behavioral sciences, research now grouped under the rubric of the neurosciences has primarily been directed at elucidating the basic mechanisms of brain function: electrical, chemical, anatomical. In the last decade, research at the histological, cellular, and subcellular levels has begun to be joined with behavioral studies, as is evidenced in the psychopharmacological approach to mental illness and in many developmental studies. As the basic biological components and mechanisms of nervous system function are identified and their roles in behavior investigated, their social ramifications and accompanying ethical implications become more extensive, more diverse, and more in need of careful consideration. A volume focused on ethical concerns of particular relevance to brain and behavior is timely indeed.

This volume, which is based on a lecture series, is divided into two sections. The first explores some of the ethical issues that arise in dealing with neural and behavioral disorders, and the second examines the ethical implications of various research findings in the biology and neurology of behavior.

In section 1, a chapter by Jean Endicott and two chapters by Ruth Macklin are especially perceptive and provocative. The Endicott chapter deals with the methods, goals, and responsibilities of making psychiatric diagnoses. It considers the dangers and potential for abuse associated with such diagnoses in our society, where the maintenance of confidentiality and privacy may be difficult, where misconceptions and fears about mental illness are widespread, and where there is the potential for social stigmatizing. The author recognizes that at the same time society has expectations, and is likely to expand them, with regard to predictions of behavior based upon diagnosis and to the responsibility mental health care professionals have to warn of the risk of suicide and violence that is associated with particular diagnoses.

One of the chapters by Macklin deals with the problems associated with obtaining informed consent from and for the cognitively impaired and the other with the refusal of treatment. Both deal thoughtfully with the issues of autonomy, with paternalism, and with how and by whom the "best interest" of the patient may be determined.

A chapter by David Levy dealing with comatose patients is informative and interesting though it is restricted to discussion of the likely prognosis for the unconscious patient and does not actually address ethical concerns associated with the condition, such as how limited resources are to be allocated and whether care should be continued. A chapter by Richard Beresford on legal aspects of treatment of the cognitively impaired is disappointing. It implies that the ethical problems associated with withholding or withdrawing life support can be, and indeed should be, resolved by the medical and legal communities, without the need of input from other segments of society.

Arthur Caplan examines the implications of sociobiological theory for morality. This is a scholarly and intellectually exciting essay, particularly when viewed in the context of the neurosciences, which extend from the level of molecules and genes, units fundamental to evolution, to behavior, an essential for ethics.