Reflections on *Verbal Behavior* at 60

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Abstract In the present essay, commemorating the 60th anniversary of the publication of B. F. Skinner’s *Verbal Behavior*, I stand by and defend the judgment I expressed in my article “The Long Goodbye: Why B. F. Skinner’s *Verbal Behavior* Is Alive and Well on the 50th Anniversary of Its Publication” (2008c)—that Skinner’s “interpretation of the behavior of the *speaker*, given the contingencies of reinforcement maintained by the community” (Skinner, 1987, p. 11), is not only adequate but is also consistent with the principles of operant learning. To that I add some of my reflections on the book after having taught it for years and having written numerous articles extending Skinner’s analysis to related topics.

Keywords Behavior analysis · Language · Skinner · Verbal behavior · *Verbal behavior*

Skinner began writing *Verbal Behavior* (VB) in 1934, 4 years before he published his first book, *The Behavior of Organisms: An Experimental Analysis* (1938), and worked on it for 23 years before finally publishing it in 1957. Of course, when he began writing VB, he was already aware of the basic contingency of reinforcement discovered in the experimental laboratory and explicated in his first book. During the ensuing 23 years, Skinner refined his experimental analysis of nonverbal behavior and, along with other experimental behavior analysts, discovered more principles and procedures of operant learning, all of which found their way into VB. When it was finally published, it garnered a lot of positive reviews (see Knapp, 1992), but only one review ever really mattered, and that was Noam Chomsky’s ad hominem attack—not only on VB but also on what Chomsky took to be behaviorism, and on Skinner himself. It was Chomsky’s (1959) review that was said to have demolished both the book and behaviorism and to have contributed to ushering in the cognitive revolution.

In 2008, I commemorated the 50th anniversary (2007) of the publication of Skinner’s VB with an article in *The Psychological Record* titled “The Long Goodbye: Why

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B. F. Skinner's *Verbal Behavior* Is Alive and Well on the 50th Anniversary of Its Publication" (Schlinger, 2008c). In that article, I argued that both the book and behavior analysis were thriving. One index of the health of the book, I noted, was that sales had been impressive, especially in the last several years. I suggested that the success of the book was due to two factors. First, Skinner's interpretation is "both a parsimonious and an adequate account of the behavior of speakers. It is consistent with the principles established in the experimental laboratory, and it does not appeal to any other processes or mechanisms" (Schlinger, 2008c, p. 335). The second factor is that "it has generated successful practical applications" (p. 329). I would add theoretical refinements and extensions to that assessment.

In the present commentary commemorating the book's 60th anniversary, I would like to supplement my previous appraisal with some personal reflections from my many years of teaching the book and from contributing in my own small way to some of the theoretical refinements.¹

Reflections on *Verbal Behavior*

The Scope of the Interpretation

VB still amazes me. When one considers the amount of material covered in the book and the scope of the interpretation, it is nothing short of astonishing. Not only did Skinner introduce elementary functional units of verbal behavior—that is, its basic controlling variables—but he also used those units to address complex topics, including multiple causation, grammar and syntax, logical and scientific verbal behavior, and thinking. It is even more astounding to consider that Skinner had virtually no behavior-analytic verbal community at the time and was essentially the only listener for his own verbal behavior. The book is simply a tour de force that even Skinner (1977) cited as his most important work. Every time I read *VB* or teach from it, I discover something I did not appreciate before. I am sure that says as much about me as it does about the book. In fact, when I teach the book, I sometimes analyze the text line by line for a page or more, and each line is a gem in and of itself. What a shame that because of one review by a young, arrogant linguist who probably did not even read the book (and even if he did, obviously did not understand it), *VB* was dismissed and derided by generations of language scholars and psychologists.

The Parsimonious Interpretation

I am continually impressed by how parsimonious the book is. True to his word, Skinner based the entirety of his interpretation on the four-term (he referred to it as the three-term) contingency (motivating operation [MO], discriminative stimulus [S^D], response [R], and reinforcement [S^R]), which flowed naturally from the basic datum: "the probability that a verbal response of a given form will occur at a given time" (Skinner, 1957, p. 28). Skinner's theory of verbal behavior—that is, the explanatory statements that fit the facts as we know

¹ Much of my own writing about verbal behavior is simply an elaboration or extension of points Skinner made in the book or in other writings.

them—is as elegant as Darwin’s theory of evolution by natural selection. Like Darwin’s theory, the details of behavior–analytic theory, which continually bedevil students, are complicated, but the basic principles from which those details are derived are relatively simple. Not only is the entire theory parsimonious, based as it is on the basic unit of operant analysis, but there are many individual examples of traditional linguistic concepts that Skinner interprets in more parsimonious ways, such as when he writes that “reference or meaning” can be reduced to simply the probability that “a stimulus having specified properties under broad conditions of deprivation or aversive stimulation” will evoke “a response of a given form” (Skinner, 1957, p. 115). Of course, such an approach is not popular with linguists who have devoted entire careers to the study of the concepts of reference or meaning, and such statements are perhaps one reason why Chomsky reacted so negatively in his review.

Skinner’s Revolutionary Approach: A Functional Analysis of Verbal Behavior

Skinner’s revolutionary contribution is the functional analysis of environment–behavior relations upon which the interpretation is based. In a society in which most people (including psychologists and linguists) still think that words have meanings, that language expresses ideas, and that language is generated by the mind (a dualistic assumption), Skinner’s functional analysis is a beacon of clarity. A key feature of a functional approach is that it is not the form but the function of an utterance that reveals its “meaning”—that is, the independent variables that evoke it. This is demonstrated simply with the example of the word *water*, which, from a traditional perspective, means a colorless, transparent, odorless, tasteless liquid. From a functional perspective, however, the verbal response “water” means whatever variables evoke it. So, for example, if someone is thirsty, she might say “water” (mand); if she needs to put out a fire, she may yell “water” (mand); if she sees the written word, she may say “water” (textual); if she hears someone say “fire and. . .,” she may say “water” (intraverbal); or she might say “water” when she sees a lake (tact). The traditional view that the term *water* has one meaning is contradicted by Skinner’s functional analysis, which makes it clear that each instance has a different meaning—in other words, is a function of (i.e., evoked and reinforced by) different variables.

Skinner provided other examples of how the form of a response might be misleading in terms of its function. Thus, the utterances “How do you do?” (which might be classified as a mand [traditionally as a request]) and “Thank you” (which might be classified as an exclamation) are often actually controlled by the nonverbal features of a situation and are thus tacts. Calling them labels or names, as Skinner notes, would not seem appropriate, which reveals one advantage of the functional term *tact* over the formal terms *name* or *label*. This also applies to Skinner’s examples of concealed mands and impure tacts, which illustrate the concept of multiple causation (discussed later in this article). For example, the response “That looks delicious!” could be controlled by the same variable(s) that would control “Please give it to me.” Although the response has the form of a tact, it can function as a mand, although the presence of whatever it is that looks delicious might suggest that the response is multiply controlled.

Skinner’s functional–analytic approach also led him to offer a parsimonious explanation of how a child can learn to label (i.e., tact) an object and then mand (i.e., ask for) the object without explicit training. His explanation was that if the child could be taught

to ask what the name of an object is (“What is that?”), echo what she hears (“yo-yo”) in the presence of the object (tact), and then be given the object (which would reinforce saying “yo-yo” given a similar MO and S^D—the presence of a yo-yo), the form of the response “yo-yo” could now function independently as a tact and a mand. Such a parsimonious analysis is preferable to the simplistic and familiar traditional one that assumes that a child learns a word and can then use that word in a variety of ways.

Another example of how a functional analysis of verbal behavior can help us understand a phenomenon not well explained or understood by traditional linguistic approaches is Skinner’s parsimonious interpretation of many of the facts of aphasia. The traditional view of language is that we learn the meanings of words. Thus, damage to certain areas of the brain should produce deficits wherein all uses of the word are gone. But that is not what happens. As Skinner noted, sometimes a person diagnosed with aphasia cannot tact an object but can mand it, or cannot say a word but can write it. Skinner’s analysis also led him to the generalization that “the order of damage seems to follow the order of ‘difficulty’ deducible from the availability of a minimal repertoire” (1957, p. 219). Thus, with some types of aphasia, textual and echoic behavior often remain undamaged, whereas tacts and intraverbal behavior are more likely to be lost. For Skinner, then, aphasia, although caused by brain damage, could be understood behaviorally as “a condition of lowered probability of response” (1957, p. 218) in which the individual “has lost some of the functional relationships which control his verbal behavior” (1957, p. 190). This interpretation has wide-ranging implications for the understanding of the neurophysiological underpinnings of operant behavior (see Schlinger, 2015), which could possibly lead to more interesting research and more effective treatments of behavioral deficits resulting from brain injury than either traditional linguistic or neuroscientific analyses can offer. Behavior analysts have for decades demonstrated that individuals diagnosed with both aphasia and dementia can still learn language skills based on an operant analysis (e.g., Baker, LeBlanc, & Raetz, 2008; Dixon, Baker, & Sadowski, 2011; Oleson & Baker, 2014; Sidman, 1971).

Finally, a functional analysis of verbal behavior has implications for the illusory concepts of receptive and expressive language, which imply that a person learns a language and can then receive it as a listener or express it as a speaker. Skinner (1957) explained it as the assumption that “certain basic linguistic processes were common to both speaker and listener” (p. 33). He suggested that a more parsimonious alternative to the notion of receptive and expressive language is to conceptualize the relationship between speaker and listener in terms of what he called the “total verbal episode,” by which he meant “the behaviors of speaker and listener taken together” (p. 2). As Skinner (1957) wrote:

There is nothing in such an episode which is more than the combined behavior of two or more individuals. Nothing “emerges” in the social unit. The speaker can be studied while assuming a listener, and the listener while assuming a speaker. The separate accounts which result exhaust the episode in which both participate. (p. 2)

This empirical approach obviates the common practice of appealing to cognitive concepts, such as ideas, meaning, and understanding, to explain language. Moreover,

in Skinner's account, although the behaviors of the listener (in reinforcing the behavior of the speaker) are often not verbal, it is the case that in vocally verbal humans, the listener frequently, if not always, behaves vocally (or subvocally) too. Although Skinner said that "some of the behavior of listening resembles the behavior of speaking" (1957, p. 11), I have argued that when someone is said to be listening, he or she is engaging in (subvocal) verbal (echoic and intraverbal) behavior (Schlinger, 2008b).

The concepts of expressive and receptive language are also contradicted by anecdotal evidence from language-impaired individuals and language-learning children that shows how one can be a listener without being a speaker—for example, by a child not saying the name of an object, even though he or she can look at, point to, or retrieve the object when hearing its name. A more surprising observation in some children diagnosed with autism is that one can be a speaker—that is, can tact or mand—but cannot be a listener—that is, cannot respond to a speaker's request to look at, pick up, or point to an object. These observations suggest that speaker and listener repertoires are separately acquired, as Skinner suggested, as a function of different contingencies and may be independent in some instances.

The Implications for Practical Applications

I also continue to be impressed by how *VB* has immediate practical applications. As Skinner (1957) wrote, even when terms such as *meanings* and *information* can be sufficiently defined, they "have little relevance to the practical control of verbal behavior" (p. 253), whereas the formulation in his book "is inherently practical and suggests immediate technological applications at almost every step" (p. 12). As most of the students I teach work in settings with language-deficient individuals, the book's applied implications jump out at the reader. Skinner's analysis suggests not only how to teach speaker and listener repertoires via operant learning but also how to arrange conditions to evoke verbal behavior (for example, by using echoic, intraverbal, or textual prompts and probes). As such, the book has spawned numerous practical offshoots (see, for example, Partington & Sundberg, 1998, and Sundberg & Partington, 1998) as well as theoretical offshoots that themselves have significant practical implications—for example, Lowenkron's (1998, 2006) notion of joint control, which is an extension of the concept of multiple causation.

Profound Throwaway Lines

Scattered throughout the book are numerous throwaway lines that make profound points worthy of their own articles or chapters. For example, in the section on textual behavior, Skinner wrote:

A primitive but clear-cut demonstration of the *modus operandi* of automatic reinforcement is provided by the beginning reader who must hear himself pronounce a word—perhaps several times—before reacting to it with behavior which he has already acquired as a listener. (1957, p. 66)

In this sentence, perhaps without knowing it, Skinner provided a scientific and logical rationale for teaching phonics to beginning readers. In everyday terms, teaching

phonics to young children enables them to sound out a word they have never seen. Once they hear themselves say it out loud correctly, they can immediately recognize it if they have heard it before. So, for example, suppose that a child sounds out the word *picnic*. She can then say, “Oh, picnic; I’d like to go on a picnic!” Again, the minimal textual repertoire consisting of point-to-point correspondence between the verbal stimulus—in this case, the sight of *p-i-c-n-i-c* and the response of saying “p-i-c-n-i-c”—is the foundation of textual behavior and phonetic reading.

Consider another passing remark when Skinner talks about metaphorical extension of the tact: “Literature is prescientific in the sense that it talks about things or events before science steps in—and is less inclined to talk about them afterward” (1957, p. 98). This seems to capture the essence of the history of scientific discovery and the way people try to understand things or events without or before science by talking about them metaphorically but then stop talking about them once scientific explanations are offered. A simple example is the notion that the sun rises and sets. Of course, what really happens is that the Earth rotates on its axis once every 24 h. Similarly, before scientists explained the occurrence of eclipses, many people thought that the gods were punishing them by blocking out the sun or moon. Of course, as Skinner pointed out, psychology is still beset with literary descriptions of phenomena that when interpreted according to behavior-analytic theory lose their mystique (see Schlinger, 1995, for some examples from developmental psychology).

Here are a few of my other favorite throwaway lines, which are mostly self-evident. In discussing the problem of talking about verbal behavior as the use of words, Skinner (1957) wrote, “We have no more reason to say that a man ‘uses the word water’ in asking for a drink than to say that he ‘uses a reach’ in taking the offered glass” (p. 7). In talking about formal similarity and making the case that it can only be between stimuli (not responses and stimuli), Skinner stated: “The fact is, there *is* no similarity between a pattern of sounds and the muscular responses which produce a similar pattern” (p. 59). A sentence that Chomsky apparently did not see or acknowledge is: “We are interested in finding terms, not to take traditional places, but to deal with a traditional subject matter” (p. 115). And when explaining someone’s answer to a question about the past, Skinner made the revolutionary suggestion that “the answer must be understood as a response to current stimuli, including events within the speaker himself generated by the question, in combination with a history of earlier conditioning” (p. 143). In other words, when a speaker is remembering, she is not reacting to past events, which would be impossible, but to present events (i.e., the question and perhaps some private events; see also Palmer, 1991).

Implications of Skinner’s Analysis for Complex Behavior

Echoic Behavior

Many parts of *VB* have implications for a deeper understanding of human language. For example, I think that the section on echoic behavior—although only 10 pages long—is important for several reasons. First, echoic behavior is the mechanism by which most forms of vocal verbal behavior are learned, an idea supported by decades of research and contrary to the uninformed musings of Stephen Pinker (1994), which include these statements: “The

very concept of imitation is suspect to begin with (if children are such general imitators why don't they imitate their parents' habit of sitting quietly in airplanes?)” and “Normal children do not learn language by imitating their parents” (p. 38). Second, as I've written in several places (e.g., Schlinger, 2008a, b), I believe that echoic behavior is the mechanism, or bridge, by which the listener's behavior is conditioned or instructed (see the following), as Skinner described it; thus, it is necessary for verbal remembering. Cognitive psychologists implicitly acknowledge the role of echoic or self-echoic behavior when they talk about the importance of rehearsal (e.g., Dark & Loftus, 1976).

Conditioning the Behavior of the Listener

Following from the previous point about instruction, I think another part of *VB* that has significant implications is the section in Chapter 14, “Conditioning the Behavior of the Listener,” which is also the title of an article I published in which I extended Skinner's analysis, offered a possible explanation of how the listener's behavior is conditioned, and discussed its implications for rule-governed behavior (Schlinger, 2008a). In that section in *VB*, Skinner noted:

In the behavior of the listener (or reader), as we have so far examined it, verbal stimuli evoke responses appropriate to some of the variables which have affected the speaker. These may be conditioned reflexes of the Pavlovian variety or discriminated operants. The listener reacts to the verbal stimulus with conditioned reflexes, usually of an emotional sort, or by taking action appropriate to a given state of affairs. The autoclitic of assertion makes such action more probable. Relational autoclitics, especially when combined with assertion to compose predication, have a different and highly important effect. Since it does not involve any immediate activity on the part of the listener (although responses of the other sorts already noted may take place concurrently), we detect the change only in his *future* behavior. (1957, p. 357)

Consider an example. Suppose that when you meet someone, he says, “Hi, my name is Eric.” If, sometime later, you can say “Eric” under a wide range of stimulus conditions that might include seeing Eric again or answering the question, “Who did you meet today?”, then we can say that your behavior of saying “Eric” has been conditioned by hearing him say “Eric” under that circumstance. Of course, saying “Eric” could have been conditioned directly by you saying his name in the presence of Eric or a photo of him or answering the question “Who is this. .. Eric?” or “What's his name. .. Eric?” and then someone reinforcing your echoic response, “Eric.” The reason why this section of the book is so groundbreaking is that Skinner parsimoniously solved the problem of verbal remembering and identified a rapid form of conditioning the listener's behavior. Of course, Skinner probably only used the term *conditioned* as an analogy to direct operant conditioning. However, I have made the case that because the listener (who is actually a speaker) must have made the automatically reinforced echoic response at the time she heard Eric's name, that response was directly conditioned in the presence of seeing Eric (Schlinger, 2008a).

In that section of *VB* on conditioning the listener's behavior, Skinner distinguished between the relatively straightforward evocative effects of S^D s, for example, and these

much more interesting effects of verbal instruction on a listener's behavior. That the listener's behavior can apparently be conditioned by hearing the speaker say something offers a parsimonious alternative to a cognitive explanation that appeals to hypothetical memory structures and processes as well as to explanations that appeal to relational frame theory (RFT), both of which Skinner would describe as unnecessary (see Skinner, 1950).

Skinner only devoted a few pages to the topic of the listener's behavior being conditioned by verbal stimuli and, oddly, never returned to it in his later writings on rules and rule-governed behavior, which seemed like the perfect opportunity to further explore this effect of verbal stimuli on behavior. I have suggested (Blakely & Schlinger, 1987; Schlinger, 1993, 2008a) that perhaps the most unique function of verbal stimuli on behavior is this instructional or function-altering effect, which may be homologous to direct operant conditioning.

Tacting Private Events

Another obviously valuable contribution is the section in Chapter 5 on tacting private events, which Skinner explored in his article "The Operational Analysis of Psychological Terms" (Skinner, 1945). This parsimonious extension of the tact relation obviated the need to infer hypothetical mental or cognitive events either as dependent variables or as causes of behavior and clearly distinguished radical from methodological behaviorism.

Skinner had already been at work on *VB* when he was asked to contribute to a written symposium on operationism, a popular topic in psychology in the 1940s. Skinner, however, opted to address an issue that he was dealing with in his book. He offered an operational (or functional) analysis of psychological terms, by which he meant subjective terms. The theme of his article was basically the point of *VB*: that the meanings of psychological terms—or any terms for that matter—were to be found in the independent variables of which the responses were a function. He illustrated that point—both in the article and in his book—by showing how we learn to tact private events. His explanation, which required no new principles, was that the verbal community teaches us to tact private events indirectly by using public accompaniments of the private events. So, for example, if a parent sees a child with a cut or bruise or sees her fall down, the parent might teach the child to say, "It hurts." Obviously, the parent has no direct contact with any pain the child might experience, but presumably the child's response of "It hurts" comes under the control of the painful stimuli associated with the public events. Of course, there is no way to know for sure. In fact, the child may simply learn to say "It hurts" when she falls or when she has a cut or bruise whether or not she experiences any pain. An understanding of reinforcement would help in possibly distinguishing these functions of the verbal response.

Multiple Causation

The chapter on multiple causation is also important. In that chapter, Skinner noted that a single response is usually a function of more than one variable and that a single variable usually controls more than one response. Michael, Palmer, and Sundberg (2011) referred to these two types of multiple control as convergent and divergent. It is well

known, but perhaps not fully appreciated, even by behavior analysts, that nonverbal behavior has multiple causes. Even the simple fact that a single response is evoked by at least one MO and one S^D in a larger stimulus context illustrates the concept of multiple causation.

In *VB*, Skinner extended the concept of multiple causation to the realm of verbal behavior with some surprising results. Particularly interesting to me is the notion that separate sources of strength (of both verbal and nonverbal behavior) are additive. Analogous to the firing of neurons, which is the result of the algebraic summation of excitatory and inhibitory presynaptic neurons, the appearance of a verbal response is a combined result of many separate sources of strength, some strengthening and some weakening. This concept also helps to explain the continuum of observability of verbal behavior from subaudible to audible. If the combined sources of strength from reinforcement are greater than those from extinction or punishment, the response will be evoked, and if the sources of strength (i.e., the MOs and S^Ds associated with reinforcement) are sufficient, the response will exceed the threshold of observability—that is, “that set of conditions under which the response is just detectable” (Palmer, 2003, p. 177)—which means that others can observe it.

Parts IV and V of *VB* take the concepts from the previous three parts and put them together in an elegant analysis of the complex behavioral processes of grammar and syntax, self-editing, and thinking. The result is a triumph of behavior–analytic interpretation that has been supported by both basic and applied research (e.g., Aguirre, Valentino, & LeBlanc, 2016; Sautter & LeBlanc, 2006).

Reflections on Teaching *Verbal Behavior*

Overall, it is a challenge to teach *VB*. The book was not written as a textbook, so students who are used to textbooks have a difficult time organizing the reading. Moreover, the writing in the book is obtuse because the style is that of an elite intellectual. Skinner was presumably writing for an educated audience, but he was really writing for an audience of one—himself—which, as I mentioned previously, makes the accomplishment even more amazing.

Unfortunately, whatever his intentions or plans for the book, Skinner did not write a book that was accessible to very many people. Even for well-trained behavior analysts, understanding much of the book requires constant study, like Jewish scholars studying the Talmud. Students find the book almost impossible to read without help. What I try to do when teaching it, besides writing detailed learning objectives for each chapter, is to constantly remind students that no matter its difficulty, the book is just an extension of the basic unit of behavior analysis—the functional four-term contingency—to verbal behavior. Of course, once they “get it,” students appreciate the power and elegance of the extension of the basic principles derived from the animal laboratory to that most human of behaviors—language.

From everything I have written previously in this article, one might get the impression that I find no fault with *VB* and that I accept every word as gospel. But, as my students will tell you, that is not true. When I teach the book, I frequently correct what I see as errors of logic and problems with language that is not as precise as I would like it to be. Having said that, I have not read any other critiques, from within or outside our field, that hold much

water. After all, VB is an interpretation, and it is consistent with the science and philosophy of behavior analysis both then and now. Moreover, the basic research and applications that have been derived from the analysis attest to its adequateness, even if some of the details require clarification or amending (Schlinger, 2008c).

The Verbal Behavior Controversy Revisited

In my article “The Long Goodbye: Why B. F. Skinner’s *Verbal Behavior* Is Alive and Well on the 50th Anniversary of Its Publication” (2008c), I included a section titled “The *Verbal Behavior* Controversy.” I was referring to the debate about Skinner’s book that was begun by Chomsky (1959) with his review. In that section of my article, I quoted Skinner:

My *Verbal Behavior* has been called controversial, and in one accepted sense of the word perhaps it is, but most of the argumentation is due to a misunderstanding. The book is not about language. A language is a verbal environment, which shapes and maintains verbal behavior. As an environment, it is composed of listeners. Linguists have usually studied listening rather than speaking (a typical question is why a sentence makes sense), but *Verbal Behavior* is an interpretation of the behavior of the *speaker*, given the contingencies of reinforcement maintained by the community. It uses principles drawn from the experimental analysis of nonverbal behavior—and nothing else. So far as I am concerned, the only question is whether the interpretation is adequate, but that is not the question raised by the supposed controversy. Those who want to analyze language as the expression of ideas, the transmission of information, or the communication of meaning naturally employ different concepts. Whether they work better is a question, but is it a controversy? (1987, p. 11)

I did not suspect that my commemoration of the 50th anniversary of the publication of VB would generate its own small controversy, surprisingly within our own field. But Dymond and Alonso-Álvarez (2010) took exception to my conclusion that Skinner’s book conformed to and was constrained by the principles on which it was based and argued that I overlooked “the ongoing debate and controversy from within behavior analysis about the consistency of Skinner’s interpretation” (p. 356). The “debate” they referred to was generated by criticisms of Skinner’s account by a small group within the RFT camp. Their criticisms were not only about the consistency of Skinner’s interpretation but also about the value of interpretation itself. To wit, Dymond and Alonso-Álvarez (2010) concluded by saying, “Only further basic and applied research, not interpretation, will show whether or not the next 50 years of behavior-analytic research on complex human verbal behavior lives up to the promise that Skinner envisaged” (p. 355), implying that somehow research on RFT has revealed shortcomings in Skinner’s interpretation and has dramatically altered our conception of verbal behavior. It is certainly true that both basic and applied research is essential to furthering the analysis of complex behavior. But interpretation in science has a long and storied history, and it has a role to play in the analysis of behavior that is difficult, if not impossible, to study. If the interpretation is grounded in experimentally established principles, it can be as valuable as experimental analysis.

In their commentary, Dymond and Alonso-Álvarez (2010) promoted an RFT account of language. In so doing, they also took a swipe at *The Analysis of Verbal Behavior* (TAVB), claiming that it had relatively little influence because it had no impact factor and its articles were difficult to access, as if that somehow lessened the value of Skinner's interpretation. (Incidentally, TAVB is now indexed in the following sources: PsycINFO, Google Scholar, EBSCO Discovery Service, Bibliography of Linguistic Literature, Emerging Sources Citation Index, ERIC System Database, the Online Computer Library Center [OCLC], and Summon by ProQuest.)

In my reply to the commentary by Dymond and Alonso-Álvarez (2010), I reiterated my claims that Skinner's account was internally consistent and hence parsimonious and that it was consonant with the behavioral principles known both then and now. As Skinner (1957) wrote, "*Verbal Behavior* is an interpretation of the behavior of the speaker, given the contingencies of reinforcement maintained by the community. It uses principles drawn from the experimental analysis of nonverbal behavior—and nothing else" (p. 11). I stated then, and maintain now, that "Skinner's interpretation conforms to this assessment" (Schlinger, 2010, p. 363). Moreover, I believe that judgment by Skinner was a modest one that has been exceeded many times over by the experimental, theoretical, and practical applications and extensions of the final product. Therefore, I am sticking to my guns about the consistency and adequateness of Skinner's interpretation and its immense theoretical and practical value.

Conclusion

I would like to conclude with a brief comment about the Skinner and Chomsky debate. It reminds me of the fable of the tortoise and the hare. Of course, Skinner's book is the tortoise, and Chomsky's theory of generative grammar is the hare. Although it may still be premature to call a winner, Chomsky's rationalist "theories" have changed with the intellectual wind, but as I argued in my article "The Long Goodbye: Why B. F. Skinner's *Verbal Behavior* Is Alive and Well on the 50th Anniversary of Its Publication," VB continues to thrive and, except for some expected corrections, clarifications, and extensions, the parsimonious interpretation remains as insightful and practical as ever.

Compliance with Ethical Standards

Conflicts of Interest The author declares no conflicts of interest.

Human Participants and Animal Studies This article does not contain any studies with human participants or animals performed by the author.

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