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Motivation, Drug Abuse, and 50 Years of Theoretical and Empirical Inquiry

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Introduction:
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In reviewing the 25-year history of the Nebraska Symposium on Motivation, Benjamin and Jones (1979) noted that the Symposium was “the longest-lived topical series in American psychology, with a national and international reputation” (p. ix). On March 28 and 29 of 2002, with a packed auditorium on the campus of the University of Nebraska–Lincoln, this record was doubled in life. As the reader will quickly see from the list of contributors, the reputation of the Symposium was also maintained on its 50th Anniversary. Before continuing, we would like to reiterate the thanks in the Preface for all those who supported the Symposium with their hard work, thoughtful effort, and generous support. We are also grateful to the selection committee for choosing our proposal for the 50th Nebraska Symposium on Motivation. We believe it is fitting that drug abuse be the topic for this Symposium. Drug abuse and its associated personal and fiscal costs reflect the largest health problem in the United States (Robert Wood Johnson Foundation, 2001). Psychology, as a broad integrated field of inquiry, has much to contribute to understanding and solving this serious problem. The contents of this volume clearly support this claim.

The contributors in the early volumes of the Symposium tended to be from disparate areas, but they had an empirical and theoretical focus that informed the field of psychology about motivation and its affiliated constructs (e.g., arousal, drive, etc.). Gerald McClearn, in Volume 16, was the first contributor to have a significant portion of a chapter devoted to discussing drug-abuse-related research. However, the data were presented in the spirit of understanding motivational processes rather than drug abuse. In the words of McClearn (1968):

It should be emphasized that mouse alcohol preference is not regarded as a simple analog of human alcoholism, although it is reasonable to expect that studies on the inheritance of alcohol preference in mice, and on the genetics of differential behavioral response to alcohol, will contribute to the pool of basic knowledge that will ultimately result in better understanding of human alcoholism. For present purposes, however, I should like to emphasize the motivational aspects of the research. From the point of view of motivational dynamics, the systems influencing ingestion of any substance are relevant, and the fact that the ingested substance is alcohol is incidental. (p. 61)

In the 1970s the Symposium became focused such that the contributors in a given year tended to have an aligned theme to their research programs (cf. Benjamin & Jones, 1979). For example, in 2000 the Symposium addressed the importance and role of evolutionary psychology to understanding psychological phenomena (Leger, Kamil, & French, 2001). As reflected in the title "Alcohol and Addictive Behavior," the 34th Nebraska Symposium on Motivation was the first to focus its attention on drug abuse, especially alcoholism. In the closing paragraph of the Introduction of that volume, Clay Rivers (1987), the organizer and editor for that year, revealed that his main "hope" of the Symposium and the volume was to "help narrow the gap between what we know and what we do when working with addictive behavior in general and alcoholics in particular" (p. xx). We hope this volume will contribute further to this crucial step in the prevention of drug addiction.

When we decided that the title of the present volume would be "Motivational Factors in the Etiology of Drug Abuse," it was no accident that we placed "motivational" as the first word. Such place-

ment served to remind us of an important yet often ignored issue in the drug abuse field. That is, we need to more explicitly explore the meaning of the current motivational-like constructs that are so widely used in the drug abuse literature (e.g., cravings, seeking, incentive, urges, etc.), but which often remain undefined. Indeed, we did an Internet Medline search from 1998–2002 that cross-listed the word “motivation” with each of the following drugs: alcohol, amphetamine, cocaine, nicotine, and heroin. This simple search resulted in 729 hits. The contributors to the present volume are helping to provide us with the direction needed to grapple with the elusive constructs and theories related to the motivational aspects of drug taking.

For readers familiar with the history of psychology, it will be recognized that this task is not easy. After reading this volume, we encourage folks to read some of the past volumes your library likely has on its shelf. They are a treasure trove of critical thinking on the issue. The following are quotes reflecting some of the different approaches past contributors have taken to treating motivation—some embrace, some reject, and others find a middle ground.

Judson S. Brown (1953)

It is perhaps safe to assert that in every serious attempt to account for the behavior of living organisms, the concept of motivation, in one guise or another, has played a major explanatory role. But it is not safe to assert that students of behavior have reached appreciable agreement as to how drives can be most meaningfully defined, what mechanisms are involved in each case, how many drives there are, or precisely how drives function as behavior determinants. (p. 1)

Robert C. Bolles (1958)

Five years ago J. S. Brown cautioned against confusing acquired drives with acquired response tendencies (9). He had particular reference to a social drive, the “drive for money,” which he argued in only a descriptive label for money-getting responses. Perhaps we should extend Brown’s argument to the “primary” drives, and guard against confusing *any* drive with response tendencies. Thus, the “hunger drive” may be only a descriptive label for food-getting responses. Perhaps the drive concept has no more usefulness than to provide a basis for describing different kinds of behavior. (p. 24)

T. C. Schneirla (1959)

Motivation, broadly considered, concerns the causation and impulsion of behavior. The question here is what impels the approach and withdrawal reactions of very different animals from protozoans to man and how each level develops its characteristic pattern. Have these levels anything in common, or does each have a basis very different from the others? (p. 1)

David Birch (1961)

In common with quite a number of my predecessors in these symposia I will take advantage of this opportunity to make some comments of a general, systematic nature revealing my view on motivation as a theoretical construct. I suspect that the term is, in fact, not a very useful one technically, though probably quite important in communication that is nontechnical or relatively so. (p. 179)

W. Edgar Vinacke (1962)

Littman (1958), in one of these symposia, presented a brilliant review of the multiplicity of motivational concepts. He suggested that "motivation" is a very general term to cover any and all sorts of psychological "actives." I agree very strongly with this point of view, but I disagree with what he seems to conclude: namely, that psychologists might just as well abandon the study of motivation, as such, and concentrate on the properties of behavior without worrying whether or not such properties are motivational. Perhaps he merely means to suggest that there are no simple or unitary motivational phenomena. I agree. But I would object to the possible imputation that these are purely illusory variables. Instead, I shall insist that "motivation" does really refer to definable classes of influence upon performance, and that it is an essential responsibility of psychology to identify and measure them. But we must face squarely the complexity that may result. (pp. 2-3)

Howard H. Kendler (1965)

I must confess that my initial aspiration to present the psychology of motivation as a nice, neat, orderly array of facts and principles was not fully realized. I would like to believe that the fault was not entirely my own but was due in part to the refractory quality of motivation. It is apparent to me that the topic of motivation is more confusing, more disorderly, more vexing than are the fields of

sensation, learning, and perception. Why do we psychologists have so much difficulty with the problems of motivation? Why does motivation represent a backward area of psychology? What can be done? (p. 2)

C. R. Gallistel (1975)

Processes that potentiate and inhibit the lower-level mechanisms of sensorimotor coordination in order to ensure an overall coherence and direction to behavior are what I refer to as motivational processes. The existence of such processes, regardless of what one chooses to call them, seems beyond dispute. (p. 189)

Timothy B. Baker, Elsimae Morse, & Jack E. Sherman (1987)

We would like to revive interest in urges because we believe their analysis will foster a clearer understanding of motivational processes important in addiction. We view urges as affects that, like other affects, have prototypic phenomenological, behavioral, and physiological correlates . . . We believe the motivational significance of urges is clear; they occupy the position relative to approach behavior that fear occupies with respect to avoidance. (pp. 257–258)

Douglas Derryberry & Don M. Tucker (1991)

Complex as well as elementary motives must be implemented by neural mechanisms, yet it has been difficult to relate such mechanisms to the psychological processes of human motivation. The difficulty in the past has been a lack of knowledge about the workings of the brain. In recent years there have been important advances in the neurosciences, but this knowledge is typically too specific neural mechanisms, rather than general brain function, and it is held by researchers who are seldom conversant with psychological theory. (p. 289)

It is a good thing that controversy is one of the fuels of science. Although we have a long way to go, our field has made amazing progress in the 50 years of this Symposium. We hope that the present volume contributes to this progress—perhaps by evoking further conversation and controversy about motivational processes involved in drug abuse. With that conversation, new hypotheses will undoubtedly emerge and individuals will pursue them empirically. It is through this process that our science will help solve the major health

problems of this century. In this pursuit, however, we must remember that few of us, if anyone, can predict from where and in what system the next critical insight will emerge (Dethier, 1966; Laidler, 1998).

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