

VB News

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Editorial

Matthew Normand, Ph.D.

Florida Institute of Technology

Well, after some sweating and some pleading, this year's installment of *VBNews* is here. Each year I fret that there will be too little material submitted to put out a respectable issue, but each year the VB SIG members come through in the clutch. This year was no exception and I extend my sincerest thanks to all the contributors. Excellent job by all!

This year, I had planned to establish a twice-yearly publication schedule and to establish *VBNews* as an informally peer-reviewed publication. Unfortunately, neither of those things came to fruition and I place the blame squarely on my own shoulders. I firmly believe that, given the exceptional and reliable contributions to *VBNews* each year, it is entirely possible to publish two issues per year. However, I took a new faculty position at FL Tech this past fall and, as those of you who have been first-year faculty know, found myself swamped with work of the sort I never knew existed. My fault for not pushing harder, I guess. But, the future looks bright.

As for the "informally peer-reviewed" system, my decision to hold off for this issue was due to the relatively late submission of many of the articles. By "late submission" I mean that although perfectly on time for purposes of my arranging them in *VBNews* format, I felt uneasy about soliciting reviews from people when they would have needed to comply with a 7-10 day turnaround time in order for the reviewed articles to be prepped for publication. Again, the blame is mine. Active solicitation earlier in the year with some aggressive follow-up could have eliminated this problem.

Having said all of that, I am extremely pleased with the content of the issue you now hold in your hands (or are viewing on your computer screen). The articles represent each of the many important types that I believe *VBNews* should encourage. To start, I feel that Hank Schlinger's piece (*Some Verbal Behavior About Promoting Behavior Analysis*) is an excellent example of a more formal presentation of issues that have recently been discussed on the VB Listserv. It seems essential to mine this important resource for articles, both for *VBNews* and for submission to *The Analysis of Verbal Behavior (TAVB)*. This past year has been a great time on the VB Listserv and many interesting discussions have taken place. I hope that, in the future, many of the

participants in these discussions will take some time to edit and briefly expand some of their contributions for publication, either as short pieces in *VBNews* or as longer articles in *TAVB* (see the Palmer et al. piece in the latest issue of *TAVB* for an excellent example of this very process).

As I've stated in the past, I think that *VBNews* could be an excellent outlet for those "not-quite-ready-for-prime time" works and serve to fuel discussion and provide valuable feedback to the authors. Mark Sundberg's two pieces (*Skinner's Black Scorpion* and *Thinking*) are excellent examples of papers of this type. Because of their brevity and "report" nature, they are unlikely candidates for journal publication in their current form. However, they are important pieces as they address interesting issues in the analysis of verbal behavior and clearly explain Skinner's interpretation thereof. Although many readers have undoubtedly read Skinner's *Verbal Behavior*, others have not and can benefit greatly from such pieces. Even those who have read *Verbal Behavior* can benefit from some explanation or discussion of forgotten sections! I strongly encourage the submission of more articles of this type.

Also to be commended is Paul Brandon for seizing a great opportunity. Paul contacted me earlier in the year to report that a public presentation was to be given in Minnesota about B. F. Skinner and, *gasp*, the presentation would not even take place at a behavior analysis (or even a psychology) conference! I am certain that Paul would have attended this talk under any circumstances, but he also volunteered to act as a scholarly journalist and report back on the proceedings. How great! The end product is a wonderful read.

As an excellent example of yet another potential article category, Bill Potter has, in addition to his report as VB SIG Chair, provided a description of some recent advances in fields outside of behavior analysis that have implications for the study of verbal behavior (*Brain-Machine Interfaces*). This article also meets the criteria for yet another

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category (!), as it also was a topic discussed on the Listserv just a few months back. John Eshleman astutely suggested that *VBNews* incorporate more actual "news" reports into each issue. I think Bill Potter's article is an excellent example of doing just that. Great job!

And, of course, I would be remiss not to recognize Mike Hixson for yet another tireless

and wonderfully executed compilation of all the upcoming verbal behavior related presentations/events scheduled for this year's convention of the Association for Behavior Analysis (ABA) in Boston, MA. This is not the most enjoyable of tasks but Mike unhesitatingly agreed to take it on and, I might add, completed it in near record time. Great job, Mike!

I hope to see you all at ABA 2004 in Boston!



**Join Us for the VB SIG
Business Meeting
@ ABA 2004!**

**Sunday, May 30th 2004
Sheraton Boston Hotel
Granger Room
7:00 PM – 7:50 PM**

Report from the Chair**Bill Potter, Ph.D.***California State University, Stanislaus*

This past year the VB Listserv has been quite busy, covering topics from Chomsky to robot/brain interfaces (see the article in this issue). In addition more visitors have been to the VB SIG web page (www.vbsig.org). One of the priorities this year will be the redesign of that website (thanks to Matthew Normand and others) and the addition of new materials. I have finished scanning Norm Petersen's "Introduction to Verbal Behavior", which he gave permission to the SIG to post on the website. Once this document has been proofread it will be posted to the site. Feel free to send in materials related to Verbal Behavior for posting – we particularly like presentations from ABA, or other such papers. Please include a letter that specifies that the SIG is granted the right to post and distribute your document.

This year we did not have a student competition – Amy Hugh Balter did a great job of organizing the last competition – but was unable to do so this year. If you are interested in helping out with this endeavor, or any other, please attend the VB SIG's annual meeting at ABA. The meeting will be held on 5/30/04 (Sunday), from 7-7:50 pm in Granger. The meeting is open to all, so please come and share your verbal behavior!

Financially the SIG is doing fairly well – we have approximately \$3,000 in savings according to David Reitman, treasurer. These monies are from dues, as well as donations. Our last large expenditure was to send a mailing out to all ABA members, to help support *The Analysis of Verbal Behavior* journal. We will discuss additional activities that can support the journal – in both increasing subscriptions and increasing submissions, at the business meeting. We will also discuss other methods in which we can promote the science of behavior analysis, and specifically the study of verbal behavior, and fostering interdisciplinary collaborations related to verbal behavior.

If you would like to contribute to the VB SIG, or pay dues (currently at \$10 or full members and \$5 for students), please email David at: reitmand@nova.edu.

I hope that you can make it to the business meeting and help us develop the science of Verbal Behavior.

Some Verbal Behavior About Promoting Behavior Analysis

Hank Schlinger, Ph.D.

California State University, Northridge

As some of you know, over the years I have written and sent dozens of letters to editors of newspapers and magazines in an attempt to correct misrepresentations of or inaccuracies about behavior analysis.

In a recent exchange on the VB Listserv, Tom Critchfield suggested that perhaps writing letters to try to correct these persistent mischaracterizations was assuming the position of the "wounded innocent," and he echoed some, including me, who have called for a more proactive approach.

Tom went on to write that if the general public of scholars knew the behavioral psychology that we know, then misrepresentation "would not be credible, and would require no refutation."

"And just how is it that the "general public" of scholars would come to know modern behavioral psychology?" Tom asked. His answer: "Presumably, this would come from regularly encountering behavioral psychology in contexts that readers regard as meaningful."

In my comments, I want to suggest some ways in which we behavior analysts can begin to accomplish this.

I think we need to write to the "general public of scholars" and lay people about our discoveries and the application of those discoveries to solving practical problems. We can do this by publishing in outlets likely to be read by both groups. Thus, we might write op-ed pieces in newspapers, long articles or essays in popular science magazines (e.g., *Scientific American*), and articles in skeptical magazines (e.g., *Skeptical Inquirer* and *Skeptic*). I don't want to blow my own horn but I've published two articles, one in *Skeptic* and one in *Skeptical Inquirer* and I have two more articles coming out in *Skeptic* later this year. Although they are not all about behavior analysis, each one mentions behavior analysis and some of its accomplishments. Magazines such as *Skeptic* and *Skeptical Inquirer* are read (or at least received) by well-known scientists such as Richard Dawkins and Jared Diamond, as well as by psychologists and run of the mill skeptics. Some of us already hob knob in the skeptical circles, but there is room for more of us. We have a natural home among skeptics, but we don't take full advantage of it. (If

you're interested in more on this topic, check out session #331 at ABA.)

We can still write letters to the editor but they needn't necessarily be letters correcting misrepresentations of behavior analysis; they could be reaction letters to articles (e.g., in which we talk about how behavior analysis can contribute to various discussions). For example, I wrote one such letter in response to an article in *The Scientist.com* about the work of a Cal Tech neuroscientist working on the neurological underpinnings of consciousness. I thought that behavior analysis had something to say about consciousness and I said so.

Currently the topic of autism is very hot. We should be writing articles in newspapers and magazines on the application of behavior analysis to the problems of autism. This would also give us an opportunity to show how our approach to verbal behavior can be used to actually teach language! In addition, we can write about the application of behavior analysis to other childhood problems such as ADHD and about behavioral parent training.

Another topic that always commands interest is education. As Dave Palmer noted in one of his postings on the VB Listserv, the Headsprout program is another accomplishment we can crow about. Plus, it has all the ingredients (internet technology, fun and interesting, teaching reading) that would make an article interesting not only to the "general public of scholars," but also to parents and teachers. But someone needs to write it.

A much more labor-intensive enterprise for behavior analysts would be to write popular books about the field or various aspects of it. There aren't many among us who could accomplish such a feat, but I can think of a few.

Admittedly, those among us who are academics without tenure probably have to concentrate on publishing in academic journals. But some of the elder statespersons or those who are not on tenure tracks could write popular pieces. Anyway, I would guess that a college or university would be very

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Promoting Behavior Analysis

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happy for their faculty to gain publicity for the institution by writing in the popular press.

Lacking strong automatic positive reinforcement, there isn't much other reinforcement for the kind of verbal behavior I've recommended. There is obviously much

more reinforcement for talking amongst ourselves and posting on listserves. So, we need to figure out a way to encourage the kind of verbal behavior I am suggesting.

If we don't want to continue to be misrepresented or considered to be dead, or, worse, irrelevant, we need to promote behavior analysis outside our field and outside academia.

Skinner's Black Scorpion

Mark Sundberg, Ph.D.

STARS School- Walnut Creek, CA

B. F. Skinner began working on a behavioral analysis of language in 1934 as a result of a challenge from Alfred North Whitehead. Whitehead was perhaps the most prominent philosopher of the time, known best for his landmark three volume set co-authored with Bertrand Russell titled *Principia Mathematica* (1910, 1912, 1913). Skinner and Whitehead had been seated next to each other at a dinner at the Harvard Society of Fellows. Skinner (1957) describes the interaction as follows.

We dropped into a discussion of behaviorism which was then still very much an "ism" and of which I was a zealous devotee. Here was an opportunity which I could not overlook to strike a blow for the cause....Whitehead... agreed that science might be successful in accounting for human behavior provided one made an exception of verbal behavior. Here, he insisted something else must be at work. He brought the discussion to a close with a friendly challenge: "Let me see you," he said "account for my behavior as I sit here saying 'No black scorpion is falling upon this table.'" The next morning I drew up the outline of the present study (p. 457).

It took Skinner 23 years to fill in the details of his outline, which he published in his book *Verbal Behavior* (1957). The end result was so significant to Skinner that he predicted, "*Verbal Behavior...will, I believe, prove to be my most important work*" (1978, p. 122).

In the section of *Verbal Behavior* titled "Two personal epilogues" (pp. 453-460) Skinner first considers "The validity of the author's verbal behavior" with a very interesting reflection on his verbal behavior project. The second epilogue addresses the challenge by Alfred North Whitehead and his answer to the black scorpion question posed to him in 1934. First, Skinner points out that his answer is only a

guess since the original controlling variables are no longer present. It might also be pointed out that Whitehead had died 10 years earlier and could not refute Skinner's response to the challenge.

However, a few relevant facts about the conditions under which Professor Whitehead made his remark are available. So far as I know there was no black scorpion falling on the table. The response was emitted to make a point--taken, as it were, out of the blue. This was, in fact, the point of the example: why did Professor Whitehead not say "autumn leaf" or "snowflake" rather than "black scorpion?" The response was meant to be a poser just because it was not obviously controlled by a present stimulus....Perhaps there was a stimulus that evoked the response black scorpion falling on this table, which in turn led to the autoclitic No....I suggest, then, that black scorpion was a metaphorical response to the topic under discussion. The black scorpion was behaviorism (p. 458).

Skinner goes on in this section to identify another source of control for the comment. The fact that he had not convinced Whitehead that his version of behaviorism was something new that had not been available before meant that "on this pleasant and stimulating table no black scorpion had fallen....There was no cause for alarm" (p. 459).

References

Skinner, B. F. (1957). *Verbal behavior*. New York: Appleton-Century-Crofts.

Skinner, B. F. (1978). *Reflections on behaviorism and society*. Englewood Cliffs, NJ: Prentice-Hall.

Brain-Machine Interfaces

Bill Potter, Ph.D.

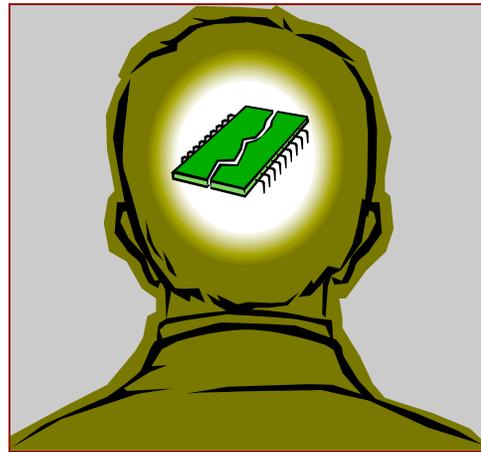
California State University, Stanislaus

Researchers examining animal/robotic interfaces have employed operant principles with some surprising results. The principal investigators, Miguel Nicolelis of Duke University, and John Chapin of State University of New York, Downstate Health Science Center, created a computer interface that takes signals generated from the brain and uses those signals to control a robotic arm. These researchers used simple operant training as an essential part of their research.

First the researchers implanted approximately 100 electrodes in to the monkey's brain, gathering a sampling of the firings that occurred. Next, they fed those signals to a computer that analyzed the incoming signals and compared them to the known behavior of the monkey. The researchers arranged to have the monkey perform the same behavior repeatedly by setting up an operant contingency. When the monkey used a joystick to move a cursor in the appropriate manner, the monkey received a squirt of juice that functioned as an effective reinforcer. After numerous trials, the computer algorithms were able to distill the essential neuronal patterns responsible for the particular joystick movements.

Next, the researchers disabled the joystick, but kept the neuronal interface intact and linked that interface to the cursor control. Thus, if the monkey produced the pattern of firings that the computer recognized, the joystick would move accordingly. After a time, the monkey stopped using the joystick altogether and moved the cursor using only the brain machine interface (BMI) – an interesting use of the principle of least effort. They later extended this; training the monkey to use those brain signals to control a robotic arm – even picking up items using the appropriate squeezing force.

The implications of this research are clear – a potential method for providing mobility to people missing limbs or with nerve damage. Perhaps not so transparent are the implications for behavior analysis. Most behavior analysts take the position that overt and covert actions are still behaviors, and those behaviors are modified as all behaviors: operant and respondent conditioning (or combinations of each). Donahoe and Palmer (1994) have written about this issue:



We must avoid the temptation to think of covert behavior as a kind of behavior, with properties essentially different from overt behavior. Rather, all behavior lies on a continuum of observability... Our subject matter – behavior – is not defined by its magnitude or by the ability of observers to agree on its occurrence. Rather it is any activity of the organism that can enter into orderly relationships with environmental events... The probability of overt responses is altered by contingencies of reinforcement only because the nervous system is. The overt response is no more the "real" response than its neural precursors are (p. 275).

Nicolelis and Chapin clearly demonstrate this – they have intercepted the neuronal signals and use those signals to drive a robotic arm. Interestingly, these researchers have also found that the monkey will become more adept at manipulating the arm if they are given feedback on their responses – and a reinforcement contingency is still in effect. That is, the monkey's neuronal firings can be considered a response that becomes more accurate with additional training. Both of these researcher's have taken the approach of identifying the neuronal firings that precede a particular response; it would also be interesting to see if they could pick random neurons to monitor (in the appropriate area of the brain) and see if they could train the monkey to activate those neurons to control the robotic arm.

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Brain-Machine Interfaces*continued from p 6*

Finally, as Skinner (1974) so appropriately wrote about the scientist studying neural physiology: "What he discovers cannot invalidate the laws of a science of behavior, but it will make the picture of human action more nearly complete." (p. 215).

We should applaud the efforts of these researchers and if possible, build bridges between behavior analysis and their disciplines.

References and Useful Links

Nicolelis Lab:

<http://www.nicolelislab.net/NLNet/Load/index.htm>

Chapin Lab:

<http://www.rybak-et-al.net/chapin.html>

Donahoe, J. W. & Palmer, D. C. (1994). *Learning and Complex Behavior*. Allyn and Bacon: Needham Heights, MA.

Carmena, J.M., Lebedev, M.A., Crist, R.E., O'Doherty, J.E., Santucci, D.M., Dimitrov, D.F., Patil, P.G., Henriquez, C.S., & Nicolelis, M.A.L. *Learning to control a brain-machine interface for reaching and grasping by primates*. PLoS Biology 1:193-208, 2003.

Skinner, B. F. *About Behaviorism*. Alfred A. Knopf: New York.

Review**Days of Great Illumination:
B.F. Skinner in the Gold Medal Flour Mill****Paul Brandon, Ph.D.***Minnesota State University, Mankato*

The paper herein reviewed was presented by Professor Gail B. Peterson of the University of Minnesota's Department of Psychology at the Mill City Museum, Minneapolis MN on April 1, 2004.

This was first of all a tribute to B. F. Skinner on the hundredth anniversary of his birth. A good part of the presentation consisted of an overview of Skinner's life and work, and the significance of his achievements. In fact, it would be a good fit with the Tribute to B. F. Skinner presentations at this year's ABA Convention.

The talk was given at a new museum located in an old Minneapolis flour mill. Skinner's WWII work on Project Pigeon, the development of a guided bomb (*Pigeons in a Pelican*, 1960,1974) took place in an adjoining building in the same complex.

Dr. Peterson is a member of the faculty of the University of Minnesota Psychology Department whose office window happens to overlook the old mill site. Originally in the animal learning area, he is now involved in

'translational' work (he's a BCBA). He is active in the autism and dog training communities so the audience was both large and varied!

The title of the talk refers to a discovery made by Skinner, Keller Breland and Norman Guttman (at the time his graduate students) in the course of this project. Since this was a military project they spent a fair amount of idle time waiting for task specifications and the like from their military employers. During one of these lulls they decided to teach a pigeon to bowl.

Now, those of us who are familiar with Skinner's work aren't too surprised by this. He was noted for his skill at getting animals to emit surprising complex behaviors. Further, one would predict the manner in which he would go about this: he would shape the behavior. After all, hadn't he already taught the rat Pliny to emit a complex chain of responses through a process of successive approximations (*B of O*, 1938, pp 339-340)?

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B. F. Skinner*continued from p 7*

And in *Reply to Konorsky and Miller* (1937) he also **appeared** to be describing the process of shaping the lever press.

However, in *The Shaping of a Behaviorist* (1979 p268) Skinner mentions that Pliny was in fact taught his chain by painstakingly making gradual adjustments in the apparatus itself rather than by what we'd now call "hand shaping": controlling the delivery of a reinforcer directly by the experimenter rather than by some automatic mechanism. It is likely the the description in *Reply to Konorsky and Miller* is another instance of 'extension'; Skinner was speaking hypothetically rather than from data.

Skinner's actual practice (not at all unique) for getting a subject to perform in an experimental apparatus was to put the pigeon or rat in the chamber at leave it until it chanced to operate the key or lever and be automatically reinforced. Most of us still train our research subjects this way (let the apparatus do the work). However, Skinner's pigeon showed no inclination to bowl; the response (swiping at a wooden ball with its beak) was not emitted even once.

Finally, in desperation, they decided to reinforce anything that looked a bit like a swipe. This was an easy step, since they had no automated apparatus for this behavior and had to hand deliver reinforcers anyway. Skinner expresses their collective amazement at how rapidly the pigeon acquired this unlikely behavior: "I remember that day as one of great illumination (*Shaping*, p268)". The beginning of shaping as we now know it!

Much of the preceding material can be found online in *The Discovery of Shaping, Or, B.F. Skinner's Big Surprise*, by Gail B. Peterson (http://www.behavior.org/animals/animals_discovery_shaping.cfm) and *The World's First Look at Shaping: B.F. Skinner's Gutsy Gamble* (http://www.behavior.org/animals/index.cfm?page=http%3A//www.behavior.org/animals/animals_worlds_first.cfm).

OK. Very interesting so far, but what (one might ask) does this have to do with verbal behavior?

From the rat or pigeons' point of view, of course, there is no functional difference in the **source** of the reinforcer; the **contingency** is

the same whether reinforcement is mediated by some aspect of the inanimate environment or by a change in the behavior of another living organism.

So far, no basic advance....

However, note the phrase "mediated bya change in the behavior of another living organism". This sounds very much like Skinner's (1957) definition of verbal behavior! Skinner had always been interested in language (not surprising for a lapsed novelist), but his early interests were what you'd expect from a former English major: antecedent focused studies of word use and frequency, such as alliteration in Shakespeare's sonnets. At about this time there was a change in the way that he approached verbal behavior, culminating in the publication (after a long gestation) of *Verbal Behavior* in 1957.

This was the approach that we know now -- very different from literature and linguistics and focused on the consequences of behavior as well as its antecedents. Peterson suggests that it was the dramatic demonstration in the flour mill of the power of one organism to directly change the behavior of another that led to the change in the way that Skinner looked at verbal behavior, and to a shift in his interest from the laboratory and theoretical analysis to the applications of behaviorism to human behavior on the cultural level.

I might add (with Peterson's concurrence) that Skinner had another experience a few years earlier that also influenced the way in which he approached verbal behavior. This was the birth of his daughter Julie and her acquisition of language. In *The Shaping of A Behaviorist* (p 239) Skinner marvels at the ease at which she acquires verbal behavior: "'She's a swell little kid' I told Fred (Keller) 'and very verbal. So far she has not successfully assailed my behaviorism.' She was turning my attention to education." He goes on to talk about writing a book to use "successive approximations" (his quotes) to teach children complex verbal behavior. At the time that Skinner was working on Project Pigeon his second daughter Deborah would have been going through the same process.

I'd suggest that it was the confluence of the demonstration of the power of mutual reinforcement systems and the earlier observation of his daughters' acquisition of

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B. F. Skinner*continued from p 8*

verbal behavior that led to his future emphasis on the applications of behaviorism to complex (and verbal) human behavior in real world situations. In a sense, *Schedules of Reinforcement* (1957) was his swan song as a laboratory scientist; it was more Charles Ferster's product than his own. This is also described in the *Journal of the Experimental Analysis of Behavior's* special issue on the Harvard pigeon lab (2002, vol 77).

Thinking**Mark Sundberg, Ph.D.***STARS School- Walnut Creek, CA*

In Chapter 19 of *Verbal Behavior* Skinner presents a behavioral analysis of thinking. The content of these chapters, along with the chapters on the same topic in *Science and Human Behavior* (Skinner, 1953, chap. 16), and *About Behaviorism* (Skinner, 1974, chap. 7), present a behavioral analysis of what is traditionally referred to as "higher mental processes." It is common in traditional psychology to attribute the causes of complex behavior to these mental processes. Problem solving, memory, reasoning, language, understanding, perception, creativity, etc., are all considered to be a function of thought. Thinking is what produces correct answers, clever ideas, insight, comprehension, and effective solutions. Children are encouraged to think before they answer, employees are reminded to think about what they are doing, scholars are given plenty of opportunities to think about their subject matter. Skinner (1974) discusses how the concept of "mind" has become associated with thinking and granted the ultimate causal status:

The mind is said to play an important role in thinking. It is sometimes spoken of as a place where thinking occurs, where one image, memory, or idea leads to another in a "stream of consciousness." It can be empty or filled with facts, it can be ordered or chaotic....sometimes the mind appears to be the instrument of thinking; it can be keen or dull, muddled by alcohol, or cleared by a brisk walk. But usually it is the thinking agent. It is the mind which is said to examine sensory data and make inferences about the outside world, to store and retrieve records, to filter incoming information, to put bits of information in pigeonholes, to make

Peterson concluded by describing some of the many current applications of shaping, including teaching verbal behavior to autistic children. (an interest of his). He points out that the goal is to teach autistic children "the behavior of a speaker".

All in all, a fine tribute to B. F. Skinner, and an insight into the genesis of Skinner's particular analysis of verbal behavior.

decisions, and to will to act. In all these roles it has been possible to avoid the problem of dualism by substituting "brain" for "mind." The brain is the place where thinking is said to take place....both the mind and the brain are not far from the ancient notion of homunculus--an inner person who behaves in precisely the ways necessary to explain the behavior of the outer person in whom he dwells (p. 117).

But how do we explain the behavior of the inner person? What causes the inner person to behave? What is the mind? What is thinking? The answer to these questions has long been sought after since Plato is said to have discovered the mind. The topic is further complicated by the privacy of the primary controlling variables. Thinking is said to occur in the private world of the mind, accessible only to the thinker. Skinner's analysis of these topics represents a major element of his "radical behaviorism" (Skinner, 1974), and is essential for many of the standard arguments against behaviorism put forth by traditional psychologists. Clearly, verbal behavior is at the center of the analysis. Skinner (1957, chap 19) begins his treatment of this topic with an analysis of the origin of language and its relation to group coordination.

As soon as men began to work together in hunting, fishing, building shelters, or making war, situations must have arisen in which rudimentary verbal responses would be of use. In a co-operative fishing enterprise, for example, one man might be in position to see a fish while another could pull the net. Any

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Thinking*continued from p 9*

response which the former might make to the fish might improve the timing of the latter, possibly with advantages for both....Verbal behavior extends both the sensory powers of the listener, who can now respond to the behavior of others rather than directly to things and events, and the power of action of the speaker, who can now speak rather than do (p. 432).

After considering several additional functions of verbal behavior, Skinner discusses situations where a group is not involved and a speaker becomes his own listener.

Once a speaker becomes a listener the stage is set for a drama in which one man plays several roles. The initial advantages for group co-ordination are missing, but there are several compensating gains. This has been recognized traditionally when the behavior of a speaker with respect to himself as listener, particularly when his behavior is not observable by others, is set aside as a special human achievement called "thinking" (p. 433).

The remainder of the chapter contains an analysis of thinking. Skinner describes four possible behavioral interpretations of thinking with each interpretation broader than the previous one. Michael (1991) suggests that these interpretations be represented as a set of four concentric circles. First, Skinner considers the possibility that thinking is just covert verbal behavior (pp. 434-438). Many problems are solved by covertly manipulating verbal stimuli, self tacts, mands and intraverbals can ultimately lead to a solution. For example, a broken bolt that won't come out of an office chair that needs repair presents a problem to the person who would like a functioning chair. A speaker may function as a listener as tacts of the problem are covertly emitted (e.g., "looks like the lip of the bolt is protruding and that's why it is stuck), self mands may occur (e.g., "How am I going to get that out"), as might intraverbal behavior, (e.g., "this is the same problem I had with the garage door and I fixed it with a file). In the absence of this problem solving verbal behavior a repaired chair is less likely. One could say that by thinking about the problem a solution was achieved, or one could say the problem was solved by emitting covert verbal behavior. However, Skinner rejects this formulation of thinking as simple covert verbal behavior. "The theory that thinking was

merely subaudible speech had at least the favorable effect of identifying thinking with behaving. But speech is only a special case of behavior and subaudible speech a further subdivision" (Skinner, 1957, p. 438).

Next, Skinner considers the possibility that thinking can occur at the overt as well as the covert level (pp. 438-446). That is, thinking can occur aloud even though the speaker and listener are within the same skin. This expanded definition includes thinking as covert behavior, thus this is the second of the concentric circles.

A better case can be made for identifying thinking with behaving which automatically affects the behavior and is reinforcing because it does so. This can be either covert or overt....When a man talks to himself, aloud or silently, he is an excellent listener in the sense of Chapter 10. He speaks the same language or languages and has the same verbal or nonverbal experience as his listener. He is subject to the same deprivations and aversive stimulations, and these vary from day to day or from moment to moment in the same way. As listener he is ready for his own behavior as speaker at just the right time and is optimally prepared to "understand" what he has said. Very little time is lost in transmission and the behavior may acquire subtle dimensions. It is not surprising then, that verbal self-stimulation has been regarded as possessing special properties and has even been identified with thinking (pp. 438-439).

However, Skinner rejects the view that thinking is just self-verbal behavior because "all the important properties of the behavior are to be found in verbal systems composed of separate speakers and listeners" (p. 445). Thus, thinking defined as self-verbal behavior is still too narrow.

The third possible interpretation of thinking (the next to largest concentric circle) is that thinking is verbal behavior in general (pp. 446-449). "Are we to be content with the rest of Plato's phrase: 'thought is the same as speech'? Disregarding the distinction between overt and covert and the possibility that verbal behavior may be especially effective upon the speaker himself, are we to conclude

continued on p 11

Thinking

continued from p 10

*that thinking is simply verbal behavior?
(p. 446).*

But again this view of thinking is too restrictive because thinking involves nonverbal behavior as well. Skinner concludes with (the largest concentric circle),

The simplest and most satisfactory view is that thought is simply behavior--verbal or nonverbal, covert or overt. It is not some mysterious process responsible for behavior but the very behavior itself in all the complexity of its controlling variables, with respect to both man the behavior and the environment in which he lives. The concepts and methods which have emerged from the analysis of behavior, verbal or otherwise, are most appropriate to the study of what has traditionally been called the human mind. (p. 449)

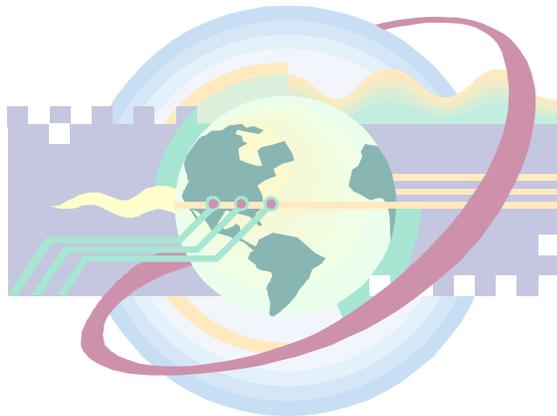
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VOLUME 20, 2004 ISSN 0889-9401

Jack Michael, *Western Michigan University*, Editorial

Mark L. Sundberg, *Behavior Analysts, Inc./STARS School*, The Search for the Etiology of Autism

Philip W. Drash, *Autism Early Intervention Center*, and Roger M. Tudor, *Westfield State College*, An Analysis of Autism as a Contingency-Shaped Disorder of Verbal Behavior

James E. Carr & Linda A. LeBlanc, *Western Michigan University*, A Comment on Drash and Tudor's (2004) Operant Theory of Autism

Richard W. Malott, *Western Michigan University*, Autistic Behavior, Behavior Analysis, and the Gene

Genae A. Hall, *Behavior Analysis and Intervention Services*, Towards a Balanced Account of Autism Etiology

Raymond G. Romanczyk and Jennifer M. Gillis, *Institute for Child Development, State University of New York at Binghamton*, Commentary on Drash and Tudor: An Analysis of Autism as a Contingency-Shaped Disorder of Verbal Behavior

Michael D. Hixson, *Central Michigan University*, Autism as a Contingency-Shaped Disorder of Verbal Behavior: Evidence Obtained and Evidence Needed

Philip W. Drash, *Autism Early Intervention Center*, and Roger M. Tudor, *Westfield State College*, Is Autism a Preventable Disorder of Verbal Behavior? A Response to Five Commentaries

Robin Nuzzolo-Gomez & R. Douglas Greer, *Columbia University Teachers College*, Emergence of Untaught Mands or Tacts of Novel Adjective-Object Pairs as a Function of Instructional History

Barry Lowenkron, *California State University, Los Angeles*, Meaning: A Verbal Behavior Account

T. V. Joe Layng, Janet S. Twyman, & Greg Stikeleather, *Headsprout*, Engineering Discovery Learning: The Contingency Adduction of Some Precursors of Textual Responding in a Beginning Reading Program

David C. Palmer, *et al.*, Dialogue on Private Events

Amy L. McCarty, Notation Systems for Reading and Writing Sign Language

Roy A. Moxley, *West Virginia University*, Advanced Behavioral Applications in Schools: A Review of R. Douglas Greer's *Designing Teaching Strategies: An Applied Behavior Analysis Systems Approach*

Bruce E. Hesse & Bill Potter, *California State University, Stanislaus*, A Behavioral Look at the Training of Alex: A Review of Pepperberg's *The Alex Studies: Cognitive and Communicative Abilities of Grey Parrots*

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A summary of verbal behavior related presentations to be presented at the 30th Annual Convention of the Association for Behavior Analysis- Boston, MA

Mike Hixson, Ph.D.

Central Michigan University

#28 Symposium

5/29/2004

1:00 PM - 2:20 PM

Independence West

VRB

Some Topics on Rule-Governed Behavior: Behavioral Momentum, Shaping of Verbal Behavior, and Operant Blocking (Data-based Presentation)

Chair: Elizabethann M. O'Shields (West Virginia University)

Discussant: Mark Galizio (University of North Carolina, Wilmington)

Rule-Governed Behavior and Insensitivity to Contingencies: The Role of Behavioral Momentum.

CHRISTOPHER A. PODLESNIK (Utah State University) and Philip N. Chase (West Virginia University)

Examining the Effects of Different Methods of Rule Acquisition on Schedule Performance.

ELIZABETHANN M. O'SHIELDS and Philip N. Chase (West Virginia University)

An Operant Blocking Account of Rule-Governed Behavior's Insensitivity to Local Contingencies of Reinforcement.

MARTA E. LEON and Philip N. Chase (West Virginia University)

#38 Symposium

5/29/2004

2:30 PM - 3:20 PM

Independence West

VRB/TPC

CE

Further Refinements of Skinner's Analysis of Verbal Behavior

Chair: Sebastien Bosch (CARD, Inc.)

Discussant: Hank Schlinger (California State University)

Area of Content

Theoretical/Philosophical/Conceptual

Learning Objectives

Understanding controlling variables for the tact and receptive operants

Developing an understanding of the tact repertoire

Developing an understanding of the receptive repertoire

Refining the Receptive Language Repertoire.

SEBASTIEN BOSCH (CARD, Inc) and Matthew Normand (Florida Institute of Technology)

Refining the Tact: Essential Features of a Useful Repertoire.

MATTHEW NORMAND (Florida Institute of Technology) and Sebastien Bosch (CARD, Inc)

#64 Symposium

5/29/2004

3:30 PM - 4:20 PM

Independence West

VRB/EDC

Pushing into Failure to Produce Success: Academic Distress from RFT and ACT Perspectives (Data-based Presentation)

Chair: Amanda C. Adcock (University of Mississippi)

Evaluating the Role of Context in Analogy with Young Children.

NICHOLAS M. BERENS and Steven C. Hayes (University of Nevada, Reno)

A Relational Frame Theory Analysis of Academic Distress Among College Students .

AMANDA C. ADCOCK, Christina I Tucker and Kelly G. Wilson (University of Mississippi)

Acceptance and Commitment Therapy for Academic Success: Follow-up Report and Continuing Protocol Development.

LAURA ELY and Kelly G. Wilson (University of Mississippi) and Amy Murrell (Family Badge)

Acceptance and Commitment Therapy in Treating Academic Difficulties: A Case Study.

CATHERINE ADAMS and Kelly G. Wilson (University of Mississippi)

#88 Invited Event

5/29/2004

4:30 PM - 5:20 PM

Independence West

VRB

The FOXP2 "Language" Gene and Chomsky's Mythical "Universal Grammar"

Chair: Ted Schoneberger (California State University Stanislaus)

Philip Lieberman, PhD (Brown University)

#142 Symposium

5/30/2004
9:00 AM - 10:20 AM
Independence West
VRB/AUT

Basic and Applied Research on Skinner's Verbal Behavior Taxonomy (Data-based Presentation)

Chair: Dorothea C. Lerman (LSU)

Task Interspersal Procedures and the Acquisition of Tacts in Children with Autism.

VALERIE M. VOLKERT and Dorothea C. Lerman (Louisiana State University)

A Methodology for Assessing the Functions of Emerging Speech in Children with Autism.

DOROTHEA C. LERMAN, Mandy Parten, Laura R. Addison, Christina M. Vorndran and Tiffany Kodak (Louisiana State University)

On the Functional Independence of Novel Mands and Tacts in Preschool Children.

ANNA I. PETURSDOTTIR, Jack Michael and James E. Carr (Western Michigan University)

Teaching Intraverbal Behavior to Children with Autism.

TINA R. GOLDSMITH, Linda A. LeBlanc and Rachael A. Sautter (Western Michigan University)

#170 Symposium

5/30/2004
10:30 AM - 11:50 AM
Independence West
VRB

Behavioral Investigations into Issues from Mainstream Psychology (Data-based Presentation)

Chair: Denis O'Hora (University of Ulster)
Discussant: Michael J. Dougher (University of New Mexico)

The Concept of Intelligence and Derived Relational Responding.

MARTHA PELAEZ (Florida International University) and Denis O'Hora (University of Ulster)

Syntactic and Semantic Bootstrapping: A Relational Frame Approach.

Denis O'Hora (University of Ulster) and RICK DALE (Cornell University)

Before and After Relational Responding and the WAIS-III.

DENIS O'HORA (University of Ulster), Martha Pelaez (Florida International University), Dermot Barnes-Holmes (National University of Ireland, Maynooth), Karen Robinson and Tahir Chaudhary (Florida International University)

#200 Paper Session

5/30/2004
1:30 PM - 2:20 PM
Independence West
VRB

Conceptual and Research Issues in the Analysis of Verbal Behavior

Chair: Mark L. Sundberg (Behavior Analysts, Inc.)

What the Autoclitic is and What the Autoclitic is Not.

MARK L. SUNDBERG (Behavior Analysts, Inc.)

New Research Paradigms for Verbal Behavior Research: Are They Necessary or Possible?

GENAE A. HALL (Behavior Analysis & Intervention Services)

#207 Paper Session

5/30/2004
1:30 PM - 2:50 PM
Republic A
VRB

Current Topics in Verbal Behavior

Chair: Maria Amelia Matos (Universidade De Sao Paulo)

Effects of Verbalization of Contingencies on the Emergency of New Conditional Relations and Rules.

Alvaro Torres (Universidad Nacional Autónoma de México)

Emergent Verbal Behavior and Analogy: Skinnerian and Linguistics' Approaches.

Maria Amelia Matos (Universidade de São Paulo) and MARIA DE LOURDES RODRIGUES DE FONSECA PASSOS (Universidade Federal do Rio de Janeiro)

Tokieda's Language Process Theory and Skinner's Theory of Verbal Behavior.

MASAYA SATO (Teikyo University)

#222 Paper Session

5/30/2004
2:30 PM - 3:20 PM
Independence West
VRB

ACT Interventions for Mental Health and Behavioral Issues

Chair: Tobias Lundgren (University of Uppsala)

ACT Treatment in Intense Camp Settings for Female Adolescents with Self Destructive Behavior.

TOBIAS LUNDGREN and Josefin Månsson (University of Uppsala, Sweden) and Joanne Dahl Olerud (University of Gävle, Sweden)

Acceptance and Commitment Therapy in Group Format for Individuals who are Unemployed and on Sick Leave Suffering from Depression: A Randomized Controlled Trial.

TOMAS PARLING and Fredrik Folke (Uppsala University, Sweden), Birgitta Ederyd (Jävsö, Private Practitioner, Sweden) and Joanne Dahl Olerud (University of Gävle, Sweden)

#243 International Symposium

5/30/2004
3:00 PM - 4:20 PM
Republic A
VRB/EAB

Logical Reasoning and Derived Relational Responding (Data-based Presentation)

Chair: Scott T. Gaynor (Western Michigan U.)

Understanding Conditional Reasoning Using Relational Frame Theory: Conceptual Issues.

FRANCISCO CABELLO LUQUE (Universidad de la Rioja), Dermot Barnes-Holmes (National University of Ireland, Maynooth) and Sonsoles Valdivia Salas (Universidad de Almería, Spain)

Understanding Conditional Reasoning Using Relational Frame Theory: A Preliminary Empirical Analysis.

FRANCISCO CABELLO LUQUE (Universidad de la Rioja), Dermot Barnes-holmes (National University of Ireland, Maynooth) and Sonsoles Valdivia Salas (Universidad de Almería, Spain)

Training Strategies for Improving Performances on Comparative Relations using Automated Procedures.

AGATA VITALE Dermot Barnes-Holmes and Yvonne Barnes-Holmes (National University of Ireland, Maynooth)

Does Responding Analogous to the Conjunction Error Emerge Following Match-to-sample Training?

SCOTT T. GAYNOR, Yukiko Washio and Frederick Anderson (Western Michigan University)

#248 Invited Event

5/30/2004
3:30 PM - 4:20 PM
Independence West
VRB
CE

A Joint Control Analysis of Generalized Abstract Responding

Chair: Robert Vreeland (Behavior Analysis & Intervention Services)

Area of Content

Theoretical/philosophical/conceptual

Learning Objectives

Learn to describe the nature and functioning of joint control as a two-element (self-echoic and

tact) form of multiple control and thus a form of stimulus control beyond those Skinner detailed in his book, Verbal Behavior.

Learn how joint control combines with other behavior to produce highly abstract forms of generalized responding, thereby solving a serious problem for the verbal behavior account of thought and language.

Barry Lowenkron, PhD (California State University, Los Angeles)

#285 Paper Session

5/31/2004
9:00 AM - 10:20 AM
Republic A
VRB

ACT Interventions for Health-Related Issues

Chair: Joanne Dahl Olerud (University of Gävle)

Evaluation of a Brief RCT ACT Intervention for Public Workers on Sick Leave Due to Pain- or Stress Symptoms.

JOANNE DAHL OLERUD (University of Gävle, Sweden), JOSEFIN AHLQVIST and Andreas Claesson (University of Uppsala, Sweden) and Kelly G. Wilson (University of Mississippi)

Evaluation of a Brief ACT Intervention for Type II Diabetes.

JOSEFIN MÅNSSON and Tobias Lundgren (Uppsala University, Sweden) and Joanne Dahl Olerud (University of Gävle, Sweden)

An Evaluation of a Multi Sited Brief ACT Intervention with People Suffering from Refractory Epilepsy in India and South Africa.

TOBIAS LUNDGREN (University of Uppsala, Sweden), Joanne Dahl Olerud (University of Gävle, Sweden), Nandan Yardi (Epilepsy Clinic, Pune, India) and Kathy Pahl (University of Cape Town, South Africa)

#301 International Symposium

5/31/2004
9:00 AM - 10:20 AM
Independence West
VRB/EDC

Recombinative Generalization in Spelling and Reading (Data-based Presentation)

Chair: Kathryn Saunders (University of Kansas)

Discussant: William V. Dube (Eunice Kennedy Shriver Center)

Recombinative Generalization in Constructed Spelling by Preschool Children.

MONIKA M. SUCHOWIERSKA, Katherine L. Stewart and Kathryn Saunders (University of Kansas)

Adults with Mental Retardation Demonstrate Recombinative Generalization in a Constructed Spelling Task.

KATHERINE L. STEWART, Monika M. Suchowierska, Lisa Chaney and Kathryn Saunders (University of Kansas)

Recombinative Generalization in Reading and Spelling: Effects of Matching Dictated Syllables to Printed Syllables.

DEISY DE SOUZA, Julio C. de Rose, Thais Cazati, Edson Huziawara and Daniela Toledo (Universidade Federal de São Carlos)

#319 International Symposium

5/31/2004

10:30 AM - 11:50 AM

Independence West

VRB

Contextual Effects on Verbal Communication

Chair: Claire Egan (National University of Ireland, Maynooth)

Asking For It: Using Equivalence Relations and Derived Transfer of Functions to Examine Increasingly Complex Manding with Six Children Diagnosed with Autism

CAROL MURPHY, Dermot Barnes-Holmes and Jennifer O'Connor (National University of Ireland, Maynooth)

Assessing the Independence of Function Between Mand and Tacts.

CLAIRE EGAN and Dermot Barnes-Holmes (National University of Ireland, Maynooth)

Studying Discourse: An RFT Perspective.

CAROLYN SWEENEY and Dermot Barnes-Holmes (National University of Ireland, Maynooth)

What Do You Want? Communication Breakdowns and Repair Strategies: An Examination of the Influence of Establishing Operations.

CLAIRE LACEY, Dermot Barnes-Holmes and Yvonne Barnes-Holmes (National University of Ireland, Maynooth)

#332 Symposium

5/31/2004

10:30 AM - 11:50 AM

Republic A

VRB/EAB

Social Categorization and Verbal Relations I

Chair: Chad E. Drake (University of Mississippi)
Discussant: Barbara S. Kohlenberg (University of Nevada School of Medicine)

Emotional Avoidance and Enacted Stigma, Felt Stigma, Prejudice, Discrimination, and Intolerance.

JASON B. LUOMA (University of Nevada, Reno), Barbara S. Kohlenberg (University of Nevada School of Medicine), Steven C. Hayes, Richard Bissett, Alyssa Rye and Kara Bunting (University of Nevada, Reno)

Build Them Up, Then Tear Them Down: An RFT Analysis of Social Categorizing.

CHAD E. DRAKE and Kelly G. Wilson (University of Mississippi)

Social Categorization and Gender.

CATHERINE ADAMS and Kelly G. Wilson (University of Mississippi)

#346 Poster Session

5/31/2004

12:00 PM - 1:30 PM

Exhibit Hall D (Hynes)

VRB

(Data-based Presentation)

129. Teaching Intraverbal Behavior Using Stimulus Differences with two Children with Autistic and Pervasive Developmental Disorders (AUT) (Data-based Presentation)

MARIA WYNNE, Kimberly P. Weber and K. Mark Derby (Gonzaga University)

130. Sight Reading and Phonics: A Combined Approach for Teaching Textual Behavior to Children with Autism. (AUT) (Data-based Presentation)

JOE CIHON, Nicole Adams, Traci Cihon and Guy Bedient (Special School District of St. Louis County)

131. Contingent Access: Putting the Fun in Functional Language (AUT) (Data-based Presentation)

RACHEL HUCKFELDT and Guy Bedient (Special School District of St. Louis County)

132. Analysis of Three Reinforcement Procedures in Teaching Receptive Language Skills to Children with Autism (AUT)

Laura R. Addison, Dorothea C. Lerman, MANDY PARTEN, Valerie Volkert, Nicole Trosclair and Tiffany Kodak (Louisiana State University)

133. Comparing Mass Trial Teaching Procedures to Interspersal Teaching Procedures in the Acquisition of Intraverbals (AUT)

AMANTHA MASSEY-MCLAUGHLIN, Linda J. Hayes and Rachel S. F. Tarbox (University of Nevada, Reno)

134. Effects of Modeling versus Instructions on Schedule Sensitivity (DDA) (Data-based Presentation)

SUMMER J. FERRERI, Julie Marckel, Nancy A. Neef, Sunhwa Jung, Lindsay Nist and Nancy Armstrong (The Ohio State University)

135. The Use of Hidden Objects and Echoic Prompts to Teach Students to Ask Questions (DDA) (Data-based Presentation)

YUKO USUI and Monica Chen (Columbia University)

136. Effects of Verbal Descriptions on Rule-Generation and its Relationship with Non-verbal Behaviour (EAB)

MARIA LUISA CEPEDA, Diana Moreno Rodríguez, Patricia Plancarte, Rosalinda Arroyo, Alfredo López, Hortensia Hickman and Olivia Tena (UNAM)

137. Rupture or Change of the Sensibility to the Contingencies and the Paper of the Automatic Contingencies. (EAB)

INMACULADA GÓMEZ BECERRA and Nieves López (Universidad Almeria, Spain)

138. Analog Demonstration of "Confusion" in Second Language Acquisition (EAB) (Data-based Presentation)

YUKIKO WASHIO and Ramona Houmanfar (University of Nevada, Reno)

139. Increasing Desirable Spousal Social Behaviors Using Reinforcement and Extinction (CBM) (Data-based Presentation)

CAROL KOCHHEISER and Lloyd Peterson (The Ohio State University)

140. Treatment of Severe Chronic Aphasia with Backward Chaining and Pperant Conditioning (CBM) (Data-based Presentation)

ZUILMA GABRIELA SIGURDARDÓTTIR and Magnús Blöndahl Sighvatsson (University of Iceland)

141. Reducing "Psychotic" Verbal Behavior (Data-based Presentation)

INGVIL RO and Grete Brouwer (Grim Project) and Erik Arntzen (Akershus University College)

142. Celeration Analysis of Verbal Behavior Research Papers Presented at ABA 1975-present (Data-based Presentation)

JOHN W. ESHLEMAN (APEX Consulting)

#359 International Symposium

5/31/2004

1:30 PM - 2:50 PM

Independence West

VRB/AUT

Challenging Venture: Recent Innovations in Teaching Verbal Behavior to Children with Autism (Data-based Presentation)

Chair: Satoru Shimamune (Naruto University)

Discussant: Hank Schlinger (California State University, Northridge)

Computer-Based Teaching Procedures Used to Increase the Vocal Verbal Behavior of Young Children with Severe Autism and Related Disorders

CHRISTOPHER S. MCDONOUGH and Hirofumi Shimizu (Hawthorne Country Day School), David Bicard (Florida International University) and So-Young Yoon (Hawthorne Foundation, Inc.)

Teaching Figurative Language for Children with Autism.

MASAHIKO INOUE (Hyogo University of Teacher Education) and Kenji Okuda (Kibi International University)

A Data Based Longitudinal Study on the Emergence of a Tact Repertoire in a Ten Year Old Non-verbal Child with Autism.

GLADYS WILLIAMS and Yors Garcia-Ayala (Applied Behavioral Consultant Services) and Anna Quiroz-Muller (Sociedad Colombiana de Psicología)

#368 Symposium

5/31/2004

1:30 PM - 2:50 PM

Republic A

VRB/EAB

Social Categorization and Verbal Relations II

Chair: Kimberly R. Zlomke (LSU Pediatric Clinical Psychology)

Creating Terrorists with the Greatest of Ease: A Relational Frame Analysis of the Development of Prejudice.

KIMBERLY R. ZLOMKE (Louisiana State University), Mark R. Dixon, Ruth Anne Rehfeldt and Pamela Tibbetts (Southern Illinois University)

Stigmatizing Body-images and Relational conditioning Processes.

JONATHAN WEINSTEIN and Kelly G. Wilson (University of Mississippi)

ACT Workshops for Parents of Children Diagnosed with Autism.

JOHN TANNER BLACKLEDGE and Steven C. Hayes (University of Nevada)

ACT, Felt Stigma, and Substance Use Disorders: Taking Shame with you on the Journey.

BARBARA S. KOHLENBERG (University of Nevada School of Medicine), Jason B. Luoma (University of Nevada, Reno), Steven C. Hayes, Richard Bissett, Alyssa Rye and Kara Bunting (University of Nevada, Reno)

#378 Special Event

5/31/2004
3:00 PM - 3:50 PM
Grand Ballroom
VRB
CE

2004 Tutorial: Clinical Applications of Verbal Behavior Research with Children with Autism

Chair: Patrick McGreevy

Area of Content

Applied

Learning Objectives

Participants will be able to state several verbal behavior experimental research findings which have potential benefit for children with autism. Participants will be able to state the treatment protocols derived from the verbal research findings.

Participants will be able to state methods for training instructional staff in the application of the verbal behavior research findings.

Vincent J. Carbone, EdD (Carbone Clinic)

#380 International Symposium

5/31/2004
3:00 PM - 4:20 PM
Hampton
DEV/CBM

Attachment Parenting (Data-based Presentation)

Chair: Patrice Marie Miller (Salem State College)

Natural Parenting - Back to Basics in Infant Care: Review of Supportive Evidence.

REGINE A. SCHÖN and Risto Vuorinen (University of Helsinki) and Maarit Silvén (University of Tampere)

Natural Parenting -- A Parenting Style Rediscovered in the Western World: Its Effects on Infant and Parents.

REGINE A. SCHÖN (University of Helsinki), Maarit Silvén (University of Tampere) and Risto Vuorinen (University of Helsinki)

Effects of Parenting Practices on Infant Cortisol, Brain Development, and Mother-Infant Attachment.

TRISH ELLIS HERR (Harvard University)

Possible Effects of Cultural Variations in Care Practices.

PATRICE MARIE MILLER (Salem State College)

#381 International Symposium

5/31/2004
3:00 PM - 4:20 PM
Independence West
VRB/AUT

Basic and Applied Research in Derived Relational Responding in Children with Autism

Chair: Jennifer O'Connor (National University of Ireland, Maynooth)

"Fluent" Performance of Mutual Entailed Relations And First Trial Performance of Combinatorial Entailed Performance.

JOHN MCELWEE (Friends of PA, Philadelphia)
The Role of Multiple-Exemplar Training in Symmetrical and Asymmetrical Responding in Young Children with Autism .

JENNIFER O'CONNOR, Dermot Barnes-Holmes and Yvonne Barnes-Holmes (National University of Ireland, Maynooth)

Establishing Relational Responding in Accordance with More-than and Less-than and Transitive Relations in Young Children Diagnosed with Autism.

MAIRE GORHAM, Yvonne Barnes-Holmes and Dermot Barnes-Holmes (National University of Ireland, Maynooth)

Derived Relational Responding in Children With Autism.

TIMOTHY M. WEIL, Patrick M. Ghezzi and Steven C. Hayes (University of Nevada, Reno)

SEE YOU IN BOSTON !!!!

Guidelines for the Submission of Articles

VB News publishes articles related to the functional analysis of verbal behavior. Article types include, but are not limited to, discussion and review articles, verbal behavior program reports, pilot research reports, book reviews, and brief commentary. Each of these categories is described in more detail below. If you would like to submit an article that does not fit into any of these categories, simply E-mail me a summary of your article and I will let you know if it would be appropriate.

All submissions should be prepared as a Microsoft Word document and sent as an E-mail attachment. The manuscript should be single-spaced in 11-point Times New Roman font. APA style conventions should be followed.

Discussion and Review Articles

Brief surveys and/or analyses of verbal behavior related research or theoretical discussions will be accepted. These reviews should not exceed six-pages.

Program Reports

Brief descriptions of the application of verbal behavior to language curricula are welcomed. These reports should not exceed six-pages and may include up to an additional two-pages of appendices.

Pilot Research Reports

Descriptions of innovative pilot research targeting verbal behavior related phenomena are acceptable. These reports should not exceed three-pages and must include a complete description of your methods, a brief summary of your results with one figure, and only a one or two paragraph introduction.

As VB News is a newsletter publication, these reports need not meet the stringent methodological requirements for publication in a peer-reviewed journal. The intention is to inform interested parties so as to stimulate discussion and further research.

Book Reviews

Brief reviews of books likely to be of interest to the verbal behavior community are encouraged. These reviews should not exceed two-pages and should include only a short reference list.

Brief Commentary

Short articles, in the mold of traditional op-ed pieces or letters to the editor, will be accepted at the discretion of the editor. Articles should not exceed a single page.

Please Send All Submissions to:

Matthew Normand @ mnormand@fit.edu