

Jack Michael's Musings on the 60th Anniversary of Skinner's *Verbal Behavior*

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Abstract When the B. F. Skinner Foundation reprinted Skinner's *Verbal Behavior* in 1992, Jack Michael wrote one of its two forewords, a detailed outline of the book's purpose and scope. On the 60th anniversary of the first publication (1957) of *Verbal Behavior*, Jack reflects on the book's impact and its importance to the understanding of language from a behavioral perspective.

Keywords Verbal behavior · BF Skinner · Jack Michael

Verbal Behavior is not a careless document. Skinner took up his pen in 1934 and worked on the book for 23 years. During that time, he taught courses on the topic at Clark University, University of Minnesota, University of Chicago, Columbia, and Yale. During the war, he labored on the project with support from the Guggenheim Foundation, and in 1945, he published a remarkable extract from the book on the tacting of private events. In 1947, he delivered the William James Lectures on verbal behavior to the combined psychology and philosophy departments at Harvard University, a performance that earned him an invitation to join the faculty. The book, then, was painstakingly composed, and it stands as the most remarkable example in our field of the extrapolation of behavioral principles to complex behavior outside the laboratory.

Although the book was widely read by behavior analysts, it had little influence on the behavioral literature until Jack Michael began teaching graduate seminars on the book at Western Michigan University. Gradually, conceptual and empirical articles began to emerge, conference presentations and workshops became commonplace, a journal was born, and it steadily attracted more readers and submissions. From 1998 to

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2016, sales of the book from the B. F. Skinner Foundation increased nearly fivefold. Jack's contribution to this growth cannot be overstated. Successive generations of his graduate students have dominated the field, and it is a rare researcher who cannot trace an influence to Jack. Of those who were not his students, who can forget his workshops on multiple control or his high-fluency conference presentations?

For six decades, Jack's mastery of the book has never been equaled, not even by Skinner himself. A common diversion among his students and friends has been to challenge him to cite the page number of a random passage, and no one ever got rich by betting against him. Jack's copy of the book, threadbare and heavily annotated, will someday be a museum piece.

On the occasion of the 60th anniversary of the publication of *Verbal Behavior*, it is fitting that Jack should offer his reflections, for the prominence of the book today owes more to Jack than to anyone but the author himself. The following pages reveal that he still has much to tell us about the history, the diverse applications, the experimental foundations, and the theoretical importance of Skinner's book. Best of all, Jack closes the interview with a wonderful line that will endure as long as the field itself.

Interview with Jack Michael

*Q:*How did you first become aware of the book *Verbal Behavior*?

JM: Good question! I had already been heavily influenced by Skinner's earlier books, in particular *Science and Human Behavior* [*SHB*; 1953], and his notions made perfect sense to me. I thought it was a useful way to look at the world. I found I wanted to talk like Skinner, which of course means I wanted to engage in similar verbal behavior about behavior. I was already teaching from *SHB* and talking about the VB sections in it, and there was a footnote in *SHB* where Skinner mentioned that a book was in the works, so I was alert to that. I called him on the phone...we were already friends by then...and I said, "you mentioned a larger treatment of the topic of VB—an entire book is underway..." and, because the book wasn't yet published (the publisher wanted him to come up with something of more commercial interest like *Walden Two*),¹ he offered to send me the Hefferline notes from his summer lectures at Columbia. [Skinner had been invited by Fred Keller to give a summer course there in 1947, and Ralph Hefferline took notes of the lectures in shorthand.] I taught several VB classes using those Hefferline notes. They were great; Hefferline was a master at

¹ In this anecdote, it is possible that Jack is confusing the publication of *Verbal Behavior* with that of *Science and Human Behavior*. Macmillan had agreed to publish *Walden Two* only on condition that they be given the first refusal of Skinner's next project, *Science and Human Behavior*. Introductory college texts were considered a publishing gold mine, and Macmillan wanted its share. *Verbal Behavior* was published 9 years later by Appleton-Century-Crofts, as the 60th book in their Century Psychology series. That stuffy series included no popular books, and it is implausible that they would have wanted Skinner to write one. Of course, it is also possible that Skinner indeed made a wry remark of this sort to Jack, but we can find no independent evidence of editorial reluctance to publish *Verbal Behavior*.

transcription, and there was a lot of material in his notes that Skinner later chose not to include in *Verbal Behavior*. So, I found the Hefferline notes to be excellent supplemental material. But I must mention that Skinner did add some new material to VB that wasn't in Heff's notes. Sometimes I changed the order [from that of Skinner's] of what I covered in my VB class, because I thought it might make more sense for students, even though it was treated in a different sequence in the book.

Q: What was it that Skinner was trying to convey?

JM: There's a very good section in the book *The History of the World* (Roberts & Westad, 2013) that speaks to the development of verbal behavior and its importance for humans. Early in our development, we started living in groups and there was division of labor (some people hunted or grew things and other people cooked the food). This situation allowed people to bind together over smaller locales for longer periods of time (in other words, proximity), a condition that led to people communicating more frequently and more easily (this is analogous to the impact of modern technology on our verbal behavior, like with email and other electronic communications). This had a tremendous impact on human verbal behavior, simply as a result of being in a more verbal environment. Hart and Risley [1995] talked about this—that verbal behavior is more likely to thrive in highly verbal environments than in verbally impoverished settings. What I mean is, effective verbal practices strengthen the verbal behavior of those within a particular verbal community. Of course, the reverse is also true, unfortunately; those in weak verbal environments are not as likely to acquire strong verbal repertoires. I think Skinner was trying to address the entire scope of this—how humans acquire language and how it becomes more complex as a result of contingencies acting on it.

Q: In your opinion, what has been the impact of Skinner's *Verbal Behavior*?

JM: Certainly, the most obvious and primary impact to date has been in the treatment of autism. Because of the applied work of Mark Sundberg and many others, we now have lots of effective treatments for this population. This is because applications of Skinner's theory [of how language can be acquired] provided immediate benefits that were less available through other, more traditional, treatments. Parents [of children with autism] were fantastically supportive of this approach, which sort of won the day, in many respects; I mean, it greatly improved their lives and their family life altogether.

Q: What other areas of application have benefited, or could benefit, from an understanding of language vis-à-vis Skinner (that is, a functional analysis)?

JM: The ideas in *Verbal Behavior* have many important applications. One is in the field of organizational behavior management [OBM], so, for example, that might include consumer behavior, personnel relations, or overall productivity. Other benefits could be in improving group decision-making, appreciating

humor, and understanding and responding to political influence, among others. It's good to see OBM classes at universities making increased use of the book and embedding this material in their courses. This trend to apply an analysis of verbal behavior more widely hopefully will include more work with different populations. For example, it would be useful to apply this with older adults—and by that, I mean, those who are experiencing language deficits as a result of neurologic changes, as well as changes in verbal behavior, like forgetting and remembering, among those who are aging more typically. I also don't think it's stretching it too far to say that an analysis of verbal behavior might be useful for those who train companion animals to follow commands and alert their owners to various situations that could be dangerous or where the owner of the companion animal might need to take some action.

*Q:*The book *Verbal Behavior* was not embraced by the verbal community that Skinner intended to influence (i.e., those who adhered to traditional explanations of language). Why was that?

JM: Well, first of all, the book is not an easy one to read. It didn't sell well at first because many people couldn't understand it. It isn't very redundant—Skinner carefully crafted each sentence until he got it exactly as he wanted it—and the vocabulary is impossible, very difficult (take the word 'metonymy' for instance—Mark [Sundberg] and I had to look that one up!). But it *is* worth mastering; it's beautifully written, clear, and fascinating. Also, the fact that it was a conceptual treatment may have been the reason that behavior analysts didn't embrace it so much—they didn't know what to do with it; this certainly was the case with experimental people, but it was also the case for some even within the applied area. Another difficulty was the Chomsky [1959] review—well, it wasn't the review that was the problem so much as the fact that Skinner didn't reply to the review. Of course, Ken MacCorquodale did [reply to Chomsky], in 1970, and I was proud of him for taking on Chomsky. If I could've been more articulate talking about motivating operations prior to Chomsky's criticism and Ken's review, I believe the counterarguments to Chomsky would have pushed him into an area, perhaps a discussion, where an alternative world view...and by that I mean a behavioral account...may have seemed more reasonable to him.

*Q:*How could the book be more “consumable”—where people could understand it better, in order to increase the likelihood of its impact?

JM: I think it's imperative that people first understand *Science and Human Behavior* (Skinner, 1953) before they tackle *VB*. That helps establish a foundation because Skinner talks a lot about verbal behavior in *SHB*. Given proper motivation, you can work through the *VB* book, but it's good to keep in mind that it requires much study and re-study—but it's definitely worth it. Norm Peterson wrote an excellent primer (1978) that helps people understand the concepts in *Verbal Behavior*. Other people, like Dave Palmer and Hank Schlinger, have also written excellent pieces over the years to help make *VB* more relevant and understandable.

Q: You taught a university course in verbal behavior for some time. What would you have done differently?

JM: In my own classes, I wish I had covered the last five chapters more thoroughly. That's where Skinner integrates the material from the introductory chapters of the book. That second half of the book helps us understand why Skinner said he felt that, ultimately, *Verbal Behavior* would prove to be his most significant contribution. I think this is because of its contributions to a behavioral epistemology, the science of knowledge, how people learn language and how language allows us to "know" things [i.e., behave as speakers and listeners]. When we look at humans and apes, physiologically and genetically, you might say we aren't significantly different—that is, that we humans are not that far ahead. But we *are* different, critically so. How far ahead are we? Well, we are WAY ahead, and this is largely because of our understanding of verbal behavior. That is, we are ahead because we can engage in verbal behavior and, perhaps even more fundamentally, we can engage in verbal behavior *about* our verbal behavior.

Q: It sounds like you're looking beyond the current emphasis on applying a functional analysis to help non-speakers, like those with autism. So, for example, suppose we had a culture where everybody already can talk, does VB have any use?

JM: Well, of course, the book's main contribution so far has been in helping defective speakers acquire more useful speech and language repertoires. But the book has a lot of untapped material, and I suspect there are many gems in those later chapters, like Skinner's discussion of self-editing, that might help us deal with some of the problems experienced by the larger verbal community, the culture at large.

Q: What should we, as behavior analysts, do to promote Skinner's book in the next 60 years?

JM: I would encourage people to continue using the book to teach verbal behavior courses at the university level, following from the model that I tried to set, along with Scott Wood and Mark Sundberg. I think it would be useful for people to form discussion groups to deal with cultural and social problems that are related to verbal behavior. I think we have to entertain the possibility that progress moves both from, and toward, theoretical notions; what I mean is that, sometimes, applied work moves us toward reformulating our theoretical notions, but, of course, the reverse is also true.

Q: Is there anything you'd like to add, that we haven't asked you about?

JM: Yes! I'd like to say that I was willing to dedicate my life to teaching Skinner, which I pretty much did, and I was quite satisfied with that.

Compliance with ethical standards

Conflict of interest We, the authors of this manuscript, have no conflict of interest regarding this manuscript.

Human or animal participants In addition, human or animal participants were not employed for this manuscript, so informed consent was not necessary.

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