

## Editorial: Verbal Behavior and Motivating Operations

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Skinner's (1957) analysis of verbal behavior is inextricably linked to a behavioral analysis of motivation. One of the most noteworthy features of the elementary verbal operants that are introduced in the first few chapters of *Verbal Behavior* is the distinction that is drawn between the *mand* and other types of verbal behavior. Each of the other elementary verbal operants is controlled by public or private discriminative stimuli that are present in the speaker's physical or social environment. To the extent that training contingencies have established tight control by these stimuli, verbal behavior in the form of tacts, intraverbals, echoics, textual behavior, and so on, should be expected to accurately mirror the stimulus conditions and events that the speaker detects through his or her senses. The mand, by contrast, is occasioned by various motivational variables that affect the speaker, summarized by Skinner (p. 36) as "relevant conditions of deprivation or aversive stimulation." As Skinner explains in detail in chapter 9 (see also Michael, Palmer, & Sundberg, 2011), most verbal behavior is in fact under the multiple control of variables that characterize more than one verbal operant. The motivational variables that define the mand frequently enter into these multiply-controlled relations, and may serve to reduce the correspondence between what the speaker sees, hears, or feels, and what the speaker actually reports. Throughout the remainder of *Verbal Behavior*, Skinner makes clear that the controlling variables for the mand are ubiquitous in both simple and complex verbal behavior. In other words, the behavior of a speaker cannot be analyzed solely in terms of discriminative stimuli in the speaker's environment; it is complete only when motivational variables are also taken into account.

With his decades of work on motivating operations, Jack Michael has provided behavior analysts with invaluable conceptual tools that enable talking about and analyzing motivational variables in ways that are highly

consistent with the view presented by Skinner (1957) in *Verbal Behavior* and elsewhere (see the paper by Sundberg in this volume). Michael's account of motivation has grown and evolved through a series of papers that span a quarter of a century, beginning with Michael (1982). However, in the paper titled *Establishing Operations* that appeared in *The Behavior Analyst*, Michael (1993) presented a full-fledged version of the conceptual system that he had been developing, and subsequent modifications have consisted mostly of terminological refinements (see the paper by Miguel in this volume). The present volume of *The Analysis of Verbal Behavior* (TAVB) commemorates the 20th anniversary of the publication of that paper with a special section on verbal behavior and motivating operations. The special section contains four invited pieces and one empirical report. In the first paper, Caio Miguel traces the development of the concept of motivating operations from Skinner's early writings through Jack Michael's most recent publications on this topic. This is a very informative paper that can serve as a useful introduction to motivating operations for newcomers in the field. In the second paper, Mark Sundberg provides a comprehensive overview of Skinner's approach to motivation as it appears in *Verbal Behavior*, arranged into a list of 30 main points that Skinner made about motivation in the book. This paper is a goldmine of relevant quotations that show how extensively Skinner discussed this topic in the context of the variables that influence verbal responding. These two papers are followed by two brief commentaries. Jay Moore discusses some implications of Michael's (1993) account for the verbal behavior of behavior analysts; specifically, the variables that should and should not control use of the term *extinction*. Vincent Carbone then discusses how the concept of motivating operations has been utilized in language interventions. Finally, the special section contains a brief empirical report by Shillingsburg, Powell, and Bowen.

This report describes a study conducted with children diagnosed with autism-spectrum disorders, in which motivating operations were manipulated to establish mands for the removal of stimuli that blocked access to preferred items.

In addition to the special section on motivating operations, this volume of *TAVB* contains three applied research articles, three brief reports, four conceptual articles that address diverse issues, and a review of Daniel Everett's *Language: The Cultural Tool* by Raymond Weitzman. This volume was made possible by an outstanding group of associate editors (Jim Carr, Einar Ingvarsson, Linda LeBlanc, and Caio Miguel) and editorial board members, a highly industrious editorial assistant (Charlotte Carp), a number of guest reviewers and guest associate editors, and last but not least, the authors of the papers that appear in the volume. I also thank Majda Seuss in the ABAI office for her invaluable assistance and support.

For the past few years, *TAVB* has been encouraged by an increasing number of manuscript submissions. It is my hope that this trend will be reflected in a journal that continues to grow in quality and influence, if not in size and publication frequency. *TAVB* is currently in the process of being evaluated for possible indexing by the Thomson Reuters Institute for Scientific Information (ISI), and I hope that a positive response will serve to attract even more high-quality submissions. A few years ago, my colleagues and I (Petursdottir, Peterson, & Peters, 2009) published some data of relevance to *TAVB*'s possible impact on the literature to date. Among other things, we estimated what *TAVB*'s two-year impact factor might be if the journal were indexed in ISI, and found that the estimates were quite low. Since then, however, online availability of *TAVB*'s content through PubMed Central has increased the accessibility of its contents to researchers. I have informally continued to

collect the data necessary to estimate *TAVB*'s impact factor and I am happy to report that after the journal was made available online, the 2011 estimate shot up to .857 (based on PsycINFO data from February 2, 2012), which means that it could conceivably reach 1.000 in the near future.

*TAVB* values submissions of empirical and nonempirical manuscripts on a variety of topics of relevance to a behavioral analysis of verbal behavior. The main submission categories are research articles, brief reports, conceptual articles, and book reviews (detailed information on each category is available at [http://www.abainternational.org/Journals/tavb\\_manuscripts.asp](http://www.abainternational.org/Journals/tavb_manuscripts.asp)). In addition, *TAVB* may consider publishing comments on previously published articles; conceptual articles in particular. Anyone interested in submitting such comments should contact the editor ahead of time to determine the appropriateness of the submission. I look forward to hearing from authors.

—Anna Ingeborg Petursdottir  
Editor

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